



## DRAFT MODIFICATION REPORT for Modification Proposal P216 Audit of LLF Production

Prepared by ELEXON on behalf of the BSC Panel

For Consultation	Date of Issue	19 February 2008	Version Number	0.3
For Attention Of	BSC Parties and other interested parties			
Responses Due	12:00 on 4 March 2008 to: <a href="mailto:modification.consultations@elexon.co.uk">modification.consultations@elexon.co.uk</a>			
<b>Overview or Purpose of Document:</b>				
<p><b>Proposed Modification P216</b> seeks to provide additional assurance to the industry and the BSC Panel that the Line Loss Factors (LLFs) being approved, are accurate and consistent with the methodologies published. P216 proposes that this assurance is achieved by creating a set of high level principles, which LLF methodologies must be consistent with, and auditing the methodologies to check that they are compliant with the principles. In addition P216 requires that LLF calculations are audited to confirm that they follow the approved methodology and that spot checks are undertaken to confirm that the correct Line Loss Factor Class (LLFC) is applied at a Metering System level. P216 further seeks to ensure that Line Loss Factors are not changed part way through a year.</p>				
<p><b>Alternative Modification P216</b> seeks to allow mid year changes to site specific LLFs when there has been a material change to the site and the Panel is in agreement with the proposed change.</p>				
<b>BSC Panel's Recommendations</b>				
<p>Having considered and taken into due account the contents of the P216 draft Modification Report, the BSC Panel recommends:</p>				
<ul style="list-style-type: none"><li>• <b>that Proposed Modification P216 SHOULD NOT be made;</b></li><li>• <b>that Alternative Modification P216 SHOULD be made;</b></li><li>• <b>an Implementation Date for Proposed or Alternative P216 Modification of 20 April 2009 if an Authority decision is received on or before 30 September 2008, or 19 April 2010 if the Authority decision is received after 1 October 2008 but on or before 30 September 2009; and</b></li><li>• <b>the proposed text for modifying the Code, as set out in the Modification Report.</b></li></ul>				
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## Summary of Impacted Parties And Documents

As far as the Modification Group has been able to assess, the following parties/documents would be impacted by P216.

Please note that this table represents a summary of the full impact assessment results contained in Appendix 4.

Parties		BSC Sections		Code Subsidiary Documents	
Distribution System Operators	<input checked="" type="checkbox"/>	A	<input type="checkbox"/>	BSC Procedures	<input checked="" type="checkbox"/>
Generators	<input checked="" type="checkbox"/>	B	<input type="checkbox"/>	Codes of Practice	<input type="checkbox"/>
Interconnectors	<input type="checkbox"/>	C	<input type="checkbox"/>	BSC Service Descriptions	<input type="checkbox"/>
Licence Exemptable Generators	<input checked="" type="checkbox"/>	D	<input type="checkbox"/>	Party Service Lines	<input type="checkbox"/>
Non-Physical Traders	<input type="checkbox"/>	E	<input type="checkbox"/>	Data Catalogues	<input type="checkbox"/>
Suppliers	<input checked="" type="checkbox"/>	F	<input type="checkbox"/>	Communication Requirements Document	<input type="checkbox"/>
Transmission Company	<input type="checkbox"/>	G	<input type="checkbox"/>	Reporting Catalogue	<input type="checkbox"/>
Party Agents		H	<input type="checkbox"/>	Core Industry Documents	
Data Aggregators	<input type="checkbox"/>	I	<input type="checkbox"/>	Ancillary Services Agreement	<input type="checkbox"/>
Data Collectors	<input type="checkbox"/>	J	<input type="checkbox"/>	Data Transfer Services Agreement	<input type="checkbox"/>
Meter Administrators	<input type="checkbox"/>	K	<input checked="" type="checkbox"/>	Distribution Code	<input checked="" type="checkbox"/>
Meter Operator Agents	<input type="checkbox"/>	L	<input type="checkbox"/>	Distribution Connection and Use of System Agreement <sup>1</sup>	<input checked="" type="checkbox"/>
ECVNA	<input type="checkbox"/>	M	<input type="checkbox"/>	Grid Code	<input type="checkbox"/>
MVRNA	<input type="checkbox"/>	N	<input type="checkbox"/>	Master Registration Agreement	<input type="checkbox"/>
BSC Agents		O	<input type="checkbox"/>	Supplemental Agreements	<input type="checkbox"/>
SAA	<input type="checkbox"/>	P	<input type="checkbox"/>	Use of Interconnector Agreement	<input type="checkbox"/>
FAA	<input type="checkbox"/>	Q	<input type="checkbox"/>	ELEXON	
BMRA	<input type="checkbox"/>	R	<input type="checkbox"/>	Internal Working Procedures	<input checked="" type="checkbox"/>
ECVAA	<input type="checkbox"/>	S	<input type="checkbox"/>	BSC Panel/Panel Committees	
CDCA	<input type="checkbox"/>	T	<input type="checkbox"/>	Working Practices	<input checked="" type="checkbox"/>
TAA	<input type="checkbox"/>	U	<input type="checkbox"/>	Other	
CRA	<input type="checkbox"/>	V	<input type="checkbox"/>	Market Index Data Provider	<input type="checkbox"/>
SVAA	<input type="checkbox"/>	W	<input type="checkbox"/>	Market Index Definition Statement	<input type="checkbox"/>
Teleswitch Agent	<input type="checkbox"/>	X	<input checked="" type="checkbox"/>	Connection and Use of System Code	<input type="checkbox"/>
BSC Auditor	<input type="checkbox"/>	Z	<input type="checkbox"/>	System Operator-Transmission Owner Code	<input type="checkbox"/>
Profile Administrator	<input type="checkbox"/>			Transmission Licence	<input type="checkbox"/>
Certification Agent	<input type="checkbox"/>				
Other Agents					
Supplier Meter Registration Agent	<input type="checkbox"/>				
Unmetered Supplies Operator	<input type="checkbox"/>				
Data Transfer Service Provider	<input type="checkbox"/>				

<sup>1</sup> The Group considered if there was any interaction between P216 and the Distribution Code and/or the Distribution Connection and Use of System Agreement (DCUSA). However, no actual changes to these Codes were identified.

# 1 Description of Modification

This section outlines the solution for the Proposed Modification and Alternative Modification, as developed by the P216 Modification Group ('the Group') during the Assessment Procedure.

For a full description of the original Modification Proposal as submitted by Smartest Energy ('the Proposer'), and the background to the proposal, please refer to the P216 Initial Written Assessment (IWA).

The background to the raising of P216 and details of the current BSC arrangements for approving LLFs are included in section 2 of the Assessment Report.

## 1.1 *Proposed Modification*

Throughout this section where the Panel is required to set a parameter or approve a value, the Group anticipate that the Panel will choose to delegate these tasks to the Imbalance Settlement Group (ISG) or the Supplier Volume Allocation Group (SVG).

### 1.1.1 High Level Principles

All LLF methodologies would be required to comply with the Principles described below. These Principles will form the basis of the methodology audit and will be included in a new Code Subsidiary Document (BSCP128).

