

ASSESSMENT REPORT for Modification Proposal P173

'Revised Settlement Arrangements for Emergency Instructions'

Prepared by: PSMG

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This document has been distributed in accordance with Section F2.1.10¹ of the Balancing and Settlement Code.

RECOMMENDATIONS

The PSMG invites the Panel to;

- **AGREE that the Proposed Modification P173 should not be made;**
- **AGREE that the Alternative Modification P173 should not be made;**
- **AGREE a provisional Implementation Date for Proposed and Alternative Modification P173 of 5 Working Days after an Authority decision;**
- **AGREE that Modification Proposal P173 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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¹ The current version of the Balancing and Settlement Code (the 'Code') can be found at <http://www.elexon.co.uk/bscrelateddocs/BSC/default.aspx>

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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 P173:

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 checked="" type="checkbox"/>	Reporting Catalogue	<input checked="" type="checkbox"/>
Party Agents		H	<input type="checkbox"/>	MIDS	<input type="checkbox"/>
Data Aggregators	<input type="checkbox"/>	I	<input type="checkbox"/>	Core Industry Documents*	
Data Collectors	<input type="checkbox"/>	J	<input type="checkbox"/>	Grid Code	<input type="checkbox"/>
Meter Operator Agents	<input type="checkbox"/>	K	<input type="checkbox"/>	Supplemental Agreements	<input type="checkbox"/>
ECVNA	<input type="checkbox"/>	L	<input type="checkbox"/>	Ancillary Services Agreements	<input type="checkbox"/>
MVRNA	<input type="checkbox"/>	M	<input type="checkbox"/>	Master Registration Agreement	<input type="checkbox"/>
BSC Agents		N	<input type="checkbox"/>	Data Transfer Services Agreement	<input type="checkbox"/>
SAA	<input checked="" type="checkbox"/>	O	<input type="checkbox"/>	British Grid Systems Agreement	<input type="checkbox"/>
FAA	<input type="checkbox"/>	P	<input type="checkbox"/>	Use of Interconnector Agreement	<input type="checkbox"/>
BMRA	<input checked="" type="checkbox"/>	Q	<input checked="" type="checkbox"/>	Settlement Agreement for Scotland	<input type="checkbox"/>
ECVAA	<input type="checkbox"/>	R	<input type="checkbox"/>	Distribution Codes	<input type="checkbox"/>
CDCA	<input type="checkbox"/>	S	<input type="checkbox"/>	Distribution Use of System Agreements	<input type="checkbox"/>
TAA	<input type="checkbox"/>	T	<input checked="" type="checkbox"/>	Distribution Connection Agreements	<input type="checkbox"/>
CRA	<input type="checkbox"/>	U	<input type="checkbox"/>	BSCCo	
Teleswitch Agent	<input type="checkbox"/>	V	<input type="checkbox"/>	Internal Working Procedures	<input checked="" type="checkbox"/>
SVAA	<input type="checkbox"/>	W	<input type="checkbox"/>	Other Documents	
BSC Auditor	<input type="checkbox"/>	X	<input checked="" type="checkbox"/>	Transmission Licence	<input type="checkbox"/>
Profile Administrator	<input type="checkbox"/>			System Operator-Transmission Owner Code	<input type="checkbox"/>
Certification Agent	<input type="checkbox"/>			X = Identified in Report for last Procedure	
MIDP	<input type="checkbox"/>			N = Newly identified in this Report	
Other Agents					
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 P173 'Revised Settlement Arrangements for Emergency Instructions' (P173, Reference 1) was raised on 25 August 2004 by National Grid Transco (NGT). P173 seeks to amend the treatment of Emergency Instructions in Settlement. It is the intention of the Proposer that P173 would apply on a prospective basis only (i.e. would not be applicable to Emergency Instructions issued prior to the Implementation Date).

Current Arrangements:

Under the current baseline, in accordance with Section Q5.1.3 (b) of the Balancing and Settlement Code (the 'Code'), an Emergency Instruction issued in respect of a BM Unit under the Grid Code is classed as an Acceptance for the purpose of Settlement. The Code does not contain provisions for applying an alternative price to Acceptances issued as a result of an Emergency Instruction. Therefore, the Lead Party of the affected BM Unit will be paid (or pay) for the Acceptance resulting from an Emergency Instruction at the prevailing Bid/Offer price.

In accordance with the Balancing Principles Statement (Reference 2), the Transmission Company issues Acceptances on an economic basis (i.e. by selecting Bids or Offers in order of relative cost to the Transmission Company until the required balancing volume has been obtained). However, in extreme situations, such as in the case of an Emergency Instruction², it is necessary for the Transmission Company to consider factors other than cost. As a result, it is possible that the Acceptance associated with an Emergency Instruction may be at a prevailing Bid/Offer price which is significantly higher (in terms of relative cost to the Transmission Company) than would have been selected under normal operation.

