

## **MODIFICATION REPORT for Modification Proposal P125**

# **Apportionment of the Scottish Interconnector Flows to the Northern and North Western GSP Groups for the Purposes of Calculating Losses**

**Prepared by: Transmission Loss Factor Modification Group**

**Date of issue:** 16 July 03

**Document reference:** P125MR

**Reason for issue:** Authority Determination

**Issue/Version number:** Final Report/1.0

This document has been distributed in accordance with Section F2.1.10<sup>1</sup> of the Balancing and Settlement Code.

### **RECOMMENDATIONS**

The Balancing and Settlement Code Panel recommends that:

- **Proposed Modification P125 should be made; and**
- **The Implementation Date should be:**
  - **1 April 2004 if an Authority Determination is received by 15 August 2003; and**
  - **1 April 2005 if an Authority Determination is received after 15 August 2003 but before 15 August 2004.**

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<sup>1</sup> The current version of the Balancing and Settlement Code (the 'Code') can be found at [www.elexon.co.uk/ta/bscresel\\_docs/bsc\\_code.html](http://www.elexon.co.uk/ta/bscresel_docs/bsc_code.html)

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### SUMMARY OF IMPACTED PARTIES AND DOCUMENTS

The following parties/documents have been identified as being impacted by Modification Proposal P125.

Parties	Sections of the BSC	Code Subsidiary Documents
Suppliers <input checked="" type="checkbox"/>	A <input type="checkbox"/>	BSC Procedures <input type="checkbox"/>
Generators <input checked="" type="checkbox"/>	B <input type="checkbox"/>	Codes of Practice <input type="checkbox"/>
Licence Exemptable Generators <input type="checkbox"/>	C <input type="checkbox"/>	BSC Service Descriptions <input type="checkbox"/>
Transmission Company <input type="checkbox"/>	D <input type="checkbox"/>	Service Lines <input type="checkbox"/>
Interconnector <input type="checkbox"/>	E <input type="checkbox"/>	Data Catalogues <input type="checkbox"/>
Distribution System Operators <input type="checkbox"/>	F <input type="checkbox"/>	Communication Requirements Documents <input type="checkbox"/>
<b>Party Agents</b>		
Data Aggregators <input type="checkbox"/>	G <input type="checkbox"/>	Reporting Catalogue <input type="checkbox"/>
Data Collectors <input type="checkbox"/>	H <input type="checkbox"/>	MIDS <input type="checkbox"/>
Meter Operator Agents <input type="checkbox"/>	J <input type="checkbox"/>	<b>Core Industry Documents</b>
ECVNA <input type="checkbox"/>	K <input type="checkbox"/>	Grid Code <input type="checkbox"/>
MVRNA <input type="checkbox"/>	L <input type="checkbox"/>	Supplemental Agreements <input type="checkbox"/>
<b>BSC Agents</b>		
SAA <input type="checkbox"/>	M <input type="checkbox"/>	Ancillary Services Agreements <input type="checkbox"/>
FAA <input type="checkbox"/>	N <input type="checkbox"/>	Master Registration Agreement <input type="checkbox"/>
BMRA <input type="checkbox"/>	O <input type="checkbox"/>	Data Transfer Services Agreement <input type="checkbox"/>
ECVAA <input type="checkbox"/>	P <input type="checkbox"/>	British Grid Systems Agreement <input type="checkbox"/>
CDCA <input type="checkbox"/>	Q <input type="checkbox"/>	Use of Interconnector Agreement <input type="checkbox"/>
TAA <input type="checkbox"/>	R <input type="checkbox"/>	Settlement Agreement for Scotland <input type="checkbox"/>
CRA <input type="checkbox"/>	S <input type="checkbox"/>	Distribution Codes <input type="checkbox"/>
Teleswitch Agent <input type="checkbox"/>	T <input checked="" type="checkbox"/>	Distribution Use of System Agreements <input type="checkbox"/>
SVAA <input type="checkbox"/>	U <input type="checkbox"/>	Distribution Connection Agreements <input type="checkbox"/>
BSC Auditor <input type="checkbox"/>	V <input type="checkbox"/>	
Profile Administrator <input type="checkbox"/>	W <input type="checkbox"/>	
Certification Agent <input type="checkbox"/>	X <input checked="" type="checkbox"/>	
MIDP <input type="checkbox"/>	Y <input type="checkbox"/>	
TFLA <input checked="" type="checkbox"/>	Z <input type="checkbox"/>	
<b>Other Agents</b>		
SMRA <input type="checkbox"/>		
Data Transmission Provider <input type="checkbox"/>		

  

P125 implementation cost	
• Change specific	£0,000
• Operational/maintenance	£0,000
• ELEXON Development	22 man days
• ELEXON Operational	12 man days
<b>TOTAL COST</b>	<b>£0,000 + 22 ELEXON man days</b>

# 1 DESCRIPTION OF PROPOSED MODIFICATION AND ASSESSMENT AGAINST THE APPLICABLE BSC OBJECTIVES

## 1.1 Modification Proposal

Modification Proposal P125 'Apportionment of the Scottish Interconnector Flows to the Northern and North Western GSP Groups for the Purposes of Calculating Losses' (P125) was raised on 31 March 2003 by Scottish and Southern Energy.

P125 proposes an alternative methodology for calculating the zonal Transmission Loss Factor (TLF) applicable to BM Units associated with the Scottish Interconnector, on the basis that the existing methodology is believed to discriminate unnecessarily against such BM Units and undermine competition as a consequence.

