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INITIAL ASSESSMENT OF MODIFICATION PROPOSAL P77 - Interconnector Multiple BM Units

Prepared by ELEXON Limited

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I DOCUMENT CONTROL

a Authorities

Version	Date	Author	Signature	Change Reference
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1.0		Trading Department		For Panel Decision

Version	Date	Reviewer	Signature	Responsibility
0.1		Trading Department		Peer Review
0.2		Chris Rowell		Formal 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 Intellectual Property Rights and Copyright

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1 SUMMARY

1.1 Modification Proposal P77

Modification Proposal P77 'Interconnector Multiple BM Units' was raised by Scottish and Southern Energy plc on 5 April 2002. The Modification Proposal seeks to increase the number of pairs of BM Units an Interconnector User may register, from the current limit of one pair (one for Production and another for Consumption) to allow an additional two pairs to be registered.

The proposal 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 dynamics submitted by the Party. The proposer further suggests that the present arrangements limit the choice of plant available to the System Operator.

1.2 Areas of Impact

An initial assessment of Modification Proposal P77 has identified the following areas of impact:

- **The Balancing and Settlement Code:**
  - 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 "each pair of" BM Units will need to be put into a plural form.
- **BSC Systems and processes**
  - It is possible a change may be required to the Central Registration Agent software to allow multiple Interconnector BM Unit pairs per Party.
- **Other Documents**
  - It is possible that there may be changes required to the British Grid Systems Agreement, the two Scottish Grid Codes, the two Scottish Interconnector Access and Allocation Codes and the Use of Interconnector Agreement.
- **Party Systems and Processes**
  - Changes will be required to the systems and processes used by the Interconnector Administrator.

1.3 Recommendation

It is recommended that the Modification Proposal be progressed as follows:

- **Modification Proposal P77 should be submitted to an Assessment Procedure in accordance with Section F 2.6 of the Balancing and Settlement Code;**
- **That such Assessment should be undertaken by a new Modification Group drawn primarily from members of the Imbalance Settlement Group. Representation on the Modification Group should also be invited from the System Operator, Interconnector Users, Interconnector Administrators and Interconnector Error Administrators; and**

- **The Assessment Report for Modification Proposal P77 should be submitted to the Panel for consideration at their meeting of 18 July 2002.**

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 ('BSC'). 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 BSC.

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

3 DESCRIPTION OF THE MODIFICATION PROPOSAL

Under the current[1] baseline of the Code, each Party wishing to trade across any Interconnector applies to register, and is allocated two notional BM Units. Each of these notional BM Units is designated as a Production BM Unit and a Consumption BM Unit respectively and is defined within the Code as an Interconnector BM Unit. Modification Proposal P77 seeks to increase the number of pairs of Interconnector BM Units an Interconnector User can register to allow an additional two pairs of BM Unit to be registered. This will allow the Interconnector User to more accurately reflect the dynamics of the plant available to them.

Currently Interconnector Users predict the type of dynamics that may be required by the System Operator and attempt to match this prediction with the plant at their disposal. For example if the Interconnector User believes that fast response may be required for a given Settlement Period, they will submit Bids/Offers and plant dynamics that match the fast response plant they may have available.

4 IMPACT ON BSC SYSTEMS AND PROCESSES

BSC System / Process	Potential Impact of Proposed Modification
Registration	An increase in the number of BM Units Registered for an Interconnector User may require a system change.
Balancing Mechanism Activities	The System Operator will have increased flexibility when making Bid/Offer Acceptances across the Interconnector.

[1] As at the date of drafting this report – 12 April 2002.

5 IMPACT ON OTHER SYSTEMS AND PROCESSES USED BY PARTIES

System / Process	Potential Impact of Proposed Modification
Interconnector Administrator	The Interconnector Administrator's systems and processes will need to be changed to accommodate the additional BM Units.
Interconnector Error Administrator	The Interconnector Error Administrator currently separates any Energy Imbalance Volumes across the Trading Parties that use the Interconnector. With the adoption of this modification, further effort will be required by the Interconnector Error Administrator to segregate any Imbalance Metered Volumes across each BM Unit traded across the Interconnector. This may require system and process changes.
System Operator	The System Operator will have an increased choice of BM Units that can have Bid/Offer Acceptances made on them.

6 IMPACT ON DOCUMENTATION

6.1 Impact on Balancing and Settlement Code

BSC Section	Potential Impact of Proposed Modification
K: Classification and Registration of Metering Systems and BM Units	Impact is limited to textual amendments to allow a Party to register more than one pair of Interconnector BM Units.
Q: Balancing Mechanism Activities	Minor textual amendments to refer to Production and Consumption Interconnector BM Units in the plural form.

