

## **ASSESSMENT REPORT for Modification Proposal P175 Development of Provisions Related to Certain Bid-Offer Acceptances Issued Pursuant to the Grid Code (e.g. BC2.9 and BC2.10)**

**Prepared by: Pricing Standing Modification Group (PSMG)**

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**Reason for issue:** Panel Decision

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

### **RECOMMENDATIONS**

The Pricing Standing Modification Group (PSMG) invites the Panel to;

- **AGREE that the Proposed Modification P175 should not be made;**
- **AGREE a provisional Implementation Date for Proposed Modification P175 of 5 Working Days after an Authority decision;**
- **AGREE that Modification Proposal P175 be submitted to the Report Phase; and**
- **AGREE that the draft Modification Report be issued for consultation and submitted to the Panel Meeting on 13 January 2005.**

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<sup>1</sup> The current version of the Balancing and Settlement Code (the 'Code') can be found at <http://www.elexon.co.uk/bscrelateddocs/BSC/default.aspx>

## CONTENTS TABLE

<b>Summary of impacted parties and documents .....</b>	<b>4</b>
<b>1 Description of Proposed Modification and assessment against the Applicable BSC Objectives.....</b>	<b>5</b>
1.1 Modification Proposal .....	5
1.2 Issues raised by the Proposed Modification .....	7
1.2.1 Scope of Solution.....	7
1.2.2 Impact on Energy Imbalance Prices .....	10
1.2.3 Solution Development .....	16
1.2.4 Cost Claim Process for deemed Grid Code Acceptances.....	20
1.2.5 Related Rejected Modification Proposals.....	24
1.2.6 Pay as Bid Principle.....	24
1.2.7 Interaction with Related Modification Proposals .....	26
1.3 Assessment of how the Proposed Modification will better facilitate the Applicable BSC Objectives .....	28
1.3.1 Applicable BSC Objective (b) .....	29
1.3.2 Applicable BSC Objective (c).....	29
1.3.3 Applicable BSC Objective (d) .....	30
1.3.4 Conclusion .....	30
1.4 Alternative Modification.....	30
1.5 Governance and regulatory framework assessment .....	30
<b>2 Costs .....</b>	<b>30</b>
<b>3 Rationale for Modification Group's recommendations to the Panel.....</b>	<b>32</b>
3.1 Proposed Modification .....	32
3.2 Implementation Dates.....	32
<b>4 Impact on BSC Systems and Parties .....</b>	<b>32</b>
4.1 BSCCo.....	32
4.2 BSC Systems .....	32
4.3 Parties and Party Agents .....	33
<b>5 Impact on Code and documentation .....</b>	<b>33</b>
5.1 Balancing and Settlement Code .....	33
5.2 Code Subsidiary Documents .....	33
5.3 Impact on Core Industry Documents and supporting arrangements.....	33
<b>6 Summary of consultations.....</b>	<b>34</b>
6.1 Modification Group's summary of the consultation responses.....	34
6.1.1 Assessment Against Applicable BSC Objectives .....	34
6.1.2 Potential Alternative Modifications not Progressed by the PSMG.....	35
6.1.3 Appropriate Scope .....	35
6.1.4 Implementation Approach .....	35
6.1.5 Replacement Price Methodology .....	36
6.1.6 Definition of Claimable Costs .....	36
6.1.7 De Minimis Level for Compensation Claims .....	36
6.1.8 Appeal of Compensation Determinations .....	36
6.1.9 Further Comments.....	36
6.2 Comments and views of the Modification Group .....	37
<b>7 Summary of Transmission Company analysis .....</b>	<b>37</b>
7.1 Analysis .....	37
7.2 Comments and views of the Modification Group .....	38
<b>8 Implementation approach.....</b>	<b>38</b>
<b>9 Document control .....</b>	<b>39</b>
9.1 Authorities .....	39

9.2	References .....	39
<b>Annex 1</b>	<b>Draft legal text .....</b>	<b>40</b>
<b>Annex 2</b>	<b>Modification Group Membership &amp; Terms of Reference.....</b>	<b>40</b>
<b>Annex 3</b>	<b>Assessment Consultation responses .....</b>	<b>41</b>
<b>Annex 4</b>	<b>Transmission Company analysis.....</b>	<b>41</b>
<b>Annex 5</b>	<b>BSC Agent impact assessments.....</b>	<b>42</b>
<b>Annex 6</b>	<b>Party and Party Agent impact assessments .....</b>	<b>42</b>
<b>Annex 7</b>	<b>Clarification of Costs.....</b>	<b>42</b>
<b>Annex 8</b>	<b>Legal Advice on Human Rights .....</b>	<b>44</b>
<b>Annex 9</b>	<b>Response to Legal Advice on Human Rights .....</b>	<b>44</b>

## SUMMARY OF IMPACTED PARTIES AND DOCUMENTS

As far as the PSMG has been able to assess the following parties/documents have been identified as being potentially impacted by Modification Proposal P175:

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

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

## 1.1 Modification Proposal

Modification Proposal P175 'Development of Provisions related to certain Bid-Offer Acceptances issued pursuant to the Grid Code (e.g. BC2.9 and BC2.10)' (P175, Reference 1) was raised on 1 October 2004 by RWE Npower plc (the 'Proposer'). P175 seeks to amend the provisions for treatment of Acceptances entered into Settlement as a consequence of certain instructions issued under BC2.9 and BC2.10 of the Grid Code (NB: Henceforth in this document such Acceptances shall be referred to as 'deemed Grid Code Acceptances').

### **Current Arrangements:**

Under the Grid Code, the Transmission Company issues Bid-Offer Acceptances for intertrips (BC2.10), and for Emergency Instructions (BC2.9). Under the current Grid Code arrangements, Acceptances are not issued as a result of unplanned outages of the Transmission System, Maximum Generation or Demand Control events involving instructions to a Distribution Network Operator or an externally interconnected System Operator. As such, under the current Balancing and Settlement Code (BSC) baseline, deemed Grid Code Acceptances include those associated with intertrips and Emergency Instructions.

Currently deemed Grid Code Acceptances are not distinguished within Settlement in anyway. Hence, the resulting Acceptance will have the following effect:

- The Lead Party of the affected BM Unit will either be paid (or pay) for the Acceptance at the prevailing Bid Price or Offer Price via the Period BM Unit Cashflow;
- As a result of the impact on the Period BM Unit Cashflow for the Lead Party of the affected BM Unit, there will be an impact on Balancing System Use of System (BSUoS) charges for all Parties; and
- The Acceptance Volume will feed into the Energy Imbalance Price calculation at the prevailing Bid Price or Offer Price. This will impact imbalance payments, and consequentially the Residual Cashflow Reallocation Cashflow (RCRC), for all Parties.

### **Proposed Modification P175:**

Under P175 a new mechanism would be introduced that would treat deemed Grid Code Acceptances in the following way:

- As soon as possible after issuing the instruction the Transmission Company would notify industry via the Balancing Mechanism Reporting Agent (BMRA);
- Post event and to set timescales, the Transmission Company would construct the Acceptance Data required to represent the instructed volume within Settlement in accordance with a defined procedure;
- Deemed Grid Code Acceptances would be processed in Settlement in the following manner:
  - A replacement Bid/Offer price would be derived from the prices of Bids and/or Offers that would have been taken by the Transmission Company had the instruction not been issued. The Acceptance would then be included in the existing Energy Imbalance Price calculation at this replacement price. This approach would be utilised in an attempt to represent the consequential 'energy' balancing that may be delivered by an instruction issued for System balancing reasons;

- The Acceptance would be excluded from the Period BM Unit Cashflow such that the Lead Party of the affected BM Unit would not be paid (or pay) for the Acceptance at either the prevailing or replacement Bid/Offer price;
- Since the Lead Party of the affected BM Unit would not be paid (or pay) for the Acceptance at either the prevailing or replacement Bid or Offer price it would be possible for the Party to apply under the BSC for compensation for any costs incurred in responding to the instruction. The costs claimable by the Party would be based on the costs incurred in responding to the instruction and would include costs associated with plant damage but would exclude any amounts received or paid under the Connection Use of System Code (CUSC) or any other bilateral agreement with NGC. It is the intention of the Proposer that in the long term most compensation would be received outside the BSC such that the cashflow under the BSC would be zero in almost all cases; and
- A process would be required in order for any compensation amounts paid to the Lead Party of the affected BM Unit to be recovered from the Transmission Company where appropriate.

In the case of unplanned outages of the Transmission System or maximum Generation and Demand Control events involving instructions to a Distribution Network Operator or an externally interconnected System Operator, there are currently no provisions for the creation of Bid-Offer Acceptances under the Grid Code. P175 seeks to introduce a methodology into the BSC which could be applied to any of these events should future amendment of the Grid Code result in the creation of an Acceptance in Settlement under such circumstances. It should be noted that the creation of such provisions under the Grid Code is not within the scope of P175.

### **History:**

#### **Emergency Instructions**

The first Emergency Instruction was issued under NETA on 19 May 2004, details of this incident were outlined in ELEXON Circular (EL01201) and are summarised below.

On 19 May 2004, it was determined that a piece of high voltage equipment was showing signs of distress and needed to be taken out of service as soon as possible in order to prevent an unsafe situation. The location of the distressed equipment meant that it was necessary to stop Damhead Creek Power Station exporting to the Transmission System. At 12:51 BST on 19 May 2004, NGT issued an Emergency Instruction to Damhead Creek Power Station to perform a controlled shutdown and desynchronise the BM Unit as quickly as possible. The power station complied with the instruction and the equipment was isolated safely.

In this case, the prevailing Bid Price for a large proportion of the Acceptance Volume was £-9,999/MWh. NGC initially postponed submitting the Acceptance Data due to the likely Settlement implications for Market Participants. A Trading Dispute was eventually raised by Damhead Creek Power Station in order to include the Acceptance in Settlement.

The Trading Disputes Committee (TDC) heard the Trading Dispute on 19 August 2004 and agreed that a Settlement Error had occurred. The TDC directed that a Bid Acceptance should be entered into Settlement in the R3 Reconciliation Run on 15 December 2004. Inclusion of the Acceptance Data will impact the calculation of System Sell Price (SSP) for the relevant periods. ELEXON's estimate of the revised SSPs which will result from the inclusion of the Bid Acceptance is:

- -£96.68/MWh in Settlement Period 27<sup>2</sup>; and

<sup>2</sup> NB: A negative SSP will mean that a Party who was 'long' during the Settlement Period will pay the absolute value of SSP for its imbalance volume (rather than receive it).

- -£5,870.87/MWh in Settlement Period 28.

NGT has also indicated that the £3.55M cost of the Bid Acceptance and the associated impact on Incentivised Balancing Costs will result in changes to BSUoS charges for the relevant periods.

### Intertrips

No intertrips have been 'fired' (i.e. operated) since NETA Go-Live (i.e. 27 March 2001).

### Process Followed

ELEXON presented an Initial Written Assessment (IWA) of P175 (Reference 2) to the Balancing & Settlement Code Panel ('the Panel') at its meeting on 14 October 2004. The Panel agreed with the recommendation that P175 be submitted to a two-month Assessment Procedure to be carried out by the Pricing Standing Modification Group (PSMG).

The PSMG has met four times to consider P175 - on 15 October, 12 November, 22 November and 30 November 2004. At the first meeting, the PSMG developed the proposed solution, formed initial views on the issues raised in the IWA and agreed the content of a consultation document to be issued to the industry. P175 was subsequently issued for consultation in order to support the assessment of P175 against the Applicable BSC Objectives. At the final two meetings, the PSMG considered the consultation responses received and concluded its assessment of P175.

## 1.2 Issues raised by the Proposed Modification

To date, the PSMG has considered the following aspects of P175:

- Scope of Solution;
- Impact on Energy Imbalance Prices;
- Solution Development;
- Compensation Mechanism for Deemed Grid Code Acceptances;
- 'Pay as Bid' Principle;
- Related Rejected Modification Proposals; and
- Interaction with related Modification Proposals.

The following subsections document the discussions and the conclusions of the PSMG on each of the above issues.

### 1.2.1 Scope of Solution

P175 seeks to alter the treatment of deemed Grid Code Acceptances within the BSC. Under the existing Grid Code baseline, the arrangements proposed under P175 would only apply to Acceptances related to 'Emergency Instructions' and 'Intertrips' respectively (i.e. pursuant to BC2.9 and BC2.10). However, it was the initial intention of the Proposer that the P175 arrangements should apply to all deemed Grid Code Acceptances – i.e. were the range of circumstances under which Acceptances are issued pursuant to the Grid Code expanded, the P175 arrangements would apply to these additional circumstances.

Under Sections Q5.1.3 (b) and Q5.1.5 of the BSC, Emergency Instructions and intertrips issued under the Grid Code are treated as Acceptances:

*"5.1.3 The following communications only shall be classed as Acceptances for the purposes of the Code:*

- (b) a communication issued as an Emergency Instruction in respect of a BM Unit in accordance with BC2.9, excluding BC2.9.1.2(e), of the Grid Code, which:*

- (i) *complies with the requirement in paragraph 5.1.4, and*
- (ii) *was not rejected by the Lead Party on safety grounds in accordance with BC2.9.2.1 of the Grid Code."*

*"5.1.5 The operation of an intertrip in the circumstances described in BC2.5.2.3 of the Grid Code shall be treated as being an Acceptance falling within paragraph 5.1.3(b), and for the purposes of determining Acceptance Data pursuant to paragraph 5.3 in relation thereto there shall (subject to paragraph 5.3.3) be a single Acceptance Volume Pair for which the 'from' and 'to' times are the time of operation of the intertrip and the 'to' volume is the MW level implied by the operation of the intertrip"*

## Emergency Instructions

The PSMG requested details of the circumstances which would require an Emergency Instruction to be issued under the Grid Code.

The Transmission Company indicated that all Emergency Instructions are issued in order to preserve the integrity of the GB Transmission System and any synchronously connected External System. Grid Code Section BC2.9 gives examples of the types of Emergency Instructions that may be issued:

*"BC2.9.1.2 Examples of circumstances that may require the issue of **Emergency Instructions** include:-*

- (a) ***Events on the GB Transmission System or the System of another User;***  
*or*
- (b) *the need to maintain adequate **System** and **Localised NRAPM** in accordance with BC2.9.4 below; or*
- (c) *the need to maintain adequate frequency sensitive **Generating Units** in accordance with BC2.9.5 below; or*
- (d) *the need to implement **Demand Control** in accordance with OC6; or*
- (e) *(i) the need to invoke the **Black Start** process or the **Re-Synchronisation of De-Synchronised Island** process in accordance with OC9; or*  
*(ii) the need to request provision of a **Maximum Generation Service**.*

*BC2.9.2.3 In all cases under this BC2.9 except BC2.9.1.2 (e) where **NGC** issues an **Emergency Instruction** to a **BM Participant** which is not rejected under BC2.9.2.1, the **Emergency Instruction** shall be treated as a **Bid-Offer Acceptance**. For the avoidance of doubt, any **Emergency Instruction** issued to a **Network Operator** or to an **Externally Interconnected System Operator** will not be treated as a **Bid-Offer Acceptance**.<sup>3</sup>*

The PSMG noted that Emergency Instructions may be issued for a range of different circumstances and the solution developed under P175 must be flexible enough to accommodate these circumstances.