In summary, Acceptances resulting from Emergency Instructions are not distinguished from other Acceptances within Settlement. As a consequence, the Acceptance Volume resulting from an Emergency Instruction 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/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 Services Use of System (BSUoS) charges for all Parties; and
- The Acceptance Volume will feed into the Energy Imbalance Price calculation at the prevailing Bid/Offer price. This may, subject to the existing tagging rules, impact imbalance payments, and consequentially Residual Cashflow Reallocation Cashflow (RCRC), for all Parties.

Proposed Modification P173:

Under P173, Acceptances resulting from Emergency Instructions would be distinguished within Settlement as a 'Contingency Provision' (existing Contingency Provisions are set out in section G of the Code and include, amongst other things, Black Start Periods and Manifest Errors) and treated as follows:

² Note that Emergency Instructions are taken as an emergency measure to preserve the integrity of the System and that in such circumstances it may be necessary to depart from normal Balancing Mechanism operation. The provisions relating to the issuing and implementation of Emergency Instructions are contained in the Grid Code (BC2.9)

- The Lead Party of the affected BM Unit would not be paid (or pay) for the associated Acceptance at the prevailing Bid/Offer price. Rather a 'replacement price' would be determined by the Panel post event;
- BSUoS payments for all Parties would reflect the 'replacement price'; and
- The Acceptance would contribute to the existing Energy Imbalance Price calculation at the 'replacement price'.

P173 proposes that the replacement price should represent the 'Avoidable Costs' (as currently defined in Section G.2 of the Code). As such, the replacement price would represent the costs that would not have been incurred but for the changes in Exports and/or Imports caused by responding to the Emergency Instruction and would either be payable to or by the Lead Party of the BM Unit. It is intended that this approach would leave the Lead Party 'cost neutral' as a result of having responded to an Emergency Instruction.

History:

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 27³; and
- -£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.

ELEXON presented an Initial Written Assessments (IWA) of P173 (Reference 3) to the Balancing & Settlement Code Panel ('the Panel') at its meeting on 9 September 2004. The Panel agreed with the recommendation that P173 be submitted to a three-month Assessment Procedure to be carried out by the Pricing Standing Modification Group (PSMG).

During the Assessment Procedure, the PSMG met four times to discuss P173: on 14 September 2004, 11 October 2004, 12 November 2004 and 22 November 2004. To support its discussions and assess

³ 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).

P173, the PSMG sought market participant's views through consultation and procured impact assessments from Parties, BSC Agents and the Transmission Company.

1.2 Issues raised by the Proposed Modification

In accordance with its Terms of Reference (see Annex 2), the PSMG considered the following issues in relation to P173:

- Circumstances under which an Emergency Instruction may be issued;
- Solution Development;
- Impact on Energy Imbalance Prices;
- Impact on 'Pay as Bid' Principle;
- European Convention on Human Rights;
- Interaction with related Modification Proposals; and
- Potential Alternative Modifications.

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

1.2.1 Circumstances under which an Emergency Instruction may be Issued

The PSMG requested details of the circumstances which would require an Emergency Instruction to be issued under the Grid Code via the Transmission Company impact assessment (see Annex 2).

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 BC 2.9 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**."*

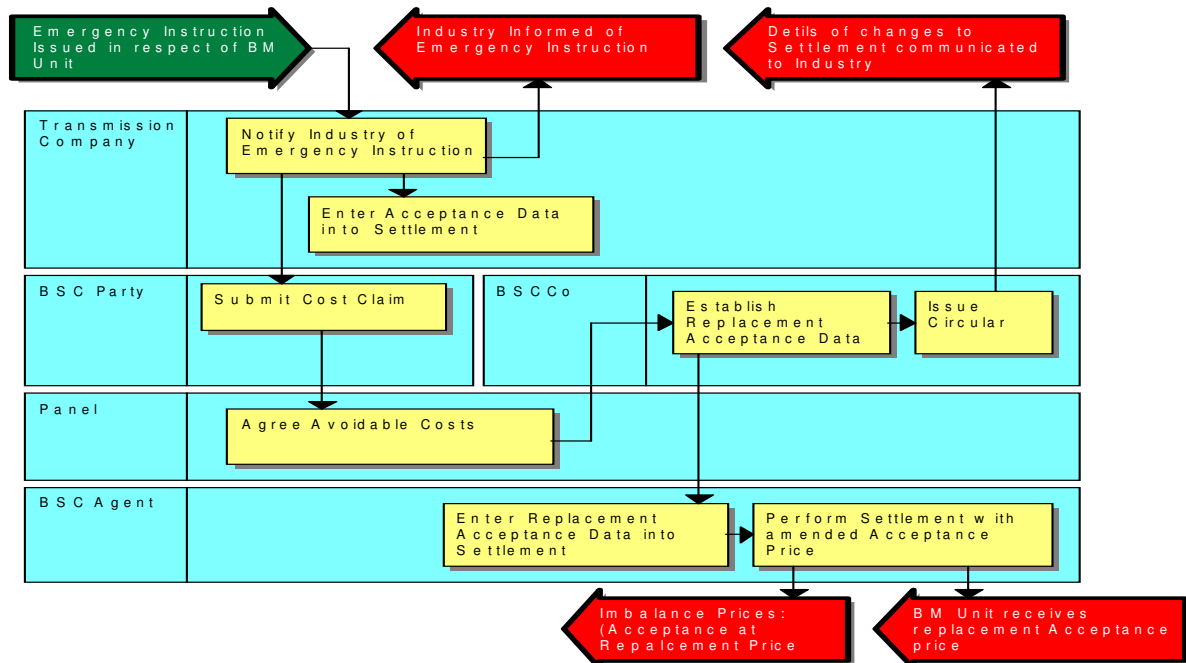
The PSMG noted that Emergency Instructions may be issued for a range of different circumstances and the solution developed under P173 must be flexible enough to accommodate these circumstances.