- 1 All LLFs shall be calculated using a generic (non site specific) method except for:
  - a sites that are connected at Extra High Voltage (EHV)<sup>2</sup>; or
  - b where the customer has requested a site specific LLF, and the DSO is in agreement.
- 2 All LLFs shall be calculated to 3 decimal places.
- 3 All site specific LLFs shall account for technical losses only.
- 4 All generic LLFs shall account for all losses (technical and non technical<sup>3</sup>).
- 5 Site specific LLF values and the total Grid Supply Point Group (GSPG) losses shall be considered in the calculation of generic LLFs.
- 6 Generic LLFCs for Import and Export at the same site where the voltage level is the same shall have the same values.
- 7 There shall be no more than 2 Low Voltage (LV) and 2 High Voltage (HV) generic LLFC Groups<sup>4</sup> in each GSPG, and at least 1 generic EHV LLFC Group.
- 8 As a minimum, generic LLFs shall be calculated separately for day and night.
- 9 DSOs shall utilise Settlement data from a Settlement Run at R2 or greater and from a complete 12-month period, for calculating LLFs. The 12-month period to be used shall be determined by the Panel after the first year<sup>5</sup>.

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<sup>2</sup> Where EHV is as defined in the Distribution Licence.

<sup>3</sup> Where technical losses and non-technical losses will be defined during the implementation of P216.

<sup>4</sup> An 'LLFC Group' means a set of LLFCs that have the same LLFs (and will be defined as part of P216 implementation).

<sup>5</sup> For the first year's LLF submissions, after P216 is implemented the data year 1 May to 30 April will be used.

- 10 Adjustments to LLFs, to take into account historic market wide issues noted in the BSC Auditor's latest Report, can only be made if agreed to be appropriate by the Panel.
- 11 Robust error detection and correction processes shall be in place throughout the calculation of LLFs.
- 12 All generic LLFs shall be re-calculated at least every 2 years<sup>6</sup>.
- 13 All site specific LLFs shall be re-calculated when there has been a relevant change<sup>7</sup> to the site or network, and at least every 5 years<sup>8</sup>.
- 14 No changes shall be made to approved LLFs for site specific or generic LLFCs mid year. Annual updates will have an effective from date of 1 April. Where default LLFs have been applied due to an audit failure, these may be updated to the approved LLFs on a prospective basis as determined from time to time by the Panel.
- 15 No retrospective changes shall be made to approved site specific or generic LLFs other than to correct material manifest errors.

### 1.1.2 Setting Parameters

In line with Principle 9, after the first year, the Panel will approve the date range for which data should be used. The Group agreed a default date range of 1 April to 31 March (a BSC Year). The Panel will determine these dates prior to 1 June for the next BSC Year's LLFs.

For the first year, the date range would be set automatically as 1 May to 30 April for the year 1 May (year = Y-1) to 1 April (year = Y) where P216 is approved before October in year=Y. More detail on P216 implementation timescales is included in section 5.5.3 of the Assessment Report.

For Principle 10, the Panel shall approve the extent to which any historic market wide issues noted in the BSC Auditor's Report may be taken into account at the same time as determining the date range. The Group noted that the type of issues that may be picked up here are issues affecting the Settlement data that will be used in the LLF calculations, but that no longer affect the market.

### 1.1.3 Audit of LLF Methodologies

An audit of LLF methodologies will be conducted by ELEXON<sup>9</sup> and will seek to confirm that the written methodologies are consistent with the Principles set out in section 1.1.1.

There will be a larger volume of methodologies to be audited in the first year and an increased chance of audit failures. To take this into account, methodologies will be submitted to ELEXON by DSOs by 1 May and the audit process will be completed for all methodologies by 1 August in the first year.

<sup>6</sup> For the avoidance of doubt generic LLFs must be recalculated for the first LLF submission, following the implementation of P216.

<sup>7</sup> Where a relevant change (defined as part of P216) is a change that will, or is likely to, change the losses attributable to the site. Examples of these types of change include, but are not limited to: changes in the Voltage level or in site use.

<sup>8</sup> For the avoidance of doubt:

- site specific LLFs which have been recalculated in the last 5 years, would only need to be recalculated when this 5 years is up, even in if the last recalculation was completed before the implementation of P216;
- site specific LLFs which have not been recalculated in the last 5 years, would need to be recalculated for the second LLF submission following the implementation of P216; and
- new site specific LLFs (for new sites, or sites that have moved to site specific LLFs as a result of Principle 1) must be calculated for the first LLF submission following the implementation of P216.

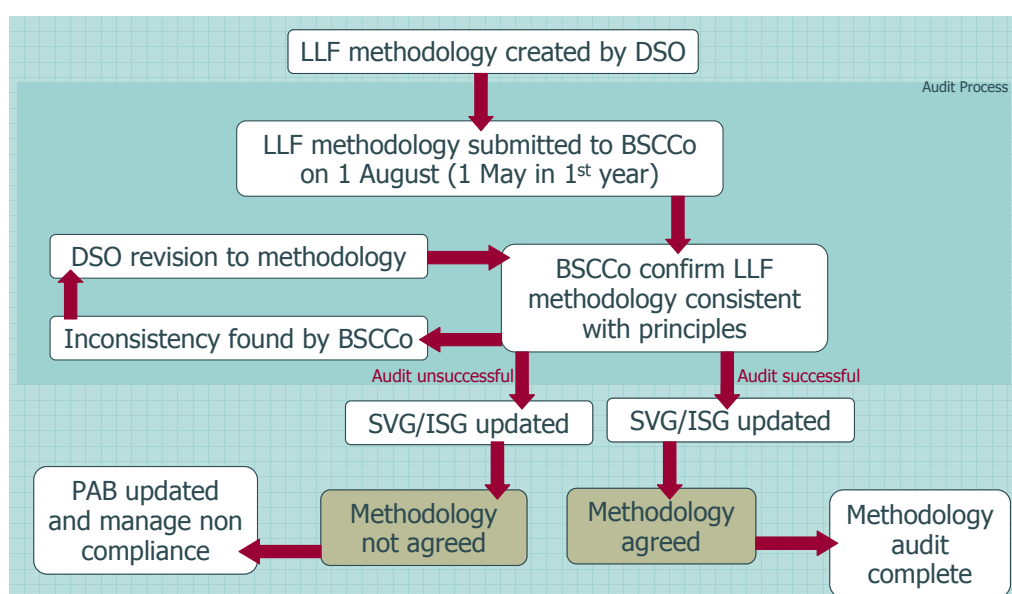
<sup>9</sup> It is noted that ELEXON may choose to sub-contract the audit process to a third party.

In subsequent audit years, only methodologies that have been revised since the previous approval will be submitted to ELEXON. DSOs would submit their methodologies before 1 August. If a methodology has not been updated, written confirmation should be sent instead of the revised methodology. Any methodology which has been changed but which has not been sent to ELEXON by 1 August (or 1 May in the first year) will be considered inconsistent with the BSC.

Once the audit process is complete, ELEXON will issue a final audit report to the DSO by 1 September (or 1 August in the first year) to either confirm that the methodology is compliant, or highlight the areas of non-compliance. The Performance Assurance Board (PAB) will be informed of the audit results and continued non-compliance would be managed through the normal PAB processes.