## Operational Intertrips

The PSMG requested details of the circumstances in which an operational intertripping scheme would be installed and the circumstances in which it would be 'armed' and 'fired'.

An intertrip is a device that automatically trips a generator (or demand site) off the Transmission System (the 'System') when it receives a specific signal. The signal is delivered if a specific fault on the System occurs. The requirement for an intertrip is usually identified at the time of connection, and is specified within the Bilateral Connection Agreement (BCA) between NGT and the connecting party.

<sup>3</sup> Definitions of terms used in this extract are provided in the Grid Code.



The Transmission Company indicated that, at present, five main types of intertripping schemes existed:

- **Type 1:** a System to Generator Intertripping Scheme arising from a Variation to Connection Design consistent with the criteria specified in the Security and Quality of Supply Standard (SQSS) as established pursuant to Condition 12 of the Transmission Licence.
- **Type 2:** a System to Generator Intertripping Scheme required to alleviate an overload on a circuit, that connects the group containing the Generator to the rest of the System. The operation of the Scheme means any MW reduction from the Generator has exactly the same MW reduction on the circuits that connect the Generator to the rest of the System (when any system losses or third party system effects are ignored). The Scheme is installed in accordance with the requirements of the planning criteria of the SQSS for measures to be taken to permit maintenance access for each transmission circuit and for such measures to be economically justified.
- **Type 3:** a System to Generator Intertripping Scheme installed as an alternative to reinforcement of a third party system, where the Scheme removes overloads on the third party system e.g. a distribution system. The Scheme is installed in accordance with paragraph 1.4 of the SQSS.
- **Type 4:** a System to Generator Intertripping Scheme installed at the request of NGC under circumstances when the Generator would be disconnected from the Transmission System and where the use of such schemes would be beneficial in order to facilitate the timely restoration of critical circuits.
- **Type 5:** a System to Generator Intertripping Scheme may be installed as a commercial arrangement between Generator and NGT. Terms and remuneration for the Scheme would be agreed by both Parties. Such schemes are used to resolve general system issues (i.e. not issues locationally specific to the generator with the Scheme).

The PSMG noted that intertripping schemes may be installed on a mandatory or voluntary basis.

### Other Operational Instructions

In the case of unplanned outages of the Transmission System, Maximum Generation or Demand Control events involving instructions to a Network Operator or an externally interconnected System Operator, there are currently no provisions under the Grid Code for the creation of Bid-Offer Acceptances.

P175 seeks to introduce a methodology into the BSC which could be applied to any of these events should future amendment of the Grid Code result in the creation of an Acceptance in Settlement under such circumstances. However, it should be noted that while it would be desirable that P175 be robust to potential changes in the Grid Code, this is not one of the fundamental objectives of the Modification Proposal.

#### 1.2.1.1 Options

The PSMG considered two options for defining and future proofing the scope of P175 within the BSC to be:

1. **'Closed Approach':** under this approach, the P175 arrangements would be explicitly restricted under the BSC to Acceptances issued pursuant to Emergency Instructions and Intertrips. Therefore, these circumstances would be cited within the BSC. This would mean that the scope of the P175 arrangements (i.e. in terms of the Acceptances to which it applied) could not be changed without a further Modification to the BSC.

2. **'Open Approach':** under this approach, the P175 arrangements would apply to all deemed Grid Code Acceptances. As a consequence, any additional categories of deemed Acceptances introduced to the Grid Code in the future would feed into the BSC.

### 1.2.1.2 Favoured Approach

The PSMG noted that the BSC treats as Acceptances within Settlement (1) Emergency Instructions issued to BM Units (i.e. Grid Code BC2.9) and (2) instructions issued to BM Units pursuant to the operation of an intertrip (i.e. Grid Code BC2.5.2.3 and BC2.10). However, the PSMG also noted that Grid Code sections BC2.9 and BC2.10 cover a wider set of operational instructions which are not currently accompanied by Acceptances (e.g. Demand Control and Maximum Generation Service).

The PSMG concluded that the 'Closed Approach' to the scope of P175 should be adopted for two reasons. First, because generic references to the Grid Code would introduce uncertainty into Settlement. Second, because the application of P175 treatment to further categories of deemed Grid Code Acceptances would best be decided on a case-by-case basis.

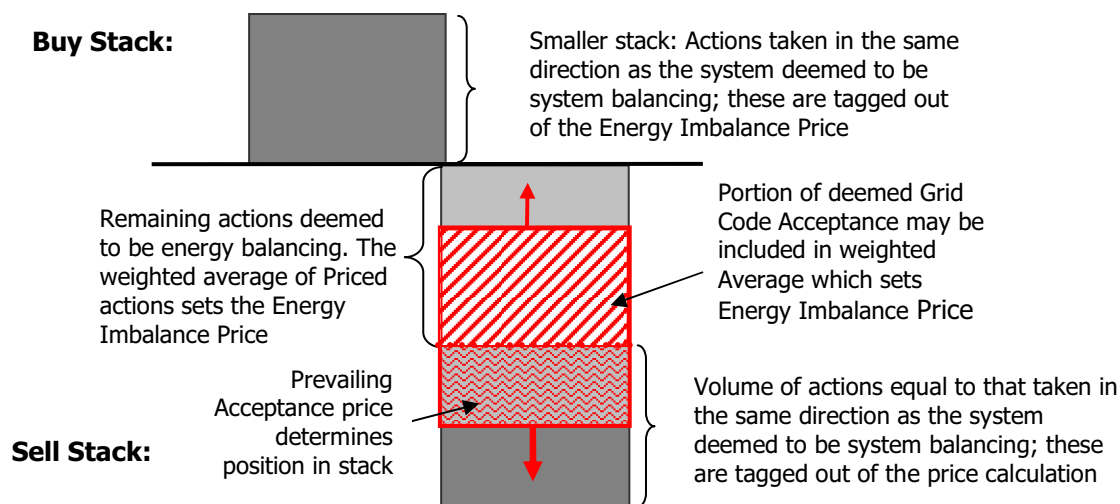
### 1.2.2 Impact on Energy Imbalance Prices

P175 proposes Acceptances resulting from Emergency Instructions issued for System reasons would be included in the Energy Imbalance Price with a replacement price (rather than the prevailing Bid/Offer price). The PSMG have considered how this would affect the calculation of Energy Imbalance Prices.

The following diagrams illustrate the treatment of a deemed Grid Code Acceptance under the current arrangements and P175. In the examples, a deemed Grid Code Acceptance has been issued reducing the output of a BM Unit during a Settlement Period when the System would otherwise be long. It should be noted that in both cases the Energy Imbalance Price calculation is identical, it is only the price applied to the Acceptance which differs.

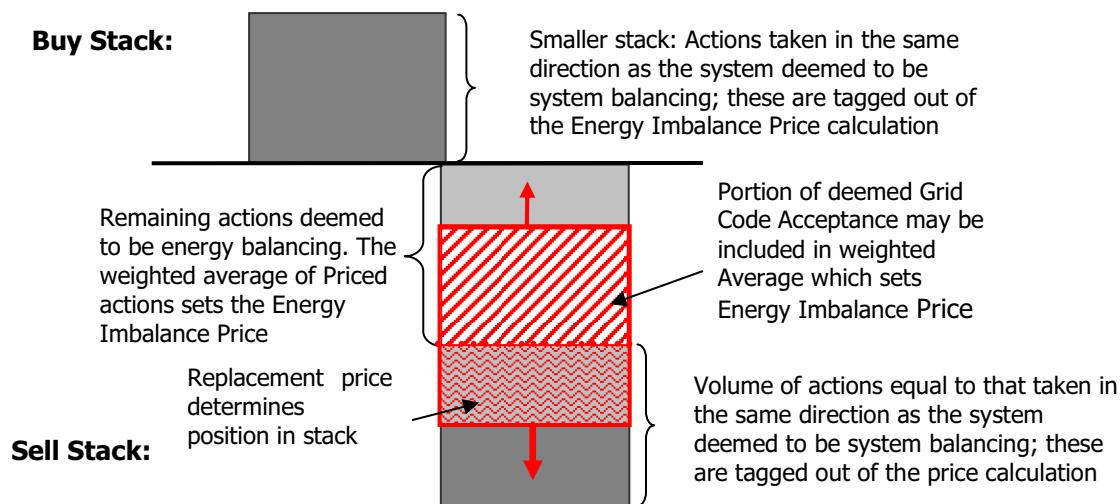
#### Current Baseline:

Under the current baseline the prevailing Bid/ Offer Price determines the position of the deemed Grid Code Acceptance within the NIV tagging stack. It is therefore possible that the deemed Grid Code Acceptance may be included in the portion of the stack which is deemed to be energy balancing and, as a consequence, may be included in the weighted average which sets the Energy Imbalance Price. If this is the case, under the current baseline, the prevailing Bid/Offer Price will influence the Energy Imbalance Price.



**P175:**

Under P175 the replacement price will determine the position of the deemed Grid Code Acceptance within the NIV tagging stack. It is therefore possible that the Emergency Instruction may be included in the portion of the stack which is deemed to be energy balancing and, as a consequence, may be included in the weighted average which sets the Energy Imbalance Price. If this is the case, under P175, the replacement price will influence the Energy Imbalance Price.



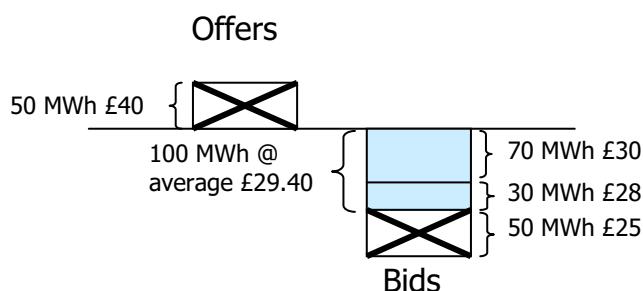
Note that the Energy Imbalance Price calculation would be the same as under the current baseline, except that the replacement price would be assigned to the deemed Grid Code Acceptance instead of the prevailing Bid/Offer price. The replacement price would be selected in order to represent the energy balancing actions that would have been taken in the absence of the Grid Code action from which the deemed Grid Code Acceptance resulted. Therefore, the resulting Energy Imbalance Price would be equivalent to that generated in the absence of any System balancing element of such action.

**1.2.2.1 Worked Examples**

The following scenarios demonstrate the impact of P175 on Energy Imbalance Price calculation. These examples illustrate how the use of a replacement price could be considered to give an Energy Imbalance Price more closely aligned with that calculated in the absence of a deemed Grid Code Acceptance.

**Scenario A: Market Long (No Deemed Grid Code Acceptance)**

- Market 'long' by 100 MWh

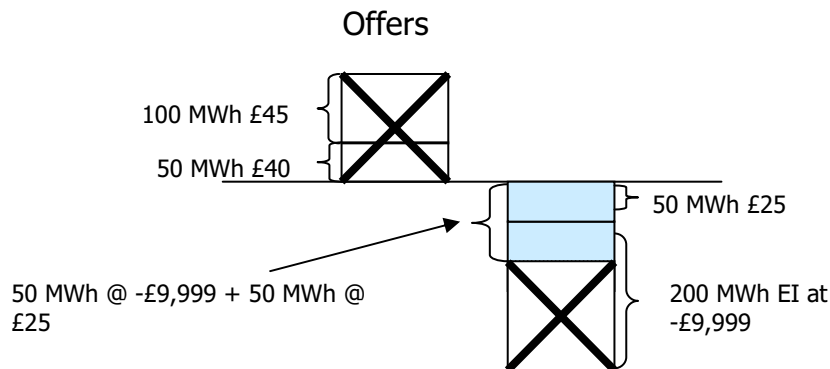


- SO takes 50MWh of Offers and 50MWh of Bids for 'System' purposes
- SO takes 100 MWh of Bids for 'Energy' purposes
- NIV Tagging removes 50 MWh of Offers and 50 MWh of Bids
- **Market 'long' & Main Price SSP = £29.40** ( $30 \times 0.7 + 28 \times 0.3$ )

In this scenario the market is long and the cost of the Bids deemed to deliver energy balancing is reflected in the resulting Energy Imbalance Price.

### Scenario B: Market Long Prior to deemed Grid Code Acceptance (Current Code Baseline)

- Market 'long' by 100 MWh prior to deemed Grid Code Acceptance
- Deemed Grid Code Acceptance issued which reduces market length by 200 MWh

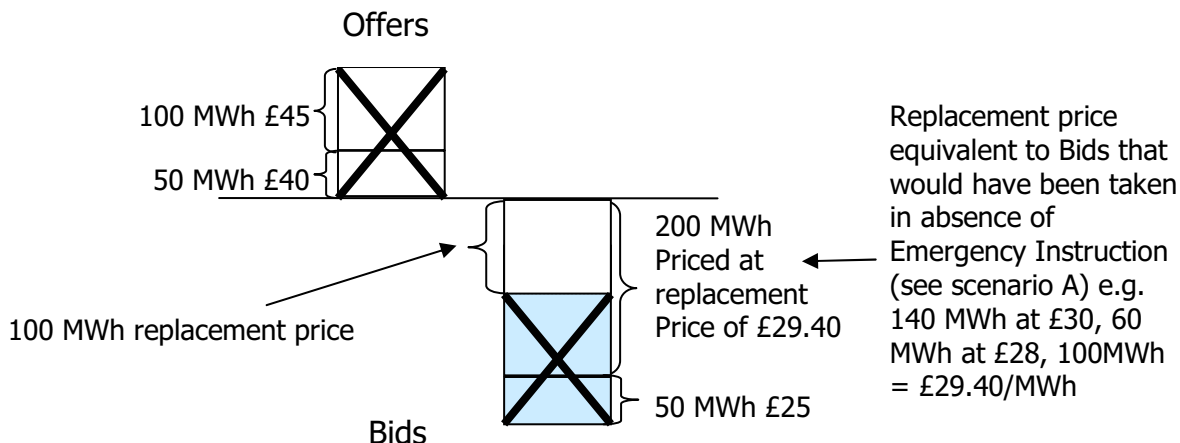


- SO issues BOA for 200 MWh (at prevailing Bid price -£9,999) to affected Party
- SO takes 50 MWh of Bids & 50 MWh of Offers for (it is assumed that these were taken at a price equal to those actions deemed 'System' in Scenario A on the basis that the same system conditions were being addressed)
- SO takes 100 MWh of Offers to counteract effect of deemed Grid Code Acceptance
- NIV Tagging removes 150 MWh of Offers and 150 MWh of Bids (i.e. a portion of the deemed Grid Code Acceptance)
- **Market 'long' & Main Price SSP = -£4,987 (i.e. -9,999x0.5 + 25x0.5)**

In this scenario, since a proportion of the deemed Grid Code Acceptance is deemed to have delivered energy balancing, the cost of the deemed Grid Code Acceptance is reflected in the resulting Energy Imbalance Price. Hence, the deemed Grid Code Acceptance has directly influenced the Energy Imbalance Price (in this case resulting in a large negative SSP). Therefore, under the current baseline any consequential energy balancing delivered by a deemed Grid Code Acceptance is explicitly priced at the prevailing Bid/ Offer price.

