CONTENTS

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SECTION R: COLLECTION AND AGGREGATION OF METER DATA FROM CVA METERING SYSTEMS 1
1. INTRODUCTION 1
1.1 General 1
1.2 Metered Volumes 1
1.3 Settlement Calendar 1
1.4 Requirements for data collection 2
1.5 Objective of CDCA 2
1.6 Interpretation 2
2. REGISTRATION AND TECHNICAL DETAILS 3
2.1 Registration Data 3
2.2 Meter Technical Details 3
3. AGGREGATION RULES 4
3.1 General 4
3.2 Duty to prepare and submit Aggregation Rules 5
3.3 Requirements for Aggregation Rules 7
3.4 Validation of Aggregation Rules 9
3.5 Further review of Aggregation Rules 11
4. LINE LOSS FACTORS 11
4.1 Introduction 11
4.2 Submission to CDCA 11
5. COLLECTION, VALIDATION, ESTIMATION AND AGGREGATION OF METERED DATA 11
5.1 Collection of Meter Data 11
5.2 Validation 12
5.3 Estimation of data 12
5.4 Aggregation of Metered Data 13
5.5 Determination of GSP Group Take 14
5.6 Volume Allocation Runs 14
5.7 Submission of Aggregated Meter Data 15
6. FURTHER FUNCTIONS OF CDCA 15
6.1 Proving Tests 15
6.2 Meter Advance Reconciliation 16
7. INTERCONNECTOR BM UNIT METERED VOLUMES 16
7.1 General 16
7.2 Expected Transfer at Gate Closure 18
7.3 Adjustments after Gate Closure 18
7.4 Determination of BM Unit Metered Volume 19
7.5 System-to-system flows 19
8 DEMAND DISCONNECTION EVENTS 20
8.1 Duties of Distribution System Operator 20
8.2 Estimation of Period BM Unit Demand Disconnection Volumes (QDD_{ij}) 20

SECTION R: COLLECTION AND AGGREGATION OF METER DATA FROM CVA METERING SYSTEMS

1. INTRODUCTION

1.1 General

1.1.1 This Section R provides for the determination of Metered Volumes for the purposes of Central Volume Allocation in respect of:

(a) BM Units other than Interconnector BM Units, Supplier BM Units and Secondary BM Units (in this Section R, "**relevant**" BM Units);

(b) Interconnectors;

(c) Grid Supply Points; and

(d) GSP Groups;

(collectively referred to as "**Volume Allocation Units**" for the purposes of this Section R).

1.1.2 This Section R accordingly sets out:

(a) the basis on which data registered in CRS and Meter Technical Details will be submitted to and validated by the CDCA;

(b) requirements for Parties to prepare Aggregation Rules and submit such rules to the CDCA, and for the validation of such rules;

(c) the basis on which Line Loss Factors will be submitted to CDCA for CVA Metering Systems connected to Distribution Systems; and

(d) the basis on which the CDCA will collect and validate or (where necessary) estimate metered data from Metering Systems, aggregate such data to determine Metered Volumes, and submit such Metered Volumes to the SAA and/or SVAA.

1.1.3 This Section R applies only in relation to CVA Metering Systems (and references in this Section R to Metering Systems shall be construed accordingly).

1.1.4 Paragraph 7 of this Section R provides for the determination of BM Unit Metered Volumes in respect of Interconnector BM Units (other than those for which an Interconnector Error Administrator is Lead Party); and further references to BM Units in paragraphs 1 to 6 do not include Interconnector BM Units.

1.2 Metered Volumes

1.2.1 For the purposes of this Section R, in relation to a Volume Allocation Unit and a Settlement Period, the "Metered Volume" is the net aggregate volume of Active Energy, determined as at the Transmission System Boundary, which flowed in that Settlement Period to or from that Volume Allocation Unit.

1.3 Settlement Calendar

1.3.1 The CDCA shall undertake its duties under this Section R as to the collection, validation, estimation and aggregation of metered data, and the submission of such data to certain Parties and other BSC Agents, in accordance with BSCP01 and the prevailing Settlement Calendar.

1.4 Requirements for data collection

1.4.1 The CDCA shall collect or procure the collection of metered data (as required by paragraph 5) available from Outstations either by means of remote interrogation or by means of manual on-site interrogation.

1.4.2 The CDCA shall be responsible for the operation and maintenance of Communications Equipment (other than modems or equivalent exchange links) after it has been installed by the Registrant in accordance with Section L; and for the purposes of remote interrogation the CDCA shall enter into, manage and monitor contracts or other arrangements to provide for the maintenance of all communication links which form part of such Communications Equipment.

1.4.3 In the event of any fault or failure of any communication link or any error or omission in such data or all necessary data not being available from Outstations the CDCA shall collect or procure the collection of such data by manual on-site interrogation.

1.4.4 The CDCA shall cease to be required to maintain communications links in respect of Metering Equipment if, and with effect from the date when, the Metering System ceases to be registered in CMRS.

1.4.5 The CDCA shall be responsible for the installation and maintenance of central collector stations.

1.4.6 Communications Equipment need not be dedicated exclusively to the provision of data to the CDCA for the purposes of Central Volume Allocation, provided that any other use shall not interfere at any time with the operation of the Central Volume Allocation processes.

1.4.7 The CDCA shall comply (without charge to the Registrant) with any reasonable request by the Registrant to provide access to Communications Equipment to the Registrant and to other persons nominated by the Registrant (including for the purposes of complying with the Registrant's obligations under Section L5.2).

1.5 Objective of CDCA

1.5.1 The CDCA shall carry out its functions under this Section R with the objective of ensuring that all exports and imports at CVA Boundary Points and Systems Connection Points are properly and accurately taken into account and allocated to the responsible Party in Central Volume Allocation.

