

Balancing and Settlement Code

BSC PROCEDURE

Data Estimation and Substitution for Central Volume Allocation

BSCP03

Version 12.0

Date: 27 January 2010

BSCP03**relating to****Data Estimation and Substitution for Central Volume Allocation**

1. Reference is made to the Balancing and Settlement Code and, in particular, to the definition of "BSC Procedure" in Section X, Annex X-1 thereof.
2. This is BSCP03 Version 12.0 relating to Data Estimation and Substitution for Central Volume Allocation.
3. This BSC Procedure is effective from the 27 January 2010.
4. This BSC Procedure has been approved by the Panel.

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AMENDMENT RECORD

| VERSION | DATE | DESCRIPTION OF CHANGES | CRs INCLUDED | MODS/PANEL REF |
|---------|----------------------|--|--------------|----------------|
| 1.0 | Code Effective Date | Designated Version | n/a | n/a |
| 2.0 | 11/01/01 | Work outstanding at Go Active resolution of inclusion of consultation comments | 214 & 217 | 10/005 |
| 3.0 | 13/08/2002 | Change Proposals for BSC Systems Release 2 | CP563 | ISG 16/166 |
| 4.0 | 10/12/2002 | CDCA Improvement Project & December 02 Release CPs | CP511, CP751 | |
| 5.0 | 24/06/2003 | Change Proposals for June 03 Release | CP747, CP841 | |
| 6.0 | 01/08/2003 | Approved Modification P62 | P62 | P62 48/003 |
| 7.0 | 30/06/2004 | Change Proposal for the CVA Programme June 04 Release | CP988 | ISG/40/003 |
| 8.0 | 03/11/2004 | Change Proposal for the CVA Programme Nov 04 Release | CP1032 | TDC/58/03 |
| 9.0 | BETTA Effective Date | BETTA 6.3 rebadging for the CVA Feb 05 Release | BETTA 6.3 | |
| 10.0 | 28/06/06 | June 06 Release | P190 | ISG/64/001 |
| 11.0 | 06/11/08 | November 08 Release | CP1245 | ISG89/01 |
| 12.0 | 27/01/10 | Modification P240 | P240 | Panel |

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1 Introduction

1.1 Purpose and Scope of the Procedure

This procedure describes the process for agreeing the appropriate metered data values associated with Active Energy meters to be used for CVA when there is a problem with the values obtained via the normal metered data collection process.

This procedure also describes in section 3.3 the process for the Lead Party of BM Units in a Switching Group to request the correction of errors in the BM Unit Metered Volumes arising from technical constraints in the CDCA System.

1.1.1 This procedure covers the following situations:

- (a) Notification to the Registrant and Meter Operator Agent that the metered data is missing or suspect.
- (b) Provision of a metering status report and fault report to both the Registrant and MOA of the Metering System.
- (c) Determination of the data estimation process to be utilised and derivation of the substitute values.
- (d) Agreement and confirmation between the CDCA and the Registrant of the estimated/substituted data values to be used in CVA.

1.1.2 This procedure excludes the following processes:

- (a) The collection of meter readings for the purpose of MAR as covered by BSCP05 - Meter Advance Reconciliation for CVA.
- (b) In the event that the CDCA and the Registrant fail to agree the substitute values this would be the basis of a dispute and this process is covered by BSCP11. Until the disputes procedure has been successfully resolved, the CDCA is obliged to use the original estimated data.
- (c) The detailed fault rectification procedures for equipment failures which may have caused this procedure to be invoked. This would be covered by BSCP06.
- (d) Those relating to metering data from Metering Systems registered in SMRS.
- (e) Metering data associated with the BM Units of Interconnector Users, as covered by BSCP04.
- (f) Data Estimations for Reactive Meters and Check Channels.

1.2 Main Users of the Procedures and their Responsibilities

This procedure should be used by:

- (a) Registrant for validating their metered data, any estimated/substituted metered data and/or submitting their own valid data for inclusion in Settlement.
- (b) CDCA for the collection and validation of all metered data for CVA and for estimating data in accordance with this procedure.
- (c) Meter Operator Agents for investigation of possible metering faults.
- (d) BSCCo when estimating BM Unit Demand Disconnection Volumes.

1.3 Key Milestones

The key milestones in this procedure are:

- (a) SD+1WD the CDCA shall send to the Registrant, Non Owner Party and LDSO or TC as appropriate the Raw Metered Data Report (CDCA-I012).
- (b) By the Interim Information (II) Settlement Run, the CDCA shall send to the Registrant and MOA of the Metering System a Metering Status Exception Report and Meter Status Report.
- (c) By the II Run any metered data estimation will be entered into the CDCA system and provided to the Registrant in the Estimated Data Notification Report (CDCA-I037) for agreement.
- (d) By SD+13WD estimates need to be entered into the CDCA aggregation run for the Initial Settlement Run.
- (e) For all Settlement Runs, the original unauthorised estimation by the CDCA shall continue to be used until the Registrant agrees to the data or until the dispute raised by the Registrant has been resolved.
- (f) In the event of an occurrence, likely to result in suspect data being used in settlement, the CDCA should be informed no later than RF – 60.
- (g) The final deadline for sending in meter data estimations is RF – 46WD.

1.4 Balancing and Settlement Code Provision

This BSCP should be read in conjunction with the Code and in particular Section R. This BSCP has been produced in accordance with the provisions of the Code. In the event of an inconsistency between the provisions of this BSCP and the Code, the provisions of the Code shall prevail.