### Scenario C: Market Long Prior to deemed Grid Code Acceptance (P175)

- Market 'long' by 100 MWh prior to deemed Grid Code Acceptance
- Deemed Grid Code Acceptance issued which reduces market length by 200 MWh



- Deemed Grid Code Acceptance volume (200 MWh) feeds into Bid stack at the 'replacement' price.
- SO takes 50 MWh of Bids and 50 MWh of Offers for 'System' purposes
- SO takes 100 MWh of Offers to counteract deemed Grid Code Acceptance
- NIV Tagging removes 150 MWh Offers and 150 MWh of deemed Grid Code Acceptance
- **Market 'long' & Main Price SSP = £29.4 (i.e.  $30 \times 0.5 + 28.8 \times 0.5$ )**

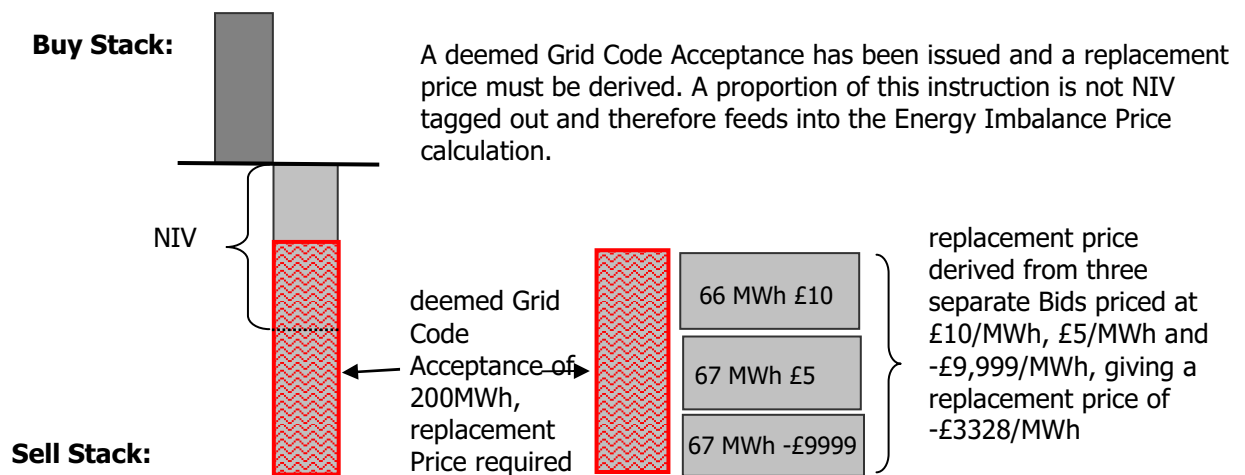
In this scenario, the proportion of the deemed Grid Code Acceptance that is deemed energy balancing has been included in the Energy Imbalance Price at the average price of Bids that would have been accepted in the absence of a deemed Grid Code Acceptance. Hence, the direct cost of the deemed Grid Code Acceptance is not included in the Energy Imbalance Price, however the cost of the actions that would have been required in the absence of the deemed Grid Code Acceptance is reflected (this is observed via an SSP equal to that in the scenario where no deemed Grid Code Acceptance is issued). Therefore, under P175 any consequential energy balancing delivered by an deemed Grid Code Acceptance is implicitly priced at the average price of actions that would have been taken in the absence of a deemed Grid Code Acceptance.

In the scenario above, a Party which has over contracted would be in the same financial position as a result of the deemed Grid Code Acceptance that it would be had the emergency action not been taken (since the SSPs are equal).

The PSMG agreed that if there were not enough Bid-Offer Pairs to offset the relevant Acceptance Volume, or only enough Bid-Offer Pairs to offset a portion of the relevant Acceptance Volume, then the relevant Acceptance Volume (or part thereof) would be included in the Energy Imbalance Price calculation at the price associated with the Bid or Offer that the Transmission Company had actually accepted (i.e. the Emergency Instruction or Intertrip). The mechanics of this process are considered in detail in the next section.

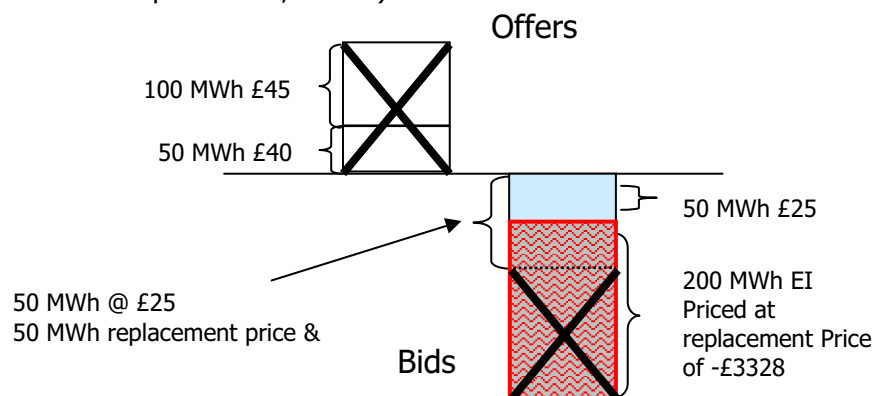
#### Further development of the solution:

The PSMG initially agreed that the replacement price should be derived based on the average cost of Bids and Offers that would have been taken by the Transmission Company in the absence of the deemed Grid Code Acceptance. This replacement price would then be applied to the entire deemed Grid Code Acceptance Volume. However, it was noted that this approach may give significantly different results in comparison to the situation where the Transmission Company took a number of individual actions in order to realise an equivalent volume. This is illustrated in the following example:



### **Scenario 1: Single deemed Grid Code Acceptance Volume**

Inclusion of the entire deemed Grid Code Acceptance volume at the average price of a number of Bids can result in each of the Bids used to set the replacement price influencing the Energy Imbalance Price (as illustrated via impact of -£9,999 Bid).

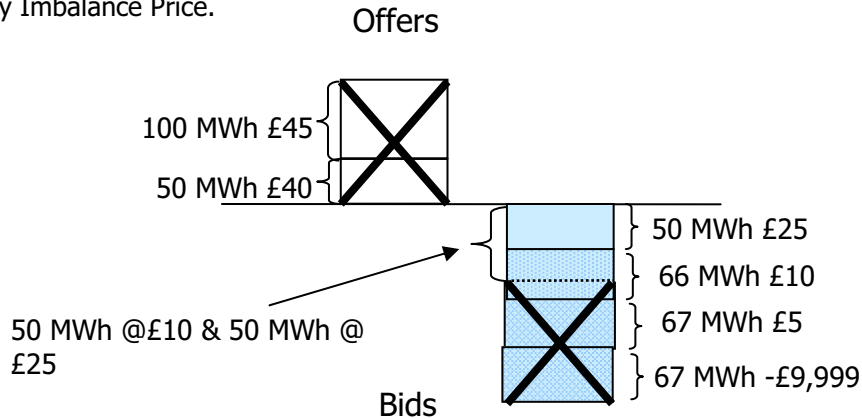


- Deemed Grid Code Acceptance volume (200 MWh) feeds into Bid stack at the 'replacement' price.
- NIV Tagging removes 150 MWh Offers and 150 MWh of deemed Grid Code Acceptance
- **Market 'long' & Main Price SSP = £-1676.5 (i.e. 25x0.5+ -3328x0.5)**

The previous example demonstrated that, where a single replacement volume is used for the deemed Grid Code Acceptance, each of the actions used to set the replacement price could potentially influence the Energy Imbalance Price. However, use of a replacement price is intended to give an Energy Imbalance Price equivalent to that which would be calculated in the absence of a deemed Grid Code Acceptance, comparison of scenario 1 and scenario 2 illustrates how this may not be the case when a single replacement volume is used:

### **Scenario 2: No deemed Grid Code Acceptance**

Here the high cost Bids have been tagged out of the price calculation and therefore do not influence the Energy Imbalance Price.



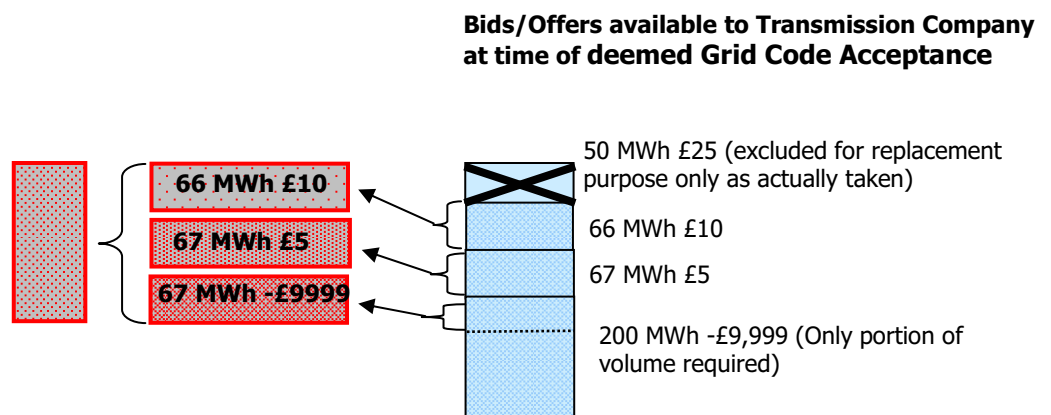
- Deemed Grid Code Acceptance volume (200 MWh) feeds into Bid stack at the 'replacement' price.
- NIV Tagging removes 150 MWh Offers and 150 MWh of Bids (including the -£9,999 Bid)
- **Market 'long' & Main Price SSP = £17.5 (i.e.  $0.50 \times £25 + 0.5 \times £10$ )**

The PSMG recognised that, in order to give an Energy Imbalance Price aligned with that generated in the absence of a deemed Grid Code Acceptance; the associated volume would have to be separated to represent each of the individual Acceptances from which the replacement price is derived. This would be achieved by identifying the Bids Offer Paris available to the Transmission Company at the time of the deemed Grid Code Acceptance. From this list those Bids/ Offers that were actually taken by the Transmission Company (with the exception of the deemed Grid Code Acceptance Bid/Offer) would be excluded for the purpose of replacing the deemed Grid Code Acceptance. Replacement volumes would then be selected from the remaining Bids/Offers (in accordance with the Transmission Company's normal methodology for accepting Bids/ Offers) as illustrated in the example below:

### **Deemed Grid Code**

#### **Acceptance:**

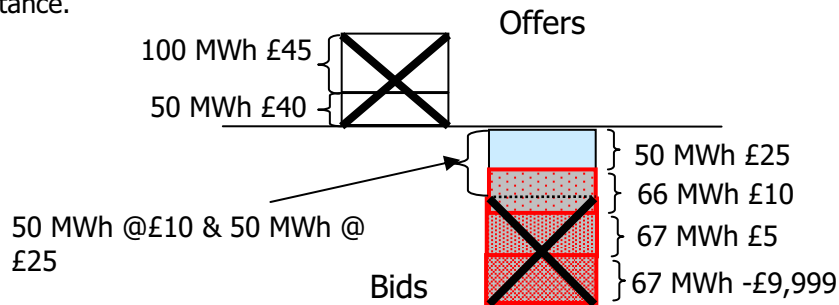
200MWh to be replaced by individual volumes that would have been accepted in the absence of the action.



Comparison of scenario 2 and scenario 3 illustrates that splitting the deemed Grid Code Acceptance into separate volumes results in an Energy Imbalance Price more closely aligned with that generated in the absence of an Emergency Instruction.

### Scenario 3: Split deemed Grid Code Acceptance Volume

Three separate volumes are included in the calculation in order to represent the deemed Grid Code Acceptance.