According to the Proposer, the current methodology, in which the Scottish Interconnector is deemed to lie in separate TLF zone, is 'discriminatory' on two counts. First, BM Units associated with the Scottish Interconnector are treated differently from all other BM Units. Second, unlike other TLF zones, the Code text for Approved Modification P82 suggests that the Scottish Interconnector TLF zone cannot be altered by the Panel and that a Modification Proposal would be required to change it. Moreover, a practical alternative methodology, which avoids such 'discrimination', is believed to exist.

The methodology proposed in P125 is based on the principle of 'apportioning' the power flows across the Scottish Interconnector between the Northern and North Western GSP Groups and then applying a composite of the two zonal TLFs generated for those two GSP Groups to Scottish Interconnector BM Units. The apportionment, and subsequent weighting, would be based on the historical power flows across the two sets of circuits (i.e. those feeding into the Northern and North Western TLF Zones) that comprise the Scottish Interconnector.

BSCCo presented an Initial Written Assessment (IWA) to the Balancing & Settlement Code Panel ('the Panel') on 10 April 2003. The Panel agreed with BSCCo's recommendation that P125 should be submitted to a two-month Assessment Procedure and that an Assessment Report (Reference 1) should be presented at the 12 June 2003 Panel meeting. P125 was assigned to the Transmission Loss Factor Modification Group (TLFMG), in recognition of that Group's expertise in the area and its experience of having progressed previous Modification Proposals relating to the treatment of transmission losses.

The TLFMG met three times during the two-month Assessment Procedure. During this time the principles contained in the initial proposal were developed into an operational solution, consulted upon, assessed for their impact and assessed against the Applicable BSC Objectives.

An Assessment Report was presented to the Panel on 12 June 2003. The Panel, provisionally, endorsed the TLFMG's recommendation that P125 should be made. BSCCo prepared a draft Modification Report on the basis of Panel's provisional recommendations and issued that report, along with draft legal text, for consultation on 19 June 2003. The responses received were collated and the draft Modification Report, incorporating those responses, was presented to the Panel on 10 July 2003.

## 1.2 Proposed Modification

As submitted, P125 was a statement of a set of high-level principles which the Proposer wanted embodied in the methodology used to calculate the zonal TLF applicable to Scottish Interconnector BM Units. The TLFMG considered four key design issues which would need to be resolved in any operational methodology based on the principles proposed under P125:

- **Value of the 'Apportionment Ratio':** according to what ratio should the power flow across the Scottish Interconnector be split between the two terminal TLF zones (i.e. the TLF zones coincident with the Northern and North Western GSP Groups)?

- **Derivation of the 'Apportionment Ratio':** should the ratio be set at the start of the introduction of zonal transmission loss arrangements or calculated from the Reference Year<sup>2</sup> data each year?
- **Flexibility of the 'Apportionment Ratio':** should the ratio be fixed or flexible?
- **Retention of a 'Thirteenth Zone':** should the concept of a thirteenth zone be retained? Or, should there simply be a thirteenth zonal TLF?

The 'apportionment ratio' is the ratio in which the aggregate power flow across the Scottish Interconnector is split between the terminal nodes of that Interconnector for the purpose of running the Load Flow Model (LFM) used to generate TLFs. The TLFMG considered what would constitute an appropriate ratio and whether or not such a ratio should be flexible.

To establish an appropriate apportionment ratio, the TLFMG considered analysis provided by a TLFMG member which illustrated the split of the Scottish Interconnector flows between the relevant nodes in the two terminal TLF zones derived from the data set proposed under Approved Modification P82. On the basis of this analysis, the TLFMG concluded that a 50:50 (Stella West:Harker<sup>3</sup>) apportionment of the Interconnector flow was the most appropriate.

The TLFMG concluded that setting the ratio at the start of the arrangements would be more cost effective than the alternative of producing an annual ratio based on data from the preceding Reference Year, year on year. An annual calculation based on Reference Year data would require an extra report from the Central Data Collection Agent (CDCA) to ELEXON and the aggregation of the relevant raw metered data to produce the individual circuit flows. These new aggregations would raise the cost and increase the time required to derive the ratio, with little enhancement of the accuracy of the resultant TLFs.

The TLFMG recognised that, if a one-off derivation of an apportionment ratio were to be adopted, no mechanistic calculation would be needed. However, it was felt that the Panel ought to be granted the ability to review the ratio, from time to time, based on historic circuit flows. This suggested that it would be appropriate to describe the apportionment required in the 'Network Mapping Statement'<sup>4</sup>, rather than in the Code.

Finally, the TLFMG considered that there would be value in retention of the concept of a 'Thirteenth Zone', despite the fact that under P125 such a zone would not comprise any nodes. First, retention of the concept would retain consistency in the Network Mapping Statement - all BM Units would be assigned to a 'zone' for the purposes of allocating transmission losses. Second, publishing 13 zonal TLFs would retain the transparency introduced by Approved Modification P82 arrangements.

### 1.3 Issues raised by the Proposed Modification

During the Assessment Procedure, the Proposed Modification was consulted upon and impact assessments sought. The impact assessments received from BSC Parties are summarised in Section 3.3 of this report and the impact assessment received from the Transmission Company is summarised in Section 6.

Ten consultation responses (representing 48 BSC Parties and 2 Non-Parties) were received, one of which was marked as confidential.

The majority of respondents supported P125 and all respondents supported the proposed implementation date of 1 April 2004. The TLFMG noted the arguments against P125, but was of the

<sup>2</sup> The 'Reference Year' is the year used to identify the data loaded into the Load Flow Model under Approved Modification P82. It runs from 1 October to 30 September in the year prior to which the zonal TLFs are applicable.

