June 2002

ASSESSMENT REPORT FOR MODIFICATION PROPOSAL P77 - INTERCONNECTOR MULTIPLE BM UNITS

Prepared by the Interconnector Modification Group on behalf of the Balancing and Settlement Code Panel

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Author	ELEXON Limited

I DOCUMENT CONTROL

a Authorities

Version	Date	Author	Signature	Change Reference
0.1	25/05/02	J Ellis		Peer review/ Mod group review
0.2	18/06/02	J Ellis		Peer Review
0.3	18/06/02	J Ellis		Mod Group Review
0.4	09/07/02	J Ellis		Final review
1.0	12/07/02	J Ellis		First Issue

Version	Date	Reviewer	Signature	Responsibility
0.1	25/05/02	R Clarke		Peer Review
0.1	25/05/02	IMG		Modification Group Review
0.2	18/06/02	R Clarke		Peer Review
0.3	18/06/02	IMG		Modification Group Review
0.4	09/07/02	C Rowell		Change Delivery Final review

b Distribution

Name	Organisation
Each BSC Party	Various
Each BSC Agent	Various
The Gas and Electricity Markets Authority	Ofgem
Each BSC Panel Member	Various
Energywatch	Energywatch
Core Industry Document Owners	Various

c References

Ref.	Document Name	Author	Version	Date
1	Modification Proposal P77 Interconnector Multiple BM Units	ELEXON	1.0	05/04/02
2	Initial Written Assessment for P77	ELEXON	1.0	12/04/02

Copies of the above documents can be found on the ELEXON website at www.elexon.co.uk.

d Intellectual Property Rights and Copyright

II CONTENTS TABLE

1 SUMMARY AND RECOMMENDATIONS

1.1 Recommendations

On the basis of the analysis, consultation and assessment undertaken in respect of this Modification Proposal during the Assessment Phase, and the resultant findings of this report, the Interconnector Modification Group (IMG) recommends that the Balancing and Settlement Panel ('the Panel'):

- **NOTE the P77 Assessment Report and the recommendations of the IMG;**
- **ENDORSE the recommendation of the IMG and proceed to the Report Phase in accordance with Section F2.7 of the Code;**
- **AGREE that the draft Modification Report be issued for consultation and submitted to the Panel meeting on 15 August 2002; and**
- **AGREE that the draft Modification Report contain a provisional recommendation that P77 should be made with an Implementation Date of;**
  - **10 December 2002 if a determination is made by the Authority prior to 11 September 2002; or**
  - **25 February 2003 if a determination is made on or after the 11 September 2002**

(Note that the 3-month implementation timescale is driven by the development lead-time of the Scottish Interconnector Administrator. The Interconnector Administrator has expressed concerns over the cost recovery mechanism needed for this development. This will be subject to separate discussions between the Scottish Interconnector Administrator and the Authority.)

1.2 Background

Modification Proposal P77 'Multiple Interconnector BM Units' (P77) seeks to increase the number of Balancing Mechanism (BM) Unit pairs an Interconnector User (IU) may register, per Interconnector, from the current limit of one pair, one BM Unit for Production and another for Consumption, to allow the registration of an additional two pairs of BM Units.

The proposer suggests that with the existing limit of one Production and one Consumption BM Unit, the dynamics of the different types of plant that exist at the other side of the Interconnector cannot be fully represented within the Bid Offer pairs and associated plant dynamics submitted by the IU. It is suggested that this limits the ability of IUs to make bids and offers that reflect the dynamics of the underlying plant and hence their ability to have these offers accepted by the System Operator (SO).

The Panel endorsed the recommendation to progress P77 to the Assessment Procedure (in accordance with section F2.6 of the Code). Details of the consultation and assessment undertaken during the Assessment Procedure can be found in the following sections of this report:

- Section 4 provides a description of P77, the issues discussed by the IMG and defines the extent to which the proposal would better facilitate the achievement of the Applicable Balancing and Settlement Code Objectives (BSC Objectives).

- Sections 5 to 9 assess the impact of P77 on the Code and Code Subsidiary Documents, BSC Systems, Core Industry Documents, ELEXON and Parties and Party Agents.
- Sections 10 and 11 summarise the representations made by parties and the Transmission Company to the consultation, the impact assessment undertaken during the Assessment Procedure and the views and comments of the IMG in respect thereof.

1.3 Rationale for Recommendations

The Modification Group believe that implementation of P77 will allow IUs to participate more effectively in the Balancing Mechanism, as they will be able to more fully represent available plant dynamics.

The Modification Group and the consultation responses received, agreed that allowing IUs to more easily represent the dynamics of their available plant would allow greater choice to the SO in the balancing mechanism and hence would better facilitate the achievement of the Applicable BSC Objective set out in paragraph 3 of Condition C3 of the Transmission Licence as follows:

(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.

2 INTRODUCTION

This Report has been prepared by ELEXON Ltd., on behalf of the Balancing and Settlement Code Panel ('the Panel'), in accordance with the terms of the Balancing and Settlement Code . The BSC is the legal document containing the rules of the Balancing Mechanism and imbalance Settlement process and related governance provisions. ELEXON is the company that performs the role and functions of the BSCCo, as defined in the Code.

An electronic copy of this document can be found on the BSC website, at www.elexon.co.uk.

3 MODIFICATION GROUP DETAILS

This Assessment Report has been prepared by the Interconnector Modification Group (IMG). The Membership of the Modification Group was as follows:

Member	Organisation
Chris Rowell / Justin Andrews	ELEXON (chairman)
Robert Hackland	Scottish and Southern Energy (proposer)
Leslie Burns	SPPowerSystems
Steve Drummond	EDF
Mike Harrison	Scottish Power
Cedric Le-Tallec	RTE
David Middleton	Edison Mission Energy
Paul Mott	London Electricity
Mark Pearce	National Grid ICB
Steve Phillips	British Energy
Richard Clarke	ELEXON (lead analyst)
Joanne Ellis	ELEXON
Ralph Sutton	ELEXON

Attendee	Organisation
Simon Bradbury	Ofgem
Nigel Brooks	NGC
Kristian Myhre	Ofgem
Adam Higginson	Ofgem

4 DESCRIPTION AND ASSESSMENT AGAINST THE APPLICABLE BSC OBJECTIVES

4.1 The Proposed Modification

IUs are currently allocated one Interconnector BM Unit pair (consisting of one production BM Unit and one consumption BM Unit) per Interconnector upon registration. P77 seeks to allow IUs to register up to an additional two BM Unit pairs per Interconnector, each pair consisting of one consumption BM Unit and one production BM Unit (see reference 1). The Initial Written Assessment (IWA), reference 2, was presented to the Panel meeting of 18 April 2002. The Panel agreed to the formation of a new Modification Group, the IMG and defined the terms of reference as detailed in Annex 1.

The IMG held their first meeting on 30 April 2002 and discussed the issues raised by the IWA. These issues were:

- Is the limit of three Interconnector BM Unit pairs sufficient?
- Which non Code documents are affected by P77 and what is the timetable for changes to them?
- What is the potential for market abuse?
- Should there be any differentiation between different types of Interconnector (e.g. Alternating Current (AC) and Direct Current (DC) Interconnector) in the Code?
- How should the additional Interconnector BM Units be charged under the Code?

These issues are discussed in greater detail within section 4.

The IMG also discussed and agreed that the following issues were outside the scope of P77:

- The effects of P77 on British Electricity Trading and Transmission Arrangements (BETTA). The Panel had agreed that it is the responsibility of the BETTA programme to consider any impacts resulting from P77.
- The cost recovery mechanism for any changes to Interconnector Administrator and Interconnector Error Administrator systems and processes. The Panel agreed that these are outside the scope of the modification and the Parties concerned should discuss the matter with the Authority.
- The issue of the relationship between total Interconnector BM Unit Production/Consumption capacity and the actual Interconnector capacity was discussed. It was recognised this problem already exists and that although P77 will require more Interconnector BM Units to be monitored it should not be considered as part of P77.

A second meeting of the IMG was held on 28 May 2002 where the consultation responses and NETA Central Systems impact assessment were discussed along with resolution of the issues brought out in the consultation. At this meeting the IMG approved the questions to be included

within the Impact Assessment and these were then sent out to BSC Parties. The issues discussed are explained in further details in the following sections.

A third meeting of the IMG was held on 25 June 2002 where the high level impact assessment responses from BSC Parties and the Transmission Company were discussed. The IMG made its final recommendations and agreed that P77 should proceed to the report phase with a recommendation for approval.