1.2.2 Solution Development

An overview of the Proposed Modification, as developed by the PSMG, is provided in subsection 1.2.2.1 and subsections 1.2.2.2 to 1.2.2.7 provide further details of each element of the Proposed Modification.

1.2.2.1 Overview of Proposed Modification

The diagram below provides an overview of each of the elements in the Proposed Modification:



1.2.2.2 Inform Industry (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.

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 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).

* It is intended the Transmission Company will provide this information on the same Settlement Day on which the Emergency Instruction was issued.

1.2.2.3 Enter Acceptance Data into Settlement (II)

Following post-event analysis of the Emergency Instruction records, the Transmission Company would determine appropriate Acceptance Data to represent the Emergency Instruction within Settlement. For purposes of the Interim Information Run (II), the Acceptance Data would be entered into Settlement at the prevailing Bid-Offer Price.

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 electronically⁴. 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 II Run performed at D+5WD. However, in extreme circumstances (for example where a number of Emergency Instructions were issued in close succession), this timescale may not be met and data would be entered into Settlement at the first available Settlement Run, which should be the Initial Settlement (SF) Run.

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 price calculated subsequently. This would require the use of the "material doubt" provisions in the event that a Party is subject to Credit Default. See section 1.2.2.8 for further details.

1.2.2.4 Interim Approach (SF)

Approach 1: Entry of the Acceptance data at the prevailing Bid/Offer Price

After consideration, the PSMG disregarded this option because the prevailing Bid/Offer price could be high and thus result in a significant overestimation of potential liabilities during the interim period. The PSMG considered that such an overestimation could have a material effect on small market participants. However, one member of the PSMG favoured this approach on the basis that an overestimation would provide the greatest protection against the risk of unsecured liabilities.

Approach 2: Delay entry of Acceptance data until the replacement price has been established

After consideration, the PSMG disregarded this option because delaying entry of an acceptance volume would result in an erroneous calculation of market length, which would have a consequential impact on Energy Imbalance Prices. The PSMG noted that this approach could potentially 'flip' the market from 'short' to 'long' or vice-versa.

Approach 3: Entry of the Acceptance data as un-priced volume

Under this approach, the Acceptance data constructed by the Transmission Company would be reflected as an un-priced volume within Settlement at SF. A separate manual process would be required to produce this result:

- Within the automated Settlement Run the Energy Imbalance Prices would still be based on the prevailing Bid-Offer Price. Therefore, BSCCo would need to calculate the Energy Imbalance Prices on the basis that Acceptance had been an un-priced volume and instruct the BSC Agent to amend Balancing Services Adjustment Data (BSAD) to generate Energy Imbalance Prices reflecting BSCCo's calculation.
- The Acceptance payment to the affected Party would be at the prevailing Bid-Offer Price. This could not be amended until the Avoidable Costs are known.

The PSMG concluded that Approach 3 would be used as the 'interim approach'.

1.2.2.5 Agree Replacement Acceptance Price

Once the Acceptance Data (and hence the Acceptance Volume) has been determined for the Emergency Instruction, the Panel would agree the 'Avoidable Costs' incurred by the BM Unit in delivering the Emergency Instruction in order to allow a replacement price to be entered into

⁴ 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.

Settlement. It is not envisaged that the Panel would delegate this determination to a Panel Committee. As a consequence, special Panel meetings might need to be arranged.