6.2 Impact on Core Industry Documents

Modification Proposal P77 has a potential impact on the British Grid Systems Agreement and Use of Interconnector Agreement.

6.3 Other documents and Processes

Modification proposal P77 may have a consequential impact on the following documents:

- The two Scottish Grid Codes;
- The two Scottish Interconnector Access and Allocation Codes; and
- The Interconnector Framework Agreement (and its subsidiary documents).

7 PROCESS AND TIMETABLE FOR PROGRESSING THE PROPOSAL

The Initial Assessment of Modification Proposal P77 'Interconnector Multiple BM Units' shows that there are minor changes to the Code and Code Subsidiary Documents to allow the registration of more than one pair of BM Units by a an Interconnector User.

On this basis, a recommendation is made that Modification Proposal P77 be submitted to an Assessment Procedure, with the Assessment to be undertaken by a new Modification Group. This group will be formed from the Imbalance Settlement Group and augmented with any interested representatives from the Interconnector Users, Interconnector Administrators and the Interconnector Error Administrators.

It is recommended that the Assessment Report be prepared and submitted to the Panel for consideration at their meeting of 18 July 2002.

It should be noted that this period of Assessment has been requested to allow for impact assessments to be undertaken with respect to BSC Systems, Interconnector Users and the Interconnector Error Administrator and Core Industry Documents.

8 ISSUES

The following issues will need to be considered and addressed in the progression of Modification Proposal P77:

8.1 Limit of Three Interconnector BM Unit pairs.

The Modification Proposal suggests an increase in the maximum limit of Interconnector BM Unit pairs from the existing single pair to three pairs. This has been based on the different types of plant the proposer may wish to offer over the Interconnector and has been primarily included to address concerns over the open ended nature of not having such a limit. The Modification Group will need to assess whether three pairs of Interconnector BM Units are sufficient.

8.2 Interconnector Error Administrator Systems and Processes

Imbalance Charges

The Interconnector Error Administrator is currently responsible for passing the Imbalance Charges it receives onto the relevant Interconnector Users. It is anticipated that whilst the existing rules within the Code for the administration of Imbalance Charges will remain unchanged, there is potential for additional work with respect to the internal processes and systems of the Interconnector Administrator and Interconnector Error Administrator. To understand this issue further it is suggested that any full impact assessments are carried out by both the Interconnector Administrator and the Interconnector Error Administrator.

8.3 Interconnector Administrator Systems and Processes

Initial feedback from the Scottish Interconnector Administrator has indicated that there will be a significantly greater impact on them than the Modification Proposal suggests. It is therefore proposed that in order to address such issues formal impact assessments are requested from all Interconnector Administrators during the progression of the Assessment Procedure.

8.4 Potential for Market Abuse

The introduction of additional Interconnector BM Unit pairs gives the ability for the Interconnector User to offer plants with different dynamics. It may be possible that, as plant dynamics can be altered up the commencement of a real time Settlement Period, that the trading rules could be exploited in order to force the System Operator to take a different type of plant to the one that they would normally have taken.

8.5 Effect on the British Electricity Trading and Transmission Arrangements (BETTA)

It should be recognised that any decision in respect of this Modification Proposal may impact and will need to be considered during the progression of BETTA.

8.6 Scope of Modification With Respect to Existing Interconnectors

There are significant differences in the characteristics between the Scottish Interconnector and the French and Isle of Mann Interconnectors. The Scottish and the Isle of Mann Interconnector are Alternating Current (AC) Interconnectors whilst the French Interconnector operates using Direct Current (DC). Individual plant dynamics can be fully represented within the data submitted to the System Operator for an AC Interconnector. However, for DC Interconnectors, the dynamics are controlled by the relevant Interconnector Operator (National Grid and RTE on a rotating basis). With the progression of this Modification Proposal, it may be appropriate to recognise the difference between the two types of Interconnector within the Balancing and Settlement Code.

8.7 Cost Recovery

The proposal will potentially involve significant changes to the Interconnector Administrators systems and processes. The cost recovery of changes to the systems that may be required were this Modification Proposal to be progressed will need to be considered as a bilateral matter between the affected Party and the Authority.

ANNEX 1 – MODIFICATION PROPOSAL

Modification Proposal	**MP No: 77** *(mandatory by BSCCo)*

Title of Modification Proposal *(mandatory by proposer)***:**

Interconnector Multiple BM Units

Submission Date *(mandatory by proposer)***:** 05 April 2002

Description of Proposed Modification *(mandatory by proposer)***:**

At present 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 an additional 2 pairs of BM Units on each Interconnector that it is a User.