1.6 Interpretation

1.6.1 For the purposes of this Section R:

(a) "**metered data**" means data, relating to a flow (by way of import or export) of Active Energy or Reactive Energy, derived from any meter register of any Metering System;

(b) where the context admits, a reference to metered data shall include estimated data;

(c) "**active energy metered data**" is metered data relating to a flow of Active Energy;

(d) "**reactive energy metered data**" is metered data relating to a flow of Reactive Energy;

(e) unless the context otherwise requires, references to metered data are to active energy metered data only; and

(f) "**import**" and "**export**" shall be construed as including (in addition to Import and Export in accordance with Section K) a flow of electricity at a Systems Connection Point to or from a given System.

1.6.2 No provision of this Section R (including without limitation paragraphs 1.5 and 3.1.4(a)(iii)) shall be construed as requiring anything to be done which could not be done without the existence of Aggregation Rules specifying data or operations beyond what is permitted to be specified in accordance with paragraph 3.3.1.

2. REGISTRATION AND TECHNICAL DETAILS

2.1 Registration Data

2.1.1 Data registered in CRS will be submitted by the CRA to the CDCA pursuant to Section K6.

2.1.2 The CDCA shall:

(a) validate (as to completeness and form) registration data submitted to it by the CRA;

(b) record and maintain such validated data; and

(c) where the CRA fails to submit any registration data to the CDCA, or any registration data which is submitted fails validation, so inform the CRA and request the CRA to submit or correct and submit the registration data.

2.2 Meter Technical Details

2.2.1 Meter Technical Details for each CVA Metering System will be submitted to the CDCA by the Registrant in accordance with BSCP20 and pursuant to Section L2.4.1(c).

2.2.2 The CDCA shall:

(a) validate (as to completeness and form) Meter Technical Details submitted to it;

(b) record and maintain in CMRS such validated data; and

(c) where the Registrant fails to submit any Meter Technical Details to the CDCA, or any Meter Technical Details which are submitted fail validation, so inform the Registrant and request the Registrant to submit or correct and submit the Meter Technical Details.

3. AGGREGATION RULES

3.1 General

3.1.1 For the purposes of the Code "**Aggregation Rules**" relating to a Volume Allocation Unit are rules by reference to which import or export active energy metered data collected from Outstations relating to meter registers of one or more Metering Systems are to be aggregated so as to provide, in relation to any Settlement Period, the Metered Volume for that Volume Allocation Unit for the purposes of Settlement.

3.1.2 For the purposes of this Section R, references to the "**aggregation**" of metered data are to the application to such data of any one or more of the arithmetic operations referred to in paragraph 3.3.1(b) (and 'aggregate' and 'aggregated' shall be construed accordingly).

3.1.3 Aggregation Rules must comply with the applicable requirements and criteria in paragraph 3.3.

3.1.4 Where under this Section R a Party is required to prepare and submit to the CDCA any Aggregation Rules in relation to any Volume Allocation Unit:

(a) the Party shall prepare such rules:

(i) in good faith and in accordance with Good Industry Practice;

(ii) so that such rules comply with the applicable requirements and criteria in paragraph 3.3; and

(iii) so that such rules will ensure that the volumes determined by reference to those rules are those which should be so determined as Metered Volumes;

(b) the Party shall ensure that the rules for the time being submitted continue at all times to comply with paragraphs (a)(ii) and (iii);

(c) the Party shall prepare and submit or resubmit such rules, in accordance with BSCP75:

(i) at the time at which that Party or any other Party applies for registration in accordance with Section K2 of any Metering System from which metered data is to be taken into account under such rules;

(ii) at any time at which there is any change in any such Metering System or in composition of the relevant Volume Allocation Unit;

(iii) at any other time at which it is necessary to do so to comply with paragraph (b);

(iv) at any time if reasonably requested to do so by the CDCA pursuant to paragraph 3.1.5.

3.1.5 Without prejudice to the obligations of any Party under this paragraph 3, the CDCA may, at any time, request a Party to submit or re-submit Aggregation Rules which that Party is required under this paragraph 3 to submit.

3.1.6 The fact that the CDCA may for the time being have validated and recorded a set of Aggregation Rules shall not relieve the Party required to submit such rules from

responsibility to ensure that such rules continue to comply with the requirements in paragraph 3.1.4(a).

3.1.7 In relation to a Metering System associated with a Distribution Systems Connection Point, the Registrant shall not unreasonably withhold consent (for the purposes of paragraph 3.3.5(d)(i) to a set of Aggregation Rules proposed by the other Distribution System Operator.

3.1.8 For the purposes of this paragraph 3, in relation to any set of Aggregation Rules a "**related Party**" is a Party whose consent to such Aggregation Rules is required under paragraph 3.3.5(d)(i).

3.2 Duty to prepare and submit Aggregation Rules

3.2.1 The Lead Party of each relevant BM Unit shall prepare a set of Aggregation Rules in respect of that BM Unit, which:

(a) relate to each of the Metering System(s) associated with such BM Unit, and

(b) provides for the determination of the BM Unit Metered Volume.

3.2.2 The NETSO shall prepare a set of Aggregation Rules in respect of each Transmission Interconnector, which:

(a) relate to each of the Metering System(s) associated with such Interconnector, and

(b) provide for the determination of the Interconnector Metered Volume.

3.2.3 Each Distribution System Operator shall prepare:

(a) a set of Aggregation Rules in respect of each Grid Supply Point at which its Distribution System is connected to the Transmission System, which:

(i) relate to each of the Metering System(s) associated with such Grid Supply Point, and

(ii) provide for the determination of the Metered Volume in respect of such Grid Supply Point;

(b) in relation to any GSP Group for which the Distribution System Operator is responsible (in accordance with paragraph 3.2.6), a set of Aggregation Rules which:

(i) relate to each of the Metering System(s) associated with each Systems Connection Point on that GSP Group, and

(ii) provide for the determination of the GSP Group Metered Volume for that GSP Group;

(c) a set of Aggregation Rules in respect of each Distribution Interconnector which is connected to its Distribution System, which:

(i) relate to each of the Metering System(s) associated with such Interconnector, and

(ii) provide for the determination of the Interconnector Metered Volume.