Calculation of Replacement Price

The replacement price would represent the 'Avoidable Costs' incurred (or saved) by the Lead Party of a BM Unit as a consequence of delivering an Emergency Instruction (effectively leaving the Party cost neutral when responding to an Emergency Instruction). Hence the replacement price would be calculated as follows:

$$\text{Replacement Acceptance Price (£/MWh)} = \text{Avoidable Costs (£)} / (\text{Emergency Instruction Acceptance Volume} * \text{TLM (MWh)})$$

Definition of Avoidable Costs

Avoidable Costs are defined in Section G.2 of the Code and relate to the cost incurred by a Party as a result of changes in Exports and/or Imports of a BM Unit. The Code defines a number of factors that are included and excluded from the calculation of Avoidable Costs as follows:

- Costs incurred include lost revenues, and costs saved include revenues earned;
- in the case of a BM Unit comprising premises of a Customer, the costs which are to be counted are the costs incurred by the Customer;
- costs are not to be counted unless they are demonstrably:
 - costs directly incurred in the operation of the Plant and Apparatus comprised in the BM Unit;
 - costs which were reasonably and prudently incurred, and incurred pursuant to commitments reasonably and prudently made;
 - costs the amount of which would be expected to differ according to whether there occurred the relevant changes in Exports and/or Imports in the relevant Settlement Period alone;
 - costs include costs (incurred or saved) of consumption of electricity or fuel;
- the following costs are not to be counted:
 - costs or losses in respect of damage to property (including Plant or Apparatus) or death or injury to persons;
 - insurance premiums;
 - financing costs and overhead costs;
- amounts payable (other than by way of rebate of payment for supply), under any contract or otherwise, by way of compensation for loss of supply or otherwise in consequence of relevant changes in Exports and/or Imports, by the Lead Party to the person referred to in paragraph (b), are to be disregarded;
- amounts payable or receivable under the Code in respect of Trading Charges or BSCCo Charges are to be disregarded.

In addition to the evidential requirements above, the PSMG agreed that only costs incurred during the period for which the relevant Emergency Instruction was issued should be taken into account by the Panel in its determination of 'Avoidable Costs'. However, the majority of the PSMG also agreed that a Party would not be required to disclose any confidential information. Although one member noted that this could result in Energy Imbalance Prices that were not cost reflective.

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 Emergency Instruction was issued.

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

Interpretation of Avoidable Costs

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. The Panel is prohibited from considering a number of categories of potential costs, 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 P173.

Process

The process to be followed in establishing Avoidable Costs (as defined in Section G of the Code) is:

1. The Lead Party would be required to prepare and submit to BSCCo its estimate of the net costs directly incurred in delivering the Emergency Instruction, with an explanation of and supporting information for its estimate. This should be submitted within three months of the Settlement Day on which the Emergency Instruction was issued. However, to ensure that the Avoidable Costs could be established in all cases, even the most complex, the affected Lead Party would be able to apply to the Panel for an extension to the three-month submission deadline.
1. 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.
2. 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.

Appeal of a 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 P173 and Panel determinations under other 'Contingency Provisions' contained in Section G2 of the BSC. Second, making a Panel determination final and binding would provide greater certainty to the process and avoid that process becoming drawn out.

1.2.2.6 Settlement Administration Agent (SAA) adjust Acceptance Price

Once the Avoidable Costs have been agreed by the Panel, a replacement Acceptance would be entered into Settlement by the SAA. The Acceptance would then be processed within Settlement (at the replacement price) in accordance with the existing baseline, as a consequence:

- The Lead Party of the affected BM Unit will either be paid (or pay) for the Acceptance at the replacement Bid/Offer price via the Period BM Unit Cashflow;
- The Acceptance Volume will feed into the existing Imbalance Price calculation at the replacement Bid/Offer price. As such, the normal tagging process will determine how the Acceptance contributes to the calculation of Imbalance Prices.

1.2.2.7 Iteration of Process

Once the Acceptance Data has been entered into Settlement and the replacement price applied, each consequential Settlement Run would be conducted in accordance with the P173 methodology. However, where the Transmission Loss Multiplier (TLM) for the affected BM Unit changes between Settlement Runs, it may be necessary to re-calculate the replacement price (It should be noted that the Panel would not be required to re-determine the replacement price as the Avoidable Costs would not have changed, only the volume across which these costs were assigned would be affected).

1.2.2.8 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 P173 methodology. The calculation will include the Emergency Instruction 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 P173. 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).