<sup>3</sup> In fact, there are three nodes at 'Harker' (i.e. Harker 400kV, Harker 275kV and Harker 132kV). Therefore, the actual ratio would be 50:40:15:-5 (Stella West:Harker 400kV:Harker 275kV:Harker 132kV).

<sup>4</sup> The 'Network Mapping Statement' is a document, to be introduced as part of the Approved Modification P82 arrangements, which established the Volume Allocation Unit-to-Node, Node-to-Zone and Zone-to-BMU mapping relationships.

opinion that the arguments in support of the Proposed Modification (see Section 1.4 of this report) were more compelling.

In summary, no major issues were raised or identified during the Assessment Procedure.

#### **1.4 Assessment of how the Proposed Modification will better facilitate the Applicable BSC Objectives**

First, the TLFMG considered the implications of the current methodology for calculating the zonal TLF applicable to Scottish Interconnector BM Units.

An underlying feature of the existing arrangements is that only England and Wales losses are being considered – there is no attempt in to reflect losses incurred outside the boundaries of the England and Wales transmission network. Therefore, from a system perspective, the impact of Scottish Interconnector flows on transmission losses is identical, per unit of energy, to that of flows from any other BM Unit connected at the same nodes. However, under the existing arrangements, the treatment of Scottish Interconnector BM Units differs to that of any other BM Units connected at the same nodes. As a consequence, the zonal TLF applicable to Scottish Interconnector BM Units would differ from those that would apply to any other BM Units connected at the same nodes.

To quantify this impact, the TLFMG reviewed the modelling undertaken to support the assessment of Approved Modification Proposal P82. The modelling results suggest that the difference in Transmission Loss Multipliers (TLMs), which are derived from TLFs, for Scottish Interconnector BM Units and any other BM Units connected at the same node would be of the order of approximately 10%:

<b>TLM TYPE</b>	<b>I/C TLM</b>	<b>NORTHERN TLM</b>	<b>NORTH WESTERN TLM</b>
Peak (Generation)	0.97658	0.98045	0.98314
Trough (Generation)	0.97688	0.98074	0.98343
Peak (Demand)	0.99289	0.99676	0.99944
Trough (Demand)	0.9916	0.99583	0.99851

On the basis of the foregoing observations, the majority of the TLFMG concluded that P125 would avoid exposing Scottish Interconnector BM Units to TLFs that were different to those attributed to any other BM Units connected to the same nodes. Thus P125 would allocate similar costs (relating to transmission losses) to all BM Units connected to the terminal nodes of the Scottish Interconnector, regardless of the type of BM Unit. As a consequence, P125 would better facilitate achievement of Applicable Objective (c):

*'Promoting effective competition in the generation and supply of electricity, and (so far as consistent therewith) promoting such competition in the sale and purchase of electricity.'*

A minority of the TLFMG was of the opinion that P125 would not better facilitate achievement of the Applicable BSC Objectives. The basis of this view was that the existing arrangements effectively treat Scottish Interconnector BM Units as if they were located in a separate zone, to the north of all other zones. Therefore, given the predominantly north-south flow of power on the England and Wales transmission network, the existence of a separate zone for the Scottish Interconnector (with its associated TLF) could potentially reduce overall transmission losses by making generation from the Scottish Interconnector less attractive than generation located further South in the Northern and North Western zones.

However, the majority of the TLFMG concluded that a principle of zonal transmission losses arrangement under the Code ought to be that all BM Units attached to a node should receive, as far as possible, the same zonal TLF. Equal allocation of costs, on a per unit basis, is justified given that a Scottish Interconnector BM Unit has the same impact on transmission losses in England and Wales as

any other BM Unit connected at the same node. Therefore, competition would be facilitated by exposing all such BM Units to the same costs.

Finally, the TLFMG considered the second defect addressed by P125 - the perception that the Panel's powers to change the 'Thirteenth Zone' differed from those associated with the twelve geographic zones. The TLFMG concluded that there would be merit in using the legal text drafted to give effect to P125 to remove any ambiguity on this issue, recognising that the intent had always been that the Panel's powers should be the same for all zones.

## **1.5 Modification Group's cost benefit analysis of Proposed Modification**

A quantitative cost-benefit analysis was not undertaken, it was felt that the benefits could not easily be quantified. However, the TLFMG was of the opinion that equitable treatment of BM Units for the purposes of assigning transmission loss liabilities was a qualitative benefit. In addition, it was noted that the implementation cost would be minimal - neither BSC Systems nor BSC Party systems would be impacted. The impact would be restricted to BSCCo, and require 22 Man Days of effort to calculate the Scottish Interconnector TLF, expand the scope of the BSC Audit to cover this activity and change the Network Mapping Statement to reflect the revised mapping relationships introduced by P125. The impact on BSCCo is covered in Section 3.1 of this report.

## **1.6 Governance and regulatory framework assessment**

The Panel and the TLFMG noted developments within the wider governance framework which could impact the zonal transmission loss arrangements that P125 seeks to amend.

The introduction of the British Electricity Trading and Transmission Arrangements (BETTA), scheduled for 1 April 2005, would remove the need for a methodology to calculate zonal TLFs for the Scottish Interconnector BM Units. Under these arrangements, the concept of a Scottish Interconnector would disappear.