3.2.4 The Party responsible (in accordance with paragraphs 3.2.1 to 3.2.3) for preparing a set of Aggregation Rules shall in accordance with BSCP75:

(a) submit such rules to the CDCA; and

(b) where paragraph 3.3.5(d) applies, at the same time submit to the CDCA evidence of the consent of the related Parties.

3.2.5 In the case of a BM Unit which comprises a Range CCGT Module:

(a) the Lead Party may, subject to and in accordance with BSCP75, and consistent with the information for the time being submitted to the NETSO under the Grid Code:

(i) prepare and submit more than one set of Aggregation Rules (each of which shall comply with the requirements of paragraph 3.3), reflecting different operating configurations of the Plant and Apparatus comprised in the Range CCGT Module; and

(ii) elect and from time to time change its election (by notice to the CDCA given not later than the equivalent data is to be given to the NETSO under the Grid Code) as to which of the sets of Aggregation Rules for the time being so submitted (provided the same is valid in accordance with paragraph 3.4.2) is to be used by the CDCA in determining the BM Unit Metered Volume;

(b) the CDCA shall use the set of Aggregation Rules for the time being so elected by the Lead Party for the purposes of paragraph 5.4.

3.2.5A In the case of a Power Park Module which belongs to a Switching Group:

(a) the Lead Party may, subject to and in accordance with BSCP75, and consistent with the information for the time being submitted to the NETSO under the Grid Code:

(i) prepare and submit more than one set of Aggregation Rules (each of which shall comply with the requirements of paragraph 3.3), reflecting different operating configurations of the Plant and Apparatus comprised in the Switching Group; and

(ii) elect and from time to time change its election (by notice to the CDCA in accordance with BSCP75) as to which of the sets of Aggregation Rules for the time being so submitted (provided the same is valid in accordance with paragraph 3.4.2) is to be used by the CDCA in determining the BM Unit Metered Volume; and

(b) the CDCA shall, as soon as practicable, use the set of Aggregation Rules for the time being so elected by the Lead Party for the purposes of paragraph 5.4; and

(c) where the CDCA (due to technical constraints in the CDCA system) is unable to make the change in Aggregation Rules so elected effective until 00:00 following the time of the change, the Lead Party may request that any resulting error in the BM Unit Metered Volumes is corrected subject to and in accordance with BSCP03.

3.2.6 For the purposes of paragraph 3.2.3(b), in relation to each GSP Group, the Distribution System Operator which is responsible for preparing a set of Aggregation Rules shall be:

(a) subject to paragraph (c), the Licensed Distribution System Operator which was so responsible as at 1st August 2003; or

(b) subject to paragraph (c), in relation to those GSPs described in Section K1.8.1(a)(ii), the Scottish Distribution Licensee in respect of that BSP Group under SAS on 1st August 2003; or

(c) if no Licensed Distribution System Operator or Scottish Distribution Licensee was so responsible, or if the person which was so responsible ceases to be the Distribution System Operator of the principal Distribution System (in that GSP Group) which it operated as at 1st August 2003, or in relation to those GSPs described in Section K1.8.1(a)(ii), the Scottish Distribution Licensee in respect of a BSP Group under SAS on 1st August 2003 ceases to be the Distribution System Operator of the principal Distribution System (in that GSP Group) which it operated as at BETTA Go Active or if (after consultation with the NETSO, relevant Distribution System Operators and the Authority) ~~the Panel~~BSCCo consents to such person relinquishing such responsibility:

(i) one of the relevant Distribution System Operator(s), selected and nominated to ~~the Panel~~BSCCo by agreement of all of the relevant Distribution System Operators and approved by ~~the Panel~~BSCCo as such, or

(ii) failing such agreement and approval, one of the relevant Distribution System Operator(s) designated by ~~the Panel~~BSCCo, after consultation with such Distribution System Operator, the NETSO, each other relevant Distribution System Operator, the relevant Code Committee (if any) and the Authority, to undertake such role;

where (in relation to a GSP Group) the relevant Distribution System Operator(s) are the Distribution System Operators of the Distribution System(s) in that GSP Group which are connected to the Transmission System.

3.3 Requirements for Aggregation Rules

3.3.1 For the purposes of the Code:

(a) Aggregation Rules shall be algebraic rules complying with the requirements as to form specified in BSCP75;

(b) in particular, Aggregation Rules may only specify:

(i) as data to which such rules are to be applied, (1) metered data, Line Loss Factors, and constants, or (2) intermediate terms derived (consistently with paragraph (ii)) from such data;

(ii) as operations to be applied to such data, the operations (or combinations of the operations) of addition, subtraction, multiplication and division and (from the date determined for these purposes by ~~the Panel~~BSCCo) logical 'IF' operations;

(c) for the avoidance of doubt, a set of Aggregation Rules may contain sub-sets of rules, or rules requiring iteration, applying to intermediate terms derived consistently with paragraph (b).

3.3.2 Where any Aggregation Rules relate to any Metering System which is connected to a Distribution System, the Aggregation Rules shall specify, or enable the CDCA to determine, which Line Loss Factor(s) are to be applied, and how they are to be applied, to metered data in determining Metered Volumes.

3.3.3 Aggregation Rules must utilise the conventions as to sign set out in Annex X-2, insofar as such conventions are capable of applying in relation to such Aggregation Rules.

3.3.4 In any case in which (as specified in the relevant Meter Technical Details) metered data will have been subject to any operation (equivalent to any of the arithmetic operations referred to in paragraph 3.3.1(b)) performed automatically by the Metering Equipment, the Aggregation Rules shall not provide for such operation.