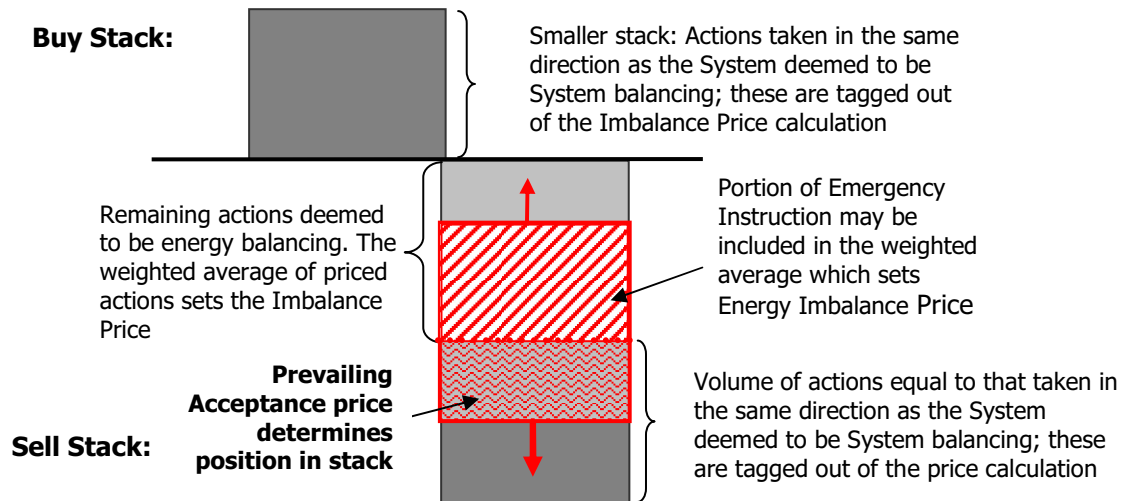
1.2.3 Impact on Energy Imbalance Prices

P173 proposes that Acceptances associated with Emergency Instructions would be included in the Energy Imbalance Price calculation priced at 'Avoidable Costs' (rather than the prevailing Bid-Offer Price). The PSMG considered how this would affect the Energy Imbalance Price calculation.

The following diagrams illustrate the treatment of an Emergency Instruction under the current arrangements and P173. In the examples, an Emergency Instruction has been issued reducing the output of a BM Unit during a Settlement Period when the System would otherwise be long.

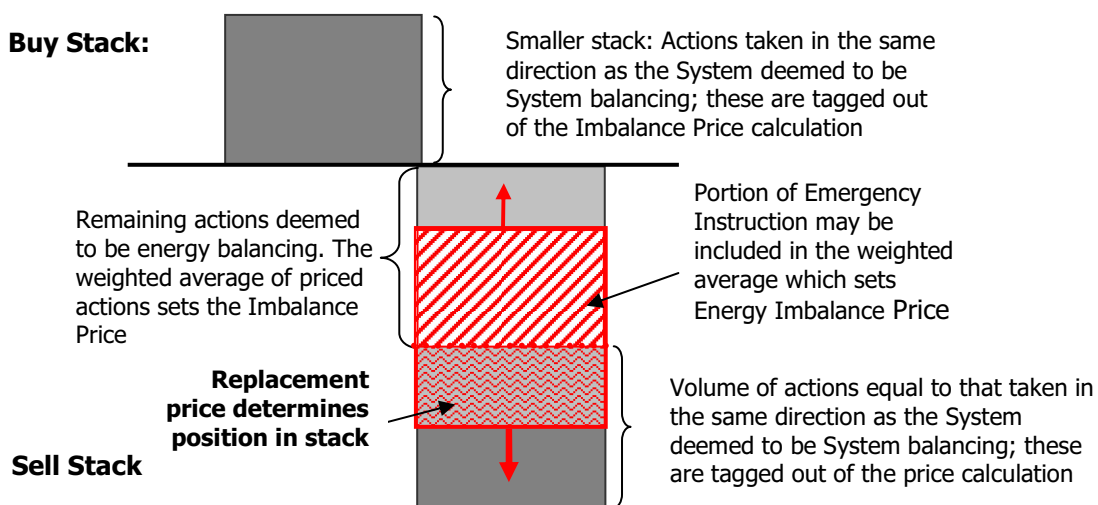
Current Baseline:

Under the current baseline the prevailing Bid-Offer Price determines the position of the Emergency Instruction Acceptance within the Net Imbalance Volume (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 the current baseline, the prevailing Bid/Offer Price will influence the Energy Imbalance Price as follows:



