

## **Balancing and Settlement Code**

### **BSC Procedure**

### **BSCP128 - Appendix 3**

### **Calculation Self Assessment Document (CSAD) for Host LDSOs and Embedded LDSOs that do not Mirror**

**Version 1.0**

**Effective Date: 20 April 2009**

## **BSCP128 - Appendix 3**

### **Relating to**

### **Calculation Assessment Document (CSAD) for Host LDSOs and Embedded LDSOs that do not Mirror**

1. Reference is made to the Balancing and Settlement Code (the Code) for the Electricity Industry in Great Britain and, in particular, to the definition of "BSC Procedure".
2. This is BSCP128 Appendix 3, Version 1.0 relating to the Calculation Self Assessment Document (CSAD) for Host LDSOs and Embedded LDSOs that do not Mirror.
3. This BSC Procedure Appendix is effective from 20 April 2009.
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	20/04/09	First Published	P216	153/04

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~~Authorised Person:~~

- ~~the Line Loss Factor Calculation Self-Assessment Document (CSAD) is true, complete and accurate and not misleading because of any omission or ambiguity or for any other reason; and~~
- ~~in our opinion, the arrangements as documented are adequate and appropriate for the provisions under the Balancing and Settlement Code Section K and BSCP128 ‘Production, Submission, Audit and Approval of Line Loss Factors.’~~

Approved by			
Print Name	Signature	Position	Date

## Balancing and Settlement Code

**~~1.1.~~ INTRODUCTION****Objectives of the CSAD**

The Audit of Line Loss Factors seeks to provide additional transparency and consistency regarding the calculation and application of Line Loss Factors (LLFs) used in Settlement by creating a set of high level principles, which all LLF methodologies (created by Licensed Distribution System Operators (LDSOs)) must adhere to. The principles are detailed in BSCP128 ‘Production, Submission, Audit and Approval of Line Loss Factors’. The LDSO must then calculate the LLFs according to their approved methodology statement. An audit of the LLF calculations is required to ensure that they are consistent with the approved methodology.

This Calculation Self Assessment Document (CSAD) is designed to gather factual information about the compliance of the LLF Calculations and the methodology it applies to.

For any defined terms see BSCP128. All defined terms are initially capitalised. Any other terms please refer to the Balancing Settlement Code.

**Guidance for completing the CSAD**

The CSAD has been split into three sections as follows:

**~~1.1~~ Introduction****~~1.2~~ General Information**

This section should be completed in full in respect of all questions.

**~~1.23~~ Calculation Applicability Section.**

LDSOs should provide information to which GSP Groups and Methodology the calculation applies to.

**~~1.34~~ Calculations Assessment Section.**

This section contains a series of questions, for each of which guidance is provided in order to either provide clarification or to set out the areas the response should address.

The LDSO should also indicate what evidence is available to support the responses given. This evidence will need to be available to BSCCo for the audit to review take place.

References to ‘systems’ within the CSAD do not relate solely to the functionality of computer hardware and software, but extend to the supporting business and operational processes (including manual processes). The term ‘development’ in relation to a system refers to either the development of a new system or to any significant changes or upgrades in respect of an existing system.

The final question in this section is not mandatory and is provided so that Applicants can provide any additional information that they consider to be relevant to their application.

**1.21.1 General Information****Distribution Company Name:**We confirm that:

- the Line Loss Factor Calculation Self-Assessment Document (CSAD) is true, complete and accurate and not misleading because of any omission or ambiguity or for any other reason; and
- in our opinion, the arrangements as documented are adequate and appropriate for the provisions under the Balancing and Settlement Code Section K and BSCP128 'Production, Submission, Audit and Approval of Line Loss Factors.'