The Department of Trade and Industry (DTI) recently published its conclusions on a consultation exercise on whether or not zonal transmission losses should be included in the Great Britain BSC which will be introduced under BETTA. The DTI indicated that the Secretary of State and the Minister for Energy were not minded to designate 'Average Zonal Transmission Losses' as part of the GB BSC. As a consequence, if this policy position is maintained, the zonal transmission loss arrangements to be implemented under Approved Modification Proposal P82 would only be effective until such time as BETTA is introduced.

## **2 RATIONALE FOR PANEL'S RECOMMENDATIONS**

The majority of the Panel was of the opinion that implementation of P125 would better facilitate achievement of Applicable BSC Objective (c):

'Promoting effective competition in the generation and supply of electricity, and (so far as consistent therewith) promoting such competition in the sale and purchase of electricity.'

The current methodology for calculating the zonal TLF applicable to Scottish Interconnector BM Units is such that these BM Units are treated as having a different impact on transmission losses than other BM Units connected to the transmission network at the same point<sup>5</sup>. This differential treatment, through the application of different TLFs, would have a financial consequence. The application of differential TLFs effectively assigns different transmission loss related liabilities to BM Units.

Energy imported or exported across the Scottish Interconnector has the same impact on transmission losses on the England & Wales network, per unit of energy, as energy drawn off or delivered by any other type of BM Unit attached to the same nodes. Therefore, to avoid distortion of competition, the

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<sup>5</sup> Such points are referred to as 'nodes' - a point on an electrical network at which power may flow onto or off such a network.

majority of the Panel concluded that all BM Units attached to the same nodes ought to be treated similarly for the purposes of calculating and assigning TLFs.

### 3 IMPACT ON BSC SYSTEMS AND PARTIES

Implementation of P125 would have a minor impact on BSCCo but no impact on either the BSC Systems or BSC Parties.

#### 3.1 BSCCo

During the Assessment Procedure, the following impacts on BSCCo were identified:

- **Calculation of the Thirteenth Transmission Loss Factor:** BSCCo estimates that this requirement would necessitate 10 man-days of effort on an annual basis. BSCCo would need to sum the appropriately weighted zonal TLFs received from the TLFA. In addition, BSCCo would need to assign the 13<sup>th</sup> TLF to all Scottish Interconnector BM Units and forward them to the CRA.
- **Expand BSC Audit Scope to Cover Calculation of Thirteenth Transmission Loss Factor:** BSCCo estimates that this requirement would necessitate 2 man-day's effort on an annual basis. Inclusion of this activity under the BSC Audit is essential given that TLFs are parameters entered into the Settlement process.
- **Amendment of Network Mapping Statement:** BSCCo estimates that this requirement would necessitate 10 man-days of effort. The Network Mapping Statement would need to be amended to reflect the revised Node to Zone relationships implied by P125. These changes would then need to be consulted on and approved by the Panel.

#### 3.2 BSC Systems

During the Assessment Procedure, the TLFMG agreed with the recommendation that BSCCo should calculate the zonal TLF applicable to Scottish Interconnector BM Units, to avoid impacting the TLFA. As a consequence, the TLFMG concluded that P125 would have no impact on BSC Systems. Therefore, no impact assessment was sought from BSC Agents.

#### 3.3 Parties and Party Agents

During the Assessment Procedure, P125 was issued for impact assessment by Parties and Party Agents. Two responses, both from BSC Parties, were received both from BSC Parties. Both indicated that there would be no impact on either their systems or processes.

The responses received are attached as Annex 3 of the P125 Assessment Report.

### 4 IMPACT ON CODE AND DOCUMENTATION

Implementation of P125 would only have an impact on the Code. There would be no impact on Code Subsidiary Documents, the BSCCo Memorandum and Articles of Association or Core Industry Documents.

#### 4.1 Balancing and Settlement Code

Changes would need to be made to Section T 'Settlement and Trading Charges' of the Code to give effect to P125. In particular, Annex T-2, which specifies the methodology for determining zonal TLFs, would require the following changes:

- The specification of TLF zones would need to be amended to reflect the requirement for 12 geographic zones and a single non-geographic zone not comprising any nodes.



- The requirements for the Network Mapping Statement would need to be amended to enable the Scottish Interconnector Volume Allocation Unit to map onto multiple nodes.
- The paragraph in the BSC covering the current methodology for generating a zonal TLF for Scottish Interconnector BM Units would need to be removed.
- A new clause would be required in the BSC to specifying that the zonal TLF applicable to Scottish Interconnector BM Units would be a weighted average of the zonal TLFs of the terminal TLF zones of the Scottish Interconnector.

In addition, Table 2 in Annex X-2 (i.e. the technical glossary of the Code) would require amendments to the following entries to reflect the revised methodology proposed by P125:

- Adjusted Annual Zonal TLF
- Annual Zonal TLF
- Nodal TLF
- Zonal TLF

Legal text, approved by the TLFMG, to give effect to P125 is attached as Annex 1 of this report.

## 5 SUMMARY OF CONSULTATIONS

A draft version of this Modification Report was issued for consultation on 19 June 2003, with a deadline for responses of 2 July 2003. Six responses were received, representing 22 BSC Parties and 1 non-BSC Party. All responses received are attached as Annex 3 of this document, and the table below provides a summary of those responses.