4.1.1 Limit of Two Additional Interconnector BM Unit Pairs

The IMG considered the limit of two additional BM Unit pairs per IU, as contained within the proposal and recognised that this limit had been specified as a practical limit in order to scope P77 and meet the requirements of the proposer. The IMG concluded that in the absence of any compelling argument against this figure there was no need at this stage to develop an alternative to address a higher number.

The consultation and impact assessment would address this and find if there is any step change in costs associated with increasing the number of BM Unit pairs per IU above this limit. The impact assessment and consultation responses are discussed further in sections 9 and 10 respectively.

4.1.2 Non Balancing and Settlement Code Documents Affected

The IMG discussed the documents that could be affected by P77 and it was decided that this would be addressed as part of the impact assessment. This would allow the Interconnector Error Administrator (IEA) and Interconnector Administrator (IA) to formally contact the document owners and enable them to feedback to the IMG. A summary of the changes to Core Industry documents and any other affected documentation can be found in section 7 and detailed responses to the impact assessment are in contained Annex 3. The relevant organisations have been informed and should P77 be approved will manage the changes in line with the Implementation Date.

4.1.3 Potential for market Abuse

The IMG discussed the potential for Market Abuse within the Code and concluded that provided the IU delivers any accepted Bids and Offers, no issues of Market Abuse within England and Wales exist.

It was noted that IUs are not treated any differently to any other BM Participant and that the relevant clauses in the Grid Code, BC2.5.1.3 and BC2.5.3.2 would still apply. The SO would not expect to see last minute changes to plant dynamics on Interconnector BM Units any more than for BM Units in England and Wales. If an IU did not adhere to these rules they would be subject to current SO investigation procedures and could potentially be prevented from using the Interconnector. It should also be noted that although IUs are not necessarily subject to the same governance arrangements as operators in England and Wales, they could have their Interconnector capacity removed in the event that any “abuse” occurs.

4.1.4 Differentiation between Interconnector types

The IMG discussed the issue that different types of Interconnector exhibit different characteristics and whether it was appropriate to differentiate between these two distinct types (namely AC and DC) within the Code.

The IMG concluded that there was no need to differentiate between the two Interconnector types and felt that such differentiation were it undertaken may prove to be discriminatory. The consultation responses also supported this view unanimously.

4.1.5 BSC Charges for additional Interconnector BM Units

The IMG considered the existing charging mechanisms within the Code for BM Units and concluded that additional Interconnector BM Units should be charged using this mechanism. It was felt that any changes would lead to unnecessary complication in the BSC Systems and processes used for charging.

4.1.6 Identification of BM Units as a Pair

The Code requires that IU register BM Units in pairs (consisting of one Consumption BM Unit and one Production BM Unit) and so to ensure that they are registered and are identifiable as a pair, the Code Subsidiary Documents as detailed in Section 5.2 will be updated.

The SO is responsible for naming the BM Units and has said that as long as an IU applies for a pair consisting of both a Production BM Unit and a Consumption BM Unit the SO will name them accordingly.

4.1.7 Final Physical Notification Checking

The IMG reviewed the need for Section Q3.2.3 e (iii) of the Code, which states that an IU may not have non zero Final Physical Notifications (FPNs) on both of a pair of Interconnector BM Units at an spot point in time. The IMG could not find any justification for this restriction and with the introduction of additional BM Unit pairs, an IU would be able to submit non zero FPNs on the production BM Unit of one pair and the Consumption BM Unit of another pair, thus negating the original restriction. Therefore it was agreed that the restrictions on the individual BM Units within a pair could be removed. By agreeing this, the Transmission Company's implementation timescale would be reduced to 1.5 months as the FPN checking would no longer be necessary.

4.2 Assessment Against the Applicable BSC Objectives

The Applicable BSC Objectives set out in paragraph 3 of Condition C3 of the Transmission licence are as follows:

(a) The efficient discharge by the Transmission Company of the obligations imposed under the Transmission Licence;
(b) The efficient, economic and co-ordinated operation by the Transmission Company of the Transmission System;
(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;
(d) Promoting efficiency in the implementation and administration of the balancing and settlement arrangements.

Modification Proposal P77 was assessed against these objectives and the IMG concluded that allowing an IU to register additional BM Units would better facilitate objective (c). The rationale for this is it will allow IUs to more easily represent the dynamics of the plant available to them, and in doing so will give SO more choice of available plant.

4.3 Alternative Modification

The IMG proposed no Alternative Modification.

5 IMPACT ON THE CODE AND BSCCO DOCUMENTATION

5.1 Balancing and Settlement Code

P77 requires minor changes to sections K, Q and R of the Code. The changes to the legal text of the Code in the following sections are based on version 7.0 of Section K, version 6.0 of Section Q and version 2.0 of Section R. If the baseline of the Code changes prior to implementation of P77, or if other Modification Proposals are to be implemented at the same time as P77, the legal text may need to be amended.

A summary of the changes is given below and a detailed red lined version of the Legal text is included in Annex 6. In summary:

- Section K – References within paragraph 5.5 which refer to a single pair of BM Units for each Party will be amended so as to allow for the registration of additional BM Unit pairs (Production and Consumption) by a Party trading across the Interconnector.
- Section Q – References to individual BM Units will need to be put into a plural form in section 2.2.2 and the need for one BM Unit of a pair to always have a zero FPN will be removed from section 3.2.3 e (iii).
- Section R – The reference to an Interconnector User in section 7.3.1 b (ii) should be change to reference an Interconnector BM Unit.

5.2 Code Subsidiary Documents and BSCCo Memorandum and Articles of Association

An impact on Balancing and Settlement Code Procedure (BSCP) 15 Registration of BM Units has been identified. A footnote will be added to the document to indicate that two additional pairs of Interconnector BM Units can be registered and that the pairs must consist of a Production BM Unit and a Consumption BM Unit. The names for the BM units will then be assigned by the SO.

6 IMPACT ON BSC SYSTEMS

A high level impact assessment carried out by the Central Services Agent stated that the only impact would be on local work instructions and Operational Service Manual (OSM) and that there is no impact on the BSC Systems. A copy of the impact assessment completed by the Central Services Agent can be found in Annex 2.

7 IMPACT ON CORE AND OTHER INDUSTRY DOCUMENTS AND SUPPORTING ARRANGEMENTS

The core industry documents and other relevant documents have all been assessed and the details of the impact (if any) is shown below. The detailed responses can be found as part of the high level impact assessment (HLIA) responses in Annex 3.

7.1 British Grid Systems Agreement (BGSA)

Minor changes are necessary to Appendix to Code 7 of the BGSA. These have been highlighted to the British Grid Systems Committee for progression of the changes, should the Modification be approved.

7.2 Interconnector Documents

The Interconnexion France-Angleterre (IFA) Access Rules anticipate a single pair of Interconnector BM Units per IU. Should a change to the Code be directed as part of P77, the IFA Access Rules would need to be reviewed before any additional BM Units could be used on the French Interconnector.

No impact on the Use of Interconnector Agreement, used for the Scottish-English Interconnector, was identified.

7.3 Other Industry Documents

The Scottish Grid Code requires minimal amendments to change all references to singular BM Units on the Scotland-England Interconnector to the plural form. These changes could be included along with other changes later this year.

The NETA Data Validation, Consistency and Defaulting Rules owned by NGC will be impacted if the requirement that only one of each pair of BM Units should have a non-zero FPN at any one spot point in time is kept in the Code. The IMG agreed that this requirement could be removed from the Code and so there will be no impact on the NETA Data Validation, Consistency and Defaulting Rules.

8 IMPACT ON ELEXON

An impact assessment has been carried out by ELEXON and has found no impact on internal systems and processes.

9 IMPACT ON BSC PARTIES

An HLIA was sent out on 23 May 2002, with responses due on 14 June 2002, to all BSC Parties, and was specifically targeted at IU, IA and IEA. A total of 7 responses were received representing BSC Parties and IUs and two responses were received from IA / IEA.

The IMG believe that there will be no impact on BSC Parties who are not registered as IUs. Furthermore use of this facility by IUs is optional rather than mandatory and therefore unless an IU wishes to avail themselves of the option there will be no impact. Below is a summary of the impact on BSC Parties taken from the responses to the HLIA. Full details of the HLIA responses can be found in Annex 3.

9.1 BSC Parties / Interconnector Users

A limited number of responses were received for the HLIA. Of the 7 responses received, 5 were in favour of the Modification, one of these however gave qualified support contingent on there being an additional 4 BM Unit pairs per IU. The other two responses gave no comment / no impact.

The parties responding who did not act as IU did not see any impacts on their systems and processes.

The responses from IU indicated that their systems and processes would need to be updated and that the timescale for updating them was between 1 month and 6 months. Their responses also indicated that the systems could accommodate up to 5 additional BM Unit pairs without any problems.