**Authorised Signature:****Name of Authorised Signatory:**(Category X as per BSCP38  
'Authorisations')**Password:****Date:****VERIFICATION OF DETAILS** *To be completed by BSCCo*

DATE RECEIVED: \_\_\_\_\_

NAME AND PASSWORD/SIGNATURE VALID (Y/N): \_\_\_\_\_

<b>1.31.2 Calculation Applicability</b>	<b>Details:</b>
Please <b>provide</b> details of the relevant methodology statement that the calculations comply to:	
Methodology Statement Name:  Publication Date:  Version No.:	
Distribution Area(s) (GSP Group(s)) to which methodology is applicable to:	
Are the LLFs <b>are</b> calculated in accordance with the methodology statement detailed above? (Yes/No)	
Have you re-calculated <b>any</b> LLFs <b>since the last for this</b> annual submission? If so please provide details. <del>Has the methodology changed since last year's submission? If so please provide details.</del>	



**1.41.3 Calculations Assessment**

No.	Question	Guidance	Response	Evidence
1a	<b>Please provide details of the calculation method for <u>Site Specific</u> LLFs.</b>	<p>Please give a description of the calculation method used. This should include a reference to the location in the methodology statement.</p> <p>The LDSO may wish to include an illustrative example as evidence.</p>		
1b	<b>Please provide details of the process steps for your calculation of <u>Site Specific</u> LLFs.</b>	<p>Please give a description of the end to end process for calculating Site Specific LLFs.</p> <p>The LDSO may wish to include high level flow diagram of the process or internal working instructions that detail the process.</p>		
2a	<b>Please provide details of the calculation method for <u>Generic</u> LLFs.</b>	<p>Please give a description of the calculation method used. This should include a reference to the location in the methodology statement.</p>		
2b	<b>Please provide details of the process steps for your calculation of <u>Generic</u> LLFs.</b>	<p>Please give a description of the end to end process for calculating Generic LLFs.</p> <p>LDSO may wish to include high level flow diagram of the process or internal working instructions that detail the process.</p>		

**1.41.3 Calculations Assessment**

No.	Question	Guidance	Response	Evidence
3	<b>Please complete the table of information for all Site Specific and Generic LLFs as detailed in section 2.</b>	<p><u>Data can be submitted in Excel file format with your CSAD submission.</u></p> <p>Section 2 is for supporting information for Site Specific and Generic data information submission. This information is used to aid the validation of the LLF data submission. LDSOs may choose to submit the information in Excel format as an attachment to the CSAD.</p>		
4	<b>Have all changes or new SVA LLFC IDs been submitted into the Market Domain Data (MDD) change process (as per BSCP509)? If so please give details.</b>	Any changes or new LLFC IDs must be submitted through the MDD change process. The correct LLFC IDs (and supporting information) are required to be approved in MDD prior to submission of the SVA LLFs. LDSOs should confirm that the MDD Change Request Form(s) (with CR References) have been submitted (see BSCP509 for further details).		
5	<b>Have all SVA LLFs been submitted in the D0265 file format? (Y/N)</b>	The file format for SVA LLF submission is detailed in Appendix 6 of BSCP128 or in the Data Transfer Catalogue.		

<b>1.41.3 Calculations Assessment</b>				
<b>No.</b>	<b>Question</b>	<b>Guidance</b>	<b>Response</b>	<b>Evidence</b>
<b>6</b>	<b>Have CVA LLFs been submitted in the specified long or short file format? <del>(Y/N)</del></b>	<p>The file format for CVA LLF submission is detailed in Appendix 5 of BSCP128.</p> <p>There are two formats that can be used, a long format detailing every Settlement Day and Settlement Period LLF and a short format detailing the LLF to be used for specified date ranges.</p> <p>The file requires a checksum, further information on calculating the checksum is detailed in section Appendix 5 of BSCP128.</p>		
<b>7</b>	<b>Are all LLFs submitted for start date 01 April (and start Settlement Period 1)? If not please give details,</b>	<p>The annual submission of LLFs covers the period 01 April to 31 March. Confirmation is required that all LLFs in the submission start from Settlement Period 1 on 01 April.</p> <p>Evidence will detail how this had been checked.</p>		
<b>8</b>	<b>Are all LLFs calculated <u>to at least 3 decimal places and submitted</u> to 3 decimal places? (Y/N)</b>	<p>LLFs are required to be calculated to three decimal places. Please confirm that all LLFs are calculated to 3.d.p in all files submitted.</p> <p>Evidence should include details of how</p>		