3.3.5 Without prejudice to paragraph 3.1 and to any requirements of BSCP75, the set of Aggregation Rules for any Volume Allocation Unit must satisfy the following criteria:

(a) the Aggregation Rules are consistent with:

(i) any supporting information supplied to the CDCA under paragraph 3.4.4 by the Party submitting such Aggregation Rules;

(ii) the registration data received by the CDCA from the CRA;

(iii) the Metering Technical Details submitted to the CDCA by the Registrant;

(b) the Aggregation Rules relate to each Metering System to which they are required by paragraph 3.2 to relate;

(c) the Aggregation Rules employ only the functions referred to in paragraph 3.3.1, and otherwise are consistent with that paragraph;

(d) in any case where the sets of Aggregation Rules for more than one Volume Allocation Unit relate to the same Metering System:

(i) each of the Parties which is responsible for such Aggregation Rules has consented to each such set of Aggregation Rules;

(ii) such sets of Aggregation Rules, taken together, are consistent with each other and in particular have the effect that there is no double counting (as between such Volume Allocation Units) of metered data derived from such Metering System, and that no such metered data is omitted from being counted;

(e) without prejudice to the generality of paragraph (d), in the case of Aggregation Rules which relate to a Metering System associated with a Distribution Systems Connection Point on two GSP Groups, metered data is taken into account so as to have equal and opposite effects in the determination of GSP Group Metered Volume for each such GSP Group;

(f) in the case of Aggregation Rules which relate to a Metering System connected to a Distribution System, the Aggregation Rules provide for the relevant Line Loss Factors to be applied to metered data:

(i) before any combination of metered data to which different Line Loss Factors are to be applied;

(ii) before any combination of import and export active energy metered data.

3.4 Validation of Aggregation Rules

3.4.1 The CDCA shall validate each set of Aggregation Rules submitted or resubmitted to it.

3.4.2 The CDCA shall treat a set of Aggregation Rules as validated if and only if the Aggregation Rules:

(a) comply with the requirements in paragraphs 3.3.1, 3.3.2, 3.3.3 and 3.3.4;

(b) satisfy the criteria in paragraph 3.3.5;

(c) in the CDCA's opinion, comply with the requirement in paragraph 3.1.4(a)(iii);

(d) comply with and were submitted in compliance with BSCP75.

3.4.3 The CDCA shall at all times keep under review, by reference to all information provided to it pursuant to any provision of the Code, and determine whether any Party which should have submitted or re-submitted a set of Aggregation Rules has failed to do.

3.4.4 In connection with the validation under paragraph 3.4.1 of Aggregation Rules or review under paragraph 3.4.3 of whether any Party has failed to submit Aggregation Rules, the CDCA may:

(a) request any Party which is or which the CDCA believes to be responsible for submitting Aggregation Rules to supply information or supporting information (including but not limited to network diagrams, connection agreements and installation documentation) to it;

(b) undertake a site visit to the relevant site, or procure that such a site visit is undertaken and a report on such visit received.

3.4.5 A Party shall comply with any reasonable request for information made by the CDCA for the purpose of validation of Aggregation Rules or review of whether any Party has failed to submit Aggregation Rules.

3.4.6 In relation to any Volume Allocation Unit, where the CDCA determines not to validate (in accordance with paragraph 3.4.2) a set of Aggregation Rules submitted by the responsible Party, or determines that the responsible Party has failed to submit a set of Aggregation Rules:

(a) the CDCA shall so notify the responsible Party:

(i) setting out in brief detail the reasons for which the CDCA has so determined; and

(ii) requesting the responsible Party to submit or resubmit a set of Aggregation Rules;

(b) where there is a prevailing set of Aggregation Rules which are in the CDCA's opinion appropriate (having regard to the requirements and criteria in paragraphs

3.1.4(a)(iii) and 3.3) to continue to use for the purposes of determining the Metered Volumes in relation to the Volume Allocation Unit, the CDCA will:

(i) continue (until such time as a new set of Aggregation Rules is validated) to use such Aggregation Rules; and

(ii) so inform ~~the Panel~~BSCCo, the responsible Party and any related Party (whose consent shall not however be required);

(c) where paragraph (b) does not apply, and the CDCA is for the time being required (under paragraph 5) to determine Metered Volumes in relation to the relevant Volume Aggregation Unit, the CDCA shall (until such time as a valid set of Aggregation Rules is submitted by the responsible Party) and each Party hereby authorises the CDCA to:

(i) determine such Aggregation Rules as are in its reasonable opinion appropriate (having regard to the requirements and criteria in paragraphs 3.1.4(a)(iii) and 3.3) for the relevant Volume Allocation Unit;

(ii) provide such Aggregation Rules to ~~the Panel~~BSCCo and to the responsible Party and where relevant to any related Party (whose consent shall not however be required);

(iii) revise such Aggregation Rules in accordance and with effect from the time of any direction to do so given by ~~the Panel~~BSCCo;

(iv) apply the Aggregation Rules determined by it under paragraph (i), as revised pursuant to paragraph (iii), in the determination of Metered Volumes for the relevant Volume Allocation Unit.

3.4.7 The use of any Aggregation Rules determined or revised by the CDCA pursuant to paragraph 3.4.6 in any Volume Allocation Run shall (in accordance with Section U2.6) be binding on all Parties, but without prejudice to the ability of any Party to raise a Trading Dispute in relation thereto in accordance with Section W.

3.4.8 Paragraph 3.4.6 shall not prevent the CDCA from using validated Aggregation Rules received after the Settlement Day but in sufficient time to be used in the Interim Information Volume Allocation Run.

3.4.9 The CDCA shall:

(a) record and maintain in CMRS for each Volume Allocation Unit the prevailing Aggregation Rules validated or (where paragraph 3.4.6 applies) determined or revised by it; and

(b) provide a copy of any set of Aggregation Rules maintained by it to the Party responsible for submitting such Aggregation Rules, or to any related Party, upon request from such Party.