It is noted that the audit process itself may involve the correction and re-auditing of non-compliances, before the final audit report is issued.

The diagram below shows the high level LLF methodology audit process:



#### 1.1.4 Audit of LLF Calculations

Where it has been confirmed that an LLF methodology is consistent with the Principles (or that no methodology audit is needed), the DSO would complete the calculations for the next year's LLFs.

The LLFs would be submitted to ELEXON by 30 September (except for IDSOs who are mirroring<sup>10</sup> the host-DSOs LLFs, who would submit their LLFs on 30 October). Host-DSOs will be required to provide IDSOs the information they need to mirror LLF values, if requested.

The LLF calculations audit is carried out by ELEXON on site at DSOs. This audit seeks to ensure that LLF calculations are compliant with the BSC and consistent with the audited LLF methodology for that DSO. This audit is only required when generic LLFs have been recalculated (which will be a maximum of every 2 years for generic LLFs and 5 years for site specific LLFs).

In addition, the LLF calculations audit will include spot checks on LLFCs already applied to Metering Systems during the year to confirm that an LLFC assigned can reasonably be considered to be the correct LLFC (given the usage of that Metering System).

For clarity:

<sup>10</sup> It is noted that IDSO 'mirroring' will be defined within the BSCP.

- The audit of LLF calculations will combine the current validation checks undertaken by ELEXON and the new audit requirements in P216;
- The audit of LLF calculations is undertaken for CVA and SVA LLFs;
- The audit of LLF calculations must take place after 1 October and before 30 November;
- ELEXON will agree site visit dates with DSOs by 10 September, where a date cannot be agreed ELEXON will set a site visit date and advise the DSO of this date;
- Following the audit of LLF calculations, LLFs may be resubmitted only as a result of issues noted during the audit. Resubmissions and confirmations must be received by 31 December;
- Non compliances in LLF calculation will be reported to PAB to manage the non compliance;
- All LLFs are taken to the Panel in January for approval; and
- Following approval, CVA LLFs would be sent by ELEXON to the Central Data Collection Agent (CDCA) and SVA LLFs (in D0265 format) sent to the Supplier Volume Allocation Agent (SVAA). LLFs would then be published on the BSC Website.

#### **1.1.4.1 Audit Scope**

The audit of LLF calculations will be carried out for each DSO and will include the following checks (it is noted that some of these checks may be performed before the site visit, if appropriate):

- 1 Confirm all LLFs submitted have effective from dates of 1 April;
- 2 Confirm that SVA LLFs were submitted by a Category X Signatory
- 3 Confirm that CVA LLFs were submitted by a Category P Signatory;
- 4 Confirm all LLFs submitted are calculated to 3 decimal places;
- 5 For SVA LLFs, confirm that the D0265 file is in accordance with the format defined in the Data Transfer Catalogue (DTC);
- 6 Confirm that the number of Settlement Periods for each Settlement Date matches the number of LLFs submitted for that date;
- 7 Confirm that all SVA LLFC IDs submitted are entered in MDD or an application has been made to do so and that LLFs have been submitted for all LLFCs contained in MDD;
- 8 Conduct a validation check, which will pick out:
  - a all SVA LLFs which are  $<0.000$  or  $>1.250$ ;
  - b all CVA LLFs which are  $<0.000$  or  $>1.999$
  - c all revised SVA LLFs which are  $>\pm 20\%$  of last years value<sup>11</sup>;
  - d all revised CVA LLFs which are not within  $-50\%$  to  $+100\%$  of the last years value; and
  - e all new sites with new LLFs (that were not included in last year's submission).

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<sup>11</sup>It is noted that there may be an increased number of LLFs picked up in the first year due to potential changes in LLF methodologies resulting from P216.

The auditor (ELEXON) may request that LLFs that fail validation be highlighted to the DSO for comment.

- 9 Check a representative sample (which is determined by Panel, based on risk assessments and will include LV, HV, EHV and site specific LLFs) of LLFs to confirm that they have been calculated in accordance with the audited methodology. This check will be performed at the DSOs offices, and will include discussions with the DSO and consideration of the audit trail.
- 10 Check a representative sample of Metering Systems (which is determined by Panel, based on risk assessments and will include LV, HV, EHV and site specific LLFs) to confirm that the correct LLFC has been applied. This check will be performed at the DSOs offices. For clarity, this check will look at the application of an LLFC to Metering Systems during the last year.

#### **1.1.4.2 Following the Site Visit**

Within 5WDs of the site visit, ELEXON will provide the DSO a site visit report detailing any non-compliance identified during the audit, or confirming that no issues were identified.

It is noted that the audit process itself may involve the correction and re-auditing of non-compliances, before the final audit report is issued.

By 31 December the DSO will either confirm that the original LLFs should be used or send the revised LLFs, confirming that the non-compliances identified in the audit have been corrected and that no other changes have been made.

Following receipt of the revised submissions/confirmations ELEXON will draft papers for the Panel recommending that:

- all LLFs that have passed the methodology and calculation audits are approved;
- all LLFs that have failed one aspect of the audit are not approved (no detail is provided as to which aspect was failed);
- for all non approved LLFs a default value is used. This default is the last LLF which has been approved. Where no LLF has been approved, the default should be the generic LLFs for that voltage level (from the relevant GSPG)<sup>12</sup>. A default value of 1.000 may be used if there are no previous values and no generic LLFs available.

Following receipt of the revised submissions/confirmations, ELEXON will draft a paper for the PAB. This paper will identify the details of all non-compliances noted during the audit. PAB will manage the non-compliances under the P207 risk based error correction processes.

ELEXON will submit the approved LLFs to CDCA and SVAA as appropriate, and then will publish the LLFs on the ELEXON website and issue a Circular.

#### **1.1.4.3 Resolved Non-Compliances**

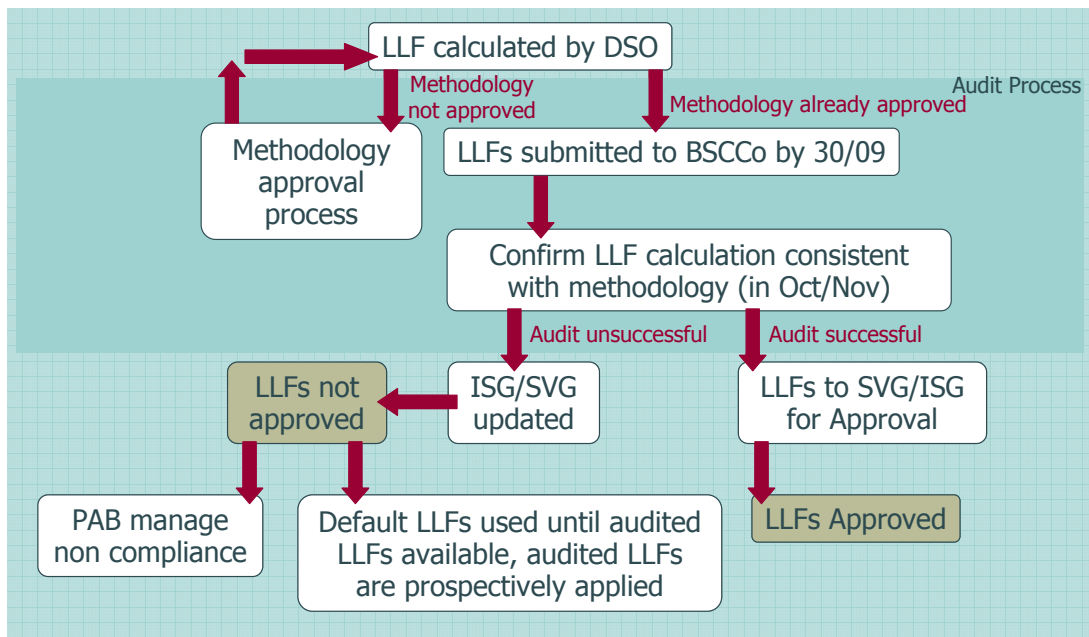
All non-compliances should be corrected by 1 April (or before the effective from date). Where an audit failure is confirmed as corrected by the PAB after 1 April, the Panel may choose to approve the revised data and confirm that it may be used prospectively for the rest of the year.