<b>1.41.3 Calculations Assessment</b>				
<b>No.</b>	<b>Question</b>	<b>Guidance</b>	<b>Response</b>	<b>Evidence</b>
		this validation has been carried out.		
<b>9a</b>	<b>Are all SVA LLFs <math>\geq 0.750000</math> and <math>\leq 1.250</math>? (Y/N)</b>	<p>Please confirm that all SVA LLFs are calculated within the range specified.</p> <p>Evidence should include details of how this validation has been carried out.</p>		
<b>9b</b>	<b>Are all CVA LLFs <math>\geq 0.750000</math> and <math>\leq 1.250999</math>? (Y/N)</b>	<p>Please confirm that all CVA LLFs are calculated within the range specified.</p> <p>Evidence should include details of how this validation has been carried out.</p>		
<b>9c</b>	<b>Are there any SVA LLFs that have significantly changed from the last submission of LLFs? BSCCo would therefore expect evidence to be provided for all LLFs which are expected to breach this tolerance.</b>	<p>BSCCo will be validating the SVA submission in accordance with BSCP128 Section 3.5 point 7 c).  BSCCo will identify any LLF values that are outside of the range specified. <del>(<math>\pm 20\%</math> change from the last LLF submission). Any values that fall outside of this range.</del> BSCCo will request from the LDSO evidence <u>for any values that fall outside of this range</u> and supporting rationale to justify this change.</p> <p>Evidence should include details of how this validation has been carried out and supporting rationale for the change in LLF Values.</p>		

<b>1.41.3 Calculations Assessment</b>				
<b>No.</b>	<b>Question</b>	<b>Guidance</b>	<b>Response</b>	<b>Evidence</b>
<b>9d</b>	<b>Are there any CVA LLFs that have significantly changed from the last submission of LLFs? BSCCo would therefore expect evidence to be provided for all LLFs which are expected to breach this tolerance.</b>	<p>BSCCo will be validating the CVA submission in accordance with BSCP128 Section 3.5 point 7 <del>de</del>:-  BSCCo will identify any LLF values that are outside <del>the</del> range specified <del>(+100% and -50% change from the last LLF submission). Any values that fall outside of this range</del>, BSCCo will request from the LDSO evidence <u>for any values that fall outside of this range</u> and supporting rationale to justify this change.</p> <p>Evidence should include details of how this validation has been carried out and supporting rationale for the change in LLF Values.</p>		
<b>9e</b>	<b>Are there any new Site Specific sites that were not included in last year's submission? If so, please give details.</b>	Please provide information in 2.1 for any new Site Specific sites.		
<b>10</b>	<b>Have any sites undergone a Relevant Change? If so please provide details.</b>	Relevant Changes are defined in BSCP128 as 'A significant change to the physical plant, apparatus, distribution network, or capacity which causes a change to the Line Loss Factors'.		

**4.1.3 Calculations Assessment**

No.	Question	Guidance	Response	Evidence
		Information and supporting evidence should be detailed in the response. MSIDs should be flagged with the relevant information as in 2.1.		
11	Please <b>provide</b> details of the error checking processes carried out when calculating LLFs.	<p>LDSOs are required to have robust error detection and correction processes in place throughout the calculation of LLFs.</p> <p>LDSOs may wish to provide references in to their working instructions and/or process maps, including details on the error checking processes used in the calculation process.</p>		
12	Have all Site Specific LLFs been calculated within the last 5 years? (Y/N).	<p>Site Specific LLFs must be calculated at least every 5 years. The cut off for the 5 year period is 30 September. Any failure to do so will lead to a non-compliance.</p> <p>For example, the annual LLFs for 1 April 201<del>6</del><u>1</u>, with calculations submission date of 1 October 201<del>5</del><u>0</u>, any Site Specific LLFs calculated up to <u>and including</u> 30 September 20<del>4</del><u>0</u><u>05</u> must <u>have been</u> re-calculated.</p> <p><del>The 5 year requirement will be operational from submissions for the</del></p>		