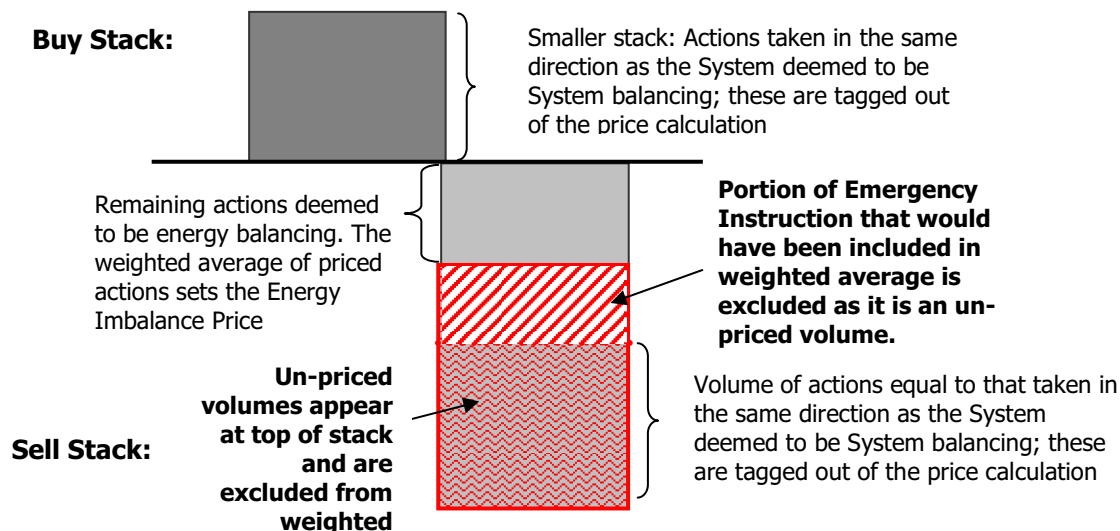
P173:

Under P173 the replacement price would determine the position of the Emergency Instruction 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 P173, the replacement price would influence the Energy Imbalance Price as follows:



P173 Interim Approach:

Where the replacement price has not been established in time for SF, the Emergency Instruction would be included as an un-priced volume within the NIV tagging stack. Under this approach the associated volume is included in the NIV tagging process but would not contribute to the weighted average on which the Energy Imbalance Price is set. Therefore, the interim approach would ensure that the cost of an Emergency Instruction (i.e. in terms of prevailing Bid/Offer Price) would not be included in the Energy Imbalance Price during the interim period as follows:



1.2.4 Impact on 'Pay as Bid' Principle

The PSMG noted that P173 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' for Emergency Instructions

A minority of the PSMG believes that, in the limited circumstance of Emergency Instructions, 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, 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 an Emergency Instruction 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).
- Bid/Offer Prices may have consequential risks, such as plant damage, factored in and it may not be appropriate in emergency circumstances for payments to be made for such risks where they are not realised (e.g. where plant damage is not incurred).
- P173, through pricing and compensating Emergency Instructions at the replacement price, would remove the possibility of 'windfalls' and ensure that Parties responding to Emergency Instructions would be left 'cost neutral' as a result. Furthermore, it was noted P173 did not imply that some

Bid/Offer Prices were 'appropriate' and some 'inappropriate' because all prevailing Bid-Offer Prices for Emergency Instructions would be replaced under P173, 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' principle may provide a potential disincentive to respond to Emergency Instructions. P173, however, would remove this potential disincentive by compensating the affected Lead Party for any costs incurred in responding to the Emergency Instruction⁵.

Arguments Against Departure from 'Pay as Bid' for Emergency Instructions

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 an '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. P173 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 may not be compensated for under P173 (e.g. consequential imbalance costs)⁶. 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 the mandatory provision of an estimate of 'Avoidable Costs' would require a potentially significant administrative effort on behalf of the affected Lead Party when compared to the current 'pay as bid' process.

Further Comments

An attendee noted that the application of the 'pay as bid' principle to Emergency Instructions provides a 'gaming' opportunity for market participants. Whilst market participants might not be able to predict Emergency Instructions, they may be able to inflate prices in circumstances in which an Emergency Instruction is perceived to be more likely e.g. when the Transmission Company has issued that warning that demand control is imminent. P173 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 a deemed Grid Code Acceptance, (b) the Party to which it is issued are unpredictable and (3) that participants cannot alter Bid-Offer Prices post Gate Closure in order to profit from emergency situations; i.e. 'game'. In addition any Party that 'gamed' would be subject to regulatory oversight.

⁵ Note that the PSMG noted that the under the Grid Code there is an obligation to respond to Emergency Instructions.

⁶ Note that the PSMG noted that the under the Grid Code there is an obligation to respond to Emergency Instructions.

1.2.5 European Convention on Human Rights

A member of the PSMG raised a concern that P173, with its notion of 'cost neutrality', could conceivably result in a Party being required to make a payment for responding to an Emergency Instruction. This member therefore felt that this was in contravention of Article 1 of the First Protocol of the European Convention of Human Rights. Under Article 1, the Market Participant is entitled to the free enjoyment of its 'possessions', which could include a power station. Through issuing an Emergency Instruction, the GB System Operator would be legitimately interfering with the Affected Party's use of its property. In such circumstances, for this interference to be proportionate, the European Convention on Human Rights requires that compensation is paid (although the level may not be the full market value).

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

The legal advice received by BSCCo is attached as Annex 7. 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 8. The PSMG noted the advice and the response to it, but agreed that neither altered its recommendation in respect of P173.