#### **1.1.4.4 Process Diagram**

The diagram below shows the high level LLF calculation audit process:

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<sup>12</sup> It is noted that this represents a change to the default rules for both SVA and CVA.



#### 1.1.4.5 New LLFs for New Sites

**SVA:** When a new Metering System is created during the year, this site will need to have LLFs assigned to it, these LLFs must be calculated using the latest approved and audited methodology.

For new Metering Systems that are assigned to an existing LLFC no submission or audit is required. However, where a new Metering System is assigned entirely new LLFs (e.g. a new site specific set of LLFs), the LLFs must then be audited before they are approved by the Panel.

The new LLFs audit process is the same as the process described in section 1.1.4, except for checks 9 and 10, which are excluded. In normal circumstances a site visit would not be required.

The timings for this audit will be shifted, depending on when the LLFs are needed in Settlement. Each new set of LLFs that does need to be audited would have to be submitted at least 50WDs before the effective from date of the LLFs.

Changes would not be made to LLFs for existing Metering Systems during the year.

**CVA:** For CVA, all new LLFs will need to be submitted and audited (whether the site is being assigned LLFs equivalent to the generic LLFC for that Voltage or site specific LLFs) before they are approved by the Panel.

The new LLFs audit process is the same as the process described in section 1.1.4, except for checks 9 and 10, which are excluded. In normal circumstances a site visit would not be required.

The timings for this audit will be shifted, depending on when the LLFs are needed in Settlement. Each new set of LLFs that does need to be audited would have to be submitted at least 50WDs before the effective from date of the LLFs.

Changes would not be made to LLFs for existing Metering Systems during the year.

#### 1.1.5 Summary of the Timetable For LLF Approval

The timetable below pulls together the timescales for each of the audit processes described above, in sections 1.1.2 to 1.1.4.5.

Date	Action
<b>Methodologies Audit</b>	
Year 1: by 1 May	Methodologies submitted to ELEXON
Year 1: by 1 August	Methodologies audit complete
Year >1: by 1 August	Any amended methodologies submitted to ELEXON
Year >1: by 1 September	Amended methodologies audit complete
<b>Calculations Audit</b>	
By 30 September	LLFs submitted to ELEXON for calculations audit
By 30 October	All IDSO 'mirroring' LLFs submitted
Between 1 October and 30 November	Calculations audits conducted by ELEXON on site at DSOs
Within 5WDs of the end of the site visit	Final audit calculation report sent to DSO by ELEXON
By 31 December	Revised LLFs submitted, or confirmation that original LLFs should be used sent by DSO
In January	Paper taken to the Panel to approve LLFs or the use of defaults
<b>New Sites</b>	
At any time during the year and ≥50WDs before effective from date	LLFs for a new Metering System submitted (where the LLFC doesn't exist)
≥50WDs before effective from date	Calculations audits conducted by ELEXON
≥45WDs before effective from date	Final audit calculation report sent to DSO by ELEXON
≥40WDs before effective from date	Revised LLFs submitted, or confirmation that original LLFs should be used sent by DSO
>40WDs before effective from date	Paper taken to the Panel to approve LLFs or the use of defaults

## 1.2 *Alternative Modification*

The P216 Alternative is identical to the Proposed solution except for rewording Principle 14, and the addition of Principle 16. Principle 14 would read:

- 14 No changes shall be made to approved generic LLFCs mid year. Annual updates will have an effective from date of 1 April. Where default LLFs have been applied due to an audit failure, these may be updated to the approved LLFs on a prospective basis as determined from time to time by the Panel.

The new Principle 16 would read:

- 16 Changes shall only be made to approved site specific LLFs mid year if:

- a there has been a material change affecting the site; and
- b the revised LLFs have been approved by the Panel.

Annual updates will have an effective from date of 1 April. Where default LLFs have been applied due to an audit failure, these may be updated to the approved LLFs on a prospective basis as determined from time to time by the Panel.

In effect this would mean that site specific LLFs can be changed mid year. Any mid year changes to site specific LLFs would not be subject to a full audit prior to their use, but would be approved by the Panel; and would be subject to the next full annual audit processes.

## **2 Areas Raised By the Terms Of Reference**

### **2.1 *Definition Procedure***

The following areas were considered by the Modification Group during the Definition Procedure for P216:

- the scope and aims of each of the audits suggested;
- how inaccurate LLFs might impact on GSP Group Correction Factor, how significant any impact is for Settlement and the appropriateness of assessing this issue under P216;
- whether the rules for LLF methodologies should be Code defined (and constructed by the Modification Group as part of the Modification) or approved and amended from time to time by, for example, a Panel Committee; and
- confirm that the audits proposed are within the scope of the BSC, as opposed to any other governance arrangements.

These issues are discussed in the Definition Report, which is available to download from the [P216 page of the ELEXON website](#), and are not covered further here.

### **2.2 *Assessment Procedure***

The following areas were considered by the Modification Group during the Definition and Assessment Procedures for P216:

- who should conduct each of the audits and checks described in P216 (e.g. an existing or new BSC Agent/service provider or ELEXON) and to whom reports should be provided to;
- the detailed scope, approach and timing for each of the checks described in P216 and how these could be changed in the future;
- the procedure to be followed if an LLF fails one or more audits, including any default rules;
- the rules/principles to be included in the BSC which LLF methodologies must comply with, and the level of detail that these rules should go into (what LLFs represent (i.e. the actual or technical losses on a line) should be defined, potentially as part of these rules);
- any changes needed to the process for new LLFs being approved during the course of the year;
- the differences between SVA and CVA LLFs and whether the differences identified lead to variances in audit approach;
- analyse the number and types of Metering Systems in the existing LLFC groupings;
- any interaction with approved Modifications, such as P197 ('SVA Qualification Processes Review') and P207 ('Introduction of a new governance regime to allow a risk based Performance Assurance Framework (PAF) to be utilised and reinforce the effectiveness of the current PAF');
- costs-benefits analysis - whether the perceived risk to Settlement justifies the impact/cost of providing each of the suggested audits, and the level of detail of the LLF Principles) (including

undertaking analysis to see how changes in the LLF values impact Settlement (volumes and GSPGCF) and Parties);

- conclude whether a common LLF methodology should be determined;
- consider the impact of P216 on Independent Distributor Networks ; and
- Confirmation that there is not a conflict between the P216 solution and the Licence requirement 4A.2B on Distributors

These issues are discussed in the Assessment Report contained in Appendix 3, and are not covered further here.