1.5 Associated BSC Procedures

| | |
|--------|--|
| BSCP05 | Meter Advance Reconciliation for Central Volume Allocation |
| BSCP06 | CVA Meter Operations for Metering Systems Registered in CMRS |
| BSCP11 | Trading Queries and Trading Disputes |
| BSCP38 | Authorisations |

1.6 Metered Data Validation and Metering Status Exception Reports

1.6.1 The CDCA shall, upon collection of metered data, perform the following validation checks and for any failures provide the results to both the Registrant and MOA associated with the Metering System. For the details of the data transmitted in any of these flows refer to the Interface Definition Documents. The checks carried out by the CDCA are as follows: Identify any main/check errors associated with corresponding meter registers that are outside the limits in the table below. The CDCA shall report these errors via a CDCA-I010 flow and a CDCA-I038 flow where necessary.

| CoP | >5% of Max Value for channel | At >2% to ≤ 5% of Max Value for channel | At ≤ 2% of Max Value for channel |
|----------------|------------------------------|---|----------------------------------|
| 1 | ± 0.30 % | ± 0.50 % | ± 1.00 % |
| 2 | ± 0.75 % | ± 1.00 % | ± 2.25 % |
| 3 | ± 1.50 % | ± 2.00 % | ± 2.50 % |
| 5 | ± 3.00 % | ± 4.00 % | ± 5.00 % |
| A | ± 0.75 % | ± 1.00 % | ± 2.25 % |
| B | ± 0.30 % | ± 0.50 % | ± 1.00 % |
| C | ± 0.75 % | ± 1.00 % | ± 2.25 % |
| D | ± 0.75 % | ± 1.00 % | ± 2.25 % |
| E | ± 0.30 % | ± 0.50 % | ± 1.00 % |
| F | ± 0.30 % | ± 0.50 % | ± 1.00 % |
| G | ± 0.75 % | ± 1.00 % | ± 2.25 % |
| H | ± 0.75 % | ± 1.00 % | ± 2.25 % |
| I | ± 0.75 % | ± 1.00 % | ± 2.25 % |
| J | ± 0.30 % | ± 0.50 % | ± 1.00 % |
| K1 | ± 0.30 % | ± 0.50 % | ± 1.00 % |
| K2 | ± 0.30 % | ± 0.50 % | ± 1.00 % |
| N ¹ | ± 0.30 % | ± 0.50 % | ± 1.00 % |

1.6.2 Identify any Primary/Secondary Outstation errors associated with corresponding Outstation channels. Any instances where the values of compared channels differs by an amount that exceeds the tolerances accepted by the relevant Code of Practice due to allowable time-shift shall be reported. This validation can only be performed

¹ Where there is no Code of Practice defined by the Registrant, CoP 1 values shall be applied.

where both Primary and Secondary Outstations are installed and the associated data collected. The CDCA shall report these errors via a CDCA-I010 flow and a CDCA-I038 flow where necessary.

- 1.6.3 Identify any Outstation time errors outside ± 10 seconds. The data to be reported shall be the Outstation type and the time error by MSID. The CDCA shall report these errors via a CDCA-I038 flow where appropriate.
- 1.6.4 Identify where the period metered data is outside the Maximum threshold limits defined by the Registrant in the Meter Technical Details. The CDCA shall report these errors via a CDCA-I010 flow and a CDCA-I038 flow where necessary.
- 1.6.5 Identify the Outstations that have not been able to be remotely interrogated. These failed interrogations will be reported where there is a suspected fault on the Metering System. The CDCA shall report these errors via a CDCA-I038 flow where appropriate.
- 1.6.6 Identify any cumulative comparison errors outside $\pm 0.1\%$. The cumulative comparison is the discrepancy of the Outstation cumulative register advance and the summation of the period metered data for the same time period. The CDCA shall report these errors via a CDCA-I038 flow where appropriate.
- 1.6.7 Identify any Outstation alarms. Outstation alarms are typically RAM/ROM checksum error, watchdog alarms, power supply failure & alarm on a spare channel of the Outstation. The CDCA shall make a judgement as to whether they should distribute a CDCA-I038 flow to report these errors.
- 1.6.8 Identify any metered data that is missing (including checking that metered data is from the expected number of channels) and distribute a CDCA_1037 report (estimate of missing data) by the II Run. The CDCA shall also make a judgement as to whether they should provide a CDCA-I038 flow to report these errors.
- 1.6.9 The CDCA shall assist in resolving any metering faults in accordance with BSCP06.

1.7 Data Estimation Guidance

- 1.7.1 Where there is missing or suspect metered data the following are a set of guidance rules for estimating the Active Energy metered data.

| Scenario No. | Scenario | Data Used |
|--------------|--|---|
| 1 | The nominated Main Metered Data from the Primary Outstation validates satisfactorily (i.e. is 'A' flagged) | Validated Primary Outstation Main Metered Data is used for settlement, irrespective of data which may be missing or incorrect in the Secondary Outstation. This also covers sites that have only one Outstation under a dispensation. |
| 2 | The Main Metered Data from the Primary Outstation is either | Data will be copied from the Main Meter from the Secondary Outstation and used in Settlement. This will be carried out |

| Scenario No. | Scenario | Data Used |
|--------------|--|---|
| | missing or fails validation but three out of four possible metered values (Main and Check meters in each Outstation) validate satisfactorily and agree with the other value from the precedent Outstation. | automatically. The relevant BSC Party will be notified but their agreement will not be sought. |
| 3 | The Primary Outstation Data is either missing or incorrect, but the Secondary Main and Check validates satisfactorily. | Data will be copied from the Main Meter from the Secondary Outstation and used in Settlement. This will be carried out automatically. The relevant BSC Party will be notified but their agreement will not be sought. |
| 4 | The Main Metered Data is missing or incorrect in both Outstations, but the Check Metered Data in each Outstation validates against each other. | A Data Substitution will be performed using the Check Metered Data. Agreement to use this data will be sought from the relevant BSC Party and the data will be flagged as 'estimated'. |
| 5 | The Main Metered Data is missing or incorrect in both Outstations, and the Check Metered Data in each Outstation does not validate satisfactorily. | A data estimation will be carried out using the Check Metered Data. Agreement to use this data will be sought from the relevant BSC Party and the data will be flagged as 'estimated'. |

1.7.2 Any other scenario not covered in the table above will be treated as requiring a data estimation and agreement will be sought from the relevant BSC Party.