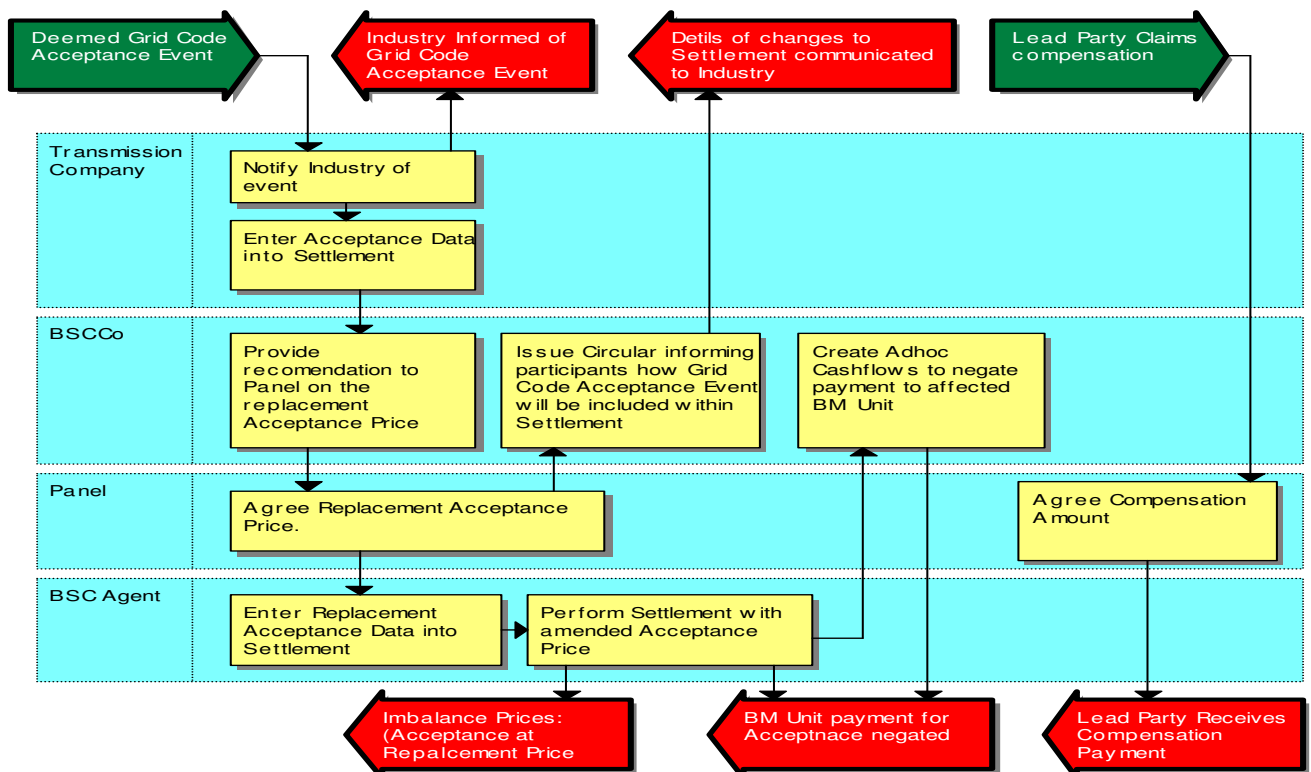


- Three separate Volumes feed into Bid stack to represent the deemed Grid Code Acceptance.
- NIV Tagging removes 150 MWh Offers and 150 MWh of Bids (including the -£9,999 and £5 Bids)
- **Market 'long' & Main Price SSP = £17.5 (i.e.  $25 \times 0.5 + 10 \times 0.5$ )**

In summary, the PSMG noted that Deemed Grid Code Acceptances would be replaced in the Energy Imbalance Price calculation by those Bids/ Offers that would have been taken by the Transmission Company in the Emergency Instruction or Intertrip. However, the PSMG noted that the scenario existed whereby the deemed Grid Code Acceptance would still have been the action taken.

### 1.2.3 Solution Development

The PSMG has developed the proposal submitted into a step-by-step solution. The diagram below provides a high level overview of the solution.





The following subsections describe each step of the process at a high level.

#### **1.2.3.1 Inform Industry of Emergency Instruction/Operation of Intertrip (D)**

The Transmission Company would inform the industry, via the Balancing Mechanism Reporting Service (BMRS) (on a reasonable endeavours basis), as soon as possible following an Emergency Instruction being issued to a BM Unit (or the operation of an intertrip affecting a BM Unit).

The communication would be made via a 'System Warning' message, which is existing functionality, and the information provided would be limited to the time of the Emergency Instruction (or the operation of the intertrip) and the affected BM Unit.

The PSMG agreed that this notification would be required in order to allow the industry to obtain prior warning that a post event Acceptance would be entered into Settlement (consequently impacting Energy Imbalance Prices).

#### **1.2.3.2 Enter Acceptance Data into Settlement (II)**

Following post event analysis of the Emergency Instruction records (or details of the intertrip operation), the Transmission Company would determine appropriate Acceptance Data to represent the Emergency Instruction (or operation of the intertrip) within Settlement.

Since an Emergency Instruction may take a BM Unit outside normal operational Dynamics, it may not be possible for the Transmission Company to issue the required Acceptance Data electronically<sup>4</sup>. Therefore, the Acceptance would be manually entered into Settlement post-event (NB: the system functionality to perform this exists and is currently utilised under BSCP18 'Corrections to Bid-Offer Acceptance Related Data'). This would be conducted prior to the Interim Information (II) Run performed at D+5WD.

For the purposes of Interim Information Run (II), the deemed Grid Code Acceptance would be entered into Settlement at the prevailing Bid/Offer price.

It should be noted that the Credit Cover calculation is based on Trading Charges generated in the II Run, hence the Credit Cover calculation will be based on the prevailing Bid/Offer Price rather than the Replacement Acceptance Price calculated subsequently. This would require the use of the "material doubt" provisions in the event that a Party is subject to Credit Default associated with a priced deemed Bid-Offer Acceptance in the II Run. See section 1.2.3.8 for further details.

#### **1.2.3.3 Determine Replacement Price (prior to SF)**

For all deemed Grid Code Acceptances, it would be necessary for the Panel to agree a replacement price to be used for the purpose of the Energy Imbalance Price calculation (NB: it is not envisaged that the Panel would delegate its responsibility for agreeing the replacement Bid/Offer Price to an Panel Committee). Determination of the replacement price would be targeted for SF. The PSMG noted that in order to achieve this timescale, special Panel meetings might need to be arranged.

The Panel would determine the replacement price by considering which Bids and Offers would have been taken by the Transmission Company had the Emergency Instruction not been issued (or intertrip not operated). This process would be conducted in a similar manner to that used to determine a replacement price under the Manifest Errors process (as detailed in BSCP14, Reference 3 and section Q7.5.2 of the Code). A specific BSCP might need to be created to document this process.

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<sup>4</sup> Note that Applicable Emergency Instructions are not issued electronically as they must be preceded with the words "This is an Emergency Instruction" (BC2.9.2.2). Additionally, Grid Code BC2.6.2 says that Emergency Instructions will normally be issued by telephone. Therefore the Acceptances would need to be entered into Settlement manually, post event.

Section Q7.5.2 (a) of the Code states that "the Panel shall determine (in its opinion) in consultation with the Transmission Company:

- i) *what other Bid-Offer Pairs (submitted by any Party) were available to, and not already accepted by, the Transmission Company at the Bid-Offer Acceptance Time;*
- ii) *which of those other Bid-Offer Pairs would (in the circumstances which gave rise to the Transmission Company accepting the Error Bid-Offer Pair(s), and having regard to the principles on which the Transmission Company generally selects Bid-Offer Pairs for acceptance) have been accepted by the Transmission Company, at the Bid-Offer Acceptance Time, if it had not accepted (by the relevant Acceptance) the Error Bid-Offer Pair;*
- iii) *the Bid Price or Offer Price of such Bid-Offer Price (or where it determines that more than one would have been accepted, the average of such prices, weighted according to the quantities (in MWh) of each which would have been accepted*  
  
*(and for these purposes it shall be assumed that one or more of the Bid/Offer Pairs referred to in paragraph a(i) would have been accepted."*

The PSMG noted that the process for determining the replacement price under P175 would be slightly different to the Manifest Error provisions. Firstly the Manifest Error provisions state that the Panel will determine which of those 'other' Bid-Offer Pairs would have been accepted. The PSMG felt that the Transmission Company may have actually accepted the same Bid or Offer in normal circumstances as it did in the emergency situation and therefore the Panel should not limit itself to looking at 'other' Bid-Offer Pairs.

In addition the PSMG noted that although the Panel should have regard to the principles on which the Transmission Company generally selects Bid-Offer Pairs, there should be no reference to the circumstances which gave rise to the Transmission Company accepting the relevant Bid/Offer. In fact the Panel should specifically look at what Bid-Offer Pair(s) would have been accepted if there had not been an emergency situation. The PSMG suggested that this should be defined as the Bid-Offer Pair(s) that would have been accepted without taking into account System constraints.

Finally the PSMG noted that if there were not enough Bid-Offer Pairs to offset the relevant Acceptance Volume, or only enough Bid-Offer Pairs to offset a portion of the relevant Acceptance Volume, then the relevant Acceptance Volume (or part thereof) would be included in the Energy Imbalance Price calculation at the price associated with the Bid or Offer that the Transmission Company had actually accepted.

#### **1.2.3.4 BSCCo Calculate Energy Imbalance Prices**

Prior to the first available Settlement Run, which should be the Initial Settlement Run (SF) on D+16WD, BSCCo will calculate the Energy Imbalance Prices that would have been generated had the P175 Settlement rules been applied, as follows:

1. The Settlement Report (SAA-I014 flow) produced at II (D+5WD) for the Settlement Day will include the Acceptance Data associated with the Emergency Instruction at the prevailing Bid/ Offer Price, as a consequence it will indicate that:
  - The Lead Party of the affected BM Unit will be paid (or Pay) for the Acceptance at the prevailing Bid/ Offer Price (this payment/receipt is 'incorrect');
  - The Imbalance Prices will be calculated including the Acceptance Volume at the prevailing Bid/ Offer Price (this price is 'incorrect'); and
  - The latest BSAD data will be included un-modified (this data is 'correct').

It should be noted that no actual cashflows will result from the II Run as this contains purely indicative information.

2. BSCCo will calculate the Energy Imbalance Prices that would have been generated had the P175 rules been applied at the II Run (i.e. the Imbalance Prices that would have been generated if the Emergency Instruction had not been issued and the replacement Acceptances had been taken instead). NB: Where the replacement Acceptances are not known in time for a particular Run, BSCCo will perform the calculation as if the deemed Grid Code Acceptance were included as an un-priced volume.
3. The 'correct' Energy Imbalance Prices would then be communicated to the Settlement Administration Agent (SAA) such that they can be reflected in the SF Run.

#### **1.2.3.5 SAA Perform Settlement with amended BSAD (SF).**

On receipt of the 'correct' Energy Imbalance Prices from BSCCo, the SAA would calculate the amendments required to give the correct Imbalance Prices in the SF<sup>5</sup> Run. This would then be implemented via 'adjustment' of BSAD for the affected Settlement Period(s) as follows:

1. By comparison of the 'correct' Imbalance Prices calculated by BSCCo's market monitoring system (TOMAS) and the 'incorrect' Prices generated in the II Run, the required adjustments to the Imbalance Prices ( $\Delta BP_j$  and  $\Delta SP_j$ ) would be calculated;
2. These adjustments ( $\Delta BP_j$  and  $\Delta SP_j$ ) would then be included in the BSAD price adjustment data such that:

$$\text{'Adjusted' } BPA_j = \text{'Original' } BPA_j + \Delta BP_j$$

$$\text{'Adjusted' } SPA_j = \text{'Original' } SPA_j + \Delta SP_j$$

(NB: Original refers to BSAD as submitted by NGC and Adjusted refers to BSAD amended to give the desired Imbalance Prices)

3. The Settlement Run would then be conducted using 'adjusted' BSAD and would give the 'correct' Energy Imbalance Prices.

For the avoidance of doubt, "adjusted" BSAD is the mechanism that is used in order to provide an adjusted Energy Imbalance Price as part of this process. BSAD published on the BMRA will not be amended as a consequence of this process.

The SF Run would be performed using 'adjusted' BSAD, giving Energy Imbalance Prices equivalent to those that would have been generated if the Acceptance Volume resulting from the deemed Grid Code Acceptance had been removed and replaced by the Acceptances that would have been taken in the absence of the action. Therefore, the SAA-I014 flow produced at SF for the Settlement Day will include:

1. The Lead Party of the affected BM Unit being paid (or paying) for the Acceptance at the prevailing Bid/ Offer Price (this payment/receipt is 'incorrect');
2. Energy Imbalance Prices including the replacement Acceptance Volumes instead of the deemed Grid Code Acceptance (this price is 'correct'); and
3. Adjusted BSAD data (this data is 'incorrect').

Prior to conducting the actual Settlement Run the SAA would conduct a 'dry-run' and seek confirmation from BSCCo that the adjustments to BSAD had given the required Energy Imbalance Prices. The actual Settlement Run would only be conducted once confirmation had been received from BSCCo.

<sup>5</sup> Note that completion of this process for SF is contingent on the replacement price having been determined in time.

Note that no change would be required to the BSAD Methodology Statement.

#### **1.2.3.6 Ad Hoc Trading Charges Flow to 'Correct' BM Unit Cashflow**

The difference between the Period BM Unit Cashflow including the deemed Grid Code Acceptance at the prevailing Bid/Offer price and the Period BM Unit Cashflow excluding the deemed Grid Code Acceptance would be calculated. The Lead Party of the affected BM Unit would then be paid or make a payment (as the case may be), through an Ad Hoc Trading Charge, the amount equal to that difference.

#### **1.2.3.7 Iteration of Process**

In order to reflect any changes to the underlying data between Settlement Runs it would be necessary to re-run the process for each Reconciliation Run. Therefore, prior to each Reconciliation Run it would be necessary for BSCCo to recalculate the Energy Imbalance Prices that should have been generated based on the previous Settlement Run data and the latest 'correct' BSAD data. The SAA would then need to amend the BSAD data for each Reconciliation Run to produce the desired Imbalance Prices.

It should be noted that under the manual solution Imbalance Prices would always be based on the previous Settlement Run data. For example, the final Energy Imbalance Prices generated at RF would be based on R3 data.

#### **1.2.3.8 Credit Cover Implications**

The PSMG noted that part of the Credit Cover calculation is based on Trading Charges generated in the II Run. Therefore, for II, the Energy Imbalance Prices used within the Credit Cover calculation will not be based on P175 methodology. The calculation will include the deemed Grid Code Acceptance at the prevailing Bid/Offer price rather than at the replacement price.

Where an Emergency Instruction had been issued to a BM Unit with a high prevailing Bid/Offer Price, the Energy Imbalance Prices in the II Run as performed by the SAA may be higher than they would be if the calculation were performed in accordance with P175. Subsequently, Parties' Credit Cover Percentage may be falsely inflated. However, the PSMG noted that in such a situation BSCCo may be able to apply material doubt in accordance with Section M 1.2.1 (e) of the Code:

*(e) in relation to a Trading Party and Settlement Day, where BSCCo:*

- i) is aware that the ECVAA has not received relevant Interim Information Settlement Run data from the SAA in accordance with Section T5.3.5; or*
- ii) has substantial evidence or other reasons to believe that the data to be derived from the Initial Settlement Run for that Trading Party and that Settlement Day are likely to be significantly different (in the context of that particular Trading Party) from the corresponding Interim Information Settlement Run data received by the ECVAA from the SAA in accordance with Section T5.3.5;*

*the absence of such data or the likelihood of such a significant difference (as the case may be) may, if BSCCo so decides and to the extent that it materially affects matters, constitute a material doubt for the purposes of paragraph 3.4.3(a)(ii).*

#### **1.2.4 Cost Claim Process for deemed Grid Code Acceptances**

Following the issuing of a deemed Grid Code Acceptance, the Lead Party of the affected BM Unit would be able to make a claim for any costs directly incurred in responding to the Emergency Instruction or as result of the operation of the intertrip (whichever the case may be).