### 3 Implementation Approach and Costs (Proposed And Alternative)

PROPOSED MODIFICATION IMPLEMENTATION COSTS	
<b>ELEXON Implementation Cost</b>	<b>176 man days £38,720</b>
It is noted that ELEXON has looked at automating LLF validation processes as part of an operational systems upgrade. ELEXON believe that the cost of building a system to create the D0265 file (which would be in addition to the above costs) is not substantive.	
PROPOSED MODIFICATION ONGOING SUPPORT AND MAINTENANCE COSTS	
<b>Total ELEXON Annual Operational Cost</b>	<b>£ 25,960 per annum</b>
It is noted that this cost will vary from year to year, based on how many DSOs submit new methodologies to be audited and how large the audit sample sizes are (which will be determined by the Panel each year).	

#### a BSC Agent Impact

No impact identified.

#### b BSC Party and Party Agent Impact

**Distributors:** Where costs were provided, these ranged from £100,000 to £120,000 per DSO, to implement P216 and an ongoing annual cost of £50,000 to £60,000 per DSO to support the audit processes introduced by P216.

DSOs requested between 1 and 2+ years to implement P216 (unless there is a dispensation from Principle 1 for the first year).

**Suppliers:** No costs were provided in the Impact Assessment. Suppliers requested between 6 and 12 months to implement P216.

#### c Transmission Company Impact

No impact identified.

#### d BSCCo Impact

**Implementation:** New BSCP drafting, walk through, process testing/definition.

**Ongoing:** undertaking the new audits (including: site visits, validation processes, drafting papers, resolving discrepancies).

## 4 Rationale For Modification Group's Recommendations to The Panel

This section summarises the recommendations of the Modification Group, as detailed in the Assessment Report in Appendix 3.

### 4.1 *Summary of the Potential Benefits and Aims of P216*

The Group noted that the key aims of P216 are to:

- increase the transparency in the way that LLFs are calculated and assigned; and
- introduce the consistency in LLFs across GSPGs, both in terms of the calculation and the type of LLF assigned to a given type of Metering System.

It was noted that these benefits are not easily quantified in terms of cost savings.

Site specific LLFs are calculated using analysis for a specific site. The type of load flow analysis will vary between GSPGs, with no one type of analysis considered to be particularly more accurate than others.

Generic LLFs are calculated by ascertaining the overall losses for an entire GSPG (after taking into account the site specific LLFs applied) and then assigning these losses to Metering Systems based on their Voltage level and usage type. The assumptions made will vary between GSPGs, due to differences in the physical network, the types of customer connected and the overall losses.

The way that LLFs are calculated means that it is impossible to work out the 'correct' LLF value for each site for a half hour across a GSPG. This means it is not possible to quantify the current error in LLFs. As a result, the Group noted that the analysis undertaken does not demonstrate that there are currently material inaccuracies in the way that LLFs are calculated. In addition, this analysis does not demonstrate that there are no material inaccuracies either.

The Group looked instead to calculate the size of the potential impact of changes to LLFs on GSPGCF and Supplier volumes. The results of this analysis are described in section 5.1 of the Assessment Report, along with the views of those who responded to the Assessment Consultation. It is noted that the view of participants were split as to whether this analysis indicates that realistic differences exist between the way the LLFs are assigned and whether this is materially significant (both between GSPGs and between years).

The Group noted a view that the Annual Demand Ratio (ADR) trends do not suggest an issue with the current LLFs. It was further noted that the ADR trend would not identify any individual LLF inaccuracies, where the overall level of losses was unchanged.

P216 seeks to reduce the volatility of LLFs by:

- increasing the similarity of the LLF methodologies used by DSOs (by requiring that the LLF methodology Principles are used, and auditing to confirm that they have been);
- requiring that any changes to LLF methodology Principles is completed through the BSC Change Proposal process;
- removing the ability to change LLFs mid year (generic LLFs only for the Alternative solution);
- using more realistic default LLF values, where the calculated value is not available;
- checking a sample of Metering Systems to ensure that the correct LLFC has been applied.

LLF methodologies are already required to be published. P216 would increase the transparency of LLF calculations by requiring the calculations be audited to confirm that they are consistent with the published methodology.

The Group noted that the burden of recalculating LLFs as a result of P216 will fall mainly on DSOs, without there being clear benefits of the P216 solution for DSOs. DSOs could choose to pass these costs on, through the price control process.

The Group noted that the Ofgem Codes Review is currently ongoing, and confirmed that P216 has been assessed against the current Codes baseline.

## **4.2 *Assessment of Proposed Modification against Applicable BSC Objectives***

### **4.2.1 Modification Group's Initial Discussions**

The initial **MAJORITY** view of the Modification Group was that the Proposed Modification **WOULD NOT** better facilitate the achievement of Applicable BSC Objectives (c) and (d) when compared to the current Code baseline, for the following reasons:

#### **Applicable BSC Objective (c)**

- effective competition would not be improved, as there is already a level playing field in the way that methodologies are published and LLFs approved;
- the potential materiality of any error associated with inaccurate LLFs has not been proven and stable ADR values imply that any issues are not of significance; and
- generation sites could be unfairly and negatively impacted as a result of Principle 6 (where generic LLFCs for Import and Export at the same site are required to have the same LLF values), and Principle 15 (where no retrospective changes to LLFs would be allowed).

#### **Applicable BSC Objective (d)**

- the administration of the balancing and settlement arrangements would be less efficient due to the increased costs of the audit processes.

The **MINORITY** view, that Applicable Objectives (c) and (d) **WOULD** be better facilitated by the Proposed Modification, was supported for the following reasons:

#### **Applicable BSC Objective (c)**

- analysis shows that Suppliers will be impacted in different ways by changing LLF values. While the extent of the impact is open to debate, the variance between different types of Supplier is significant and will negatively affect competition;
- audits will provide Suppliers with assurance that the originally applied LLF values are correct; and disallowing retrospective changes will give Suppliers increased confidence in their expected imbalance position.

#### **Applicable BSC Objective (d)**

- high level principles will provide increased transparency in the way that LLFs are derived for use in Settlement.

The Group unanimously agreed that the Proposed Modification would have a neutral impact on Applicable BSC Objectives (a) and (b). Some Group members also felt that there would be a neutral impact on Applicable BSC Objective (d).

The Group noted that the Proposer was unable to be present at the meeting when views on the Applicable BSC Objectives were discussed; and that he continued to support the P216 Proposed Modification.

#### **4.2.2 Views of Respondents to Assessment Procedure Consultation**

The **SLIGHT MAJORITY** view of respondents to the Assessment Procedure consultation was that the Proposed Modification **WOULD NOT** better facilitate the achievement of **Applicable BSC Objectives (c) and (d)** when compared with the existing Code baseline.