Description of Issue or Defect that Modification Proposal Seeks to Address *(mandatory by proposer)***:**

Like any other BM Unit, each Interconnector BM Unit has an associated set of dynamic parameters, which apply to both FPNs and Bid/Offer Pairs. With the limit of only one Production BM Unit and one Consumption BM Unit for each Interconnector User, the dynamics of the different types of plant behind the Interconnector cannot be fully represented. This presents operational difficulties to both the Interconnector User (IU) and to NGC and limits the ability of Interconnector Users to make bids and offers which fully reflect the dynamic capabilities of plant which is physically available to deliver bids and offers. In short, only one set of independent dynamics can be submitted at any one time, and as such, the IU can only compete in one sector of the Balancing Mechanism at any one time, when plant is available to do more. This limits IU participation in the Balancing Mechanism, therefore limiting liquidity in the Balancing Mechanism.

The following example illustrates the issue. An IU with 500 MW of Interconnector Capacity Entitlement (ICE) submits an FPN at Gate Closure of 300 MW. The spare ICE of 200 MW is backed up by 200 MW of generation from different sources of plant offered into the Balancing Mechanism. With only one Production BM Unit allowed under the BSC, it is impossible to represent the dynamics of the different types of plant. This means they can neither be fully reflected to NGC nor effectively delivered. As a consequence, the IU has to anticipate NGC's dynamic requirements, and offer only plant of that type. This leads to a sub-optimal provision of Bid/Offers, and in addition, because of the constantly changing dynamics causes uncertainty for NGC which leads to increased BM costs.

The limitations on IU participation in the Balancing Mechanism could be eliminated by a change to the BSC allowing for more than one pair of BM Units for each IU. This would allow the different types of plant behind the Interconnector to be more fully represented in, and take part in the Balancing Mechanism. It would allow IUs to continuously offer a variety of response types and enable NGC to efficiently choose between offering different services as required. The limitations are equally applicable to Bids as well as Offers. This proposal seeks the provision of 2 additional pairs of BM Units for each IU, which could be used to represent the different dynamics of available plant behind the Interconnector.

Modification Proposal	**MP No: 77** *(mandatory by BSCCo)*

Impact on Code *(optional by proposer)***:**

Minor changes to the Code. These are a non-exhaustive list, but cover the main areas. Sections:

Q 3.2.3(e)(iii) - this should be amended to

" the MW level for BM Units associated with an Interconnector and an Interconnector User shall be such that at no time is the value of FPN(t) for a Production BM Unit and a Consumption BM Unit a non-zero amount for the same spot time."

K5.5.2 - this should be amended to

The Interconnector Error Administrator shall, upon its appointment as such becoming effective, automatically be allocated (and registered in respect of) two Interconnector BM Units in accordance with paragraph 5.5.5(a).

K5.5.5 - this should be amended to

"Each Party who registers Interconnector BM Units in relation to any Interconnector:

(a) will be allocated (and registered in respect of) two Interconnector BM Units designated as a Production BM Unit and a Consumption BM Unit respectively; and

(b) may apply to register up to 2 additional BM Units pairs, each pair designated as a Production BM Unit and a Consumption BM Unit respectively."

Q2.2.2 this should be amended to "In respect of Interconnector BM Units:

(a) the value of Maximum Import Limit for the Production BM Units shall be zero;

and

(b) the value of Maximum Export Limit for the Consumption BM Units shall be zero.

Impact on Core Industry Documents *(optional by proposer)***:**

Minor change to BGSA appendix to Code 7

Impact on BSC Systems and Other Relevant Systems and Processes Used by Parties *(optional by proposer)***:**

Dissaggregation by IA of additional Interconnector BM Units

Impact on other Configurable Items *(optional by proposer)***:**

Modification Proposal	**MP No: 77** *(mandatory by BSCCo)*

Justification for Proposed Modification with Reference to Applicable BSC Objectives *(mandatory by proposer)***:**

The applicable BSC objective is:

BSC Section B1.2.2(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;

The proposal will facilitate competition in the Balancing Mechanism (and the Fast Reserve market). At present BOAs across the Interconnector are limited in their effectiveness due to the limited representation of dynamics at the Interconnector brought about by the lack of BM Units available to each IU. This proposal will facilitate competition across all sectors of the market, but particularly in the fast response (Fast Reserve) sector.

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