1.2.6 Interaction with related Modification Proposals

Modification Proposals P171 'Retrospective removal of Emergency Instructions taken for System reasons from Imbalance Price' (P171, Reference 4), P172 'Removal of Emergency Instructions taken for System reasons from Imbalance Price' (P172, Reference 5) and 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 6) also seek to amend the treatment of Emergency Instructions within Settlement and are being considered by the PSMG in parallel with P173.

The table below outlines at a high level the similarities and differences between the key elements of P171, P172, P173, P175 and their Alternative Modifications (where applicable):

	P171 & P172	P173	P175
Implementation	Retrospective (P171) Prospective (P172)	Prospective	Prospective
Scope	Emergency Instructions (Proposed & Alternative)	Emergency Instructions (Proposed & Alternative)	Emergency Instructions & Intertrips
Prevailing Acceptance price within Imbalance Price Calculation	BOA un-priced in cash out (Proposed)	BOA priced at Avoided Costs (Proposed)	BOA priced at "Replacement Price"
	BOA priced at "Replacement Price" (Alternative)	BOA priced at wider interpretation of Avoided Costs (Alternative)	
Volume within Imbalance Price Calculation	Included as "system" volume (Proposed & potential Alternative)	BOA volume in cash out (Proposed & Alternative)	BOA volume in cash out
Payment to affected Party	Party paid (pays) prevailing Bid/ Offer Price (Proposed & Alternative)	Party paid (pays) for BOA at Avoided Costs (Proposed)	Party may claim costs

under BSC		Party paid (pays) for BOA at wider interpretation of Avoided Costs (Alternative)	
Compensation	N/A	N/A	Affected Party able to make compensation claim under BSC (when not able to do under other arrangements)

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 Pro	P172 Alt	P173 Pro	P173 Alt	P175
P171 Pro					Y	Y	N
P171 Alt					Y	Y	N
P172 Pro					Y	Y	N
P172 Alt					Y	Y	N
P173 Pro	Y	Y	Y	Y			N
P173 Alt	Y	Y	Y	Y			N
P175	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.

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 a combinations has 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.

1.2.7 Potential Alternative Modifications

The PSMG identified and developed an Alternative Modification based on expanding the existing definition of Avoidable Costs (see section 1.5 for further details).

The PSMG discussed and consulted on a further potential Alternative Modification under which the replacement price would be established (and the affected Party paid) on the basis of the existing BSC provisions for Manifest Errors (i.e. based on the Bid-Offer Price of the Bid(s) that the System Operator would have accepted had an emergency situation not existed). However, the PSMG decided not to progress this potential solution any further on the basis that it would generate a price/payment potentially even less reflective of the costs and perceived risks associated with responding to Emergency Instructions than that generated by the Proposed Modification.

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 P173 may detract from achievement of Applicable BSC Objective (b). By removing the possibility of payments at 'extreme' Bid-Offer Prices for Emergency Instructions, P173 may provide an incentive for the System Operator to issue more Emergency Instructions than would otherwise be the case. However, the Proposer disagreed with this view, noting that the Grid Code clearly sets out the limited circumstances under which Emergency Instructions may be issued.

A minority, represented by the Proposer, believed that P173 would facilitate achievement of Applicable BSC Objective (b). By ensuring that costs incurred in responding to Emergency Instructions would be adequately compensated, P173 would reduce any potential disincentive to respond to Emergency Instructions where the Bid-Offer Price did not fully reflect the 'Avoidable Costs'. However, the majority of the PSMG disagreed, noting that the Grid Code provides an obligation to respond to Emergency Instructions irrespective of commercial considerations and that the Bid/Offer Price would be more likely to include all the perceived costs and risks associated with responding to Emergency Instructions.

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 identified several negative impacts on Applicable BSC Objective (c). First, the compensation of affected Parties for their 'Avoidable Costs', rather than paying them 'as bid', would be detrimental to Parties because it would be less 'cost-reflective'. Second, replacement of 'pay as bid' with 'Avoidable Costs' places a requirement on affected Parties to produce a potentially complex and time consuming cost estimate even though they have already submitted Bid/Offer Prices. Finally, the potentially lengthy process required to establish the replacement acceptance price would delay the calculation of Energy Imbalance Prices for the affected Settlement Periods. This delay would introduce uncertainty into the market.

A minority, represented by the Proposer, believed that P173 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 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. P173 would reduce this potential exposure to unrepresentative Energy Imbalance Prices. In addition, by pricing Emergency Instruction BOAs at 'Avoidable Costs', P173 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 P173 would detract from achievement of Applicable BSC Objective (d). P173 would introduce a new, complex, and potentially lengthy process for establishing a replacement acceptance price for use in extremely rare circumstances. The PSMG was of the opinion that such a process 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 P173 would introduce the risk of legal challenge from affected Parties.