The Lead Party of the affected BM Unit (the 'claimant') would need to notify BSCCo within 10 Business Days of the Settlement Day on which the Emergency Instruction was issued (or intertrip operated) of its intention to make a claim. The claimant would have three months from the Settlement Day on which the Emergency Instruction was issued (or intertrip operated) to submit its claim to BSCCo.

However, the submission deadline for a claim could be extended at the discretion of the Panel.

#### 1.2.4.1 Restriction on Eligibility to Make a Claim

The Lead Party of the affected BM Unit would not be able to make a cost claim where it was party to an agreement with the Transmission Company under which:

- the Lead Party has agreed to submit to Emergency Instructions and/or the operation of an Intertrip in return for payment or other commercial benefit; and/or
- the Lead Party is entitled to receive payment or any other compensation or benefit as a result of a deemed Grid Code Acceptance.

The Lead Party would be obliged to provide the Panel with any information that it may require to be satisfied that no such agreement exists.

The PSMG agreed that this restriction was necessary for two reasons:

- **CUSC Most Appropriate Forum for Compensation:** the PSMG noted the statement made by the Authority in its Decision letter (Reference 4) on Modification Proposal P87 'Removal of Market Risk Associated with the Operation of a Generator Inter-trip Scheme' (P87) that '*compensation for operational intertrips should be considered under the CUSC or Charging Methodology governance arrangements rather than under the BSC. This is because it relates to terms for transmission access rather than the details of the electricity trading arrangements*'. In addition, the PSMG thought that providing compensation for Emergency Instructions, which can also be viewed as an access issue rather than a market issue, in a governance structure other than BSC would equally be more appropriate.
- **Avoiding Duplicate Compensation Mechanisms:** were compensation for Emergency Instructions and the operation of intertrips available outside the BSC, this restriction would be necessary to avoid the situation where affected Parties are compensated twice for the same instance and an incentive for Parties to seek compensation in the forum that they believe will offer the most generous compensation.

The PSMG requested legal advice on whether or not adding such a limitation to the proposed BSC compensation arrangements would be within the vires of a Modification Proposal. The legal advice indicated that introducing the proposed caveat on the ability to claim compensation under the BSC would be within vires, noting that a precedent for a similar type of a caveat already existed in the Connection and Use of System Code (CUSC). Paragraph 5.10.1 of that document states:

*"In the event of a Relevant Interruption where the Affected User has not otherwise received compensation under the Balancing and Settlement Code NGC shall be liable to pay the Affected User upon request the Interruption Payment for the Interruption Period."*

Draft legal text for P175 is attached as Annex 1 to this report.

#### 1.2.4.2 Withdrawal of Claim

Under P175, a claimant would be allowed to withdraw its claim at any point.

#### 1.2.4.3 Costs Claimable

The PSMG requested advice on the interpretation of the costs listed under G2.1.4 (i.e. the basis for the guidelines developed under P175). The legal advice received noted that the wording of G1.2.4 indicated

that the determination of what constitutes Avoidable Costs would involve a degree of judgement by the Panel i.e. "the Panel shall have regard to". G2.1.4 identifies a number of categories of costs that may be considered by the Panel in making its determination. However, this paragraph is not exhaustive and the Panel may consider other categories of costs provided that they are not explicitly prohibited from doing so under G2.1.4. For example, the Panel is prohibited from considering a number of categories of potential costs (such as those listed in G2.1.4 (e)), which includes damage to Plant and Apparatus. Therefore, a change would be required to the Code to enable such costs to be considered by the Panel under P175.

The PSMG agreed that, for the purposes of P175, the Panel<sup>6</sup> would make a determination on each cost claim received, on the basis of guidelines based on amended version of the existing 'avoidable costs' provisions contained in section G2 of the Code. However, it was agreed that those guidelines should not be contained in section G itself.

Under these guidelines, in making its determination, the Panel may have regard to any of the following 'costs'<sup>7</sup>:

- lost revenues and revenues earned (i.e. paragraph G 2.1.4(a));
- costs (incurred or saved) of consumption of electricity or fuel (i.e. paragraph G 2.1.4(d));
- costs arising from damage to the Plant and/or Apparatus comprising the affected BM Unit (i.e. Section G 2.1.4(e) (i)) ;
- increases in insurance premiums (i.e. Section G 2.1.4(e) (ii)); ; and
- financing costs and overhead costs (i.e. Section G 2.1.4(e) (iii)).

Several members of the PSMG expressed a concern that costs relating to 'financing' and 'overheads' would be difficult to attribute directly to compliance with a deemed Grid Code Acceptance.

The PSMG agreed that in making a claim, a claimant would not be required to disclose any confidential information to the Panel or BSCCo, where the disclosure of such information is prohibited by a contractual agreement. Although the PSMG noted that withholding confidential information may prejudice the outcome of claim.

In addition, the Panel would also have the discretion to consider any other costs submitted by the claimant in its claim. However, all cost claimed would have to demonstrably meet the following evidential requirements:

- were directly incurred as a result of compliance with the deemed Grid Code Acceptance ;
- were reasonably and prudently incurred, and incurred pursuant to commitments reasonably and prudently made; and
- were incurred during the period for which the relevant deemed Grid Code Acceptance was issued.

In relation to the last evidential requirement (i.e. that costs must be demonstrably incurred during the period for which the deemed Grid Code Acceptance was issued), the PSMG did discuss whether or not costs associated with consequential imbalance in subsequent Settlement Periods should be claimable. The majority of the PSMG concluded this would not be appropriate because it would remove the incentive on Parties to trade out of their imbalance in such situations. Moreover, the period against which costs could be claimed should be consistent with the period for which the deemed Grid Code Acceptance was issued.

<sup>6</sup> It is not envisaged that this determination would be delegated to a Panel Committee.

<sup>7</sup> Note that as per Section G2 of the BSC, for purposes of the P175 claim process, 'costs' would include 'negative' (e.g. revenues earned or costs avoided) as well as 'positive' costs.

However, a minority of the PSMG disagreed, noting that any such costs would have been incurred as a direct consequence of the deemed Grid Code Acceptance. In addition, one of these members indicated that limiting the costs claimable to just those incurred during the period for which the relevant deemed Grid Code Acceptance was issued, could be in breach of Article 1 of the First Protocol of the European Convention on Human Rights.

The PSMG asked ELEXON to obtain external legal advice on this matter.

The legal advice received by BSCCo is attached as Annex 8. However, the member who raised the concern still believed that an issue existed. This member's response to the legal advice is attached as Annex 9. The PSMG noted the advice and the response it, but agreed that neither altered its recommendation in respect of P175.

Note that the advice and the response to it were provided in relation to P173. However, the PSMB believed that the material was relevant to P175 as well. And as such should be attached to this report.

#### **1.2.4.4 Claim Fee & De-Minimis Level**

The PSMG considered whether or not a fee should be paid for submission of claim and whether or not there should be a de-minimis level for making a claim. The PSMG concluded that neither a claim fee nor a de-minimis claim level would be appropriate, noting that these were rare events and the costs involved in making a claim (e.g. establishing the data) could be considerable and as such would act as a natural barrier to vexatious claims.

#### **1.2.4.5 Determination of Claim**

The process for the determination of a cost claim would be as follows:

1. The Lead Party would prepare and submit to BSCCo its estimate of the net costs of operating the BM Unit which would not have been incurred but for the relevant change in Exports and/or Imports as a result of delivering the Emergency Instruction (with an explanation of and supporting information for its estimate).
2. If required by the Panel, the Lead Party would submit a statement signed by its statutory auditors to the effect that the Party's estimate of such costs has been prepared on a fair, complete and reasonable basis.
3. If requested by the Authority, the Panel will discuss with the Authority any determination(s) to be made in relation to the avoidable Costs, and will take account of any guidance from the Authority in making such determination(s); and the Panel will exclude from account (in such determination(s)) any cost, or a cost of any description, which the Authority directs the Panel to exclude.

#### **1.2.4.6 Appeal of Determination**

The PSMG considered whether or not a Panel determination on a cost claim should be open to appeal. However, the PSMG concluded that an appeal process would not be appropriate. Firstly, it would introduce an inconsistency between a Panel determination under P175 and Panel determinations under the comparable 'Contingency Provisions' contained in Section G2 of the BSC (e.g. 'avoidable costs'). Second, making a Panel determination final and binding would provide greater certainty to the process and avoid that process becoming drawn out.

#### **1.2.4.7 Payment of Compensation**

Under P175, any cost claim that was upheld would be given effect through an ad-hoc Trading Charge from the System Operator to the successful claimant.

### 1.2.5 Related Rejected Modification Proposals

The PSMG noted that the relatively broad scope of P175 (i.e. that it covers Emergency Instructions, intertrips and potentially other events) means that it addresses issues covered by a number of previous Rejected Modifications. In particular:

- **Rejected Modification Proposal P80:** The issue of Transmission System faults was addressed by Modification Proposal P80 'Deemed Bid/Offer Acceptance for Transmission System Faults' (rejected by the Authority on 2 September 2003).
- **Rejected Modification Proposal P87:** The issue of intertrip compensation was addressed by Modification Proposal P87 (rejected by the Authority on 2 September 2003). P87 sought to introduce additional provisions for intertrip compensation into the BSC.
- **Rejected Modification Proposal P138:** The issue of Demand Control was addressed by Modification Proposal P138 'Contingency arrangements in relation to implementation of Demand Control measures pursuant to Grid Code OC6' (rejected by the Authority on 19 August 2004).

The view of the Authority (expressed in the P80 and P87 Decision Letters) is that both intertrips and system faults should be compensated under the CUSC rather than the BSC:

*"In summary, Ofgem considers that the issue of compensation for operational intertrips should be considered under the CUSC or Charging Methodology governance arrangements rather than under the BSC. This is because it relates to terms for transmission access rather than the details of the electricity trading arrangements."* (P87 decision letter)

The PSMG noted that, by prioritising compensation for compliance with Emergency Instructions and the operation of intertrips in governance structures other than the BSC, P175 was in keeping with the Authority determinations on P80 and P87.

### 1.2.6 Pay as Bid Principle

The PSMG noted that P175 represented a departure from the 'pay as bid' principle – i.e. the principle whereby Bid-Offer Prices submitted in the Balancing Mechanism (BM) are honoured in Bid-Offer Acceptances (BOAs).

#### Arguments in Favour of Departure from 'Pay as Bid' in for deemed Grid Code Acceptances

A minority of the PSMG believes that, in the limited circumstance of Emergency Instructions and Intertrips, departure from the 'pay as bid' principle is justified and appropriate. The following arguments in favour of departure from the 'Pay as Bid' principle were expressed:

- The BM is a market designed for the provision of balancing services under normal operational conditions. Participation in the BM is not compulsory and Bid-Offer Prices represent commercial positions. Therefore, Emergency Instructions and Intertrips, which represent compulsory instructions issued outside the BM under abnormal operational conditions in which a monopoly may exist, should not be treated 'according to the 'pay as bid' principle.
- Application of the 'pay as bid' principle in emergency circumstances introduces a risk that Parties will reap 'windfall' gains and suffer 'windfall' losses where a deemed Grid Code Acceptance is issued to a BM Unit that has submitted extreme Bid-Offer Prices (e.g. where a Bid-Offer Price has been submitted to signal inflexibility for commercial reasons).
- It was also suggested that Bid-Offer Prices may have consequential risks, such as plant damage, factored in and it may not be appropriate in emergency circumstances or where an Intertrip has been operated for payments to be made for such risks where they are not realised (e.g. where plant damage is not incurred).



- P175, through pricing deemed Grid Code Acceptances at the replacement price and providing a route for claiming compensation for costs incurred, would remove the possibility of 'windfalls' and ensure that Parties responding to Emergency Instructions (or subject to the operation of an intertrip) would be left 'cost neutral' as a result. Furthermore, it was noted P175 did not imply that some Bid-Offer Prices were 'appropriate' and some 'inappropriate' because all prevailing Bid-Offer Prices for deemed Grid Code Acceptances would be replaced under P175, regardless of their magnitude.
- Finally, it was noted that if the prevailing Bid-Offer Price did not cover all 'avoidable costs', the 'pay as bid' may provide a potential disincentive to respond to Emergency Instructions and Intertrip 'arming' instructions. P175, however, would remove this potential disincentive by enabling the affected Lead Party to make a cost claim on the basis of a broad definition of costs<sup>8</sup>.

#### Arguments Against Departure from 'Pay as Bid' for deemed Grid Code Acceptances

The majority of PSMG members were concerned at the departure from the 'pay as bid' principle. The arguments expressed against departure from 'pay-as-bid' were as follows:

- The Grid Code permits Bid-Offer Prices to range from -£99,999/MWh to £99,999/MWh, but movement away from 'pay as bid' implies that there is a definition of an 'appropriate' Bid-Offer Price – i.e. that prices above or below a certain level are inappropriate. Such a notion (of 'appropriate'/'inappropriate' price) would have the effect of introducing a cap on the Bid-Offer Price and run counter to the Authority's comments in its CAP047 Decision Letter "that for a market to function properly, prices must be allowed to fluctuate according to market fundamentals. By introducing a fixed cap, and therefore introducing a limiting range within which prices can fluctuate, Ofgem considers that the investment signals for market providers would be distorted and impaired which would have a negative impact on the development of competition." In addition, it was noted that 'high' Bid-Offer prices can be reflective of the perceived risks and costs of delivering a Bid or Offer
- 'Pay as bid' is fundamental to a competitive BM. P175 risks undermining competition in the BM by ignoring the pricing signals issued by participants in the BM. Such signals may be reflective of the perceived costs and risk associated with delivering a Bid or Offer.
- Parties may be disincentivised from responding to Emergency Instructions because all associated costs would not be able to be included in a cost claimed under P175 (e.g. consequential imbalance costs)<sup>9</sup>. Bid-Offer Prices provide Parties with greater scope to factor in all the perceived costs and risks in responding to an instruction from the System Operator.
- A compensation process based on a cost claim would require a potentially significant administrative effort when compared to the current 'pay as bid' process.

#### Further Comments

An attendee noted that the application of the 'pay as bid' principle to deemed Grid Code Acceptances provides a 'gaming' opportunity for market participants. Whilst market participants might not be able to predict deemed Grid Code Acceptances, they may be able to inflate prices in circumstances in which such an Acceptance is perceived to be more likely e.g. when the Transmission Company has issued that warning that demand control is imminent. P175 would remove this potential 'gaming' opportunity. However, the majority of the PSMG did not believe that such an opportunity exists. Noting that (a) the timing of the issuing of an Emergency Instruction and the Party to which an Emergency Instruction is issued are unpredictable and (b) Bid/Offer Prices cannot be altered post Gate Closure in order to profit

<sup>8</sup> Note that the PSMG noted that the under the Grid Code there is an obligation to respond to Emergency Instructions .