3.5 Further review of Aggregation Rules

3.5.1 Without prejudice to its validation of compliance of each particular set of Aggregation Rules pursuant to paragraph 3.4, the CDCA shall at all times keep under review and determine whether:

(a) all sets of Aggregation Rules taken collectively result in the proper determination and allocation of Metered Volumes for Volume Allocation Units; or

(b) there is any Metering System installed pursuant to any provision of the Code metered data derived from which is not fully taken into account in Aggregation Rules.

3.5.2 Where pursuant to paragraph 3.5.1 the CDCA identifies any possible defect or omission in the full and proper determination and allocation of Metered Volumes, the CDCA shall promptly report the same to ~~the Panel~~BSCCo and (if requested to do so) shall discuss with ~~the Panel~~BSCCo how such defect or omission should be remedied or otherwise addressed.

4. LINE LOSS FACTORS

4.1 Introduction

4.1.1 Line Loss Factors for relevant CVA Metering Systems connected to Distribution Systems will be established in accordance with Section K1.7.

4.2 Submission to CDCA

4.2.1 BSCCo shall submit to the CDCA, in accordance with BSCP128, for each relevant Metering System, Line Loss Factors as submitted to and approved by ~~the Panel~~it, or as from time to time applying in default of such submission or approval, pursuant to Section K1.7.

4.2.2 If for any relevant Metering System, Line Loss Factor(s) as specified in the Aggregation Rules have not been submitted to the CDCA, the CDCA shall assume a default Line Loss Factor of 1.0 or as otherwise provided in BSCP128 until such time as the required Line Loss Factor(s) are submitted to it.

5. COLLECTION, VALIDATION, ESTIMATION AND AGGREGATION OF METERED DATA

5.1 Collection of Meter Data

5.1.1 The CDCA shall in accordance with paragraph 1.4 collect active energy and reactive energy metered data in respect of each Settlement Period from all Outstations associated with CVA Metering Systems.

5.1.2 In any case where a Metering System produces metered data (for a Settlement Period) which is collected in units of power (i.e. kW or MW, or kVAr or MVAr) rather than Active Energy or Reactive Energy:

(a) the CDCA will convert such metered data to an Active Energy or Reactive Energy value by multiplying by Settlement Period Duration;

(b) further references in this Section R to collected metered data are to such data following such conversion;

(c) any Aggregation Rules (as to active energy metered data) which relate to such Metering System shall not provide for such conversion.

5.2 Validation

5.2.1 The CDCA shall validate (according to validation principles from time to time established by the CDCA and approved by ~~the Panel~~BSCCo) active energy and reactive energy metered data collected pursuant to paragraph 5.1.

5.2.2 Where the CDCA determines, pursuant to validation under paragraph 5.2.1, that any metered data are invalid or missing, the CDCA shall so notify the relevant Meter Operator Agent and Registrant in accordance with BSCP03.

5.3 Estimation of data

5.3.1 Paragraph 5.3.3 shall apply (in accordance with paragraph 5.3.2 where applicable) in relation to any metered data collected or to be collected pursuant to paragraph 5.1.1, where:

(a) such metered data are invalid or missing, or

(b) in the case of active energy metered data only:

(i) errors in such data are notified to the CDCA by the relevant Meter Operator Agent or Registrant, or

(ii) the CDCA reasonably believes such data to be erroneous, or

(iii) the Metering System has been found to be outside the applicable limits of accuracy for whatever reason.

5.3.2 Where Metering Equipment has ceased to function or is found to be outside the applicable limits of accuracy in accordance with Section L3.5, paragraph 5.3.3 shall apply for the period:

(a) in the case where Metering Equipment ceases to function, from the date of such cessation,

(b) in the case where Metering Equipment is outside the applicable limits of accuracy, from the time when such inaccuracy is known or (if not known) estimated by the CDCA to have first occurred or, if the CDCA cannot estimate such time, from 0000 hours on the day during which such inaccuracy was identified and reported to the CDCA,

until, in either such case, the date when such Metering Equipment is adjusted, replaced, repaired or renewed pursuant to Section L and/or otherwise next conforms to the applicable limits of accuracy.

5.3.3 Where this paragraph applies:

(a) the CDCA shall in accordance with BSCP03 notify the relevant Meter Operator Agent and Registrant of the relevant circumstances under paragraph 5.3.1; and

(b) if the metered data in question is active energy metered data, the CDCA shall in accordance with BSCP03:

(i) estimate such data for the relevant Settlement Period(s);

(ii) notify its estimate of the metered data to the Registrant and Meter Operator Agent, and discuss such estimate with the Registrant if the Registrant so wishes;

(iii) if the CDCA determines (following any such discussion) that its estimate should be revised, make such revision; and

(iv) use its estimate (or any revision thereof made under paragraph (iii)) in determining under this paragraph 5 the Metered Volume for the relevant Volume Allocation Unit(s).

5.3.4 The use (pursuant to paragraph 5.3.3(b)(iv)) of any estimated metered data in any Volume Allocation Run shall (in accordance with Section U2.6) be binding on all Parties, but without prejudice to the ability of any Party to raise a Trading Dispute in relation thereto in accordance with Section W.

5.3.5 The CDCA will not estimate reactive energy metered data pursuant to this paragraph 5.3.

5.3.6 The CDCA shall send a report on any estimated metered data it uses in aggregation under paragraph 5.4 to:

(a) BSCCo, if BSCCo so requests;

(b) the Registrant and Meter Operator Agent for the Metering System for which such estimate was made;

(c) any related Party;

(d) the Distribution System Operator (if any) to whose Distribution System such Metering System is connected; and

(e) the NETSO, if such Metering System is directly connected to the Transmission System.