1.7.3 A BSCP03/4.1 Data Estimation Form (CDCA-I037) will only be sent out in cases where a data estimation/substitution is required for use in Settlement. This form will explain why data is being estimated / substituted by indicating a reason code. A list of reason codes, along with accompanying text to explain the scenarios covered, is included in Appendix 4.26.

1.7.4 To ensure the Registrant is provided with data estimations and substitutions that are valid at the time of issue, CDCA will issue the CDCA-I014 (Estimated Data Report) after that day's estimation activity has been completed.

1.7.5 To ensure the Registrant is provided with data estimations and substitutions that are valid at the time of issue, CDCA will only carry out estimation activity after the daily issue of the CDCA-I012 (Report Raw Meter Data).

1.7.6 In addition to estimates produced for settlement purposes where there is missing or suspect metered data, the BSCCo will work with a Registrant and the CDCA to

estimate BM Unit Demand Disconnection Volumes for use by the SAA following a Demand Control Event. The BSCCo will use the estimation method described in Appendix 4.7.

2 Acronyms and Definitions

2.1 List of Acronyms

The terms used in this BSCP are defined as follows:

| | |
|------|---------------------------------------|
| CDCA | Central Data Collection Agent |
| CoP | Code of Practice |
| CVA | Central Volume Allocation |
| GSP | Grid Supply Point |
| II | Interim Information |
| LDSO | Licensed Distribution System Operator |
| MOA | Meter Operator Agent |
| MSID | Metering System Identifier |
| MAR | Meter Advance Reconciliation |
| MSN | Meter Serial Number |
| SMRS | Supplier Meter Registration Service |
| SD | Settlement Day |
| TC | Transmission Company |
| WD | Working Day |

2.2 List of Definitions

Non Owner Party A Non Owner Party is a Party to the BSC whose metered data is determined from a meter that is not registered by that Party.

Where there is a difference metering arrangement where a Party's data is calculated by a netting relationship, the Party should receive data for the minority circuit which is netted off their data. This type of relationship is generally where there is shared, bulk supply point metering, inter GSP Group circuits and embedded Generating Plants.

Full definitions of the above acronyms in Section 2.1 are, where appropriate, included in the Balancing and Settlement Code.

3 Interface and Timetable Information

3.1 Data Estimation for SF Run

AT 02/07/15 – For estimating Demand Control Volumes following Demand Control Events – do not use Sections 3.1.4 – 3.1.11, but refer to Section 3.4

| REF | WHEN | ACTION | FROM | TO | INFORMATION REQUIRED | METHOD |
|-------|--|--|-------------------|---|---|---|
| 3.1.1 | SD+1WD | Send Raw Metered Data Report. | CDCA | Registrant and LDSO and/or TC and/or Non Owner Party | Raw Metered Data Report (CDCA-I012) | Electronic |
| 3.1.2 | By II Run | Send a Metering Status Exception Report and Meter Status Report. | CDCA | Registrant/ MOA and/or Non Owner Party (Distributors) | Metering Status Exception Report (CDCA-I010), Meter Status Report (CDCA-I054) and Reporting Metering System Reports (CDCA-I038), where appropriate, as defined in Section 1.6 | Electronic (for CDCA-I010 & CDCA-I054) Fax / Email (for CDCA-I038) |
| 3.1.3 | By II Run or when required | Provide all information as may be required by the CDCA to assist in the retrieval of data where possible or in the preparation of a data estimate. | Registrant or MOA | CDCA | Reason for missing data, whether data is available etc. | Fax / Email |
| 3.1.4 | By SD+5WD By II Run or when necessary | Provide an estimation of the metered data with reference to section 1.7, including the reason code. | CDCA | Registrant, MOA | BSCP03/4.1, Authorisation Form for Estimation and Data Substitution (Part A) BSCP03/4.2, Data Estimation /Substitution Sheet (CDCA-I037) | Fax / Email |

| REF | WHEN | ACTION | FROM | TO | INFORMATION REQUIRED | METHOD |
|-------|--|---|-------------------|------------------|---|--------------|
| 3.1.5 | By II+3WD or prior to Settlement Run | Agree or disagree the estimated or substituted values. | Registrant | CDCA | BSCP03/4.1 (Part B), Authorisation form for Estimation and Data Substitution Signed by an authorised person, registered via BSCP38 | Fax / Email |
| 3.1.6 | By SD+13WD | Where a Registrant disagrees with the estimated or substituted values he may submit his own data for consideration. | Registrant | CDCA | BSCP03/4.2, Data Estimation/Substitution Sheet. | Fax / Email. |
| 3.1.7 | Immediately upon detection | In the event of any occurrence likely to result in missing or suspect data the CDCA shall be informed as soon as possible. | Registrant or MOA | CDCA | Identifier of affected equipment such as site name, circuit name, MSID, metering subsystem ID, register ID and MSN(s), the nature of the fault and Settlement Days affected, all via a Reporting Metering System Faults flow (CDCA-I015). | Fax / Email. |
| 3.1.8 | Immediately upon being informed of 3.1.7 | The CDCA will investigate and resolve any issues reported. | CDCA | Relevant Parties | Details of issues and methods of resolution. | Fax / Email. |
| 3.1.9 | By SD+13WD | Where the CDCA agrees with the Registrant's own data, the CDCA shall submit data to Settlement and send confirmation to the Registrant. | CDCA | Registrant | | Fax / Email. |