<sup>9</sup> Note that the PSMG noted that the under the Grid Code there is an obligation to respond to Emergency Instructions.

from emergency situations (i.e. 'game'). In addition any Party that 'gamed' would be subject to regulatory oversight.

### 1.2.7 Interaction with Related Modification Proposals

Modification Proposals P171 'Retrospective removal of Emergency Instructions taken for System reasons from Imbalance Price' (P171, Reference 5), P172 'Removal of Emergency Instructions taken for System reasons from Imbalance Price' (P172, Reference 6) and P173 'Revised Settlement Arrangements for Emergency Instructions' (P173, Reference 7) all seek to amend the treatment within Settlement of Acceptances issued pursuant to Emergency Instructions. P171, P172 and P173 were considered by the PSMG in parallel with P175.

Modification Proposal P177 'Removal of Intertrip provisions from the BSC' (P177, Reference 8) seeks to remove the provisions relating to intertrips from the BSC such that an Acceptance would no longer be created to represent the action within Settlement. P177 has been raised as a consequence of Connection and Use of System Code (CUSC) Amendment Proposal 76 'Treatment of System to Generator Intertripping Schemes' (CAP076, Reference 9) which proposes that compensation for intertrips should be addressed under the CUSC. P177 is also being considered by the PSMG and will be the subject of a separate Assessment Report. However, the Assessment Procedure timetable has been set such that it coincides with the progression of CAP076 as far as possible. As a consequence, P177 was submitted to a three-month Assessment Procedure and as such that the associated Assessment Report is scheduled to be presented at the Panel meeting on 13 January 2005.

The table below outlines at a high level the similarities and differences between the key elements of P171, P172, P173, P175, P177 and the potential Alternative Modifications currently being considered by the PSMG:

	P171 & P172	P173	P175	P177 & CAP076
<b>Implementation</b>	Retrospective (P171) Prospective (P172)	Prospective	Prospective	Prospective
<b>Scope</b>	Emergency Instructions (Proposed & potential Alternative)	Emergency Instructions (Proposed & potential Alternative)	Emergency Instructions & Intertrips	Intertrips
<b>Prevailing Acceptance price within Imbalance Price Calculation</b>	BOA un-priced in cash out (Proposed)	BOA at Avoided Costs (Proposed)	BOA priced at "Replacement Price"	No BOA for intertrips
	BOA priced at "Replacement Price" (Alternative)	BOA priced at Expanded Definition of Avoided Costs (Alternative)		
<b>Volume within Imbalance Price Calculation</b>	Included as "system" volume (Proposed & potential Alternative)	BOA volume in cash out (Proposed & potential Alternative)	BOA volume in cash out	Volume included in System BSAD
<b>Payment to affected Party under BSC</b>	Party paid (pays) prevailing Bid/ Offer Price (Proposed & Alternative)	Party paid (pays) for BOA at Avoided Costs (Proposed)	Party may claim costs	None
		Party paid (pays) for BOA at Expanded Definition Avoided Costs		

		(Alternative)		
<b>Compensation</b>	N/A	N/A	Compensation Payment under CUSC or Bilateral	Compensation Payment under CUSC or Bilateral

Table 1: Interactions

The PSMG noted that there were elements of each proposal which were similar that resulted in a number of combinations which, depending on the legal drafting developed, could, in theory be implemented together.

	P171 Pro	P171 Alt		P172 Alt	P173 Pro	P173 Alt	P175
<b>P171 Pro</b>					Y	Y	N
<b>P171 Alt</b>					Y	Y	N
<b>P172 Pro</b>					Y	Y	N
<b>P172 Alt</b>					Y	Y	N
<b>P173 Pro</b>	Y	Y	Y	Y			N
<b>P173 Alt</b>	Y	Y	Y	Y			N
<b>P175</b>	N	N	N	N	N	N	

### **P171 and P172 (Proposed and Alternatives)**

P171 and P172 have the same requirements, with the element of retrospection the only difference between the two proposals; hence the possibility of both proposals being implemented together has not been considered.

### **Retrospective Element of P171**

It was noted that P171 has a retrospective element; the PSMG considered whether it would be possible to implement P171 for historic Emergency Instructions only, whilst implementing another proposal as an ongoing solution. However, it was recognised that in order to do this the enduring change would need to amend the P171 baseline (effectively amending or overwriting sections of the Code which do not currently exist), since the legal drafting of a Modification Proposal must be against the current baseline this approach is not feasible. Therefore, in order to achieve this outcome, a Modification Proposal would have to be raised against the P171 baseline following an Authority decision on P171.

### **P171/P172 Proposed and P175**

Proposed Modifications P171 and P172 require that Acceptances resulting from Emergency Instructions be tagged as un-priced in the Energy Imbalance Price calculation. P175 requires that the same Acceptances are replaced, for the purpose of the Energy Imbalance Price calculation, with Acceptances that would have been taken in the absence of the Emergency Instruction. This different treatment within the Energy Imbalance Price calculation is incompatible; therefore P171/2 Proposed Modifications are incompatible with P175. In addition the scope of P175 extends to intertrips.

### **P173 Proposed/Alternative and P175**

Proposed Modifications P173 requires that Parties affected by an Emergency Instruction would receive Avoidable Costs (or amended Avoidable Costs under the Alternative) incurred in responding to the instruction. Under P175 affected Parties would recover cost incurred via a claim for compensation. Therefore, P173 Proposed and Alternative Modifications are incompatible with P175. In addition the scope of P175 extends to intertrips.

### **P171/P172 Alternative and P175**

Alternative Modifications P171 and P172 require that Acceptances resulting from Emergency Instructions are replaced, for the purpose of the Energy Imbalance Price calculation only, with Acceptances that would have been taken in the absence of the Emergency Instruction. P175 requires the same treatment of Emergency Instructions within the Energy imbalance Price calculation but includes additional elements (such as removal of the BM Unit Cashflow for the instruction and introduction of a compensation claim process). Since P175 would deliver the changes to the Energy Imbalance Price calculation proposed under P171/2 Alternative, with the exception of the retrospective element of P171 as considered above, there is no reason for approving both P175 and P171/2 Alternative Modification. In addition the scope of P175 extends to intertrips.

### **P173 Proposed/ Alternative and P171/P172 Proposed**

P173 proposes that the prevailing Bid/ Offer price of an Acceptance resulting from an Emergency Instruction is adjusted to represent the Avoidable Costs incurred in responding to that Emergency Instruction. Proposed Modifications P171 and P172 require that the same Acceptances be tagged as un-priced in the Energy Imbalance Price calculation. These two individual changes would be achieved via amendment of separate sections of the Code. It is possible that both changes could be made with the following effect:

- Acceptance price is amended to reflect Avoidable Costs;
- For the purpose of the BM Unit Cashflow the Acceptance is priced to reflect Avoidable Costs, affected Parties therefore receive Avoidable Costs as payment for the Bid/ Offer; and
- For the purpose of the Energy Imbalance Price calculation the Acceptance is tagged as un-priced. As a result the Acceptance is not included in the weighted average which sets the Energy Imbalance Price.

Therefore, P171/2 Proposed Modifications are theoretically compatible with P173, depending on the legal drafting developed.

### **P175 and P177**

The PSMG noted that P177, and the associated CUSC Amendment Proposal CAP076, seek to remove the intertrip provisions from the BSC, such that Acceptances would no longer be created to represent these actions within Settlement. As such, should P177 be approved, it may be the case that P175 would not apply to intertrips.

### **Conclusion**

The PSMG agreed that, where possible, the legal drafting should not restrict any feasible combination of proposals available to the Authority. However, it was the view of the PSMG that, whilst certain combinations of Modifications Proposals may be possible as set out above, it should be noted that such combinations have not been fully assessed (since a combination of proposals presents an entirely different outcome than any of the proposals when considered independently as required by the Modification Procedures). As such, it was the view of the PSMG that all the Modification Proposals should be viewed as mutually exclusive.

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

The PSMG impacts on Applicable BSC Objectives (b), (c) and (d). The following subsections provide the PSMG's assessment against each of these objectives.

### 1.3.1 Applicable BSC Objective (b)

Applicable BSC Objective (b) is as follows:

*"The efficient, economic and co-ordinated operation by the Transmission Company of the Transmission System."*

The majority of the PSMG expressed a concern that P175 may detract from achievement of Applicable BSC Objective (b). By removing the possibility of payments at 'extreme' Bid-Offer Prices for deemed Grid Code Acceptances, P175 may provide an incentive for the System Operator to issue more deemed Grid Code Acceptances than would otherwise be the case. However, it was noted that the Grid Code clearly sets out the limited circumstances under which deemed Grid Code Acceptances may be issued. Furthermore, it was noted that P175 would ensure that the System Operator was exposed to the costs incurred as a result of deemed Grid Code Acceptances (i.e. through a consequential cost claim by the affected Party), providing a disincentive to use Emergency Instructions and Intertrips.

However, a minority believed that P175 would better facilitate achievement of Applicable BSC Objective (b). By ensuring that the costs incurred in responding to deemed Grid Code Acceptances would be adequately compensated, P175 would reduce any potential disincentive to respond to Emergency Instructions or agree to the operation of an intertrip where the prevailing Bid/Offer Price did not fully reflect the associated costs. However, the majority of the PSMG disagreed, noting that the Grid Code provides an obligation to respond to Emergency Instructions and that a Bid/Offer Price is more likely to include all the perceived costs and risks associated with responding to deemed Grid Code Acceptances.

### 1.3.2 Applicable BSC Objective (c)

Applicable BSC Objective (c) is as follows:

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

The majority of the PSMG believed that P175 would have a negative impact on Applicable BSC Objective (c). In their opinion, the compensation claim process, unlike 'pay-as-bid', would not compensate affected Parties for all costs incurred in responding to a deemed Grid Code Acceptance (e.g. consequential imbalance). In addition, replacement of 'pay as bid' with a cost claim process would require Parties seeking compensation to produce a potentially complex and time consuming cost claim even though they have already submitted Bid-Offer Prices.

In addition, one member of the PSMG indicated that the inclusion of plant damage in the costs claimable would represent a subsidy of the generation sector of the market by the supply sector.

However, a minority believed that P175 would better facilitate achievement of Applicable BSC Objective (c). Energy Imbalance Prices are intended to represent the cost of energy balancing actions. The current treatment of Emergency Instructions and intertrips in Settlement may result in actions taken for 'System' reasons significantly distorting Energy Imbalance Prices. This introduces the possibility of Parties being exposed to Energy Imbalance Prices that are unrepresentative of the energy balancing actions taken by the System Operator. P175 would reduce this potential exposure to unrepresentative Energy Imbalance Prices. In addition, by departing from the 'pay-as-bid' principle for deemed Grid Code Acceptances, P175 would remove the possibility of 'windfall' gains and losses in emergency situations.

### 1.3.3 Applicable BSC Objective (d)

Applicable BSC Objective (d) is as follows:

*"Promoting efficiency in the implementation and administration of the balancing and settlement arrangements."*

The majority of the PSMG believed that P175 would detract from achievement of Applicable BSC Objective (d). P175 would introduce a new process for establishing a replacement acceptance price and a compensation claim process for use in extremely rare circumstances. The PSMG was of the opinion that such a solution was unnecessarily complex given the rarity of the event it is designed to cater for. In addition, one member believed that the Panel determination on 'avoidable costs' under P175 would introduce the risk of legal challenge from affected Parties.

A minority noted that most elements of the processes for establishing the replacement price and handling compensation claim already existed in the BSC and supporting documentation.

### 1.3.4 Conclusion

The majority of the PSMG concluded that P175 would not better facilitate achievement of the Applicable BSC Objectives. However, a minority, specifically the Proposer, was of the opinion that P175 would better facilitate achievement of the Applicable BSC Objectives.

## 1.4 Alternative Modification

The PSMG noted the two potential Alternative Modifications raised by consultation respondents: (1) treatment of deemed Grid Code Acceptances as un-priced Acceptance Volume and (2) a retrospective version of P175. However, the PSMG considered that neither option would better facilitate the Applicable BSC Objectives as compared to the Proposed Modification. Therefore, no Alternative Modification was developed as a result.

## 1.5 Governance and regulatory framework assessment

Note discussion on European Convention of Human Rights.

## 2 COSTS<sup>10</sup>

### PROGRESSING MODIFICATION PROPOSAL

<b>Meeting Cost</b>	£ 1,000
<b>Legal/expert Cost</b>	£500 <sup>11</sup>
<b>Impact Assessment Cost</b>	£ 10,000
<b>ELEXON Resource</b>	35 Man days

<sup>10</sup> Clarification of the meanings of the cost terms in this section can be found in annex 7 of this report

<sup>11</sup> This estimate was made at the Initial Written Assessment stage. However, during the Assessment Procedure, a legal issue requiring external advice was identified (i.e. Human Rights issue). Therefore, any additional legal costs associated with P175 will be included in the Modification Report .

	£ 9,000
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## IMPLEMENTATION COSTS

		Stand Alone Cost	P175 Incremental Cost	Tolerance
<b>Service Provider<sup>12</sup> Cost</b>				
	Change Specific Cost	£41.5k*	£41.5k*	+/- 0%
	Release Cost	£0	n/a	+/- 0%
	Incremental Release Cost	£0	£0	+/- 0%
	Total Service Provider Cost	£41.5k	£41.5k	+/- 0%
<b>Implementation Cost</b>				
	External Audit	£0	£0	+/- 0%
	Design Clarifications	£0	£0	+/-0%
	Additional Resource Costs	£0	£0	+/-0%
	Additional Testing and Audit Support Costs	£0	£0	+/-0%
<b>Total Demand Led Implementation Cost</b>		£41.5k	£41.5k	+/- 15%

\* Note that this cost also includes third party costs required to amend BSCCo systems (see section 4.1)

<b>ELEXON Implementation Resource Cost</b>		131 Man days £29k	86 Man days £19k	+/- 10%
<b>Total Implementation Cost</b>		£70.5k	£60.5k	+/- 10%

## ONGOING SUPPORT AND MAINTENANCE COSTS

	Stand Alone Cost	P175 Incremental Cost	Tolerance
Service Provider Operation Cost	£175 per incident		+/-10%

<sup>12</sup> BSC Agent and non-BSC Agent Service Provider and software Costs

Service Provider Maintenance Cost	£0	+/- 0%
ELEXON Operational Cost	£1,200 per incident	+/-50%

### 3 RATIONALE FOR MODIFICATION GROUP'S RECOMMENDATIONS TO THE PANEL

#### 3.1 Proposed Modification

The majority view of the PSMG was that P175, on balance, would not better facilitate the achievement of the Applicable BSC Objectives and therefore should not be made (see Section 1.3 for further details).