9.2 Interconnector Administrators / Error Administrators

The responses from IA / IEA indicated that for the Scottish IA / IEA, the systems and processes would need some development work and that it would take up to 3 months after approval of P77 and a cost recovery method has been agreed. The French IA / IEA did not provide a time estimate for changing their systems and processes as the Interconnector arrangements do not currently allow IU to participate in the Balancing Mechanism. Should these arrangements change the IA / IEA will need to reassess the effect of P77 on their systems and processes.

Both IAs / IEAs indicated that the systems would be able to support up to 5 additional BM Unit pairs without any change in cost / development lead time in comparison to the changes needed to support 2 additional BM unit pairs per IU.

10 SUMMARY OF REPRESENTATIONS

A consultation questionnaire seeking Party opinion on whether or not the Modification would better facilitate achievement of the Applicable BSC Objectives and other issues brought out in the initial Modification Group meeting was issued on 13 May 2002. The deadline for receipt of responses was 27 May2002.

The questions asked during the consultation were:

1. Do you agree that allowing an Interconnector User to register 2 additional BM Unit pairs better facilitates the applicable BSC objectives?
2. Do you believe that an additional two pairs of Interconnector BMUs is sufficient to enable the plant dynamics of IUs to be more easily represented? If not, what is your suggested level and why?
3. The Interconnector Modification Group (IMG) believe that it is not necessary to distinguish between different Interconnector types (e.g. AC and DC). Do you believe that no distinction should be made between different Interconnector types in the Balancing and Settlement Code?
4. The IMG believe that no issues exist within the Balancing and Settlement Code related to Market Abuse. Do you believe that any issues related to potential Market Abuse under the Balancing and Settlement Code are raised as a result of this Modification Proposal?
5. Do you have any further comments on Modification Proposal P77 that you wish to make?

Fourteen responses, representing a total of 57 Parties, were received. The responses are attached as part of Annex 4 of this report and are summarised below.

The majority of respondents (9 responses representing 41 Parties) agreed with the Modification group view that the Modification would better facilitate achievement of the Applicable BSC Objectives.

	Yes		No		No Comment	
	Responses	Parties	Responses	Parties	Responses	Parties
Q1	**9**	**41**	4	15	1	1
Q2	**6**	**36**	4	14	4	7
Q3	**12**	**55**	0	0	2	2
Q4	1	4	**10**	**48**	3	5

Note: Bold highlights the view of the IMG and grey shading shows the majority of consultation responses.

11 SUMMARY OF TRANSMISSION COMPANY ANALYSIS

An impact assessment was sent to the Transmission Company on 23 May 2002, with responses due on 14 June 2002. A copy of the response is included Annex 5.

The Transmission Company estimates that it would take up to 4 months to implement the necessary changes to their systems and processes if FPN checking were to be needed and 1½ months if not. However the development work could not be started until September 2002.

The Transmission Company also noted that the potential increase in the number of BM Units registered would have an impact on their systems and potentially on system performance and therefore support an increase of up to 2 additional pairs and no more. If IU were allowed to register an additional 4 BM Unit pairs this could potentially lead to an increase of 200 BM Units in the Transmission Company's systems. This is based on the current number of IU BM Unit pairs and the assumption that all the IUs register an additional 4 pairs. This would be a substantial increase in comparison to the current total of 287 BM Units.

12 PROJECT BRIEF

The changes required are only documentation changes and these have been highlighted elsewhere in this document.

The suggested timescale for implementation of P77, taking into account the Transmission Company and IE / IEA impact assessment responses, is 3 months which is driven by the development lead-time of the Scottish IA. The Scottish IA expressed concerns over the cost recovery mechanism for the development. This will be subject to separate discussions between the Scottish IA and the Authority.

As there are changes to the Central Services Agent documentation, the changes need to be linked to the BSC System Release programme. This therefore gives an Implementation Date of the first BSC System release date which occurs not less than 3-months after the date of the Authority's determination.

This would mean that if a decision is received from the Authority by 10 September 2002 the Modification would be implemented with the 10 December 2002 BSC System Release or if a decision is received on or after this date the Implementation Date would be the 25 February 2003.

ANNEX 1 – TERMS OF REFERENCE

The full Terms of Reference of the IMG can be found on the Modification Groups page of the ELEXON website at www.elexon.co.uk/ta/modifications/mods_group.html.

The specific terms that IMG were tasked to address were;

- Whether the proposed limit of two additional BM Unit pairs is sufficient;
- The impact (in terms of timescales) on Interconnector Error Administrator Systems and Processes in relation to imbalance charges;
- The impact (in terms of timescales) on Interconnector Administrator Systems and Processes;
- Whether a distinction should be made between Interconnectors that exhibit different characteristics; and
- The Potential for Market Abuse.

ANNEX 2 – BSC AGENT IMPACT ASSESSMENT

The Central Services Agent has provided a high level impact assessment as follows;

NETA Change Form	**MP/CP/TP No:** MP77
	Logica reference: ICR364
Title: Interconnector Multiple BM Units	
Identified by: Scottish and Southern Energy plc	**Date received:** 15-May-2002

Statement of requirement
Baseline affected: NETA Service Definition Baseline (V1.0)
Assumed changes over baseline: None
Description of Change: See attached original MP77.
Proposed solution: See attached original MP77.
Justification for Change: See attached original MP77.
Proposed changes to Service Levels: None.
Proposed changes to the Agreement: None.
Attachments/references: MP77

To be completed by Logica			
	High Level Impact Assessment	Detailed Level Impact Assessment	Quotation
Tick which stage is being completed:	✓		
Signed by Logica Contract Manager:			
Date:	24-May-2002		
HLIA category: Small		Price for DLIA: £6 000	
If this is a Quotation, are consequential modifications needed to the DLIA? Yes/No.			

Logica's proposal
Logica's understanding of the requirement: Currently, each User of an Interconnector is limited to the use of 2 BM Units – one Consumption and one Production. It is proposed that this limit is raised to allow a User to apply for up to 2 additional pairs of BM Units on each Interconnector that is a User.
Logica's proposed design solution: At present, there are no system restrictions on the number of BM Unit pairs per Interconnector User that can be supported. For this reason, the Modification Proposal is deemed to affect documentation only.

Consequential changes to Project Deliverables:
OSMs, LWIs.

Consequential impact on BSC Service Users or Other Service Providers:

Testing strategy:
n/a

Management plan for developing the Change:

Project plan for developing the Change:
The estimated time to complete the development of this change is 4 weeks.

Method of deployment:

Patch	Is a planned outage required? No

Price for Design and Build:

Item description:	Price (ex VAT)	Type of price:
Update of documentation.	£5 800	Fixed

Price for Operate and Maintain:

Item description:	Price	Type of price:
Operate	£0	Fixed
Maintain	£0	Fixed

If this is a DLIA or Quotation, is a price breakdown in the agreed format attached? Yes/No

Terms attaching to the offer

Validity period of offer: 30 days	**Type of offer:** Indicative

Assumed start date:

Payment milestones:
Logica will invoice in full for this change on deployment, or within one month of the change being ready for deployment.

Document turnaround time:
5 days

Impact on Service Levels:
None

Impact on performance of the System:

Other terms:

If this is a Quotation, is a draft contract amendment attached? Yes/No

Responsibilities of ELEXON:

- For all formal documentation which is subject to review, Logica shall provide one draft issue and a maximum of 5 working days has been allowed for ELEXON to review and comment on the updates. No allowance is included for addressing comments from ELEXON and only one iteration of all reviewed documents has been included in the price.
- Within reasonable levels, ELEXON will make available appropriate staff to assist Logica during the development of this change.

Assumptions made by Logica:

- As there is currently no system limits on the number of BM Unit pairs per Interconnector User that can be supported, this Modification Proposal is assumed to be a documentation only change, and it is assumed that no software change is required.
- Additional BMU would add to the number of BMUs currently supported.

Responses to P77 High Level Impact Assessment Questions

(1) Do you believe that a facility to allow additional Interconnector BMU pairs to be registered will have any impact on your systems? If YES please provide High Level cost estimates and development lead time.
No, this is deemed as having no system impact.

(2) What is the maximum number of additional BMU pairs per IU that your system can currently support?
There is currently no system limit on the number of BMU pairs per IU.

(3) Will there be any change in the cost/timescale to implement changes were the number of Interconnector BMU Pairs per Interconnector User to increase up to 5 additional pairs.
This change is deemed as documentation only. For this reason, changing the number of BMU pairs per IU before the documentation update would have no impact. Each change of the documentation following the change is deemed to be of equivalent cost (at current rates).