| REF | WHEN | ACTION | FROM | TO | INFORMATION REQUIRED | METHOD |
|--------|--|---|------|--|---|----------------------|
| 3.1.10 | By SD+13WD | Where the CDCA disagrees with the Registrant's own data, the CDCA shall use original estimated data in the Initial Settlement Run and refer to the Registrant for discussion and attempt to reach agreement in time for the next Reconciliation Run. Where the CDCA and the Registrant cannot agree an estimate, the Registrant can invoke the disputes procedure. | CDCA | Registrant | | Phone / Fax / Email. |
| 3.1.11 | By SD+13WD | Notify the Non-Owner Party that the estimate has been agreed by the Registrant and input into Settlements for the Initial Settlement Run or, if appropriate, that the Registrant has rejected the estimated data and that the disputes procedure has been invoked. | CDCA | Non-Owner Party | BSCP03/4.1 (Part A), Authorisation Form for Estimation and Data Substitution BSCP03/4.2, Data Estimation/Substitution Sheet | Fax / Email |
| 3.1.12 | Daily as required and after all estimation has been completed for that day | Send Estimated Data Report. | CDCA | Relevant Parties, BSCCo (upon request) | Estimated Data Report (CDCA IO-14), giving details of all data estimations for the relevant Metering Systems processed by CDCA on that calendar day | Electronic |

3.2 Data Estimation post SF Run²

~~AT 02/07/15~~—For estimating Demand Control Volumes following Demand Control Events —do not use Sections 3.2.1—3.2.8, but refer to Section 3.4

| REF | WHEN | ACTION | FROM | TO | INFORMATION REQUIRED | METHOD |
|-------|---|--|------------------|------------------|---|--------------|
| 3.2.1 | From SF - 1 WD and immediately upon detection but no later than RF - 60 WD ³ | In the event of any occurrence likely to result in suspect data, the CDCA shall be informed as soon as possible. | MOA or any Party | CDCA | Identifier of affected equipment such as site name, circuit name, MSID, metering subsystem ID, register ID and MSN(s), the nature of the fault and Settlement Days affected, all via a Reporting Metering System Faults flow (CDCA-I015). | Fax / Email. |
| 3.2.2 | No later than RF – 52WD | The CDCA will investigate and resolve any issues reported. | CDCA | Relevant Parties | Details of issues and methods of resolution | Fax / Email. |
| 3.2.3 | Within 1 WD of resolving issue in 3.2.2 | If applicable provide an estimation of the metered data with reference to section 1.7. | CDCA | Registrant | BSCP03/4.1, Authorisation Form for Estimation and Data Substitution (Part A) BSCP03/4.2, Data Estimation / Substitution Sheet (CDCA_I037) | Fax / Email |
| 3.2.4 | Within 5 WD of receiving an estimation/ substitution report | Agree or disagree the estimated or substituted values. | Registrant | CDCA | BSCP03/4.1 (Part B) Authorisation form for Estimation and Data Substitution signed by an Authorised person registered via BSCP38 | Fax / Email |

² Please note that any disputes procedure invoked must be done so according to the timescales and procedures as set out in BSCP11 – Trading Queries and Trading Disputes.

³ For any data prior to SF identified as being suspect, the processes described in 3.1 should be followed.

| REF | WHEN | ACTION | FROM | TO | INFORMATION REQUIRED | METHOD |
|-------|---|--|------------|-----------------|---|----------------------|
| 3.2.5 | Following 3.2.4 and no later than RF – 46 WD | Where the CDCA and Registrant agree with the estimation, the CDCA shall submit estimated data to Settlement and send confirmation to the Registrant. | CDCA | Registrant | | Fax / Email. |
| 3.2.6 | Following 3.2.4 and no later than RF – 46 WD | Where a Registrant disagrees with the estimated or substituted values he may submit his own data for consideration. | Registrant | CDCA | BSCP03/4.2, Data Estimation/Substitution Sheet. | Fax / Email. |
| 3.2.7 | Following 3.2.4 and no later than RF – 46 WD | <p>Where the CDCA and Registrant disagree with the estimation, the CDCA shall use its own estimated data in the next Reconciliation Run and refer to the Registrant for discussion and attempt to reach agreement.</p> <p>Where the CDCA and the Registrant cannot agree an estimate, the Registrant can invoke the disputes procedure.</p> <p>Any disputes must be submitted according to the procedures and timescales as set out in BSCP11.</p> | CDCA | Registrant | | Phone / Fax / Email. |
| 3.2.8 | Following 3.2.4 or 3.2.7 and no later than RF - 41 WD | Where applicable, notify the Non-Owner Party that the estimate has been agreed by the Registrant and input into Settlements for subsequent Settlement Run or, if appropriate, that the Registrant has rejected the estimated data. | CDCA | Non-Owner Party | <p>BSCP03/4.1 (Part A), Authorisation Form for Estimation and Data Substitution</p> <p>BSCP03/4.2, Data Estimation/Substitution Sheet</p> | Fax / Email |

| REF | WHEN | ACTION | FROM | TO | INFORMATION REQUIRED | METHOD |
|-------|---------------------------------|-----------------------------|------|--|--|------------|
| 3.2.9 | Monthly as required (for BSCCo) | Send Estimated Data Report. | CDCA | Relevant Parties, BSCCo (upon request) | Estimated Data Report (CDCA-I014), giving details of all data estimations for the relevant Metering Systems over the past month. | Electronic |

3.3 Data Correction for BM Unit in a Switching Group

| REF | WHEN | ACTION | FROM | TO | INFORMATION REQUIRED | METHOD |
|-------|---|---|------------|----------------|---|--------------|
| 3.3.1 | Within 20 WD following the day on which the operational switching was carried out | If a Party believes an error has occurred in Trading Charges as a result of the CDCA not applying the Aggregation Rules for a Switching Group until midnight following the time of the change, the Lead Party may request that the error is corrected. | Lead Party | BSCCo | <ul style="list-style-type: none"> - Copy of aggregation rule change request; - Reason why trading volumes are incorrect; and - Proposed correct trading volumes | Fax / Email. |
| 3.3.2 | Following 3.3.1 | ELEXON confirms the validity of the correction request by assessing the following criteria: <ul style="list-style-type: none"> - there is an impact on the Party's trading charges for the affected Settlement Periods; and - the request was made for a valid registered set of Aggregation Rules. | BSCCo | Relevant Party | | Fax / Email. |
| 3.3.3 | Following confirmation that the data correction request is invalid ⁴ | Notify Party of decision. | BSCCo | Relevant Party | Reason for judgement that the application is invalid | Fax / Email. |
| 3.3.4 | Following 3.3.2 and no later than 2 WD after the validation | Where the data correction request has been confirmed to be valid, authorise CDCA to correct data. | BSCCo | CDCA | | Fax / Email. |