**1.4.1.3 Calculations Assessment**

No.	Question	Guidance	Response	Evidence
		<del>2011 annual re-load. Therefore any Site Specific LLFs calculated up to 30 September 2005 will need to be re-calculated for the 1 October 2010 submission.</del>		
13	Have all Generic LLFs been calculated within the last 2 years? (Y/N)	<p>Generic LLFs must be calculated at least every 2 years. The cut off for the 2 year period is 30 September. Any failure to do so will lead to a non-compliance.</p> <p>For example, the annual LLFs for 1 April 201<del>6</del><sup>1</sup>, with calculations submission date of 1 October 201<del>5</del><sup>0</sup>, any <del>Site Specific</del> LLFs calculated up to <u>and including</u> 30 September 200<del>8</del><sup>13</sup> must <u>have been</u> re-calculated.</p> <p><del>The submission for April 2010 annual re-load will require all Generic LLFs to be re-calculated.</del></p>		
14	Does the calculation involve third parties? If so please provide details	Where aspects of the calculation are sub-contracted to a third party the activity should be detailed in the response field (description of process, process maps, quality checks, etc). The LDSO is still responsible for any elements that it has contracted out.		

<b>4.1.3 Calculations Assessment</b>				
<b>No.</b>	<b>Question</b>	<b>Guidance</b>	<b>Response</b>	<b>Evidence</b>
		For example, a LDSO may utilise a third Party to generate the Site Specific LLFs for a particular site.		
<b>15</b>	<b>Is there any additional detail you would like to add to your response?</b>	Additional information that supports the Audit of the Calculations can be added here or appended to the document.		



## 2. APPENDICES

### 2.1 Site Specific and EHV generic supporting information for both CVA and SVA (if applicable)

MSID/ LLFC	Circuit Name	Connection Voltage (kV)	Voltage of circuit to which the Meter is connected (primary voltage) (kV)	<u>STOD</u> <u>1<sup>1</sup> LLF/</u> <u>[STOD</u> <u>name]</u> <sup>2</sup>	<u>STOD 2 LLF/</u> <u>[STOD</u> <u>name]</u> Maximum Export capability-of connected Total System-circuit (MVA)	<u>STOD 3 LLF/</u> <u>[STOD</u> <u>name]</u> Maximum Import capability-of connected Total System-circuit (MVA)	<u>STOD 4 LLF/</u> <u>[STOD</u> <u>name]</u> Maximum capacity-of connection-to the-system (MVA)	<u>STOD 5 LLF/</u> <u>[STOD</u> <u>name]</u> Expected Import-/ Export-volume behaviour	<u>Import</u> <u>/</u> <u>Export</u> <u>and</u> <u>MVA</u>	When were the LLFs last calculated for the MSID?	Are the LLFs Site Specific?	Was the site included in the previous <u>annual</u> submission?	Have any of the MSIDs undergone a relevant change since the previous <u>annual</u> submission? <sup>3</sup>
										Date	Yes / No	Yes / No	Yes / No
										Date	Yes / No	Yes / No	Yes / No
										Date	Yes / No	Yes / No	Yes / No
										Date	Yes / No	Yes / No	Yes / No
										Date	Yes / No	Yes / No	Yes / No
										Date	Yes / No	Yes / No	Yes / No

<sup>1</sup> The number of Seasonal Time of Day (STOD) Periods may be greater than or less than 5, please amend the table accordingly for your submission.

<sup>2</sup> For example Day or Other.

<sup>3</sup> If yes, please enclose a brief explanation as an attachment when submitting the Line Loss Factors to BSCCo for approval. This should explain, for each applicable MSID, why the values have changed from those previously in Settlement.

## 2.2 Generic supporting information

<b>Generic Sites</b>			
<b>LLFC Group</b>	<b>Voltage (EHV/HV/LV)</b>	<b>Applicable LLFCs</b>	<b>Last calculation date</b>

<u>LLFC Group Name</u>	<u>Voltage (EHV/HV/LV)</u>	<u>Applicable LLFCs</u>	<u>STOD 1 LLF<sup>4</sup>/ [STOD name]<sup>5</sup></u>	<u>STOD 2 LLF/ [STOD name]</u>	<u>STOD 3 LLF/ [STOD name]</u>	<u>STOD 4 LLF/ [STOD name]</u>	<u>STOD 5 LLF/ [STOD name]</u>	<u>Last calculation date</u>	<u>No. of MPANs<sup>6</sup></u>

<sup>4</sup> The number of Seasonal Time of Day (STOD) Periods may be greater than or less than 5, please amend the table accordingly for your submission.

<sup>5</sup> For example Day or Other.

<sup>6</sup> Approximate numbers are acceptable at the date of submission.