5.4 Aggregation of Metered Data

5.4.1 References in this paragraph 5.4 to metered data are to active energy metered data collected and validated, or (as the case may be) estimated, by the CDCA in accordance with paragraphs 5.1 and 5.2 or 5.3.

5.4.2 In respect of each Settlement Period:

(a) the BM Unit Metered Volume for each relevant BM Unit;

(b) the Interconnector Metered Volume for each Interconnector;

(c) the Metered Volume for each Grid Supply Point; and

(d) the GSP Group Metered Volume for each GSP Group

shall be determined by aggregating the metered data collected from the Metering Systems associated with each such Volume Allocation Unit for such Settlement Period (including where relevant scaling such metered data by the applicable Line Loss Factor(s)) in accordance with the applicable Aggregation Rules.

5.4.3 The CDCA shall aggregate metered data so as to determine the Metered Volume for each Volume Allocation Unit and for each Settlement Period in accordance with paragraph 5.4.2.

5.5 Determination of GSP Group Take

5.5.1 For each GSP Group the CDCA shall:

(a) establish aggregation rules, relating to each relevant BM Unit and Distribution Interconnector in that GSP Group, by reference to which the GSP Group Take can be determined;

(b) keep such rules under review and revise or update the rules upon any change in any of the relevant BM Units or Distribution Interconnectors in that GSP Group, and upon identifying any error in such rules;

(c) provide a copy of such rules to ~~the Panel,~~ BSCCo and each Distribution System Operator whose Distribution System is comprised in such GSP Group and upon request to any other Party;

(d) where the CDCA has identified any error in such rules, notify such error (and the revision to such rules made in accordance with paragraph (b)) and discuss with BSCCo ~~or (if the Panel so requires) with the Panel~~ or the BSC Auditor whether exceptional circumstances justify the making of any adjustment in respect of Settlement relating to Settlement Days before the error was corrected.

5.5.2 The CDCA shall for each GSP Group determine the GSP Group Take in respect of each Settlement Period by applying the rules established under paragraph 5.5.1 to:

(a) the GSP Group Metered Volume;

(b) the Interconnector Metered Volume for any Distribution Interconnector in that GSP Group; and

(c) the BM Unit Metered Volumes for all relevant BM Units in that GSP Group

each as determined by the CDCA for that Settlement Period pursuant to paragraph 5.4.

5.6 Volume Allocation Runs

5.6.1 For each Settlement Period in any Settlement Day the CDCA shall, in accordance with BSCP01, determine or re-determine and (subject to and in accordance with paragraph 5.7) submit Metered Volumes for each Volume Allocation Unit, and GSP Group Take for each GSP Group:

(a) when the Credit Cover Volume Allocation Run, Interim Information Volume Allocation Run, the Initial Volume Allocation Run and each of the Timetabled Reconciliation Volume Allocation Runs are required in relation to that Settlement Day, in accordance with the Settlement Calendar;

(b) on any occasion on which a Post Final Volume Allocation Run is required by the ~~Panel~~ BSCCo pursuant to Section U2, in accordance with the timetable set by ~~the Panel~~BSCCo.

5.6.2 For each Volume Allocation Run following the Initial Volume Allocation Run in relation to any Settlement Period, where:

(a) any adjustment or revision in relevant data has been or is to be made following resolution of any Trading Dispute, or

(b) pursuant to any other provision of the Code the CDCA is required or entitled to employ any new or revised relevant data for the Settlement Period

the CDCA shall use such adjusted, revised or new relevant data.

5.6.3 In paragraph 5.6.2 relevant data includes registration data, Meter Technical Details, Aggregation Rules, Line Loss Factors and metered data.

5.7 Submission of Aggregated Meter Data

5.7.1 The CDCA shall submit in accordance with BSCP01:

(a) for each relevant BM Unit, Interconnector and GSP Group respectively, BM Unit Metered Volumes, Interconnector Metered Volumes and GSP Group Takes for each Settlement Period to the SAA;

(b) the value of the GSP Group Take for each GSP Group for each Settlement Period to the SVAA (including in relation to any Interim Information Volume Allocation Run);

(c) Interconnector Metered Volumes in relation to each Interconnector for each Settlement Period to the Interconnector Administrator; and

(d) for each Credit Qualifying BM Unit which is not a Supplier BM Unit or Secondary BM Unit, Metered Volumes which have been received by the CDCA for each Settlement Period to the ECVAA.

5.7.2 For the purposes of paragraph 5.7.1(b), the value to be submitted by the CDCA shall be:

(a) positive if the GSP Group Take represents a net import into the relevant Distribution System(s) in a Settlement Period; or

(b) negative if the GSP Group Take represents a net export from the relevant Distribution System(s) in a Settlement Period,

notwithstanding that this is the opposite sign convention to that used in Table X-2 of Annex X-2.

6. FURTHER FUNCTIONS OF CDCA

6.1 Proving Tests

6.1.1 In accordance with BSCP02 and in conjunction with the relevant Meter Operator Agent, the CDCA shall carry out proving tests on CVA Metering Systems and shall report any resulting errors to the relevant Meter Operator Agent and Registrant.

6.2 Meter Advance Reconciliation

6.2.1 In relation to each CVA Metering System, the CDCA shall in accordance with BSCP05:

(a) undertake Meter Advance Reconciliation or procure that Meter Advance Reconciliation is undertaken;

(b) send reports on the results of Meter Advance Reconciliation to the Registrant, the Meter Operator Agent and (where BSCP05 so requires) to BSCCo;

(c) where BSCP05 so provides, apply the appropriate correction in a Reconciliation Volume Allocation Run in accordance with paragraph 5.6.2.

7. INTERCONNECTOR BM UNIT METERED VOLUMES

7.1 General

7.1.1 This paragraph 7 sets out the basis on which (subject to paragraph 7.1.2) BM Unit Metered Volumes will be determined for each Interconnector BM Unit in respect of each Interconnector.