(4) Do you foresee any issues related a potential increase in the number of Interconnector BMU registrations should Modification Proposal P77 be implemented?
No issues are foreseen at present, although extra BMUs would add to the number of BMUs currently supported.

Options and alternatives:

ANNEX 3 – HLIA RESPONSES

A high level impact assessment was issued on 29 May 2002 with responses due by 14 June 2002. The following questions were included and a table of responses is shown below.

HLIA Questions

1) Do you agree with the proposed Modification P77?

2) The Interconnector Modification Group has identified a number of documents that Modification Proposal P77 has the potential to affect. These are identified within the IWA and the Modification Group meeting notes.

   a) Do you believe that there are other Industry Documents that are affected by the introduction of this Modification Proposal? If YES please give a list of the documents affected and the owner.

   b) If you are the owner of one or more of the documents listed in the IWA or part (a) above please give a predicted timetable for change.

3) Do you believe that a facility to allow additional Interconnector BMU pairs to be registered will have any impact on your systems and processes? If YES please provide high level cost estimates and development lead time.

4) What is the maximum number of additional BMU pairs per IU that your systems and processes can currently efficiently support?

5) If you were to implement a change to accommodate additional BMU pairs for Interconnector Users please indicate whether there is any difference in the costs and lead times to develop the change or at what point the number becomes inefficient, if different values of BMU pairs (up to a maximum of 5 additional BMU pairs) per IU were chosen by the Modification Group.

6) Please give details of the impact this Modification Proposal will have on the EDT rules for ensuring that the FPNs of the two BMUs in an Interconnector BM Unit pair are not non zero at the same spot point time (**Please note that this question is aimed at the System Operator / Interconnector Administrator / Interconnector Error Administrator**).

7) Please state the impact that this Modification Proposal will have on the BM Unit registration times required by the SO and if it will be possible to shorten the timescale for registration (**Please note that this question is aimed at the System Operator only**).

8) Please give details of any other impacts you believe that this modification has that have not previously been covered.

9) Any Additional Comments:

HLIA Responses

Eight responses were received, the details of which are given below.

Carried out by	Approve	Reject	Comments
Lina Shah Siemens Metering Datacare (Ruddington- Nottingham)			No impact.
Dave Morton SEEBOARD Energy Ltd.	✓		**1.** I agree with the proposed Modification. **2a.** No comment. **2b.** Not Relevant to Seeboard Energy. **3.** No impact. **4.** Not Relevant to Seeboard Energy – we have no interconnector BMU's. **5.** Not Relevant to Seeboard Energy – we have no interconnector BMU's. **6.** Not applicable. **7.** Not applicable. **8.** No comment. **9.** No comment.
Jennifer Kelly Aquila Networks			No Comment.
Liz Anderson LE Group	✓		**1. I agree with the proposed Modification.** **2a. No.** **2b. N/A.** **3. No.** **4. N/A** **5. N/A** **6. N/A** **7. N/A** **8. N/A** **9. N/A**
Sara Ames TXU Energy.	✓		**1.** I agree with the proposed Modification. **2a.** **2b.** **3. No.** **4. Not known.** **5.** **6.** **7.** **8.** **9.**
Sue Macklin Scottish & Southern Energy	✓		**1.** I agree with the proposed Modification. **2a.** No **2b.** **3.** Yes. £10,000. Implement 1 month from approval. **4.** Our systems could efficiently support up to the potential maximum of 5 additional BMU pairs. **5.** There would be no difference in costs and lead time in implementing up to the potential maximum of 5 additional BMU pairs. **6.** **7.** **8.** **9.**

Man Kwong Liu Scottish Power UK Plc. Scottish Power Energy Trading Ltd. Scottish Power Generation Ltd. Scottish Power Energy Retail Ltd. SP Transmission Ltd.	✓		**1.** Yes, Subject to having four additional pairs of BM units rather than two. **2a.** No comment. **2b.** No**.** **3.** Yes, A number of systems are impacted. Some upgrades, configuration and re-testing are necessary. Also, some business processes will need to be performed to register and reallocate volumes between units. The overall systems impact is estimated at 120 days (6 months). **4.** Zero as currently configured. However, most systems can support an unspecified number of BMU pairs as long as they have been configured to do so. A minority of other systems will require design and coding amendments. **5.** The changes are scalable and there is not thought to be any substantial differences between modifying systems to handle, say, 2 or 4 extra BMU pairs. **6.** N/A **7.** N/A **8.** No comment. **9.** Need more time to assess in order to give better estimates in **costs** and timescales.
NGC Interconnectors and Business Development			**1.** **2a** The National Grid Company (NGC) and Reseau de Transport d'Electricite (RTE) jointly operate the England-France Interconnector also known as the IFA (Interconnexion France-Angleterre). Jointly NGC and RTE have developed the IFA Access Rules, these Rules set out the basis on which capacity rights on IFA are secured and used. **2b** As stated above the IFA Access Rules govern the arrangements for securing and using capacity on the England – France interconnector. Until such time as these arrangements provide Interconnector Users with access to England & Wales Balancing Mechanism, the introduction of this Modification Proposal does not immediately and directly impact upon the IFA Access Rules **3.** Yes, however no assessment of cost and timescale is possible at this stage due to developments currently taking place in the French Market. The current IFA Access Rules anticipate a single pair of BM Units per Interconnector User. The BSC changes would require a review of this issue in the IFA Access Rules before the additional BM Units could be used **4.** No formal assessment has been undertaken for the reasons discussed in Q2 **5.** Whilst no assessment has been undertaken it is not envisaged that there is a difference in cost or timescale to develop the changes necessary for up to 5 BM Unit pairs to be registered **6.** Currently Interconnector Users secure capacity rights at a company level which with a single BMU pair causes little problem. If Modification Proposal P77 were to be introduced NGC/RTE would have to consider carefully how the capacity secured is "allocated" to multiple BM Unit pairs before any EDT validation rules are applied **7.** **8.** Not aware of any other impacts **9.**

The following impact assessment has been received detailing the changes needed to the BGSA and Scottish Grid Code and the Scottish-English Interconnector Error Administrator / Interconnector Administrator.

1) **The Interconnector Modification Group has identified a number of documents that Modification Proposal P77 has the potential to affect. These are identified within the Initial Written Assessment.**
   a) **Do you believe that there are other Industry Documents that are affected by the introduction of this Modification Proposal? If YES please give a list of the documents affected and the owner;**
   b) **If you are the owner of one or more of the documents listed in the IWA or part (a) above please give a predicted timetable for change.**

Scottish Grid Code:- Minimal changes required to change singular references to multiple. These could be included along with other changes later this year . There are a number of subsidiary documents and internal documents which will need to be updated in line with the proposed change.

BGSA:- The Appendix to Code 7 will require some alteration. This should not be a major issue.

2) **Do you believe that a facility to allow additional Interconnector BMU pairs to be registered will have any impact on your systems? If YES please provide High Level cost estimates and development lead time.**

As IA the proposed change will have an impact on our existing systems.

External costs to update the IMS system £36,500.

Costs for changes to related systems at GSO(Kirkintilloch) as a consequence of IMS changes (SCADA, Despatcher and Settlements). £15,000.

TOTAL COSTS to IA for P77 Implementation. £51,500

It is estimated that implementation can be carried out 3 months after approval of mod is obtained(and cost recovery agreed).

3) **What is the maximum number of additional BMU pairs per IU that your system can currently support?**

The current system IMS system cannot support multiple BM Units per IU.

4) **If you were to implement a change to accommodate additional BMU Pairs for Interconnector Users please indicate whether there is any difference in the costs and lead times to develop the change if different values of BMU pairs (up to a maximum of 5 additional BMU pairs) per Interconnector User were chosen by the Modification Group.**

There would be no additional costs or time delay required if the number of BMU Pairs per IU was increase to a max of 5.

Leslie H. Burns
Grid System Operation Manager
Interconnector Administrator

ANNEX 4 – CONSULTATION RESPONSES

The consultation was issued on 13 May 2002 and responses were due on 27 May 2002. The following consultation responses have been received.