⁴ Party can raise a Trading Dispute if they are unsatisfied with the outcome.

| REF | WHEN | ACTION | FROM | TO | INFORMATION REQUIRED | METHOD |
|-------|---------------------------|---|------------|----------------|----------------------|--------------|
| 3.3.5 | Within 2 WD of 3.3.4 | Notify Party of whether criteria are met. | CDCA | BSCCo | | Fax / Email. |
| 3.3.6 | At the same time as 3.3.5 | Notify relevant Party of data correction outcome. | CDCA/BSCCo | Relevant Party | | Fax / Email. |

3.4 Demand Control Events – Estimate of Demand ~~Control~~ Disconnection Volumes for Directly Connected and Embedded BM Units.

| <u>REF</u> | <u>WHEN</u> | <u>ACTION</u> | <u>FROM</u> | <u>TO</u> | <u>INFORMATION REQUIRED</u> | <u>METHOD</u> |
|------------|---|--|-----------------------------|--------------|---|---|
| 3.4.1 | <u>Within 5WD of end of Demand Disconnection</u> Control event AT 02/07/15 – BSCPs 502 – 515 state “Demand Control Event” – make consistent?? | <u>Notify CDCA of Demand Control event and all affected</u> disconnected Embedded BM Units | <u>LDSO</u> | <u>CDCA</u> | <u>CDCA-I067 Disconnected BM Units affected by Demand Control Event</u> AT 02/07/15 – Proper title is “CDCA I067 Disconnected BM Units” | <u>Electronic</u> Email AT 02/07/15 – IDD states this flow will be Manual (using a common loader??) |
| 3.4.2 | <u>Within 5WD of end of Demand Disconnection</u> Control event AT 02/07/15 – BSCPs 502 – 515 state “Demand Control Event” | <u>Notify CDCA of Demand Control event and all affected</u> disconnected Directly-Connected BM Units | <u>Transmission Company</u> | <u>CDCA</u> | <u>CDCA-I067 Disconnected BM Units affected by Demand Control Event</u> AT 02/07/15 – Proper title is “CDCA I067 Disconnected BM Units” | <u>Electronic</u> Email AT 02/07/15 – IDD states this flow will be Manual (using a common loader??) |
| 3.4.3 | <u>Within 1 WD of 3.4.1 or 3.4.2</u> | <u>Forward details of Disconnected BM Units to BSCCo</u> | <u>CDCA</u> | <u>BSCCo</u> | <u>CDCA-I067 Disconnected BM Units</u> | <u>Email</u> |

| <u>REF</u> | <u>WHEN</u> | <u>ACTION</u> | <u>FROM</u> | <u>TO</u> | <u>INFORMATION REQUIRED</u> | <u>METHOD</u> |
|--------------|--------------------------------------|--|----------------------------------|---|--|-------------------------------------|
| 3.4.4 | <u>Within 2 WDs of 3.4.3</u> | <u>Estimate BM Unit Demand Disconnection Volume(s) in accordance with Appendix 4.7 for each affected BMU and impacted Settlement Period</u> <u>Send estimates of Demand Disconnection Volume(s) to Registrant</u> | <u>BSCCo</u> <u>BSCCo</u> | <u>Registrant</u> | <u>BSCP03/4.3 Estimated Demand Control Volume – Part 1 form</u> | <u>Internal</u> <u>Email</u> |
| <u>3.4.3</u> | <u>Within 2WDs of 3.4.1 or 3.4.2</u> | <u>Estimate Demand Control volume in accordance with Appendix XXX for all affected BM Units and Settlement Periods, and send to the Registrant and Meter Operator</u> | <u>CDCA</u> | <u>Registrant</u> <u>MOP</u> <u>AT 02/07/15</u> <u>Proper title is</u> <u>“MOA”</u> | <u>BSCP03/3.4 Estimated Demand Control Volume form</u> <u>AT 02/07/15 should be</u> <u>4.3, not 3.4</u> | <u>Fax/Email</u> |

| <u>REF</u> | <u>WHEN</u> | <u>ACTION</u> | <u>FROM</u> | <u>TO</u> | <u>INFORMATION REQUIRED</u> | <u>METHOD</u> |
|---------------|---|--|-------------------|------------------|---|------------------|
| <u>3.4.45</u> | <u>Within 3WDs of 3.4.33 4.4</u> | <p><u>Agree or disagree the estimated values</u></p> <p><u>Where the Registrant disagrees with the estimated values, they may submit their own for consideration</u></p> | <u>Registrant</u> | <u>CDCABSCCo</u> | <p><u>BSCP03/3.44.3</u> <u>Estimated Demand</u> <u>Control Volume – Part 1</u> <u>form, signed by an</u> <u>Authorised person</u> <u>registered via BSCP38</u></p> <p><u>And</u> <u>BSCP03/4.4 Demand</u> <u>Disconnection Volume</u> <u>Data</u> <u>Estimation/Substitution</u> <u>Sheet</u></p> <p><u>AT 02/07/15 – should be</u> <u>4.3, not 3.4</u></p> | <u>Fax/Email</u> |