7.1.2 BM Unit Metered Volumes for the Interconnector BM Units for which the Interconnector Error Administrator is Lead Party will be determined (inter alia, using the Interconnector Metered Volume) in accordance with Section T4.1 and not this paragraph 7, and accordingly:

(a) references in this paragraph 7 to Interconnector BM Units do not include the Interconnector BM Units of which the relevant Interconnector Error Administrator (in that capacity) is Lead Party;

(b) the Interconnector Metered Volume (determined under paragraph 5) is not used for the purposes of this paragraph 7.

7.1.3 For the purposes of this paragraph 7:

(a) the "**Interconnector Scheduled Transfer**" for each Interconnector in relation to a Settlement Period is the Active Energy flow, scheduled for all Interconnector Users (and not exceeding the physical capability of the Interconnector as from time to time determined under the relevant Interconnection Agreements), across the Interconnector (as a whole), as established pursuant to the relevant Interconnection Agreements between the Interconnected System Operator and the Externally Interconnected System Operator, stated as at the Transmission System Boundary, in the form of a schedule expressed as MW values for the spot times at the start and end of, and other spot times within, the Settlement Period;

(b) after Gate Closure in relation to any Settlement Period, the Interconnector Scheduled Transfer is to be adjusted to reflect:

(i) any failure or derating of the physical capability of the Interconnector (as determined under the relevant Interconnection Agreements), and any subsequent uprating of the physical capability of the Interconnector provided that the uprated capability does not exceed the Interconnector Scheduled Transfer established at Gate Closure;

(ii) the acceptance by the NETSO of any Offer or Bid submitted by an Interconnector User in respect of an Interconnector BM Unit;

(iii) any event occurring in relation to an External System, to the extent so provided in the relevant Interconnection Agreements, as notified to the Interconnector Administrator; or

(iv) in relation to an Interconnector, the results of Single Intraday Coupling provided that such adjustment shall be made following the Intraday Cross-Zonal Gate Closure Time for the relevant Settlement Period,

but shall not otherwise be adjusted;

(c) the "**final**" Interconnector Scheduled Transfer in relation to a Settlement Period is the Interconnector Scheduled Transfer prevailing at the end of that Settlement Period;

(d) for each Interconnector BM Unit:

(i) the "**Expected Transfer**" in relation to a Settlement Period is a schedule of expected Active Energy flows, stated as at the Transmission System Boundary, expressed as MW values for the spot times at the start and end of, and other spot times within, the Settlement Period;

(ii) in the case of a Production BM Unit, the Expected Transfer shall relate only to Exports;

(iii) in the case of a Consumption BM Unit, the Expected Transfer shall relate only to Imports.

(e) for the purposes of an Interconnector Scheduled Transfer and an Expected Transfer, MW values are to be specified at particular spot times during (and including the start and end of) the relevant Settlement Period, and MW values at other spot times shall be established by linear interpolation.

7.1.4 For any Interconnector:

(a) the sum of the Expected Transfers (for any spot time in the relevant Settlement Period) for all Interconnector BM Units shall be equal to the Interconnector Scheduled Transfer for that spot time;

(b) wherever the Interconnector Administrator is to determine or adjust Expected Transfers, the Interconnector Administrator shall adjust the MW values in the Expected Transfers (by reference to capacity entitlements under and/or other applicable provisions of the relevant Interconnection Agreements) as required to ensure that paragraph (a) is satisfied.

7.1.5 In any case where Section H3.2.2(c) applies in relation to an Interconnector User, that Interconnector User shall be treated as having a zero Expected Transfer and the Expected Transfers for other Interconnector Users shall be determined (consistent with paragraph 7.1.4(a)) on that basis.

7.1.6 Without prejudice to Section U1.2, each Interconnector User shall ensure that all information provided pursuant to this paragraph 7 to the Interconnector Administrator is true, accurate and complete.

7.2 Expected Transfer at Gate Closure

7.2.1 The Interconnected System Operator shall send or procure that there is sent to the Interconnector Administrator the Interconnector Scheduled Transfer prevailing at Gate Closure.

7.2.2 The Interconnector User for each Interconnector BM Unit shall send or procure that there is sent, no later than Gate Closure, to the Interconnector Administrator a copy of the Physical Notification prevailing at Gate Closure for each Settlement Period (and may do so by providing copies of Physical Notifications and changes thereto submitted at times before Gate Closure).

7.2.3 The Interconnector Administrator shall determine the Expected Transfer for each Interconnector BM Unit at Gate Closure, by reference to (and so that the MW values in the Expected Transfer are derived from) the Physical Notification prevailing at Gate Closure, subject to paragraph 7.1.4.

7.3 Adjustments after Gate Closure

7.3.1 Following Gate Closure and until the end of the Settlement Period:

(a) promptly upon any revision thereto, the Interconnected System Operator shall send or procure that there is sent to the Interconnector Administrator the revised Interconnector Scheduled Transfer;

(b) where the Interconnector Administrator is so notified of a revision to the Interconnector Scheduled Transfer, the Interconnector Administrator shall adjust the Expected Transfer(s) accordingly and consistent with paragraph 7.1.4, provided that:

(i) in the case of a revision to the Interconnector Scheduled Transfer under paragraph 7.1.3(b)(ii), only the Expected Transfer of the Interconnector User which submitted the Bid or Offer therein referred to shall be so adjusted;

(ii) in the case of a revision to the Interconnector Scheduled Transfer under paragraph 7.1.3(b)(iii), the Expected Transfer to be adjusted shall be that of the Interconnector User as determined and notified to the Interconnector Administrator in accordance with the applicable provisions of the relevant Interconnection Agreement;

(iii) in the case of a revision to the Interconnector Scheduled Transfer under paragraph 7.1.3(b)(iv), the Expected Transfer to be adjusted to reflect the results of Single Intraday Coupling shall be that of the Interconnector User as determined and notified to the Interconnector Administrator in accordance with the applicable provisions of the relevant Interconnection Agreement;

(c) no adjustment shall be made to Expected Transfers other than pursuant to paragraph (b).