Consultation question	Respondent agrees	Respondent disagrees	Opinion unexpressed
Do you agree with the Panel's views on P125 and the provisional recommendation to the Authority contained in the draft Modification Report that P125 should be made?	4	1	1
Do you agree with the Panel's view that the legal text provided in the draft Modification Report correctly addresses the defect or issue identified in the Modification Proposal?	4	0	2
Do you agree with the Panel's provisional recommendation concerning the Implementation Date for P125?	5	0	1

Four of the six respondents supported the Panel's provisional recommendation that P125 should be made. In their opinion, P125 would enhance competition by treating all BM Units connected to the same point on the transmission network equally for the purposes of assigning transmission losses. One respondent disagreed with the Panel's provisional recommendation, believing that TLFs ought to reflect the geographic location of demand and generation flowing across the Scottish Interconnector. However, this argument had previously been rejected by the TLFMG because, in its opinion, Interconnector BM Units have no greater impact on transmission losses in England and Wales than other BM Units connected at the same point on the transmission network. The final respondent expressed no opinion on the Panel's recommendations.

Four of the six respondents agreed with the Panel that the draft legal text would address the defect identified by P125. The other two respondents made no comment on the legal text.

Five of the six respondents supported the proposed Implementation Date of 1 April 2004. In their opinion, implementation of P130 ought to coincide with the annual cycle introduced by Approved

Modification Proposal. The final respondent expressed no opinion on the proposed Implementation Date.

Two respondents noted that their comments were made without reference to some of the wider issues surrounding the implementation of Approved Modification Proposal P82 – one mentioned the Judicial Review of the Authority decision to approve P82 and the other mentioned the DTI's conclusions on transmission losses under the British Electricity Trading and Transmission Arrangements (BETTA).

## **5.1 Comments and views of the Panel**

The Panel noted that the majority of respondents supported the Panel's provisional recommendation that P125 should be made, the proposed Implementation Date of 1 April 2004 and the draft legal text to give effect to P125. As a result, a majority of the Panel confirmed that its provisional recommendation should be made to the Authority.

## **6 SUMMARY OF TRANSMISSION COMPANY ANALYSIS**

### **6.1 Analysis**

During the Assessment Procedure, the Transmission Company reported that implementation of P125 would have no impact on its ability to discharge its obligations under the Transmission Licence, its systems, its processes or Core Industry Documents for which it is responsible.

The Transmission Company expressed its support for P125, indicating that it would allocate similar costs (i.e. TLFs) to all BM Units connected to the terminal nodes of the Scottish Interconnector, regardless of the type of BM Unit.

A full copy of the analysis provided by the Transmission Company can be found in Annex 4 of the P125 Assessment Procedure.

## **7 SUMMARY OF EXTERNAL ADVICE**

No external advice was sought during the Assessment Procedure.

## **8 IMPLEMENTATION APPROACH**

During the Assessment Procedure, the TLFMG concluded that P125 ought to be implemented at the same time as Approved Modification Proposal P82 (i.e. 1 April 2004). Owing to the interaction between the implementation of P125 and that of Approved Modification P82 Proposal, achievement of such an implementation date was considered contingent on having received an Authority determination by 15 August 2003.

Zonal transmission loss arrangements are based on an annual cycle – i.e. zonal TLFs will be applicable for a year and calculated on a yearly basis. Therefore, the TLFMG concluded that were the 15 August 2003 determination deadline missed, the implementation date ought to be 1 April 2005 where an Authority determination is received before 15 August 2004.

An assessment of the impact of implementing P125 midway through the annual cycle of Approved Modification Proposal P82 can be found in Section 4.6 of the P125 Assessment Report.

On the advice of the TLFMG, the Panel recommends that P125 should be implemented as part of the existing implementation project for Approved Modification P82 where an Authority determination is received no later than 15 August 2003.

## 9 DOCUMENT CONTROL

### 9.1 Authorities

Version	Date	Author	Reviewer	Change Reference
0.1	17.06.03	Roger Salomone	Justin Andrews	Draft for Peer Review
0.1	17.06.03	Roger Salomone	Neil Cohen	Draft for Peer Review
0.2	19.06.03	Roger Salomone	BSC Parties	Draft for Consultation
0.3	04.07.03	Roger Salomone	BSC Panel	Draft for Decision
1.0	16.07.03	Roger Salomone	Authority	Final Report for Determination

### 9.2 References

Ref	Document	Owner	Issue date	Version
P125AR	Assessment Report P125	ELEXON	06.06.2003	1.0

**ANNEX 1 LEGAL TEXT**

See Attachment 1.

## ANNEX 2 MODIFICATION GROUP DETAILS

The P125 Assessment Procedure was carried out by the TLFMG. The Group met three times and comprised the following members:

<b>MEMBER</b>	<b>ORGANISATION</b>
Justin Andrews (Chairman)	ELEXON
Roger Salomone (Lead Analyst)	ELEXON
Neil Cohen (Technical Expert)	ELEXON
Garth Graham (Proposer)	Scottish and Southern Energy
Bill Reed	Innogy
Cathy McClay	First Hydro
Danielle Lane	British Gas Trading
Martin Mate	British Energy
Peter Bolitho	Powergen
Mike Harrison	ScottishPower
Richard Lavender	National Grid Transco

In addition to the members of the TLFMG, three regular attendees also contributed to discussions – Kristian Myhre (Ofgem), Sanjukta Round (Cornwall Consulting) and Russell Hill (LE Group).