14 Responses representing 57 Parties.

No	Company	File Number	No. Parties Represented
1.	TXU	P77_ASS_001	21
2.	Dynegy	P77_ASS_002	1
3.	Entergy-Koch Trading Ltd	P77_ASS_003	1
4.	Edison Mission Energy	P77_ASS_004	4
5.	EdF Energy	P77_ASS_005	2
6.	SEEBOARD Energy	P77_ASS_006	1
7.	Innogy	P77_ASS_007	6
8.	British Gas Trading	P77_ASS_008	2
9.	London Electricity	P77_ASS_009	5
10.	Scottish and Southern Energy	P77_ASS_010	4
11.	Scottish Power	P77_ASS_011	5
12.	National Grid	P77_ASS_012	1
13.	British Energy	P77_ASS_013	3
14.	Aquila Networks	P77_ASS_014	1

P77_ASS_001 – TXU

Respondent:	Philip Russell
Responding on Behalf of	21 TXU BSC Parties
Role of Respondent	Party

	Question	Response Yes/No
Q1	**Do you agree that allowing an Interconnector User to register 2 additional BM Unit pairs better facilitates the applicable BSC objectives?**	Yes
Rationale:		
Q2	**Do you believe that an additional two pairs of Interconnector BMUs is sufficient to enable the plant dynamics of IUs to be more easily represented?** **If not, what is your suggested level and why?**	Yes
Rationale:		
Q3	**The Interconnector Modification Group (IMG) believe that it is not necessary to distinguish between different Interconnector types (eg. AC and DC).** **Do you believe that no distinction should be made between different Interconnector types in the Balancing and Settlement Code?**	Yes
Rationale:		
Q4	**The IMG believe that no issues exist within the Balancing and**	No

	Settlement Code related to Market Abuse. **Do you believe that any issues related to potential Market Abuse under the Balancing and Settlement Code are raised as a result of this Modification Proposal?**	
Rationale:		
Q5	**Do you have any further comments on Modification Proposal P77 that you wish to make?**	**No**
Please state your comments		

P77_ASS_002 – Dynegy

Respondent:	Dynegy
Responding on Behalf of	
Role of Respondent	BSC Party

	Question	**Response Yes/No**
Q1	**Do you agree that allowing an Interconnector User to register 2 additional BM Unit pairs better facilitates the applicable BSC objectives?**	Yes
Rationale: Allowing multiple BM unit pairs allows for a greater degree of competition in the supply of balancing services by allowing multiple dynamics and plant economics to be represented by interconnector users. The more accurate representation of interconnector dynamics should enable NGC to be more efficient in balancing the system.		
Q2	**Do you believe that an additional two pairs of Interconnector BMUs is sufficient to enable the plant dynamics of IUs to be more easily represented?** **If not, what is your suggested level and why?**	No
Rationale: An interconnector may be able to provide electricity from more than three types of plant, each with different dynamics. Dynegy suggests that four or five pairs of BMUs would adequately represent the different dynamics typically available.		
Q3	**The Interconnector Modification Group (IMG) believe that it is not necessary to distinguish between different Interconnector types (eg. AC and DC).** **Do you believe that no distinction should be made between different Interconnector types in the Balancing and Settlement Code?**	Yes
Rationale:		
Q4	**The IMG believe that no issues exist within the Balancing and Settlement Code related to Market Abuse.** **Do you believe that any issues related to potential Market Abuse under the Balancing and Settlement Code are raised as a result of this Modification Proposal?**	No
Rationale:		
Q5	**Do you have any further comments on Modification Proposal P77 that you wish to make?**	No

P77_ASS_003 - Entergy-Koch Trading Ltd

Respondent:	*Chris Leeds*
Responding on Behalf of	*Entergy-Koch Trading Ltd*
Role of Respondent	*(BSC Party/IU)*

	Question	Response Yes/No
Q1	**Do you agree that allowing an Interconnector User to register 2 additional BM Unit pairs better facilitates the applicable BSC objectives?**	Yes
Rationale: It gives the IU the ability to offer a more realistic view of the dynamic capabilities of the types of plant available. This should provide the System Operator with a better choice when accepting bids and offers.		
Q2	**Do you believe that an additional two pairs of Interconnector BMUs is sufficient to enable the plant dynamics of IUs to be more easily represented?** **If not, what is your suggested level and why?**	Yes
Rationale: Any more would lead to a lack of efficiency as the arrangements become unnecessarily complex		
Q3	**The Interconnector Modification Group (IMG) believe that it is not necessary to distinguish between different Interconnector types (eg. AC and DC).** **Do you believe that no distinction should be made between different Interconnector types in the Balancing and Settlement Code?**	Yes
Rationale: Because it would lead to discrimination		
Q4	**The IMG believe that no issues exist within the Balancing and Settlement Code related to Market Abuse.** **Do you believe that any issues related to potential Market Abuse under the Balancing and Settlement Code are raised as a result of this Modification Proposal?**	No
Rationale: The SO requires steady and sensible plant dynamics and are not concerned about the plant that actually delivers the energy as long as it is delivered in accordance to the Bid Offer Acceptance issues.		
Q5	**Do you have any further comments on Modification Proposal P77 that you wish to make?**	No
Please state your comments		

P77_ASS_004 – Edison Mission Energy

Respondent:	*Libby Glazebrook, Edsion Mission Energy*
Responding on Behalf of	*First Hydro Company. Edison First Power, Lakeland Power*
Role of Respondent	*BSC Party*

	Question	Response Yes/No
Q1	**Do you agree that allowing an Interconnector User to register 2 additional BM Unit pairs better facilitates the applicable BSC objectives?**	No
Rationale: Interconnector Users (IUs) **s**hould be required to register one BMU pair for each Production and Consumption meter as per E&W to provide full reflection of the true dynamics of different of plant behind the interconnector as specified in the Modification.		
Q2	**Do you believe that an additional two pairs of Interconnector BMUs is sufficient to enable the plant dynamics of IUs to be more easily represented?** **If not, what is your suggested level and why?**	No
Rationale: See answer to Q1.		
Q3	**The Interconnector Modification Group (IMG) believe that it is not necessary to distinguish between different Interconnector types (eg. AC and DC).** **Do you believe that no distinction should be made between different Interconnector types in the Balancing and Settlement Code?**	Yes
Rationale:		
Q4	**The IMG believe that no issues exist within the Balancing and Settlement Code related to Market Abuse.** **Do you believe that any issues related to potential Market Abuse under the Balancing and Settlement Code are raised as a result of this Modification Proposal?**	Yes
Rationale: Allowing IUs more than one BM Unit provides an unfair competitive advantage compared to BMUs within E&W. IU BMUs will have more than one BMU to reflect the dynamics of an asset (the interconnector) whereas E&W assets only have one BMU to reflect their dynamics. IUs are able to use this advantage to restrict the choice of BMUs available in the Balancing Mechanism. For example, an IU could reduce MEL to zero on one BM Unit and increase it from zero on another BM Unit whilst still retaining availability in the BM, using the same energy source. This would restrict the SO's choice to a higher priced BM Unit. Were a multiple BM Unit generating station in E&W to adopt this approach, it would sterilise the output from a BM Unit once its MEL was set to zero. Allowing IUs more than one BM Unit means that any plant failure which reduces export capability can be allocated to a lower priced BM Unit within gate closure timescales. Although the exposure to imbalance charges remains the same, IUs have the ability to benefit from a higher level of income by retaining availability on the higher priced BM Unit. Failure of a BM Unit in E&W prevents participation in the BM, regardless of price.		
Q5	**Do you have any further comments on Modification Proposal P77 that you wish to make?**	Yes

Please state your comments: Not requiring interconnected Parties to have a BM Unit for each Production and Consumption meter gives an unfair advantage since it allows substitution of generation behind the interconnector in the event of a problem with a BM Unit in gate closure timescales. This facility is not available to England and Wales BM Units as substitution would breach the Grid Code. This could be considered contrary to the BSC principle of 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. To be consistent with the treatment of BM Units in E&W there should be an obligation on IUs to reflect the true dynamics of plant being made available in the BM. This can be achieved by requiring IUs to register a BM Unit that reflects the different dynamics for each Production and Consumption meter.