| <u>REF</u> | <u>WHEN</u> | <u>ACTION</u> | <u>FROM</u> | <u>TO</u> | <u>INFORMATION REQUIRED</u> | <u>METHOD</u> |
|---------------|---|--|---------------------------------------|--|---|--|
| <u>3.4.56</u> | <p>Following <u>3.4.45</u> and at least 1 WD prior to SF run next Settlement Run</p> <p>AT 02/07/15—timing may not allow SF Run to be met. CDCA SD states "Next available Settlement Run??"</p> | <p>Where the Registrant and CDCA agrees with the BSCCo's estimate(s), the BSCCo will confirm to the Registrant which estimates it will submit and will submit those estimate(s) to the CDCA</p> <p>CDCA shall submit the estimated data to Settlement and send confirmation to the Registrant and BSCCo</p> | <p>BSCCo</p> <p>BSCCo</p> <p>CDCA</p> | <p>Registrant</p> <p>CDCA</p> <p>RegistrantSAA</p> <p>BSCCo and Registrant</p> | <p>BSCP03/4.3 Estimated Demand Control Volume – Part 1 form</p> <p>BSCP03/4.5 Estimated Demand Control Volume – Part 2 form</p> <p>CDCA-I068 Aggregated BM Unit Disconnection Volumes</p> <p>BSCP03/4.5 Estimated Demand Control Volume – Part 2 form</p> | <p>Fax/Email</p> <p>Email</p> <p>Via shared database</p> <p>Email</p> |
| <u>3.4.5</u> | <p>Following <u>3.4.4</u> and at least 2 WDs prior to SF run</p> | <p>Where the Registrant disagrees with the estimated values, they may submit their own for consideration</p> | <p>Registrant</p> | <p>CDCA</p> | <p>BSCP03/3.4 Estimated Demand Control Volume form</p> <p>AT 02/07/15—should be 4.3, not 3.4</p> | <p>Fax/Email</p> |

| <u>REF</u> | <u>WHEN</u> | <u>ACTION</u> | <u>FROM</u> | <u>TO</u> | <u>INFORMATION REQUIRED</u> | <u>METHOD</u> |
|-------------------------------|--|--|--|--|---|--|
| 3.4.6 | Following 3.4.5 and at least 1 WD prior to Settlement- Run | <p>Should BSCCo agree with the Registrant's alternative estimate(s), BSCCo will confirm the use of the alternative estimate(s) with the Registrant and send these to CDCA. Otherwise Where the CDCA and Registrant disagree with the estimation, the CDCA shall submit its own estimated data to the CDCA for use in the next Reconciliation Settlement Run and confirm this to the Registrant. and</p> <p>The CDCA shall submit the estimated data to Settlement and send confirmation to the Registrant and BSCCo refer to the Registrant for discussion and attempt to reach agreement.</p> <p>Where the CDCA and the Registrant cannot agree an estimate, the Registrant can invoke the disputes procedure.</p> <p>Any disputes must be submitted according to the procedures and timescales as set out in BSCP11.</p> | <p>BSCCo</p> <p>BSCCo</p> <p>CDCA/CDCA</p> | <p>Registrant</p> <p>CDCA</p> <p>SAA</p> <p>BSCCo and Registrant</p> | <p>BSCP03/4.3 Estimated Demand Control Volume – Part 1 form</p> <p>BSCP03/4.5 Estimated Demand Control Volume – Part 2 form</p> <p>CDCA-I068 Aggregated BM Unit Disconnection Volumes</p> <p>BSCP03/4.5 Estimated Demand Control Volume – Part 2 form</p> | <p>Email</p> <p>Email</p> <p>Via shared database</p> <p>Email</p> <p>Fax/Email</p> |
| Balancing and Settlement Code | | | Page 25 of 39 | | 27 January 2010 | 27 January 2010 |

| <u>REF</u> | <u>WHEN</u> | <u>ACTION</u> | <u>FROM</u> | <u>TO</u> | <u>INFORMATION REQUIRED</u> | <u>METHOD</u> |
|--------------|------------------------|--|--------------|-------------------|---------------------------------|---------------|
| <u>3.4.7</u> | <u>Following 3.4.6</u> | <p><u>Where the BSCCo disagrees with an estimate provided to it by the Registrant, BSCCo will contact the Registrant to discuss and attempt to reach agreement.</u></p> <p><u>Where the BSCCo and the Registrant cannot agree an estimate, the Registrant can invoke the disputes procedure.</u></p> <p><u>Any disputes must be submitted according to the procedures and timescales as set out in BSCP11.</u></p> | <u>BSCCo</u> | <u>Registrant</u> | | <u>Email</u> |

~~**AT 02/07/15 — How will the Estimated Demand Control Volumes be reported?? — electronically via the CDCA-I014 Estimated Data Report. If not, then Section CDCA-F011 in the CDCA URS will need to be changed**~~

~~4~~ **Appendices**

~~The following forms should be used as described under Section 3: Interface and Timetable Information.~~

4 Appendices

The following forms should be used as described under Section 3: Interface and Timetable Information.

4.1 BSCP03/4.1 Authorisation Form for Estimation and Data Substitution

PART A *To Registrant*

Ref. No:.....

Details to be included:

MSN:..... Registrant:

Metering Subsystem ID: Non-Owner Party:

MSID: Register ID:.....

Affected dates and times: to:

Please find, for authorisation, attached details of Estimated/Substitution data proposed to be input into Settlements.

Reason Code used for Estimation/Substitution:

Reasons for Estimation/Substitution and origin of data:

Signed: Name: Date:.....

(For CDCA)

NOTE: ALL ESTIMATIONS/SUBSTITUTIONS ARE CLOCK TIME

PART B *To CDCA*

I hereby agree/disagree* with the Estimated/Substituted* data submitted with this form and authorise/do not authorise* the use of such data for the date and times detailed in PART A above.

*[*delete as appropriate]*

Reasons for disagreement to be provided on separate attached sheet.

Name: Password:.....