### ANNEX 3 CONSULTATION RESPONSES

Representations were received from the following parties:

<b>No</b>	<b>Company</b>	<b>File Number</b>	<b>No. BSC Parties Represented</b>	<b>No. Non-Parties Represented</b>
<b>1.</b>	NGT	P125_DR_001	1	0
<b>2.</b>	EDF Energy	P125_DR_002	9	1
<b>3.</b>	British Gas Trading	P125_DR_003	1	0
<b>4.</b>	Scottish Power	P125_DR_004	6	0
<b>5.</b>	Aquila Networks	P125_DR_005	1	0
<b>6.</b>	Scottish and Southern (late response)	P125_DR_006	4	0

**P125\_DR\_001 – NGT**

<b>Respondent:</b>	<i>National Grid Transco</i>
<b>No. of BSC Parties Represented</b>	One
<b>BSC Parties Represented</b>	<i>Please list all BSC Parties responding on behalf of (including the respondent company if relevant). National Grid</i>
<b>No. of Non BSC Parties Represented</b>	None
<b>Non BSC Parties represented</b>	<i>Please list all non BSC Parties responding on behalf of (including the respondent company if relevant). N/A</i>
<b>Role of Respondent</b>	<i>(Supplier/Generator/ Trader / Consolidator / Exemptable Generator / BSC Agent / Party Agent / other – please state) BSC Party</i>

	<b>Question</b>	<b>Response</b>	<b>Rationale</b>
1.	Do you agree with the Panel's views on P125 and the provisional recommendation to the Authority contained in the draft Modification Report that P125 should be made? Please give rationale.	Yes	We agree with the BSC Panel that implementation of P125 would better facilitate Applicable BSC Objective (c). We support the rationale that a Scottish Interconnector BM Unit has the same impact on transmission losses in England & Wales as any other BM Unit connected at the same node.
2.	Do you agree with the Panel's view that the legal text provided in the draft Modification Report correctly addresses the defect or issue identified in the Modification Proposal? Please give rationale.	Yes	We believe that the proposed legal text addresses the defect.
3.	Do you agree with the Panel's provisional recommendation concerning the Implementation Date for P125? Please give rationale.	Yes	We agree that adopting the same implementation date as P82 is sensible and pragmatic.
4.	Are there any further comments on P125 that you wish to make or any impacts you believe have not been highlighted?	No	

**P125\_DR\_002 – EDF Energy**

<b>Respondent:</b>	Russell Hill
<b>No. of BSC Parties Represented</b>	9
<b>BSC Parties Represented</b>	EDF Energy plc, London Electricity plc, Jade Power Generation Ltd, Sutton Bridge Power Ltd, West Burton Power, London Power Networks plc, EPN Distribution Ltd, Seeboard Power Networks plc, Seeboard Energy Ltd,
<b>No. of Non BSC Parties Represented</b>	1 (this is a BSC Party Agent)
<b>Non BSC Parties represented</b>	ECS Metering & Data Services
<b>Role of Respondent</b>	Supplier / Generator / Party Agent / Distribution Business

	<b>Question</b>	<b>Response</b>	<b>Rationale</b>
1.	Do you agree with the Panel's views on P125 and the provisional recommendation to the Authority contained in the draft Modification Report that P125 should be made? Please give rationale.	Yes	EDF Energy believes that P125 better facilitates the achievement of Applicable BSC Objective (c) "Promoting effective competition..." as it would ensure that similar costs would be allocated to all BM Units connected to the terminal nodes of the Scottish Interconnector. EDF Energy therefore agrees with the Panel's recommendations within the report that the modification should be implemented.
2.	Do you agree with the Panel's view that the legal text provided in the draft Modification Report correctly addresses the defect or issue identified in the Modification Proposal? Please give rationale.	Yes	EDF Energy agrees with the Panel's view that the appropriate changes have been made to Section T of the BSC and the new legal text addresses the issues identified in the modification proposal.
3.	Do you agree with the Panel's provisional recommendation concerning the Implementation Date for P125? Please give rationale.	Yes	EDF Energy agrees with the recommendation of the Panel that the implementation date of P125 should be aligned with that of P82, providing a decision is received before 15th August 2003. Due to the annual cycle of the loss arrangements the most effective and efficient way to implement P125, if a decision is received after this date, is a year later this causes the least amount of disruption to all participants.
4.	Are there any further comments on P125 that you wish to make or any impacts you believe have not been highlighted?	Yes	The above comments are made without reference to the issues relating to the continued development of P82 and the outcome of modification P134, which may affect the validity of this modification.



**P125\_DR\_003 – British Gas Trading****Modification Proposal 125: Apportionment of the Scottish Interconnector Flows to the Northern and North Western GSP Groups for the purposes of Calculating Losses**

British Gas Trading welcome the opportunity to comment on the draft Final Modification Report on Modification Proposal 125: *Apportionment of the Scottish Interconnector Flows to the Northern and North Western GSP Groups for the purposes of Calculating Losses*.

We do not support this proposal as we believe the current arrangements, as described by P82, are those which best facilitate the applicable BSC objectives. Average zonal transmission losses introduced by P82 sought to impose appropriate costs on demand and generation that more accurately reflect their geographical location. This must also extend to the flows through the interconnector. Although it is argued that the terminal nodes are located the North and North Western Zones and so the losses allocated to the interconnector should reflect this, the generation is not located there. A 13<sup>th</sup> zone reflects these facts and a separate zone with individually calculated loss factor should be maintained.

During the extended assessment of P82 neither the proposer nor other users raised this issue. If the discrimination faced by interconnector flows is so evident it is surprising that it was not picked up during P82 Assessment.

We note there is a risk of Elexon missing the publication of 1 December should the Authority fail to make a decision on the modification proposal by 15 August. We trust that the Authority will take this restricted timescale into account and make a rapid decision. It is essential that there is no delay to the publication of the TLFs for 2004.