#### 3.2 Implementation Dates

The PSMG recommends an Implementation Date of 5 Working Days following an Authority decision.

Note that this Implementation Date is based on a phased implementation strategy comprising the following steps: (1) initial implementation of BSC changes and (2) subsequent implementation of associated documentary and BSCCo system changes. Please see section 8 for further details of the proposed implementation strategy.

If approved, P175 would be implemented on a Settlement Day basis.

### 4 IMPACT ON BSC SYSTEMS AND PARTIES

An assessment has been undertaken in respect of BSC Systems and Parties and the following areas have been identified as potentially being impacted by the Proposed Modification and any Alternative Modification.

#### 4.1 BSCCo

The CVA Programme and CVA Operations will be required to support implementation and document the processes for dealing with deemed Grid Code Acceptances. In addition ELEXON Systems Assurance will be required to support the implementation of P175.

Changes would also be required to TOMAS in order to allow prices to be calculated in accordance with the replacement price methodology. The required changes to TOMAS would incur an estimated cost of £33,700. BSCCo would also be required to support the Panel in the determination of the replacement Acceptances.

BSCCo might also be required to support the Panel in the determination of cost claims.

#### 4.2 BSC Systems

The BSC Agent (SAA) would be required to enter deemed Grid Code Instruction data into Settlement and adjust the prevailing price of the Acceptance at a later Settlement Run. This would require changes to documentation to formalise process. In addition there would be an operational cost per incident for making the required data changes.



### 4.3 Parties and Party Agents

One Party reported that there would be a change to the processing of financial values, but that this would not require any system changes. Due to the infrequent nature of such deemed Grid Code Acceptances, this Party stated that any processing would be manual and expected any costs to be operational.

## 5 IMPACT ON CODE AND DOCUMENTATION

### 5.1 Balancing and Settlement Code

Implementation of P175 would require changes to the following sections of the BSC:

Item	Proposed Modification
Q	(1) Requirement for Transmission Company to notify via BMRS of Emergency Instructions and operation of Intertrips. (2) Amend timescales for submission of deemed Grid Code Acceptance data. (3) Insert compensation claims process. (4) Methodology for determining replacement Acceptances for deemed Grid Code Acceptance to be added. (3) Insert treatment of deemed Grid Code Acceptances for purposes of Period BM Unit Cashflow
T	Amendments to allow Deemed Grid Code Acceptances to be included in the Energy Imbalance Price calculation as an Un-Priced Volume (in the interim) and at the replacement price.

### 5.2 Code Subsidiary Documents

Implementation of P175 would require changes to the following sections of the BSC:

Item	Proposed / Alternative
SAA SD	The Settlement Administration Agent (SAA) Service Description would need to be amended to document the manual processes required to receive adjusted Bid-offer data from BSCCo and apply to the next Settlement Run.
BSCP18	Amendment required to document the post-event revision of Acceptance data.
New BSCP	A specific BSCP might need to be created to document the process for determining the replacement price.
NDFC	The NETA Data File Catalogue would require amendment.

### 5.3 Impact on Core Industry Documents and supporting arrangements

No impacts were identified by the PSMG, the Transmission Company or the Core Industry Document Owners.

## 6 SUMMARY OF CONSULTATIONS

A consultation document was issued on 28 October 2004, with a deadline for responses of 9 November 2004. Nine responses (48 Parties) were received. The responses are attached as Annex 3 of this report and summarised in the table below.

Consultation question	Respondent agrees	Respondent disagrees	No Opinion expressed
1. Do you believe Proposed Modification P175 would better facilitate the achievement of the Applicable BSC Objectives?	3	6	0
2. Do you believe there are any alternative solutions that the Modification Group has not identified and that should be considered?	1	8	0
3. Do you believe that the scope of P175 as defined by the PSMG (see Section 1.5.1.2) is appropriate?	6	3	0
4. Do you support the implementation approach developed by the Modification Group (see Section 1.5.2.1)?	5 + 1 * Yes/No	2 + 1 * Yes/No	1
5. Do you support the proposed methodology for determining the 'Replacement Acceptance Price' (see Section 1.5.1.2)?	6	2	1
6. Do you agree with the PSMG's definition of the costs that should be deemed legitimate to include in a compensation claim under P175?	3	5	1
7. Do you believe that there should be a <i>de minimis</i> level for a compensation claim to the Panel under P175?	5	3	1
8. Do you believe that the Panel determination of compensation claims should be open to appeal?	4 + 2 * Yes/No	2 + 2 * Yes/No	1

### 6.1 Modification Group's summary of the consultation responses

The following subsections provide a summary of the responses to each question,

#### 6.1.1 Assessment Against Applicable BSC Objectives

The majority of respondents believed that P175 would not better facilitate achievement of the Applicable BSC Objectives. The principal arguments made against P175 were as follows:

- P175, by removing extreme Bid-Offer Prices, would provide an incentive for the System Operator to issue more Emergency Instructions than would otherwise have been the case. This would be detrimental to Applicable BSC Objective (b)
- The ability for participants to submit Bid-Offer Prices and for those Prices to be honoured in BOAs is fundamental to a competitive Balancing Mechanism. P175, through departure from the 'pay as bid' principle, would be detrimental to Applicable BSC Objective (c).

- The post-event calculation of a replacement price and consequential adjustment of Settlement would add complexity and uncertainty to the trading arrangements. This would be detrimental to Applicable BSC Objectives (c) and (d).
- P175, through the introduction of new processes (e.g. calculation of replacement price and compensation claim process), would be detrimental to Applicable BSC Objective (d) by making the trading arrangements more costly to operate.

A minority of respondents believed that P175 would better facilitate achievement of the Applicable BSC Objectives. The principal arguments made in support of P175 were as follows:

- Exclusion of 'System' related deemed Grid Code Acceptances from calculation of Energy Imbalance Prices would enhance incentives to balance. This would have a positive effect of Applicable BSC Objective (b).
- Using a replacement price would remove potential distortion of Energy Imbalance Prices by 'system' related deemed Grid Code Acceptances and consequential exposure of Parties to unrepresentative Energy Imbalance Prices. This would have a positive effect on Applicable BSC Objective (c).

### **6.1.2 Potential Alternative Modifications not Progressed by the PSMG**

Two potential Alternative Modifications were identified by respondents:

- Treatment of deemed Grid Code Acceptances as un-priced Acceptance Volumes.
- Retrospective version of P175.

### **6.1.3 Appropriate Scope**

The majority of respondents supported the 'Open Approach' to the scope of P175 initially favoured by the PSMG. The principal argument made in favour of an 'Open Approach' was as follows:

- Flexible and robust to future changes to Grid Code - i.e. introduction of new categories of deemed Grid Code Acceptances (e.g. for Maximum Generation Service and Demand Control).

However, a minority of respondents favoured a 'Closed Approach'. The principal arguments made in favour of a 'Closed Approach' were as follows:

- Generic references to the Grid Code would introduce uncertainty into Settlement.
- Application of P175 treatment to deemed Grid Code Acceptances should be decided on a case-by-case basis. For example, BC2.10 includes provision for BOAs issued in real time in the Balancing Mechanism and it would be inappropriate for P175 arrangements to cover such BOAs.

### **6.1.4 Implementation Approach**

The majority of respondents supported the manual implementation approach proposed by the PSMG on the basis that the lowest cost approach should be followed given that both Emergency Instructions and intertrips are rare operational events. However, one respondent withheld their support until the interim approach to Settlement had been defined, indicating that their preference was for entering the Acceptance at the prevailing Bid-Offer price because this would best achieve the intent of the Credit Cover arrangements – i.e. protecting the market from bad debt.

Two respondents did not support the proposed implementation approach. One because they did not support P175 and the other because they considered it overly complicated.

#### **6.1.5 Replacement Price Methodology**

The majority of respondents supported the proposed methodology, noting that it was appropriate for the Bid-Offer against which the Acceptance was made to be included in the replacement price process.

However, one respondent raised a concern that the methodology was not consistent with the current treatment of 'System' actions. Another respondent did not support the methodology because they considered it to be complex and costly and believed that it would introduce uncertainty.

The PSMG agreed with the argument received against a de-minimis level for cost claims.

#### **6.1.6 Definition of Claimable Costs**

The majority of respondents did not support the expanded definition of cost claimable under P175. Some because they did not support P175 and others because they had concerns with including costs associated with plant damage. One respondent believed that the inclusion of costs associated plant damage could be seen as a replacement for plant insurance and another that its inclusion would result in a subsidisation of the generation sector by the supply sector.

A minority of respondents supported the proposed definition of costs claimable, noting that it was appropriate to include plant damage demonstrably incurred in responding to an Emergency Instruction or as a result of the operation of an intertrip.

#### **6.1.7 De Minimis Level for Compensation Claims**

The majority of respondents believed that there ought to be a de minimis level for compensation claims to promote efficiency by avoiding vexatious claims. One respondent suggested a level of £5,000 which would be consistent with the Manifest Error process and another £10,000 or a level reflective of the administration cost of the claims process.

One respondent opposed a de minimis level noting that would be unnecessary because: (1) the scale of claims would probably be high and (2) the cost of making the claim would act as a natural barrier to vexatious claims.

#### **6.1.8 Appeal of Compensation Determinations**

The majority of respondents supported providing claimants with a right of appeal against Panel determinations in respect of cost claims.

Two respondents were undecided noting that it depended on to whom the appeal would be made. One of these respondents raised a concern that a right to appeal in this circumstance could set a precedent of opening up other processes to appeal.

One respondent opposed a right of appealing because it would be inconsistent with the other contingency arrangements.

#### **6.1.9 Further Comments**

Several respondents made further comments.

One respondent questioned the rationale for departure from 'pay as bid' principle and indicated that the PSMG needed to assess this further. Another respondent believed that the replacement price methodology required further assessment, in particular its consistency with the current treatment of 'System' actions in Settlement. Finally, one respondent noted that P175 should be retrospective solution

in light of the materiality of the impact of the Damhead Creek Emergency Instruction (especially on smaller market participants).

## 6.2 Comments and views of the Modification Group

The PSMG noted that the majority of respondents did not believe that P175 would better facilitate achievement of the Applicable BSC Objectives.

The PSMG noted the two potential Alternative Modifications raised by consultation respondents: (1) treatment of deemed Grid Code Acceptances as un-priced Acceptance Volume and (2) a retrospective version of P175. However, the PSMG considered that neither option would better facilitate the Applicable BSC Objectives as compared to the Proposed Modification. Therefore, no Alternative Modification was developed as a result.

## 7 SUMMARY OF TRANSMISSION COMPANY ANALYSIS

A full copy of the Transmission Company Analysis of P175 is attached as Annex 4 and a summary is provided below.

### 7.1 Analysis

The Transmission Company noted that P175 placed three additional requirements on it but indicated that meeting these requirements would have a minimal impact on its systems and processes:

- **Notifying the Industry of an Emergency Instruction and/or Intertrip:** notification could be issued via the 'Systems Warnings Page' on the BMRS (i.e. existing functionality). However, the Transmission Company indicated that this would need to be on a 'reasonable endeavours' basis to cater for extreme situations in which several Emergency Instructions have been issued and/or Intertrips operated.
- **Determination of Acceptance Data:** this could be achieved through the existing process contained in BSCP18 "Corrections to Bid/Offer Acceptance Related Data" (Reference 10). However, the Transmission Company indicated that in extreme situations the possibility existed that the data would not be available for II.
- **Provision of Information to Support Determination of Replacement Price:** this could be achieved through the existing Manifest Error process for identifying replacement Bids and/or Offers. However, the Transmission Company indicated that clear guidance needed to be provided as to the appropriate treatment for the three possible scenarios:
  - Sufficient unaccepted feasible Bids/Offers available to meet entire volume;
  - No other unaccepted feasible Bids/Offers available; and
  - Unaccepted feasible Bids/Offers available to meet a proportion of the volume.

However, the Transmission Company indicated that it was unable to provide views on: (a) the impact of P175 on its ability to discharge its obligations under the Transmission Licence and (b) whether or not P175 would better facilitate achievement of the Applicable BSC Objectives. Noting that three areas existed in which further development and assessment of P175 was required before it could provide a full analysis:

- **Scope of P175:** whether the Modification Proposal applies to whole sections of the Grid Code or explicitly to Emergency Instructions and the operation of intertrips;
- **Definition of 'Avoidable Costs':** what costs are included and what is meant by "plant damage"; and

- **'Replacement Price' Methodology:** further assessment of its appropriateness and consistency with the existing EIP calculation required.

However, the Transmission Company did indicate that Emergency Instructions and intertrips are events which occur outside of the normal operation of the Balancing Mechanism and as such should not be subjected to normal Bid-Offer prices. The Transmission Company felt that P175 would better facilitate the achievement of the Applicable BSC Objectives if:

- Compensation was limited to Avoidable Costs as currently defined in the BSC;
- The proposed provisions were explicitly linked to Emergency Instructions and the operation of an intertrip; and
- Further assessment of the use of a replacement price concluded that it was appropriate and consistent with the treatment of other System actions in cash-out.

Finally, the Transmission Company felt that Emergency Instructions and intertrips are an important part of operation, and that arrangement should be put in place to give Parties comfort that should these actions be issued, then they will be treated appropriately in Settlement. The Transmission Company also stated that Parties follow all their obligations under the Grid Code such that the security of supply is maintained.

## 7.2 Comments and views of the Modification Group

The PSMG noted that the Transmission Company Analysis reported minimal impact on processes and systems. Furthermore, the PSMG believed that the areas of the solution which the Transmission Company highlighted as requiring further assessment and development had been addressed as follows:

- **Scope of P175:** the PSMG concluded that the scope of P175 ought to be explicitly limited to Acceptances relating to Emergency Instructions and the operation of Intertrips only.
- **Definition of 'Avoidable Costs':** the existing definition of avoidable costs is a known and established part of the BSC baseline. In addition, 'plant damage' should not be too narrowly defined but would be subject to the same evidential requirements as all other cost items under Section G2.
- **'Replacement Price' Methodology:** the proposed methodology is based on the clearly defined and established Manifest Error process. In addition, the possible scenarios noted by the Transmission Company were subsequently addressed.

The Transmission Company confirmed that its concerns had been addressed by the further development and clarification of the solution undertaken by the PSMG. However, it re-iterated that clear guidance would be required, perhaps in a Code Subsidiary Document, on the construction of Acceptance Data for the purposes of calculating the replacement price.