Signed: Date:.....

(For Registrant)

BSC Party ID:

PART C *From CDCA to Registrant*

I hereby confirm that the Estimated/Substituted data associated with the above Reference No. detailed in Part A/B* has been entered into Settlements on the date detailed below.

**Delete as appropriate*

Input by: Signed:..... Name:..... Date:.....

Checked by: Signed:..... Name:..... Date:.....

(For CDCA)

4.2 BSCP03/4.2 Data Estimation/Substitution Sheet

| | | | | | | | | | |
|---------------------|--|--------------|--|-----------------------|--|--------------------|--|--------------|--|
| BSC Party ID | | MSID: | | Outstation ID: | | Originator: | | Date: | |
|---------------------|--|--------------|--|-----------------------|--|--------------------|--|--------------|--|

| Settlement Period | Channel No. | MWh | | | Settlement Period | MWh | | | Settlement Period | MWh | | |
|----------------------|------------------|-------------------------------|----------------------------|------------------|----------------------|-------------------------------|----------------------------|------------------|----------------------|-------------------------------|----------------------------|--|
| | Original Data | Data Estimate by BSC Agent | Party supplied Estimate | Original Data | | Data Estimate by BSC Agent | Party supplied Estimate | Original Data | | Data Estimate by BSC Agent | Party supplied Estimate | |
| | 1 | | | | | 19 | | | | | 37 | |
| 2 | | | | 20 | | | | 38 | | | | |
| 3 | | | | 21 | | | | 39 | | | | |
| 4 | | | | 22 | | | | 40 | | | | |
| 5 | | | | 23 | | | | 41 | | | | |
| 6 | | | | 24 | | | | 42 | | | | |
| 7 | | | | 25 | | | | 43 | | | | |
| 8 | | | | 26 | | | | 44 | | | | |
| 9 | | | | 27 | | | | 45 | | | | |
| 10 | | | | 28 | | | | 46 | | | | |
| 11 | | | | 29 | | | | 47 | | | | |
| 12 | | | | 30 | | | | 48 | | | | |
| 13 | | | | 31 | | | | 49 | | | | |
| 14 | | | | 32 | | | | 50 | | | | |
| 15 | | | | 33 | | | | 51 | | | | |
| 16 | | | | 34 | | | | 52 | | | | |
| 17 | | | | 35 | | | | | | | | |
| 18 | | | | 36 | | | | | | | | |

NOTE: All Estimations/Substitutions are in CLOCK TIME and Metered Data Values are in MWh

4.3 BSCP03/4.3 Estimated Demand ~~Control~~Disconnection Volume Form – Part 1.

PART A *From BSCCo To Registrant* Ref No: _____

Details to be included:

BM Unit ID: _____ Registrant: _____

Estimate of Demand ~~Control~~Disconnection

Volumes:

Settlement Date: _____ Settlement Period: _____ Volume: _____ MWh

Settlement Date: _____ Settlement Period: _____ Volume: _____ MWh

Settlement Date: _____ Settlement Period: _____ Volume: _____ MWh

Settlement Date: _____ Settlement Period: _____ Volume: _____ MWh

Settlement Date: _____ Settlement Period: _____ Volume: _____ MWh

Settlement Date: _____ Settlement Period: _____ Volume: _____ MWh

Settlement Date: _____ Settlement Period: _____ Volume: _____ MWh

Signed: ~~AT-02/07/15 (for CDCA)~~ Name: _____ Date: _____

(Part A is for BSCCo to complete)

PART B *From Registrant To ~~CDCA~~BSCCo*

I hereby agree/disagree* with the Estimated Demand ~~Control~~Disconnection Volumes submitted with this form and authorise/do not authorise* the use of such data for the date and times detailed in PART A above.

_____ [*delete as appropriate]

~~The Registrant shall attach its reasons for disagreement and any alternative calculation(s) to be provided on separate attached sheet using the BSCP03/4.4 form.~~

Name: _____ Password: _____

Signed: _____ Date: _____

~~(for Registrant)~~

BSC Party ID: _____

(Part B is for the Registrant to complete)

From BSCCo To Registrant

PART C

I hereby confirm that the Estimated/Substituted data associated with the above Reference No. detailed in Part A/B* has been submitted to the CDCA for ~~entered~~entry into Settlements on the date detailed below.

Input By Name:

Signed:

Date:

Checked By Job Title:

Signed:

Date:

(Part C is for CDCABSCCo to complete)

4.4 BSCP03/4.4 Demand Disconnection Volume Data Estimation/Substitution Sheet

| | | | | | | | |
|---------------------|--|----------------|--|--------------------|--|--------------|--|
| BSC Party ID | | BMU ID: | | Originator: | | Date: | |
|---------------------|--|----------------|--|--------------------|--|--------------|--|