P77_ASS_005 – EdF Energy

Respondent:	*Name Steve Drummond*
Responding on Behalf of	*Please list all Parties responding on behalf of (including the respondent company if relevant).* *EdF Trading Ltd and EdF (Generation)*
Role of Respondent	*(BSC Party/IU/IA/IEA/SO/Other)* BSC Parties and Interconnector Users

	Question	**Response Yes/No**
Q1	**Do you agree that allowing an Interconnector User to register 2 additional BM Unit pairs better facilitates the applicable BSC objectives?**	Yes
Rationale: The Interconnector User can better represent the bids and offers that he can put into the Balancing Mechanism, since the IU will not just have (at least not necessarily) one plant that can be regulated. By having three he can provide a range of bids and offers that will be indicative of his portfolio of plant, this will assist NGC as SO and will benefit the market increasing liquidity and depth.		
Q2	**Do you believe that an additional two pairs of Interconnector BMUs is sufficient to enable the plant dynamics of IUs to be more easily represented?** **If not, what is your suggested level and why?**	Yes, but
Rationale: More may have been better, but there is a degree of pragmatism here and the change is the minimum to achieve the objective.		
Q3	**The Interconnector Modification Group (IMG) believe that it is not necessary to distinguish between different Interconnector types (eg. AC and DC).** **Do you believe that no distinction should be made between different Interconnector types in the Balancing and Settlement Code?**	Yes - No distinction
Rationale: The principles for operating with Interconnectors should be the same no matter what the type or size, unless it can be clearly shown that to do otherwise would unduly discriminate. In this case, no such claim can be made. IUs on the French link will not be able benefit from this Mod if approved, but that is because they can not operate in the BM due to the interfacing problems NETA has with other systems. However this may not always be the case and the rationale for its use by IUs would be the same as for the Proposer, despite the fact that the interconnector is DC - it makes no difference.		
Q4	**The IMG believe that no issues exist within the Balancing and Settlement Code related to Market Abuse.**	

	Do you believe that any issues related to potential Market Abuse under the Balancing and Settlement Code are raised as a result of this Modification Proposal? NO	
Rationale: The proposal provides benefits to the system overall, it does not provide opportunities for abuse, any more than having one BMU does.		
Q5	**Do you have any further comments on Modification Proposal P77 that you wish to make?**	**Yes**
Please state your comments There has been consideration about the costs of change and who should bear them. As the market will benefit overall then such costs should be borne in the same way as other Mods. However, there will be a need for additional costs by the Interconnector Administrators and they do not benefit from such a change; it therefore seems proper that their costs be seen as central costs.		

P77_ASS_006 – SEEBOARD Energy

Respondent:	Dave Morton
Responding on Behalf of	SEEBOARD Energy Limited
Role of Respondent	BSC Party

	Question	Response Yes/No
Q1	**Do you agree that allowing an Interconnector User to register 2 additional BM Unit pairs better facilitates the applicable BSC objectives?**	**YES**
Rationale: The current limitation does appear to make it impossible for a participant to make bids and offers available to the System Operator that match each type of plant that might be available. Removing this limitation would potentially increase choice for the System Operator and therefore better facilitate the applicable BSC objectives.		
Q2	**Do you believe that an additional two pairs of Interconnector BMUs is sufficient to enable the plant dynamics of IUs to be more easily represented?** **If not, what is your suggested level and why?**	**Do not know**
Rationale: Seeboard Energy does not operate a range of plant and therefore is not in the best position to comment on this question. We would suggest that the modification group considers the possibility of no limit on the number of pairs. If no significant down side exists then the removal of a limit could be the best solution.		
Q3	**The Interconnector Modification Group (IMG) believe that it is not necessary to distinguish between different Interconnector types (eg. AC and DC).** **Do you believe that no distinction should be made between different Interconnector types in the Balancing and Settlement Code?**	**Do not know**
Rationale: Seeboard Energy has no relevant experience and is therefore not in the best position to comment on this question.		
Q4	**The IMG believe that no issues exist within the Balancing and**	

	Settlement Code related to Market Abuse. **Do you believe that any issues related to potential Market Abuse under the Balancing and Settlement Code are raised as a result of this Modification Proposal?**	**No**
Rationale:		
Q5	**Do you have any further comments on Modification Proposal P77 that you wish to make?**	**No**
Please state your comments		

P77_ASS_007 – Innogy

Respondent:	*Name:* Bill Reed
Responding on Behalf of	*Please list all Parties responding on behalf of (including the respondent company if relevant).* This response is on behalf of Innogy plc, npower Limited, Innogy Cogen Trading Limited, npower Direct Limited, npower Northern Limited, npower Yorkshire Limited
Role of Respondent	*(BSC Party/IU/IA/IEA/SO/Other)* BSC Parties

	Question	**Response Yes/No**
Q1	**Do you agree that allowing an Interconnector User to register 2 additional BM Unit pairs better facilitates the applicable BSC objectives?**	No
Rationale: Additional BM Unit pairs on the Interconnectors may increase competition in the provision of bids and offers in the balancing mechanism in accordance with Objective 1.2.1 (b) (iii) of the Balancing and Settlement Code. However, the efficiency of implementation should be considered in the light of the BETTA proposals published by Ofgem on 20th May, which envisage the incorporation of the Interconnector assets into a GB transmission system. As a result, when taking this into account, implementation of the Modification may be inconsistent with Objective 1.2.1 (d) of the BSC with regard to ensuring that the Code is given effect as economically and efficiently as reasonably practicable.		
Q2	**Do you believe that an additional two pairs of Interconnector BMUs is sufficient to enable the plant dynamics of IUs to be more easily represented?** **If not, what is your suggested level and why?**	Yes
Rationale: As a minimum an additional two pairs of Interconnector BMUs may be required in order to allow plant dynamics to be more easily represented. The precise "efficient" number of Interconnector BMUs is difficult to determine at this time. Operational experience may indicate the need for a greater number of Interconnector BMUs and flexibility in setting the number may be required (subject of course to not incurring significant additional costs).		
Q3	**The Interconnector Modification Group (IMG) believe that it is not necessary to distinguish between different Interconnector types (eg. AC and DC).** **Do you believe that no distinction should be made between different Interconnector types in the Balancing and Settlement Code?**	Yes
Rationale: Any distinction between Interconnector types is potentially discriminatory.		
Q4	**The IMG believe that no issues exist within the Balancing and**	

	Settlement Code related to Market Abuse. **Do you believe that any issues related to potential Market Abuse under the Balancing and Settlement Code are raised as a result of this Modification Proposal?**	No
Rationale: Additional Interconnector BMUs do not, in themselves, raise issues regarding market abuse.		
Q5	**Do you have any further comments on Modification Proposal P77 that you wish to make?**	Yes
Please state your comments The relative merits of the proposal must be considered in the wider context of the potential costs for implementing, including Elexon development costs. At this time there is no information on these costs. However, if the costs prove to be substantial then it may be prudent to reject the modification in the light of the BETTA proposals, which (as noted above) envisage the incorporation of the Interconnector assets into a GB transmission system.		

P77_ASS_008 – British Gas Trading

Respondent:	Danielle Lane
Responding on Behalf of	*BGT, Accord*
Role of Respondent	*BSC Party and Interconnector User*

	Question	**Response Yes/No**
Q1	**Do you agree that allowing an Interconnector User to register 2 additional BM Unit pairs better facilitates the applicable BSC objectives?**	No
Rationale: The reason why additional BM Unit pairs are required is not clear. Although it has been stated that this would help the SO in providing a more realistic view of the dynamic capabilities of the plant available in the BM it would have been helpful for this to be explained further. On the information that has been provided in the consultation it is not possible to fully assess this modification against the applicable objectives.		
Q2	**Do you believe that an additional two pairs of Interconnector BMUs is sufficient to enable the plant dynamics of IUs to be more easily represented?** **If not, what is your suggested level and why?**	
Rationale:		
Q3	**The Interconnector Modification Group (IMG) believe that it is not necessary to distinguish between different Interconnector types (eg. AC and DC).** **Do you believe that no distinction should be made between different Interconnector types in the Balancing and Settlement Code?**	Yes
Rationale: We agree with the findings of the group that it would be discriminatory to distinguish between different interconnector types.		

Q4	**The IMG believe that no issues exist within the Balancing and Settlement Code related to Market Abuse. Do you believe that any issues related to potential Market Abuse under the Balancing and Settlement Code are raised as a result of this Modification Proposal?**	
Rationale: We are not aware of any issues related to potential market abuse as a result of this modification at this time.		
Q5	**Do you have any further comments on Modification Proposal P77 that you wish to make?**	
Please state your comments This modification seems to be aimed at trying to resolve an issue that affects a limited number of parties who use the England – Scotland interconnector. This may be appropriate under the current arrangements but we would note that the proposals for BETTA would remove the current arrangements for interconnector use by merging the interconnector into the transmission businesses of the licensees that own the assets. Whilst we recognise that these arrangements are still in development, and will not be implemented until 2004, we have some concern that the modification will be instigating significant change for a problem that will only be transient. Further, we also believe that the implications for capacity allocation on the England – France Interconnector should be investigated. Although we appreciate that this is outside the vires of the BSC we believe it is important to note when making any decision on the commercial impacts that this modification may have.		

P77_ASS_009 – London Electricity

Respondent:	*Name* **Liz Anderson**
Responding on Behalf of	*Please list all Parties responding on behalf of (including the respondent company if relevant).* London Electricity, South Western Electricity, Jade Power, Sutton Bridge Power and West Burton Ltd
Role of Respondent	*(BSC Party/IU/IA/IEA/SO/Other)* **BSC Party**

	Question	**Response Yes/No**
Q1	**Do you agree that allowing an Interconnector User to register 2 additional BM Unit pairs better facilitates the applicable BSC objectives?**	**Yes**

Rationale:

At present Interconnector Users have to anticipate the System Operator's dynamic requirements for a particular settlement period, and only offer plant of that type, thus leading to a sub-optimal provision of bid-offers.