We agree that should there be no decision by the 15 August 2003, the implementation of P125 should be deferred until 2005. We note that all consultees in the Assessment consultation agreed with the original 1 April 2004 implementation date. We support this implementation date as it is most efficient to implement P125 with P82. However, we believe larger inefficiencies will result if the 1 December publication date will be missed. With this in mind we encourage the Authority to make a decision expediently.

Yours faithfully

Danielle Lane  
Contracts Manager

**P125\_DR\_004 – Scottish Power**

<b>Respondent:</b>	<i>Name</i> John W Russell (SAIC Ltd)
<b>No. of BSC Parties Represented</b>	6
<b>BSC Parties Represented</b>	<i>Please list all BSC Parties responding on behalf of (including the respondent company if relevant).</i> Scottish Power UK plc; ScottishPower Energy Management Ltd.; ScottishPower Generation Ltd; ScottishPower Energy Retail Ltd.; SP Transmission Ltd; SP Manweb plc.
<b>No. of Non BSC Parties Represented</b>	
<b>Non BSC Parties represented</b>	<i>Please list all non BSC Parties responding on behalf of (including the respondent company if relevant).</i>
<b>Role of Respondent</b>	Supplier / Generator / Trader / Consolidator / Exemptable Generator / Party Agent / Interconnector Administrator

	<b>Question</b>	<b>Response</b>	<b>Rationale</b>
1.	Do you agree with the Panel's views on P125 and the provisional recommendation to the Authority contained in the draft Modification Report that P125 should be made? Please give rationale.	<i>Yes</i>	<i>We agree with the Panel's view that the current differential treatment of Scottish Interconnector BM Units would have a financial impact. We agree with their conclusion that, to avoid distortion of competition, all BM Units attached to the same nodes ought to be treated similarly for the purpose of calculating and assigning TLFs. We agree with the Panel's provisional recommendation that the Modification should be made in order that achievement of Applicable Objective (c) "Promoting effective competition in the generation and supply of electricity" will be better facilitated.</i>
2.	Do you agree with the Panel's view that the legal text provided in the draft Modification Report correctly addresses the defect or issue identified in the Modification Proposal? Please give rationale.	<i>Yes</i>	<i>By assigning to the Scottish Interconnector BM Units an Adjusted Annual Zonal TLF derived by weighting the Zonal TLFs for the nodes at which the Interconnector circuits terminate and by incorporating the identification and weighting of those zones in the Network Mapping Statement the legal text correctly addresses the defects identified in the Modification Proposal.</i>

	<b>Question</b>	<b>Response</b>	<b>Rationale</b>
3.	Do you agree with the Panel's provisional recommendation concerning the Implementation Date for P125? Please give rationale.	<i>Yes</i>	<i>Given the annual nature of the TLFA's process we agree with the Panel's recommendation for implementation on 1 April. In order to avoid operating the BSC for one year with the acknowledged distortive effects of the current treatment of the Scottish interconnector BM Units we would request that the Panel urge the Authority to ensure that a decision is announced on this modification by 15 August 2003.</i>
4.	Are there any further comments on P125 that you wish to make or any impacts you believe have not been highlighted?	<i>Yes</i>	<i>ScottishPower's comments in relation to P125 are without prejudice to the Application for Judicial Review of the Authority's decision in relation to Modification Proposal P82.</i>

**P125\_DR\_005 – Aquila Networks**

Please find that Aquila Networks Plc response to P125 Consultation on draft Modification Report is 'No Comment'.

regards  
Rachael Gardener

Deregulation Control Group &  
Distribution Support Office  
AQUILA NETWORKS

**P125\_DR\_006 – Scottish and Southern (late response)**

This response is sent on behalf of Scottish and Southern Energy, Southern Electric, Keadby Generation Ltd. and SSE Energy Supply Ltd.

Without prejudice to the Application for Judicial Review in respect of Modification Proposal P82 our answers (to the four questions listed in the Modification Report contained within your note of 19th June 2003 concerning Modification Proposals P125), are as following:-

**Q1 Do you agree with the Panel's views on P125 and the provisional recommendation to the Authority contained in the draft Modification Report that the Proposed Modification should be made?**

Yes. We believe that the creation of a 13th TLF Zone, as part of the Modification Proposal P82 process, is incorrect, unnecessary and discriminatory. Implementing P125 will, we believe, better facilitate the achievement of the Applicable BSC Objectives, as outlined in the Proposal and the Modification Report.

P82 was implemented in order to reflect (across the 12 GSP Group zones in England and Wales) the transmission losses incurred on the England and Wales system. As has been noted by the TLFMG, the Scottish Interconnector BM Units have no more effect on transmission losses on the England and Wales system than any other BM Unit at the respective nodes of Stella West and Harker. Therefore, whilst a 13th Number (reflecting the historical 50:50 split of the flows across the Scottish Interconnector) is required there is no need for an entirely separate 13th Zone. To do otherwise would require certain BSC Parties (such as Scottish Interconnector demand BM Units) to cross subsidise other BSC Parties (all non Scottish Interconnector demand at Stella West and Harker). In this respect we believe that P125 (by removing this cross subsidy) will better achieve Applicable BSC Objective "c) that the Code is given effect without undue discrimination between Parties or classes of Party".

Furthermore, in removing this cross subsidy we believe that P125 will better achieve Applicable BSC Objective "(b) (iii) promoting effective competition in the generation and supply of electricity, and (so far as consistent therewith) promoting such competition in the sale and purchase (as defined in the Transmission Licence) of electricity;" as this will ensure that all generation and supply BM Units at the Stella West and Harker nodes pay in proportion to the effect they have on transmission losses. As Scottish Interconnector generation and supply BM Units have exactly the same effect on transmission losses at Stella West and Harker as all other generation and supply BM Units it is appropriate that they pay the same TLF.