| <u>Settlement Period</u> | <u>MWh</u> | | | <u>Settlement Period</u> | <u>MWh</u> | | | <u>Settlement Period</u> | <u>MWh</u> | | |
|------------------------------|--------------------------|---------------------------------------|------------------------------------|------------------------------|--------------------------|---------------------------------------|------------------------------------|------------------------------|--------------------------|---------------------------------------|------------------------------------|
| | <u>Original Data</u> | <u>Data Estimate by BSC Agent</u> | <u>Party supplied Estimate</u> | | <u>Original Data</u> | <u>Data Estimate by BSC Agent</u> | <u>Party supplied Estimate</u> | | <u>Original Data</u> | <u>Data Estimate by BSC Agent</u> | <u>Party supplied Estimate</u> |
| <u>1</u> | | | | <u>19</u> | | | | <u>37</u> | | | |
| <u>2</u> | | | | <u>20</u> | | | | <u>38</u> | | | |
| <u>3</u> | | | | <u>21</u> | | | | <u>39</u> | | | |
| <u>4</u> | | | | <u>22</u> | | | | <u>40</u> | | | |
| <u>5</u> | | | | <u>23</u> | | | | <u>41</u> | | | |
| <u>6</u> | | | | <u>24</u> | | | | <u>42</u> | | | |
| <u>7</u> | | | | <u>25</u> | | | | <u>43</u> | | | |
| <u>8</u> | | | | <u>26</u> | | | | <u>44</u> | | | |
| <u>9</u> | | | | <u>27</u> | | | | <u>45</u> | | | |
| <u>10</u> | | | | <u>28</u> | | | | <u>46</u> | | | |
| <u>11</u> | | | | <u>29</u> | | | | <u>47</u> | | | |
| <u>12</u> | | | | <u>30</u> | | | | <u>48</u> | | | |
| <u>13</u> | | | | <u>31</u> | | | | <u>49</u> | | | |
| <u>14</u> | | | | <u>32</u> | | | | <u>50</u> | | | |
| <u>15</u> | | | | <u>33</u> | | | | | | | |
| <u>16</u> | | | | <u>34</u> | | | | | | | |
| <u>17</u> | | | | <u>35</u> | | | | | | | |
| <u>18</u> | | | | <u>36</u> | | | | | | | |

NOTE: -All Estimations/Substitutions are in CLOCK TIME and Metered Data Values are in MWh

4.36 BSCP03 Reason Codes.**Reason Codes**

The following list of Reason Codes will be used by the CDCA to identify the reason for requiring a data estimation or substitution and the source of the data used for this purpose.

The CDCA system will continue to support redundant Estimation Method codes for historical data.

| Method Code | Reason for Estimation/Substitution | Method Used |
|-------------|---|---|
| A | Generation: Main Metered Data missing or incorrect in Primary and Secondary Outstations, Check Metered Data available | Copied from Primary Check |
| K | Generation: Main and Check Metered Data missing or incorrect in Primary and Secondary Outstations, data estimated to zero awaiting confirmation of generation | Manual Estimate to zero |
| D | Demand: Main Metered Data missing or incorrect, Check Metered Data available | Copied from Primary Check |
| E | Demand: Main Metered Data missing or incorrect, Check meter not fully functional, but Main or Check meter register advance available | Profile using Meter Reading Estimation Tool |
| M | Demand: Main Metered Data missing or incorrect, data copied from suitable settlement day | Manual Estimate |
| I | Demand: Main Metered Data missing or incorrect, Check meter not fully functional, Check meter register advance NOT available | Profile using Trend |
| J | Generation: Main meter data missing or incorrect in Primary Outstation, Secondary Outstation Main meter data available | Substituted from Secondary Main |
| L | Demand: Main meter data missing or incorrect, Secondary Outstation Main meter data available | Substituted from Secondary Main |
| N | Validation Failure: Main data deemed correct | Quality Promoted |
| U | Parties' own readings used | Manual Estimate |
| X | Other estimation method used | Manual Estimate |

'Generation' codes will be used for sites that are predominately production, and 'Demand' codes will be used for sites that are predominately consumption.

4.7 Estimation of BM Unit Demand Disconnection Volumes

Pursuant to paragraph 3.4.4, the BSSCo shall estimate BM Unit Demand Disconnection Volumes (in MWh) in accordance with the following estimation rules for each affected BM Unit disconnected during a Demand Control Event.

To calculate a Demand Disconnection Volume for a particular Settlement Day and Settlement Period (SP):

- 1) Determine actual BM Unit Metered Volume for the disconnected Settlement Day and SP ($BMUMV_{ij}^{real}$).
- 2) Determine BM Unit Metered Volumes for the same SP on the same day of the week from at least the previous four weeks.
 - a. If BSSCo is estimating a Demand Disconnection Volume for any SP on a non-working weekday (e.g. a Bank Holiday), the BSSCo will use BM Unit Metered Volume from the last four Sundays, rather than the same weekday.
- 3) Calculate the average of the historical BM Unit Metered Volumes to determine the estimated value for the disconnected SP ($BMUMV_{ij}^{average}$).
- 4) Subtract $BMUMV_{ij}^{real}$ collected by the CDCA for the affected Settlement Day and SP from the $BMUMV_{ij}^{average}$ to calculate the BM Unit Demand Disconnection Volume (QDD_{ij}).

BSSCo shall make every endeavour to estimate and agree any Demand Disconnection Volume with the Registrant in the required timescales in order that the CDCA can submit it to the SAA for use in the Initial Settlement process. In the event that the Registrant's does not agree with the BSSCo's estimate, BSSCo shall nevertheless submit its estimate to the CDCA for use in Settlement. Should the Registrant continue to disagree with the estimate used, it can raise a Trading Dispute.

Example

BM Unit T ELEXON1 is subject to a Demand Disconnection Event on Settlement Day Wednesday 05/08/15 Settlement Period 34.

The BM Unit Metered Volume collected by the CDCA was 60 MWh, the "average" computed was 100 MWh, therefore the Estimated Demand Control Volume will initially be estimated as 40 MWh.

The BM Unit Metered Volume for the 4 previous weeks was:

| | | |
|--|------------|------------|
| <u>Wednesday 29/07/15 SP 34</u> | <u>98</u> | <u>MWh</u> |
| <u>Wednesday 22/07/15 SP 34</u> | <u>101</u> | <u>MWh</u> |
| <u>Wednesday 15/07/15 SP 34</u> | <u>99</u> | <u>MWh</u> |
| <u>Wednesday 08/07/15 SP 34</u> | <u>102</u> | <u>MWh</u> |
| <u>Total =</u> | <u>400</u> | <u>MWh</u> |
| <u>"Average" = (400/4 weeks)</u> | <u>100</u> | <u>MWh</u> |
| <u>Actual CDCA BMU Volume</u> | <u>60</u> | <u>MWh</u> |
| <u>Estimated Demand Disconnection Volume</u> | <u>40</u> | <u>MWh</u> |