Where Interconnector Users own more than one power station the Modification Proposal would allow them to reflect the individual plant dynamics of power stations, or different plant types, behind the Interconnector to the System Operator. Thus more BM Units will be able to effectively compete in the Balancing Market allowing the System Operator to carry out more efficient BM actions. This would better achieve the applicable BSC objectives;

- 3(b) "The efficient, economic and co-ordinated operation by the Transmission Company of the Transmission System."
- 3(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."

Q2	**Do you believe that an additional two pairs of Interconnector BMUs is sufficient to enable the plant dynamics of IUs to be more easily represented?** **If not, what is your suggested level and why?**	**Yes**

Rationale:

Three BM Unit pairs would appear to be the minimum number of units required, as stated by the Modification's proposer at the Interconnector Modification Group's first meeting.

Q3	**The Interconnector Modification Group (IMG) believe that it is not necessary to distinguish between different Interconnector types (eg. AC and DC).** **Do you believe that no distinction should be made between different Interconnector types in the Balancing and Settlement Code?**	**Yes**

Rationale:

We do not believe that there are any grounds for discrimination in the BSC on the basis of particular interconnector technology.

Q4	**The IMG believe that no issues exist within the Balancing and Settlement Code related to Market Abuse.** **Do you believe that any issues related to potential Market Abuse under the Balancing and Settlement Code are raised as a result of this Modification Proposal?**	**No**

Rationale:

We agree with the Interconnector Modification Group's conclusions that the introduction of additional Interconnector BMUs would not increase the potential for market abuse.

Q5	**Do you have any further comments on Modification Proposal P77 that you wish to make?**	**Yes**

Please state your comments

We believe that the modification proposal benefits the market as a whole because, as stated in our response to Qu.1, it better achieves the applicable BSC objectives 3(b) and 3(c). This implies that any costs should be allocated in the usual manner.

P77_ASS_010 – Scottish and Southern Energy

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

In relation to the Assessment Consultation on Modification Proposal P77, contained in your note of 13th May 2002 and the five questions posed, our comments on the questions are as follows:-

Question 1
Yes. Under the BSC at present only one set of dynamics can be presented to NGC as SO at any one time for each BMU, including Interconnector BMUs. This prevents the different dynamics of plant behind the Interconnector from being presented to NGC simultaneously. This means that the Interconnector User has to in effect second-guess NGC's requirements for BM plant, before making that plant available through the BM for Bids and Offers. This means that not all plant behind the Interconnector is being made fully available to NGC, and so results in inefficiency of operation of the BM. Additional BMUs will allow the different plant dynamics to be made fully available to NGC simultaneously and continuously, so removing the element of second-guessing by the IU. This will improve the efficiency of operation of the BM, increase competition in the BM and so better fulfill the relevant BSC objectives, in particular the promotion of competition in the generation and supply and sale and purchase of electricity.

Question 2
An additional two BMU pairs would be the minimum required to fully represent the dynamics of e.g. conventional thermal, hydro and pump storage plant. However, due to the introduction of Fast Reserve contracts and the proposed PGB contracts, which both require facilitation through the BM and rely on the set of dynamics posted therein, there is justification for allowing for the IU to apply for up to a further two pairs of additional BMUs. This would take the overall total that can be applied for up to five (four additional), three for operation in the BM, and two for operation under contracts.

Question 3
There is no need to distinguish between Interconnector types. To do so would add complication to the BSC, could raise issues of discrimination and is not necessary. There is no need to distinguish between the two types as all the BSC needs to be is permissive, allowing additional BMUs to be applied for. If the external system cannot accommodate use of these BSC rules, or if there is no desire by participants to use them, then this can be taken care of in the Interconnector Agreements/external rules governing that Interconnector.

Question 4
There are no issues raised by the modification that may not already be present and available to portfolio players and those with multiple supplier BMUs. If anything the scrutiny of the operation of the Interconnector rules makes an IU's behaviour highly visible, and any potential inappropriate behaviour more unlikely than that by other non-IU participants. Ultimately, should this modification not be approved, an IU could use "shell" or Group companies to achieve a similar result as the modification. In this case however, the lower level of transparency of operation and lack of control over the number of "shell" BMUs would increase the potential for inappropriate behaviour.

Question 5
We have no further comments.

Regards
Garth Graham
Scottish & Southern Energy plc

P77_ASS_011 – Scottish Power

Respondent:	Man Kwong Liu
Responding on Behalf of	*Please list all Parties responding on behalf of (including the respondent company if relevant).* *Scottish Power UK Plc; Scottish Power Energy Trading Ltd.; Scottish Power*

	Generation Ltd.; Scottish Power Energy Retail Ltd.; SP Transmission Ltd.
Role of Respondent	*(BSC Party/IU/IA/IEA/SO/Other)* BSC Party/IU/IA/IEA

	Question	**Response Yes/No**
Q1	**Do you agree that allowing an Interconnector User to register 2 additional BM Unit pairs better facilitates the applicable BSC objectives?**	**Yes.**
Rationale: Interconnector Users may have the capability to provide a number of different services across the Interconnector. The current arrangement whereby only one BM Unit, with one set of associated dynamic parameters, is available in each direction is unduly restrictive and prevents the full range of possible services from being offered. Allowing registration of two additional BM Unit pairs would remove this restriction and would better promote competition in the generation and supply of electricity.		
Q2	**Do you believe that an additional two pairs of Interconnector BMUs is sufficient to enable the plant dynamics of IUs to be more easily represented?** **If not, what is your suggested level and why?**	No.
Rationale: This question might better be framed as "Do you believe that two additional Interconnector BMUs would be sufficient to enable IUs to participate satisfactorily in the separate short term physical markets." Interconnector Users could have the generating plant capability to compete simultaneously in the base load, load following, fast response, standing reserve and PGB contract markets if sufficient BMUs were available within their Interconnector capacity entitlement. ScottishPower believes that up to four additional BM Unit pairs would better promote competition in the generation and supply of electricity.		
Q3	**The Interconnector Modification Group (IMG) believe that it is not necessary to distinguish between different Interconnector types (e.g. AC and DC).** **Do you believe that no distinction should be made between different Interconnector types in the Balancing and Settlement Code?**	Yes.
Rationale: ScottishPower believes that no distinction should be made between different types of Interconnector. The purpose of the BSC is to set out the arrangements by which the energy flows across an Interconnector are accommodated within the England and Wales balancing and settlement arrangements. The vehicle by which those energy flows are transported is not relevant to these arrangements.		
Q4	**The IMG believe that no issues exist within the Balancing and Settlement Code related to Market Abuse.** **Do you believe that any issues related to potential Market Abuse under the Balancing and Settlement Code are raised as a result of this Modification Proposal?**	No.
Rationale: ScottishPower does not believe that any issues relating to market abuse are raised by this Modification Proposal.		
Q5	**Do you have any further comments on Modification Proposal P77 that you wish to make?**	**Yes.**

Please state your comments
The Interconnector arrangements under NETA were drawn up at a late stage in the development of the new market and were based on the arrangements in the Pool Rules. However, the capability to use multiple BMUs afforded by the Pool Rules was not carried into the new market because of the perceived complexity of the issue and the late stage in the development programme. Experience has demonstrated that the market is the poorer for this. Modification Proposal P77 is an attempt to recover lost ground and, with the extension to four additional pairs of BM Units, should be accepted on the grounds that it will better promote competition in the generation and supply of electricity

P77_ASS_012 – National Grid

Respondent:	Nigel Brooks
Responding on Behalf of	National Grid
Role of Respondent	Transmission Company

	Question	**Response Yes/No**
Q1	**Do you agree that allowing an Interconnector User to register 2 additional BM Unit pairs better facilitates the applicable BSC objectives?**	See Below
Rationale: We believe that there is a potential benefit from this proposal providing that the additional BM Units are used in a responsible manner that allow the Transmission Company to carry out its duties efficiently.		
Q2	**Do you believe that an additional two pairs of Interconnector BMUs is sufficient to enable the plant dynamics of IUs to be more easily represented? If not, what is your suggested level and why?**	Yes
Rationale: The additional BM Units should not be seen as representing specific plant but different types of characteristics. Hence two additional pairs of BM Units per Interconnector User should be adequate.		
Q3	**The Interconnector Modification Group (IMG) believe that it is not necessary to distinguish between different Interconnector types (eg. AC and DC). Do you believe that no distinction should be made between different Interconnector types in the Balancing and Settlement Code?**	See Below
Rationale: The BSC does not currently differentiate between AC and DC Interconnectors and many of the rules for Interconnector Users (capacity entitlement, Interconnector Administrator, etc.) are outside the scope of the BSC. The distinction between AC and DC Interconnectors can be treated in the same way providing that Additional BM Units can only be used subject to the relevant Interconnection Agreements.		
Q4	**The IMG believe that no issues exist within the Balancing and Settlement Code related to Market Abuse. Do you believe that any issues related to potential Market Abuse under**	See Q1.

	the Balancing and Settlement Code are raised as a result of this Modification Proposal?	
Rationale:		
Q5	**Do you have any further comments on Modification Proposal P77 that you wish to make?**	See Below
Please state your comments The more pairs of BM Units allowed the greater the potential impacts on Transmission Company systems and process. These impacts will be assessed further during the Modification process.		