7.4 Determination of BM Unit Metered Volume

7.4.1 No later than the end of the next Business Day following the Settlement Day:

(a) the Interconnected System Operator shall send or procure that there is sent to the Interconnector Administrator the final Interconnector Scheduled Transfer;

(b) the Interconnector Administrator shall determine the final Expected Transfers for each Interconnector BM Unit;

(c) the Interconnector Administrator shall determine the total Active Energy in the final Expected Transfer for each Interconnector BM Unit by integrating the MW values in such final Expected Transfer over the Settlement Period.

7.4.2 The BM Unit Metered Volume for each Interconnector BM Unit shall be the total Active Energy determined by the Interconnector Administrator in accordance with paragraph 7.4.1(c).

7.4.3 For each Settlement Day, the Interconnector Administrator shall submit to the SAA in accordance with BSCP04 the BM Unit Metered Volumes for each relevant Interconnector BM Unit in respect of each Settlement Period.

7.5 System-to-system flows

7.5.1 This paragraph 7.5 applies where, as a result of an arrangement (outside the arrangements for scheduling flows on behalf of Interconnector Users) between the NETSO and an Externally Interconnected System Operator (and, as the case may be, the system operator of any other system linked to the Total System or the External System), a flow across an Interconnector is scheduled or varied for the purpose of securing stability of operation on the Total System or the External System (or any such other system) or for any other purpose of the NETSO or the Externally Interconnected System Operator (or such other system operator).

7.5.2 For the purposes of allocating and accounting for the Active Energy comprised in any flows as described in paragraph 7.5.1, the NETSO (in that capacity and not in any capacity of Interconnector Error Administrator) shall be:

(a) allocated (and registered in respect of) two notional BM Units, for each Interconnector, designated as a Production BM Unit and a Consumption BM Unit respectively, which shall be treated as BM Units (and as Interconnector BM Units for which the NETSO is the Interconnector User) for the purposes only of paragraphs 7.4.3, 7.5.4 and 7.5.5, Sections K1.1.4(a)(iv), K5.7.1, and Sections T1.3.5, T2, T4.1, T4.5 and T4.6; and

(b) treated as an Interconnector User for that Interconnector accordingly for the purposes only of those paragraphs and Sections.

7.5.3 In relation to each Settlement Period and each Interconnector, not later than the end of the Business Day next following the Settlement Day, the NETSO shall determine (on a basis for the time being approved in writing by the Authority for the purposes of this paragraph 7.5), and notify to the Interconnector Administrator, details of the net amount (in MWh) of any flows as described in paragraph 7.5.1 (the net amount being the "**system-to-system flow**").

7.5.4 For each Settlement Period, the BM Unit Metered Volumes for the BM Units allocated to the NETSO under paragraph 7.5.2 for each Interconnector shall be as follows:

(a) for the Production BM Unit, the system-to-system flow for the relevant Interconnector as notified by the NETSO to the Interconnector Administrator under paragraph 7.5.3 where the net amount notified is an Export system-to-system flow, and otherwise zero;

(b) for the Consumption BM Unit, the system-to-system flow for the relevant Interconnector as notified by the NETSO to the Interconnector Administrator under paragraph 7.5.3 where the net amount notified is an Import system-to-system flow, and otherwise zero.

7.5.5 The Interconnector Administrator shall submit to the SAA the BM Unit Metered Volumes for each such BM Unit in accordance with paragraph 7.4.3.

8 DEMAND DISCONNECTION EVENTS

8.1 Duties of Distribution System Operator

8.1.1 Subject to Section S9.2A within the period of five Business Days commencing on the Business Day after notification by BSCCo under Section S9.2A.3(b) each Demand Disconnection Impacted DSO shall send to the CDCA:

(a) the BM Unit Identification Number; and

(b) the start and end date and time in Co-ordinated Universal Time for which the BM Unit was subject to Demand Disconnection,

in respect of each disconnected BM Unit that is embedded in a Distribution System.

8.2 Estimation of Period BM Unit Demand Disconnection Volumes (QDD_{ij})

8.2.1 In respect of each Demand Control Impacted Settlement Period and for each BM Unit that is:

(a) directly connected to the Transmission System as notified under Section Q6.2A.1; or

(b) embedded in a Distribution System as notified under paragraph 8.1.1,

the CDCA shall estimate the Period BM Unit Demand Disconnection Volume (QDD_{ij}) in accordance with BSCP03 and shall notify these volumes to the SAA.

AMENDMENT RECORD – SECTION R

Section R	Version 19.0	Effective Date: 23 February 2023

Modification Proposal	Decision Date	Implementation Date	Version
P450	12/01/23	23/02/23	19.0

Modification Proposal	Decision Date	Implementation Date	Version
P397	05/10/20	12/10/20	18.0
P369	24/09/18	29/03/19	17.0
P344	24/08/18	28/02/19	16.0
P356	14/06/18	01/11/18	15.0
P305	02/04/15	05/11/15	14.0
P279 Self Governance	08/12/11	10/01/12	13.0
P253	18/11/10	03/11/11	12.0
P257	20/09/10	04/11/10	11.0
P240	20/01/10	27/01/10	10.0
P215	23/04/08	25/06/09	9.0
P208	16/01/07	22/02/07	8.0
P190	14/11/05	28/06/06	7.0
P179	09/02/05	23/02/05	6.0
ORD001	BETTA	01/09/04	5.0
P164	08/06/04	30/06/04	4.0
P62	12/08/02	01/08/03	3.0
P46	14/05/02	22/05/02	2.0