## 8 IMPLEMENTATION APPROACH

The PSMG proposes that P175 be implemented on a Settlement Day basis and that the Implementation Date be 5 Working Days after an Authority determination.

### Settlement Day Basis

Implementation on a Settlement Day basis would mean that P175 would only apply to deemed Grid Code Acceptances issued on Settlement Days on or after the Implementation Date.

This approach was favoured by the PSMG because it would avoid making the change retrospective.

### **Lead Time of 5 Working Days**

Five Working Days would provide sufficient lead time to implement the necessary Code changes. The documentation and process changes to support the amended Code obligations would then be delivered in the next available Release. Document and process changes would be delivered on 29 June 2005, if decision an Authority decision is received by 9 March 2005. Alternatively, should an Authority determination be received after this date, but on or before 6 July 2005 these changes would be delivered on 2 November 2005.

The PSMG proposed this approach to minimise the risk of a deemed Grid Code Acceptance being issued prior to the Implementation Date of P175. In addition, the PSMG noted that this approach was consistent with that proposed under P171, P172 and P173.

## **9 DOCUMENT CONTROL**

### **9.1 Authorities**

<b>Version</b>	<b>Date</b>	<b>Author</b>	<b>Reviewer</b>	<b>Change Reference</b>
0.1	25/11/04	Change Delivery	PSMG	Initial Draft
0.2	01/12/04	Change Delivery	PSMG	Revised Draft
0.3	02/12/04	Change Delivery	Change Delivery	Final Draft
1.0	03/12/04	Change Delivery	BSC Panel	Final Version

### **9.2 References**

<b>Ref</b>	<b>Document</b>	<b>Owner</b>	<b>Issue Date</b>	<b>Version</b>	<b>Hyperlink</b>
1	Modification Proposal P175	-	01.10.2004	-	<a href="http://www.elexon.co.uk/documents/modifications/175/P175.pdf">http://www.elexon.co.uk/documents/modifications/175/P175.pdf</a>
2	Modification Proposal P175 Initial Written Assessment	ELEXON	08.10.2004	1.0	<a href="http://www.elexon.co.uk/documents/BSC_Panel_and_Panel_Committees/BSC_Panel_Meetings_20_04_-_084_-_Papers/84_010a.pdf">http://www.elexon.co.uk/documents/BSC_Panel_and_Panel_Committees/BSC_Panel_Meetings_20_04_-_084_-_Papers/84_010a.pdf</a>
3	BSCP 14 "Processing of Manifest Error Claims"	ELEXON	03.11.2004	4.0	<a href="http://www.elexon.co.uk/Documents/BSC_and_Related_Documents/BSC_-_BSCPs/BSCP14.pdf">http://www.elexon.co.uk/Documents/BSC_and_Related_Documents/BSC_-_BSCPs/BSCP14.pdf</a>
4	Modification Proposal P87 Decision Letter	Authority	02.09.2003	-	<a href="http://www.elexon.co.uk/documents/modifications/87/P087_Ofgem_Decision.pdf">http://www.elexon.co.uk/documents/modifications/87/P087_Ofgem_Decision.pdf</a>
5	Modification Proposal P171	-	25.08.2004	-	<a href="http://www.elexon.co.uk/documents/modifications/171/P171.pdf">http://www.elexon.co.uk/documents/modifications/171/P171.pdf</a>
6	Modification Proposal P172	-	25.08.2004	-	<a href="http://www.elexon.co.uk/documents/Change_and_Implementation/CVA_-_Circulars/P172.pdf">http://www.elexon.co.uk/documents/Change_and_Implementation/CVA_-_Circulars/P172.pdf</a>
7	Modification Proposal P173	-	25.08.2004	-	<a href="http://www.elexon.co.uk/documents/Change_and_Implementation/CVA_-_Circulars/P173.pdf">http://www.elexon.co.uk/documents/Change_and_Implementation/CVA_-_Circulars/P173.pdf</a>
8	Modification Proposal P177	-	04.10.2004	-	<a href="http://www.elexon.co.uk/documents/modifications/177/P177.pdf">http://www.elexon.co.uk/documents/modifications/177/P177.pdf</a>

9	CUSC Amendment Proposal 76	-	12.08.2004	-	<a href="http://www.nationalgrid.com/uk/indinfo/cusc/admin/scripts/uploads/CAP076 - Treatment of System to Generator Intertripping Schemes.pdf">http://www.nationalgrid.com/uk/indinfo/cusc/admin/scripts/uploads/CAP076 - Treatment of System to Generator Intertripping Schemes.pdf</a>
10	BSCP 18 "Corrections to Bid-Offer Acceptance Related Data"	ELEXON	30.06.2004	1.0	<a href="http://www.elexon.co.uk/documents/BSC_and_Related_Documents/BSC_-_BSCPs/BSCP18.pdf">http://www.elexon.co.uk/documents/BSC_and_Related_Documents/BSC_-_BSCPs/BSCP18.pdf</a>

## ANNEX 1 DRAFT LEGAL TEXT

The PSMG has agreed the requirements for the legal drafting. However, the drafting is being finalised and will be made available for the Report Phase.

## ANNEX 2 MODIFICATION GROUP MEMBERSHIP & TERMS OF REFERENCE

### Membership

The membership of the PSMG for the purposes of P175 is indicated in the table below. The columns to the right provide an attendance record.

Member	Organisation	15/10	12/11	22/11	30/11
Sarah Parsons	ELEXON (Chairman)	✓	✓	✓	✓
Roger Salomone	ELEXON (Lead Analyst)	✓	✓	✓	✓
Bill Reed	RWE Trading (Proposer)	✓	✓	✓	✓
Mark Brackley	National Grid	✓	✓	✓	✓
Garth Graham	Scottish and Southern	✓	✓	✓	✓
Man Kwong Liu	SAIC	X	✓	✓	✓
Paul Jones	E.On Uk	✓	✓	✓	X
Mark Manley	BGT	✓	✓	✓	✓
Helen Bray	EDF	X	✓	✓	X
Martin Mate	British Energy	✓	✓	X	✓

In addition to the members of Modification Group, the following persons attended one or more meetings:

Attendee	Organisation	15/10	12/11	22/11	30/11
Thomas Bowcutt	ELEXON	X	✓	✓	Part
Simon Bradbury	Ofgem	✓	✓	✓	✓
Fiona Lewis	Ofgem	✓	✓	✓	✓



Mark Duffield	National Grid Transco	✓	✓	✓	✓
Jan Devito	Jade Energy	X	✓	✓	X
Rekha Patel	Conocophillips	X	✓	X	X
Sanjukta Round	Cornwall Consulting	X	✓	✓	X
Barbara Vest	GDF	X	✓	X	X
Keith Munday	Bizz Energy	X	X	✓	X
Paul Chesterman	EDF Energy	X	X	X	✓

### Terms of Reference

The Assessment Procedure Terms of Reference provided by the Panel required the PSMG to consider in relation to P175:

- **Interaction with P171, P172, P173 and P177:** P171, P172 and P173 all seek to amend the treatment of Emergency Instructions under the Code. P177 seeks to remove the provisions relating to intertrips from the BSC such that an Acceptance would no longer be created to represent the action within Settlement. P177 has been raised as a consequence of Connection and Use of System Code (CUSC) Amendment Proposal CAP076 which proposes compensation mechanism for intertrips under the CUSC. P175 addresses a number of similar issues to each of these Modification Proposals. At the current time it is unclear whether or not these interacting Modification Proposals (or any arising Alternative Modifications) could be implemented independently or whether any combination of one or more is mutually exclusive.
- **Scope:** P175 seeks to apply a set of provisions to Acceptances created within the BSC as result of certain instructions issued under the Grid Code. Under the existing baseline, the P175 arrangements would only apply to intertrips and Emergency Instructions. However, it is the intention of the Proposer that the P175 arrangements would apply to all deemed Grid Code Acceptances. Therefore, the scope and approach for future proofing P175 needs to be fully assessed.
- **Solution Development:** Several elements of the P175 solution require further development and assessment; and
- **Historic Modification Proposals in this area:** The relatively broad scope of P175 (covering Emergency Instructions, intertrips and potentially other events) means the proposal addresses issues covered by a number of previous Modification Proposals. Therefore, it is appropriate to consider P175 in light of the views previously expressed by the Authority on these issues.

## **ANNEX 3 ASSESSMENT CONSULTATION RESPONSES**

Attached in separate document

## **ANNEX 4 TRANSMISSION COMPANY ANALYSIS**

Attached in separate document

## ANNEX 5 BSC AGENT IMPACT ASSESSMENTS

Attached in separate document

## ANNEX 6 PARTY AND PARTY AGENT IMPACT ASSESSMENTS

Attached in separate document

## ANNEX 7 CLARIFICATION OF COSTS

There are several different types of costs relating to the implementation of Modification Proposals. ELEXON implements the majority of Approved Modifications under its CVA or SVA Release Programmes. These Programmes incur a base overhead which is broadly stable whatever the content of the Release. On top of this each Approved Modification incurs an incremental implementation cost. The table of estimated costs of implementing the Proposed/Alternative Modification given in section 2 of this report has three columns:

- **Stand Alone Cost** – the cost of delivering the Modification as a stand alone project outside of a CVA or SVA Release, or the cost of a CVA or SVA Release with no other changes included in the Release scope. This is the estimated maximum cost that could be attributed to any one Modification implementation.
- **Incremental Cost** - the cost of adding that Modification Proposal to the scope of an existing release. This cost would also represent the potential saving if the Modification Proposal was to be removed from the scope of a release before development had started.
- **Tolerance** – the predicted limits of how certain the cost estimates included in the template are. The tolerance will be dependent on the complexity and certainty of the solution and the time allowed for the provision of an impact assessment by the Service Provider(s).

The cost breakdowns are shown below:

PROGRESSING MODIFICATION PROPOSAL	
<b>Meeting Cost</b>	This is the cost associated with holding Modification Group meetings and is based on an estimate of the travel expenses claimed by Modification Group members.
<b>Legal/expert Cost</b>	This is the cost associated with obtaining external expert advice, usually legal advice.
<b>Impact Assessment Cost</b>	Service Provider Impact Assessments are covered by a pre-determined monthly contractual charge. Therefore the cost included in this report is an estimate based on the level of impact assessment that the modification is expected to require and may not reflect the actual cost attributed to the modification, which will be based on a percentage of the contractual impact assessment costs for each month that it is assessed.
<b>ELEXON Resource</b>	This is the ELEXON Resource requirement to progress the Modification Proposal through the Modification Procedures. This is estimated using a standard formula based on the length of the Modification Procedure.

<b>SERVICE PROVIDER<sup>13</sup> COSTS</b>	
<b>Change Specific Cost</b>	Cost of the Service Provider(s) Systems development and other activities relating specifically to the Modification Proposal.
<b>Release Cost</b>	Fixed cost associated with the development of the Service Provider(s) Systems as part of a release. This cost encompasses all the activities that would be undertaken regardless of the number or complexity of changes in the scope of a release. These activities include Project Management, the production of testing and deployment specifications and reports and various other standard release activities.
<b>Incremental Release Cost</b>	Additional costs on top of base Release Costs for delivering the specific Modification Proposal. For instance, the production of a Test Strategy and Test Report requires a certain amount of effort regardless of the number of changes to be tested, but the addition of a specific Modification Proposal may increase the scope of the Test Strategy and Test Report and hence incur additional costs.

<b>IMPLEMENTATION COSTS</b>	
<b>External Audit</b>	Allowance for the cost of external audit of the delivery of the release. For CVA BSC Systems Releases this is typically estimated as 10% of the total Service Provider Costs, with a tolerance of +/- 20%. At present the SVA Programme does not use an external auditor, so there is no External Audit cost associated with an SVA BSC Systems Release.
<b>Design Clarifications</b>	Allowance to cover the potential cost of making any amendments to the proposed solution to clarify any ambiguities identified during implementation. This is typically estimated as 5% of the total Service Provider Costs, with a tolerance of +/- 100%.
<b>Additional Resource Costs</b>	<p>Any short-term resource requirements in addition to the ELEXON resource available. For CVA BSC Systems Releases, this is typically only necessary if the proposed solution for a Modification Proposal would require more extensive testing than normal, procurements or 'in-house' development.</p> <p>For SVA BSC Systems Releases, this will include the management and operation of the Acceptance Testing and the associated testing environment.</p> <p>This cost relates solely to the short-term employment of contract staff to assist in the implementation of the release.</p>
<b>Additional Testing and Audit Support Costs</b>	Allowance for external assistance from the Service Provider(s) with testing, test environment and audit activities. Includes such activities as the creation of test environments and the operation of the Participant Test Service (PTS). For CVA BSC Systems Releases, this is typically estimated as £40k per release with at tolerance of +/-25%. For SVA BSC Systems

<sup>13</sup> A Service Provider can be a BSC Agent or a non-BSC Agent, which provides a service or software as part of the BSC and BSC Agent Systems. The Service Provider cost will be the sum of the costs for all Service Providers who are impacted by the release.

	Releases this is estimated on a Modification Proposal basis.
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### TOTAL DEMAND LED IMPLEMENTATION COSTS

This is calculated as the sum of the total Service Provider(s) Cost and the total Implementation Cost. The tolerance associated with the Total Demand Led Implementation Cost is calculated as the weighted average of the individual Service Provider(s) Costs and Implementation Costs tolerances. This tolerance will be rounded to the nearest 5%.

### ELEXON IMPLEMENTATION RESOURCE COSTS

Cost quoted in man days multiplied by project average daily rate, which represents the resources utilised by ELEXON in supporting the implementation of the release. This cost is typically funded from the "ELEXON Operational" budget using existing staff, but there may be instances where the total resources required to deliver a release exceeds the level of available ELEXON resources, in which case additional Demand Led Resources will be required.

The ELEXON Implementation Resource Cost will typically have a tolerance of +/- 5% associated with it.

### ONGOING SUPPORT AND MAINTENANCE COSTS

<b>ELEXON Operational Cost</b>	Cost, in man days per annum multiplied by project average daily rate, of operating the revised systems and processes post implementation.
<b>Service Provider Operation Cost</b>	Cost in £ per annum payable to the Service Provider(s) to cover staffing requirements, software or hardware licensing fees, communications charges or any hardware storage fees associated with the ongoing operation of the revised systems and processes.
<b>Service Provider Maintenance Cost</b>	Cost quoted in £ per annum payable to the Service Provider(s) to cover the maintenance of the amended BSC Systems.

## ANNEX 8 LEGAL ADVICE ON HUMAN RIGHTS

Attached in separate document

## ANNEX 9 RESPONSE TO LEGAL ADVICE ON HUMAN RIGHTS

Attached in separate document