P77_ASS_013 – British Energy

Respondent:	***Rachel Ace***
Responding on Behalf of	***British Energy Generation Ltd., British Energy Power & Energy Trading Ltd., Eggborough Power Ltd.***
Role of Respondent	***BSC Party***

	Question	**Response Yes/No**
Q1	**Do you agree that allowing an Interconnector User to register 2 additional BM Unit pairs better facilitates the applicable BSC objectives?**	***No***
Rationale:		
Q2	**Do you believe that an additional two pairs of Interconnector BMUs is sufficient to enable the plant dynamics of IUs to be more easily represented?** **If not, what is your suggested level and why?**	***Not Applicable***
Rationale: ***See answer to question 1***		
Q3	**The Interconnector Modification Group (IMG) believe that it is not necessary to distinguish between different Interconnector types (eg. AC and DC).** **Do you believe that no distinction should be made between different Interconnector types in the Balancing and Settlement Code?**	***Yes (no distinction)***
Rationale:		
Q4	**The IMG believe that no issues exist within the Balancing and Settlement Code related to Market Abuse.** **Do you believe that any issues related to potential Market Abuse under the Balancing and Settlement Code are raised as a result of this Modification Proposal?**	***No***
Rationale: Not an issue relating to Market Abuse per se, but there may be issues relating to preferential treatment of IU's and costs incurred by the remainder of the industry. Refer to comments in Q5 below.		
Q5	**Do you have any further comments on Modification Proposal P77 that you wish to make?**	***Yes***

Please state your comments:

We do not agree the proposed modification better facilitates the applicable BSC objectives. Allowing a particular category of BSC party to register multiple BM units could be viewed as discriminatory. The prime driver for this modification proposal is to allow Interconnector Users to provide additional services to the system operator, particularly in the post PGB era. This can still be achieved by the IU's via setting up separate legal entities allowing necessary additional BM units to be acquired via this route. Whilst this may not be the most elegant solution, it nevertheless ensures:

1. Costs associated with securing the additional BM units rest solely with the Parties causing the costs to be incurred and are not therefore incurred by all other parties to whom the 'benefits' of multiple BM units are not available.
2. No specific additional central system costs are incurred other than the normal incremental costs derived from any newly registered BSC Party

It is unclear why the IMG have been directed to exclude the onset of BETTA from consideration in this Mod. It should be noted that the Scotland-England Interconnector will cease to exist as an entity when BETTA is implemented in 2-3 years time which will negate the need for this facility

It should also be noted that IU's have the benefit of consolidation to minimise imbalance.

P77_ASS_014 – Aquila Networks

Hello,

Please find that Aquila Networks response to P77 Assessment Consultation is 'No Comment'.

regards
Rachael Gardener

Deregulation Control Group & Distribution Support Office
AQUILA NETWORKS

ANNEX 5 – TRANSMISSION COMPANY ANALYSIS

The following impact assessment was received from the Transmission Company.

1) Do you agree with the proposed Modification P77? (YES/NO*)

2) The Interconnector Modification Group has identified a number of documents that Modification Proposal P77 has the potential to affect. These are identified within the IWA and the Modification Group meeting notes.

   a) Do you believe that there are other Industry Documents that are affected by the introduction of this Modification Proposal? If YES please give a list of the documents affected and the owner.

   The document affected will depend on whether the requirement for BM Units to be in pairs (with at least one of the BM Units in each pair required to be zero). If this is the case then a change to the National Grid owned NETA Data Validation, Consistency & Defaulting Rules document will need to be agreed. This requirement should be reviewed, as the current modification will allow an Interconnector User to have imports active on one BM Unit pair and exports active on another BM Units pair.

   b) If you are the owner of one or more of the documents listed in the IWA or part (a) above please give a predicted timetable for change.

   Refer to question 6.

3) Do you believe that a facility to allow additional Interconnector BMU pairs to be registered will have any impact on your systems and processes? If YES please provide high level cost estimates and development lead time.

   Yes. As any Trading Party can apply to register Interconnector BM Units the maximum theoretical number of BM Units will increase. Viewing the situation against the current number of BM Units associated with the existing Interconnectors there will be an immediate systems issue unless only the Scottish Interconnector BMU pairs.

   We currently model 540 BMUs in the NETA SPICE system and 287 of these need to be modelled in the NETA SORT system. There is a limit in the SORT system set to 350 at present. There are 21 French Inconnector BMU pairs and 4 Scottish Interconnector BMU pairs currently represented in SPICE and SORT. If these 25 pairs are increased to 75 pairs then this means an increase of 100 BMUs. If the increase is to 125 BMU pairs then the increase in BMUs is 200.

   In both cases there is a requirement to increase the size of the SORT database and perform testing to ensure no other associated limits need increasing.

   The effect on the performance of the National Grid NETA systems of the large increase in the number of BMUs modelled would also need to be tested to ensure performance is still acceptable to all parties.

   This work would cost approximately £10,000 without BM Unit Pair checking/£40,000 with BM Unit Pair checking (please see question 6 for details of EDT pair checking). This excludes any changes to software identified as a result of the testing.

   As the NETA development and test teams are fully engaged in 1 Hour Gate Closure work until 2nd July and some urgent changes can be expected to be needed post go live, this work should not start before September 2002. Implementation will take one and a half months (from approval of modification, with earliest implementation possible November 2002) without the BM Unit Pair checking/four months (from approval of modification earliest implementation January 2003) with the BM Unit pair checking.

4) What is the maximum number of additional BMU pairs per IU that your systems and processes can currently efficiently support?

This will be identified from the testing referred to in response 2 above. At this stage it is only possible to say that 2 additional pairs is preferable to 4 additional pairs. It is worth noting that 200 extra BMUs to model the Interconnectors on SORT would be a substantial increase in BMUs in comparison to the current total of 287 BMUs.

5) If you were to implement a change to accommodate additional BMU pairs for Interconnector Users please indicate whether there is any difference in the costs and lead times to develop the change or at what point the number becomes inefficient, if different values of BMU pairs (up to a maximum of 5 additional BMU pairs) per IU were chosen by the Modification Group.

Subject to testing, the difference is only likely to be in the area of performance. Again the testing will be required to identify the degree of change for differing numbers of pairs. Clearly the larger the increase in BMUs the bigger effect on performance.

6) Please give details of the impact this Modification Proposal will have on the EDT rules for ensuring that the FPNs of the two BMUs in an Interconnector BM Unit pair are not non zero at the same spot point time (**Please note that this question is aimed at the System Operator / Interconnector Administrator / Interconnector Error Administrator**).
If this checking is required for each Interconnector BM Unit pair, the cost of the development would be in the region of £30,000 and should not be scheduled to start before September 2002. This would include updating documentation. Four months elapsed time should be allowed for the delivery this work (see answer to question 3).

The requirement for this checking when an Interconnector User has several pairs of BM Units should be reviewed as part of the Modification Assessment Process.

7) Please state the impact that this Modification Proposal will have on the BM Unit registration times required by the SO and if it will be possible to shorten the timescale for registration (**Please note that this question is aimed at the System Operator only**)

The volume of changes will impact upon resources and to allow for Business continuity we do not consider it appropriate to change the timescales in BSCP15.

8) Please give details of any other impacts you believe that this modification has that have not previously been covered.

Impact of changes on Externally Interconnected System Operators. The flexibility to use the addition BM Units proposed in this BSC modification should be subject to the agreement of the System Operator and the relevant Interconnector Agreements.

9) Any Additional Comments:
Multiple Interconnector BM Unit naming conventions need to be established.

ANNEX 6 – PROPOSED TEXT TO MODIFY THE BSC

The red lined version of the proposed legal changes to the Code are contained within a separate document (Proposed Legal Text for P77 version 6.0).

The Modification Group has reviewed the attached legal text and has confirmed that it addresses the defect raised in the Modification Proposal.