The **SLIGHT MINORITY** view of respondents to the Assessment Procedure consultation was that the Proposed Modification **WOULD** better facilitate the achievement of **Applicable BSC Objectives (c) and (d)** when compared with the existing Code baseline.

The arguments expressed in the consultation responses (both for P216 and against) were the same as those expressed by the Group in their initial discussions described in section 4.2.1.

#### **4.2.3 Modification Group's Conclusions**

The Modification Group was **SPLIT** over whether the Proposed Modification would better facilitate the achievement of **Applicable BSC Objectives (c) and (d)** when compared with the existing Code baseline.

Those Group members who did not support the Proposed Modification reiterated the arguments previously expressed against P216.

Those Group members who supported the Proposed Modification reiterated the arguments previously expressed in support of P216, and added the following argument:

##### **Applicable BSC Objective (c)**

- the relatively low implementation costs of P216 mean that the benefits of increased transparency and consistency are justified.

The Group unanimously agreed that the Proposed Modification would have a neutral impact on Applicable BSC Objectives (a) and (b).

### ***4.3 Assessment of Alternative Modification against Applicable BSC Objectives***

#### **4.3.1 Alternative Modification compared with Proposed Modification**

##### ***4.3.1.1 Views of the Modification Group***

The Modification Group was **SPLIT** over whether the Alternative Modification would better facilitate the achievement of **Applicable BSC Objectives (c) and (d)** when compared with the Proposed Modification.

Those Group members who did support the Alternative Modification over the Proposed Modification did so for the following reasons:

##### **Applicable BSC Objective (c)**

- errors in site specific LLFs can be corrected more quickly than for the Proposed Modification. This increases the accuracy of Settlement.

Those Group members who did not support the Alternative Modification over the Proposed Modification did so for the following reasons:

#### **Applicable BSC Objective (c)**

- there is increased uncertainty for Suppliers in LLF values. If an LLF changes unexpectedly mid-year the Supplier will be unable to update their contracts in time to reflect the change. This means that individual Suppliers will be advantaged or disadvantaged during the year, and there will not be a level playing field.

The Group unanimously agreed that the Alternative Modification would have a neutral impact on Applicable BSC Objectives (a) and (b).

### **4.3.2 Alternative Modification compared with Existing Code Baseline**

#### **4.3.2.1 Modification Group's Views**

The Modification Group was **SPLIT** over whether the Alternative Modification would better facilitate the achievement of **Applicable BSC Objectives (c) and (d)** when compared with the existing Code baseline.

Those Group members who did support the Alternative Modification over the existing Code baseline did so for the same reasons as they supported the Proposed Modification.

Those Group members who did not support the Alternative Modification existing Code baseline did so for the same reasons as they did not support the Proposed Modification.

The Group unanimously agreed that the Alternative Modification would have a neutral impact on Applicable BSC Objectives (a) and (b).

### **4.4 Final Recommendation to the Panel**

On the basis of the above assessment, the Modification Group were:

- **SPLIT** on whether the Proposed Modification should or should not be made;
- **SPLIT** on whether the Alternative Modification better facilitates the Applicable BSC Objectives when compared to the Proposed Modification; and
- **SPLIT** on whether the Alternative Modification should or should not be made;

Anonymised details of how the Group voted are included below.

	Proposed	Alternative vs. Proposed	Alternative vs. Baseline
Group Member 1	✓	✗	✓
Group Member 2	✓	✗	✓
Group Member 3	✓	✗	✓
Group Member 4	✗	✓	✗
Group Member 5	✗	✓	✗
Group Member 6	✗	✓	✗
<b>Overall View</b>	<b>SPLIT</b>	<b>SPLIT</b>	<b>SPLIT</b>
Attendee 1 <sup>13</sup>	✓	✗	✓

<sup>13</sup> The attendee expressed the same arguments as the Group in terms of the Applicable BSC Objectives.

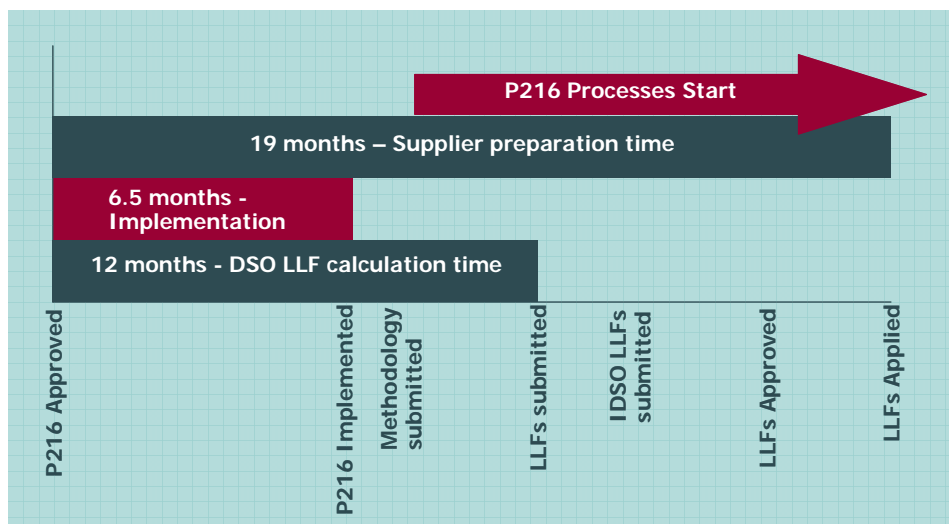
## 4.5 Implementation Date

The Modification Group agreed the following recommended implementation approach for P216:

- An Implementation Date for the Proposed and Alternative Modification of 20 April 2009 if an Authority decision is received on or before 30 September 2008; or
- An Implementation Date for the Proposed and Alternative Modification of 19 April 2010 if an Authority decision is received on or before 30 September 2009.

The Group noted that DSOs will need some time to calculate site specific LLFs for all those sites required to have them by Principle 1. The Group noted that some of these calculations could be undertaken before P216 has been implemented, but after it has been approved.

The Group noted the range of 1-2 year's implementation time was requested by DSOs. The Group agreed that DSOs should have at least 12 months' notice, before they are required to submit LLFs which are compliant with the Principles.



The Group agreed that if P216 were approved, ELEXON would, at the start of the implementation period issue a letter to all DSOs, highlighting the implementation timescales, and hold an education seminar for DSOs to explain how the P216 implementation process will work.

The Group noted that the implementation of P216 is highly unusual, as DSOs are recommended to start calculating LLFs for the new processes before they have been implemented. The Group agreed that this approach is justified, as it significantly reduces the implementation timescales (as the P216 processes start in May each year).

The Group noted that implementing P216 in late April also makes the implementation simpler, as it means that the previous submission will have already been made.

## 4.6 Legal Text

The P216 Group has reviewed and agreed the draft legal text, which can be found in Attachments 1 and 2.

The Group noted that Principles 10 and 14 have been included in the legal text, and included in the BSC. Initially the Group intended that none of the Principles would be included in the BSC. However, Principles 10 and 14 have been included for the following reasons.

Principle 10 has been included because it represents a new requirement on the BSC Panel, in authorising DSOs to make adjustments to their LLF methodologies, due to market wide issues.