It therefore follows that the implementation of P125 (including the clarification of the methodology for the BSC Panel to amend the TLF zones) will better achieve Applicable BSC Objective "(d) consistent with the full and proper discharge of the functions and responsibilities of the Panel and BSCCo, that the Code is given effect as economically and efficiently as is reasonably practicable".

**Q2 Do you agree with the Panel's view that the legal text provided in the draft Modification Report addresses the defect identified within the Modification Proposal?**

Yes.

**Q3 Do you agree with the Panel's provisional recommendation concerning the Implementation Date for Proposed Modification P125?**

If Modification Proposal P125 is approved, we agree with the proposed BSC Panel recommendation on the timing for the Implementation Date, as outlined in the Modification Report.

**Q4 Do you have any other comments on the draft Modification Report for P125?**

Yes. We note the comments (reported in Section 1.4 of the Modification Report) that a minority of the TLFMG articulated a counter-argument to P125 regarding the North-South flows being "less attractive than generation located further South in the Northern and North Western zones." However, as we understand it, P82 was approved based on the principle of 'zonal' not 'nodal' losses.

One of the consequences of 'zonal' losses is that there will be differences compared with 'nodal' losses. What is clear is that Scottish Interconnector generation and demand BM Units have exactly the same effect on transmission losses at Stella West and Harker as all other generation and demand BM Units at those nodes. It therefore follows, in a 'zonal' losses model, that they pay the same zonal TLF. The only difference is that with the Scottish Interconnector generation and demand BM Units being split across two zones that some form of apportionment be undertaken. This principle, of apportionment, is already included within P82. Scottish Interconnector generation and demand BM Units (as noted in the Assessment Report) have no control over which node (Stella West or Harker) their generation is directed to or from which their consumption is drawn. This is under the control of the System Operator.

Regards

Garth Graham  
Scottish and Southern Energy plc

## ANNEX 4 TRANSMISSION COMPANY IMPACT ASSESSMENT

The following impact assessment was received from the Transmission Company during the Assessment Procedure:

Q	Question	Response
1	Please outline any impact of the Proposed Modification (and, if applicable, any Alternative Modification) on the ability of the Transmission Company to discharge its obligations efficiently under the Transmission Licence and on its ability to operate an efficient, economical and co-ordinated transmission system.	We believe that the implementation of P125 has no impact on the ability of the Transmission Company to discharge its obligations under the Transmission Licence.
2	Please outline the views and rationale of the Transmission Company as to whether the Proposed Modification (and, if applicable, any Alternative Modification) would better facilitate achievement of the Applicable BSC Objectives.	We support the rationale of the Mod Group that P125 would avoid exposing the Scottish Interconnector BM Units to TLFs that were different to those attributed to any other BM Units connected to the same node. In addition, P125 would allocate similar costs to all BM Units connected to the terminal nodes of the Scottish Interconnector, regardless of the type of BM Unit. Therefore P125 would better facilitate the achievement of Applicable Objective C.
3	Please outline the impact of the Proposed Modification (and, if applicable, any Alternative Modification) on the computer systems and processes of the Transmission Company, including details of any changes to such systems and processes that would be required as a result of the implementation of the Proposed Modification (and, if applicable, any Alternative Modification)	There is no direct impact on our systems and processes as a result of the proposed modification. We do not believe that there is a specific lead-time required for us to be able to implement P125.
4	Please provide an estimate of the development, capital and operating costs (broken down in reasonable detail) which the Transmission Company anticipates that it would incur in, and as a result of, implementing the Proposed Modification (and, if applicable, any Alternative Modification).	None identified.
5	Please provide details of any consequential changes to Core Industry Documents that would be required as a result of the implementation of the Proposed Modification (and, if applicable, any Alternative Modification).	None identified.
6	Any other comments on the Proposed Modification (and Alternative Modification if applicable).	None

## ANNEX 5 PARTY IMPACT ASSESSMENTS

The following impact assessments were received from BSC Parties during the Assessment Procedure:

Organisation	Comments
<p><b>Steve Drummond</b> EdF (Generation) and EdF Trading Ltd</p>	<p>What impact, if any, will the Proposed Modification have on your organisation? <b>NIL</b></p> <p>What implementation timescale, if applicable, would your organisation require to implement the changes associated with the Proposed Modification? <b>It should be implemented with P82.</b></p> <p>If this Modification Proposal is not applicable to your organisation, please indicate why (e.g. proposed changes do not apply to Party Agents).</p> <p>Any other comments:</p>
<p><b>Rachael Gardener</b> Aquila Networks</p>	<p>No comment</p>
<p><b>John Russell</b> Scottish Power</p>	<p>What impact, if any, will the Proposed Modification have on your organisation?</p> <p><i>Proposed Modification P125 will not have any impact on our systems and processes additional to that for P82.</i></p> <p>What implementation timescale, if applicable, would your organisation require to implement the changes associated with the Proposed Modification?</p> <p><i>The implementation of Proposed Modification P125 can be incorporated into that for P82.</i></p> <p>If this Modification Proposal is not applicable to your organisation, please indicate why (e.g. proposed changes do not apply to Party Agents).</p> <p><i>This modification is applicable and supported by ScottishPower.</i></p> <p>Any other comments:</p> <p><i>No further comment.</i></p>