Principle 14 has been included because it formed part of the original Modification Proposal. The legal text for the Alternative Modification is slightly different within this section, to allow site specific LLFs to change mid year.

## **5 Rationale for Panel's Recommendations to the Authority**

### **5.1 *Panel's Consideration of Assessment Report***

The Panel considered the P216 Assessment Report at its meeting on 14 February 2008. This section summarises the Panel's discussions in formulating its provisional recommendation for inclusion in the draft Modification Report.

#### **5.1.1 Assessment Procedure Consultation Responses**

The Panel considered the P216 report and noted a number of observations from the Panel Distribution representative. It was acknowledged that the Modification had been borne of concerns that had been raised by some Suppliers' regarding the inconsistent way LLFs are applied by different DSOs and experience of LLFs changing mid year, which results in an impact on Settlement volumes (and costs) but cannot be recovered through Supplier contracts. It was recognised that P216 was intending to introduce consistency and assurance through the use of audits and Principles.

The Panel welcomed the development of the Principles and noted this was good progress by the Modification Group. The Distribution representative reiterated these comments and observed that these Principles would be a useful starting point for any further work on LLFs should P216 not be approved. The Distribution representative indicated he did not believe the Applicable BSC Objectives were better met by this change and drew the Panel to the comments from respondents, and some Group members, that indicated that no material error has been proven in the calculation of LLFs. He further noted that there is no incentive on Distributors to apply LLFs in a particular way and that all Suppliers would be impacted by shifts in the way LLFs are calculated. The Group had not sought to determine the potential impact on Group Correction Factors and Annual Demand Ratios recognising this was a significant task, with no guarantee of any firm conclusions given the range of 'errors' that contribute to GCF and ADRs.

The Panel acknowledged that P216 did not prove any materiality in the current LLFs and that there is no 'right' answer for LLFs, and that values are dependent upon the way that total losses are recovered within a network using the published methodology.

The Distribution representative noted that P216 would involve costs for all DSOs. Whilst DSOs may revise LLF methodologies in future (and therefore incur costs anyway) P216 had the additional audit elements that would require greater central resource as well as DSO involvement in audit activities. The Panel noted the costs to DSOs and the central costs but felt that the benefits of consistency and transparency outweighed these costs.

It was noted that there has been some historic concerns from the Panel and its committees that they were approving LLF values with little certainty that such values were appropriate and that other Settlement inputs normally have such validation processes. It was felt that the P216 processes would allow for the Panel to approve LLF submissions with the increased assurance that

the values were being calculated in a consistent manner and that they had been through an audit process.

The Panel discussed the benefit of the Alternative solution permitting some amendments to LLF values and, like the Group, were split on whether it was appropriate to allow changes to approved LLFs.

## **5.1.2 Applicable BSC Objectives**

The Panel provided similar views for both the Proposed and Alternative Modification Proposals (noting the only difference was the ability to prospectively amend site specific LLFs). The Panel unanimously agreed that both the Proposed and Alternative Modifications better facilitated Applicable Objectives (c) and (d) and differed only on their view of which was better. A slight majority felt the Alternative better facilitated as it permitted the revision of LLFs prospectively and therefore had more flexibility. For this reason the Panel recommends the Alternative Modification be made and not the Proposed.

### **5.1.2.1 Proposed Modification**

The **UNANIMOUS** provisional view of the Panel was that the Proposed Modification **WOULD** better facilitate the achievement of Applicable BSC Objectives (c) and (d) when compared with the existing Code baseline, for the same reasons as set out in Section 4 by those who supported the Modification:

#### **Applicable BSC Objective (c)**

- analysis shows that Suppliers will be impacted in different ways by changing LLF values. While the extent of the impact is open to debate, the variance between different types of Supplier is significant and will negatively affect competition;
- audits will provide Suppliers with assurance that the originally applied LLF values are correct; and disallowing retrospective changes will give Suppliers increased confidence in their expected imbalance position.

#### **Applicable BSC Objective (d)**

- high level principles will provide increased transparency in the way that LLFs are derived for use in Settlement.

The Panel agreed that the Proposed Modification would have a neutral impact on Applicable BSC Objectives (a) and (b).

### **5.1.2.2 Alternative Modification compared with Proposed Modification**

The **MAJORITY** provisional view of the Panel was that the Alternative Modification **WOULD** better facilitate the achievement of Applicable BSC Objectives (c) and (d) when compared with the existing Code baseline, for the same reasons as set out in Section 5.1.2.1 plus the following reason stated in the Assessment Report:

#### **Applicable BSC Objective (d)**

- errors in site specific LLFs can be corrected more quickly than for the Proposed Modification. This increases the accuracy of Settlement.

The Panel agreed that the Alternative Modification would have a neutral impact on Applicable BSC Objectives (a) and (b) when compared with the Proposed Modification.

#### **5.1.2.3 *Alternative Modification compared with Existing Code Baseline***

The **UNANIMOUS** provisional view of the Panel was that the Alternative Modification **WOULD** better facilitate the achievement of Applicable BSC Objectives (c) and (d) when compared with the existing Code baseline, for the same reasons as set out in Section 5.1.2.1 plus the following reason stated in the Assessment Report:

##### **Applicable BSC Objective (d)**

- errors in site specific LLFs can be corrected more quickly than for the Proposed Modification. This increases the accuracy of Settlement.

The Panel agreed that the Alternative Modification would have a neutral impact on Applicable BSC Objectives (a) and (b) when compared with the Proposed Modification.

#### **5.1.2.4 *Provisional recommendation to the Authority***

The Panel therefore agreed a **MAJORITY** provisional recommendation to the Authority that:

- The Proposed Modification **SHOULD NOT** be made; and that
- The Alternative Modification **SHOULD** be made.

#### **5.1.3 *Implementation Date***

The Panel asked to confirm if the Implementation approach considered the current processes for DSOs submitting LLFs and it was confirmed that the timetable had been build around those processes. The Panel had no further comment on the Implementation Date and agreed the proposed Implementation approach outlined in Section 4.5

#### **5.1.4 *Legal Text***

The Panel reviewed the draft text and agreed that it delivers the changes identified by the Proposed and Alternative Modification Proposal.

### **5.2 *Results of Report Phase Consultation***

This section will be completed following the Report Phase consultation.

### **5.3 *Panel's Consideration of Draft Modification Report***

This section will be completed following the Panel meeting at which the draft Modification Report and Report Phase consultation responses are considered.

### **5.4 *Panel's Final Recommendation to the Authority***

This section will be completed following the Panel meeting at which the draft Modification Report and Report Phase consultation responses are considered.

## 6 Terms Used In This Document

Other acronyms and defined terms take the meanings defined in the Code.

Acronym/Term	Definition
ADR	Annual Demand Ratio: ADR is a measure of the variation between the total annual profiled Non Half Hourly (NHH) consumption and the total annual metered NHH consumption (as deduced from GSP Group Takes and HH consumption).
CVA	Central Volume Allocation
DSO	Distribution System Operator (Independent or Licensed)
DTC	Data Transfer Catalogue
EATL	EA Technology Limited
EHV	Extra High Voltage - over 22kV or at a substation with a primary voltage of 66kV or above.
Embedded Generation	Term used for any electricity generating plant that is connected to a distribution network. These networks are owned and operated by the DSOs.
GSP	Grid Supply Point
GSPGCF	Grid Supply Point Group Correction Factor
HV	High Voltage - a voltage typically exceeding 1000 Volts and less than 22kV.
IDSO	Independent Distribution System Operator
ISG	Imbalance Settlement Group
LDSO	Licensed Distribution System Operator
LLF	Line Loss Factor
LLFC	Line Loss Factor Class
PAB	Performance Assurance Board
SVA	Supplier Volume Allocation
SVG	Supplier Volume Allocation Group
TAA	Technical Assurance Agent

## 7 Document Control

### 7.1 Authorities

Version	Date	Author	Reviewer	Reason for review
0.1	14/02/08	Ysanne Hills	David Jones	For technical review
0.3	19/02/08	Ysanne Hills	BSC Parties and other interested parties	For consultation
0.4		Ysanne Hills	David Jones	For quality review
0.5		Ysanne Hills	Sarah Jones	For technical review
1.0		Change Delivery	N/A	For Panel decision

### 7.2 References

Ref.	Document Title	Owner	Issue Date	Version
1	<a href="#">Trading Operations Report (presented to the August 2007 Panel)</a>	ELEXON	August 2007	August 2007
2	<a href="#">SVG Paper SVG/38/480</a>	ELEXON	22/03/04	22/03/04
3	<a href="#">SVG Paper SVG/40/011</a>	ELEXON	21/05/04	21/05/04

Ref.	Document Title	Owner	Issue Date	Version
4	<a href="#">NEDL Use of System Charges Statements</a>	CE Electric	July 2007	July 2007
5	<a href="#">YEDL Use of System Charges Statements</a>	CE Electric	July 2007	July 2007
6	<a href="#">Central Networks East Charging Statement</a>	Central Networks	April 2007	April 2007
7	<a href="#">Central Networks West Charging Statement</a>	Central Networks	April 2007	April 2007
8	<a href="#">London Network Charging Statement</a>	EDF Energy	October 2007	October 2007
9	<a href="#">East of England Network Charging Statement</a>	EDF Energy	October 2007	October 2007
10	<a href="#">South East England Network Charging Statement</a>	EDF Energy	October 2007	October 2007
11	<a href="#">Scottish Hydro Electric Power Distribution Charging Statement</a>	<a href="#">Scottish &amp; Southern Energy</a>	July 2007	July 2007
12	<a href="#">Southern Electric Power Distribution Charging Statement</a>	<a href="#">Scottish &amp; Southern Energy</a>	October 2007	October 2007
13	<a href="#">SP Distribution Charging Statement</a>	Scottish Power	August 2007	August 2007
14	<a href="#">SP Manweb Charging Statement</a>	Scottish Power	April 2007	April 2007
15	<a href="#">United Utilities' Use of System Charges Statements</a>	United Utilities	April 2006	April 2006
16	<a href="#">WPD South West Charging Statement</a>	Western Power Distribution	April 2007	April 2007
17	<a href="#">WPD South Wales Charging Statement</a>	Western Power Distribution	April 2007	April 2007
18	<a href="#">Distributed Energy – Initial Proposals for More Flexible Market and Licensing Arrangements Ofgem Reference: 295/07</a>	Ofgem	December 2007	December 2007

## Appendix 1: Legal Text

Draft legal text for the Proposed Modification is attached as a separate document, Attachment 1.

Draft legal text for the Alternative Modification is attached as a separate document, Attachment 2.

## Appendix 2: Process Followed

Copies of all documents referred to in the table below can be found on the [P216 page of the BSC Website](#).

Date	Event
30/07/07	Modification Proposal raised by Smartest Energy
09/08/07	IWA presented to the Panel
03/09/07	First Definition Procedure Modification Group meeting held
06/09/07	Second Definition Procedure Modification Group meeting held
12/09/07	Definition Procedure Consultation issued
18/09/07	Definition Procedure consultation responses returned
21/09/10	Third Definition Procedure Modification Group meeting held
11/10/07	Definition Report presented to the Panel
22/10/07	First Assessment Procedure Modification Group meeting held
13/11/07	Second Assessment Procedure Modification Group meeting held
20/11/07	Third Assessment Procedure Modification Group meeting held
05/12/07	Fourth Assessment Procedure Modification Group meeting held
12/12/07	Fifth Assessment Procedure Modification Group meeting held
13/12/07	Interim Report presented to the Panel
19/12/07	Sixth Assessment Procedure Modification Group meeting held
20/12/07	Consultation issued for industry consideration
20/12/07	Requirements Specification issued BSC Agent impact assessment
20/12/07	Request for Party/Party Agent impact assessments request issued
20/12/07	Request for Transmission Company analysis issued
20/12/07	Request for ELEXON impact assessment issued
15/01/08	Consultation responses returned
15/01/08	BSC Agent impact assessment returned
15/01/08	Party/Party Agent impact assessments returned
15/01/08	Transmission Company analysis returned
15/01/08	ELEXON impact assessment returned
18/01/08	Seventh Assessment Procedure Modification Group Meeting
24/01/08	Eighth Assessment Procedure Modification Group Meeting
14/02/08	Assessment Report Presented to the Panel

ESTIMATED COSTS OF PROGRESSING MODIFICATION PROPOSAL <sup>14</sup>	
Please note: these costs are for the Assessment Procedure only. The estimated costs for the Definition Procedure were provided in the Initial Written Assessment and were approximately £16,000 in total.	
Meeting Cost	£ 3,500
Legal/Expert Cost	£ 8,000
Impact Assessment Cost	£ 12,000
ELEXON Resource	130 man days £ 40,000

The above costs are as highlighted in the Definition Report. It is noted that the actual costs of the P216 Assessment may be higher than these values due to an additional questionnaire which was used to better understand the current LLF methodologies, and the analysis undertaken being more time consuming than expected.

### Appendix 3: Assessment Report

The P216 Assessment Report is attached as a separate document, Attachment 3.

For the purposes of the Report Phase consultation and the Panel's consideration of the draft Modification Report, the P216 Assessment Report can be found on the [P216 page of the ELEXON website](#).

The Assessment Report includes:

- The conclusions of the Modification Group regarding the areas set out in the P216 Terms of Reference;
- Details of the Group's membership;
- The full results of the Assessment Procedure impact assessment; and
- Full copies of all responses to the Assessment Procedure consultation.

### Appendix 4: Report Phase Consultation Responses

To be attached following Report Phase consultation.

<sup>14</sup> Clarification of the meanings of the cost terms in this appendix can be found on the BSC Website at the following link:  
[http://www.elexon.co.uk/documents/Change\\_and\\_Implementation/Modifications\\_Process\\_-\\_Related\\_Documents/Clarification\\_of\\_Costs\\_in\\_Modification\\_Procedure\\_Reports.pdf](http://www.elexon.co.uk/documents/Change_and_Implementation/Modifications_Process_-_Related_Documents/Clarification_of_Costs_in_Modification_Procedure_Reports.pdf)