The Proposer noted that the definition and process for establishing Avoidable Costs was part of the existing Code baseline and not new, albeit that P173 applied it to a new set of circumstances.

1.3.4 Conclusion

The majority of the PSMG concluded that P173 would not better facilitate achievement of the Applicable BSC Objectives. However, a minority, represented by the Proposer, was of the opinion that P173 would better facilitate achievement of the Applicable BSC Objectives.

1.4 Alternative Modification

The PSMG developed an Alternative Modification based on an amended version of the definition of 'Avoidable Costs', but identical to the Proposed Modification in all other respects.

Under the Alternative Modification, the cost categories that are explicitly excluded from definition of 'Avoidable Costs' under G2.1.4(e) would be included in a revised definition. Therefore, in its determination of 'Avoidable Costs', the Panel would additionally have regard to the following cost categories (where those costs had been demonstrably incurred):

- costs or losses in respect of damage to property (including Plant or Apparatus) or death or injury to persons;
- insurance premiums; and
- financing costs and overhead costs.

The Alternative Modification was developed to enable Parties affected by Emergency Instructions to receive fuller and more cost-reflective compensation.

1.5 Assessment of how the Alternative Modification will better facilitate the Applicable BSC Objectives

The PSMG unanimously believed that Alternative Modification P173 would not better facilitate achievement of the Applicable BSC Objectives for the same reasons as the majority considered that the Proposed Modification would not (see section 1.3).

However, by a majority, the PSMG believed that the Alternative Modification would better facilitate achievement of the Applicable BSC Objectives as compared to the Proposed Modification. The expanded definition of 'Avoidable Costs' (e.g. possibility of including costs relating to plant damage) would enable affected Parties to receive fuller and more cost-reflective compensation.

The minority of the PSMG which did not support the Alternative Modification when compared to the Proposed Modification raised several concerns. First, that including plant damage in the definition of

'Avoidable Costs' would represent a cross-subsidy of the generation sector by the supply sector of the industry. However, it was noted by several PSMG members that Emergency Instructions were issued for the benefit of all market participants. Second, that including broader and potentially significant costs such as insurance premiums and plant damage could lead to significant distortion of Energy Imbalance Prices. Third, the broader definition of 'Avoidable Costs' could make the process of establishing a replacement price longer leading to prolonged uncertainty regarding Energy Imbalance Prices.

1.6 Governance and regulatory framework assessment

Note discussion on European Convention of Human Rights (see section 1.2.5).

2 COSTS⁷

PROGRESSING MODIFICATION PROPOSAL

Meeting Cost	£500
Legal/expert Cost	£500 ⁸
Impact Assessment Cost	£5,000
ELEXON Resource	50 Man days £12,500

IMPLEMENTATION COSTS PROPOSED & ALTERNATIVE

		Stand Alone Cost	P173 ⁹ Incremental Cost	Tolerance
Service Provider¹⁰ Cost	Change Specific Cost	£41.5k*	£41.5k*	£0
	Release Cost	£0	n/a	£0
	Incremental Release Cost	£0	£0	£0
	Total Service	£41.5k*	£41.5k*	£0

⁷ Clarification of the meanings of the cost terms in this section can be found in annex 7 of this report

⁸ 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 P173 will be reflected in the Modification Report.

⁹ Note that these costs are equally applicable to the Alternative Modification

¹⁰ BSC Agent and non-BSC Agent Service Provider and software Costs

	Provider Cost			
Implementation Cost	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%
Total Demand Led Implementation Cost		£41.5k*	£41.5k*	+/-15%

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

ELEXON Implementation Resource Cost		129 Man days £28k	84 Man days £18.5k	+/- 10%
Total Implementation Cost		£69.5k	£60k	+/- 10%

ONGOING SUPPORT AND MAINTENANCE COSTS

	Stand Alone Cost	P173 Incremental Cost	Tolerance
Service Provider Operation Cost	£525 per incident		£0
Service Provider Maintenance Cost	zero		£0
ELEXON Operational Cost	£900 per incident		+/-50%

3 RATIONALE FOR MODIFICATION GROUP'S RECOMMENDATIONS TO THE PANEL

The following subsections summarise the recommendations of the PSMG in relation to P173.

3.1 Proposed Modification

PSMG recommends that Proposed Modification should not be made. The basis for this recommendation is the majority view that the Proposed Modification would not better facilitate achievement of the Applicable BSC Objectives.

3.2 Alternative Modification

PSMG recommends that Alternative Modification should not be made. The basis for this recommendation is the unanimous view that the Alternative Modification would not better facilitate achievement of the Applicable BSC Objectives. Note that the Alternative Modification was still

developed, however, because a majority of the PSMG believed it would better facilitate the Applicable BSC Objectives as compared to the Proposed Modification.

3.3 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, P173 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 following systems and/or processes have been identified as potentially being impacted by the Proposed Modification and the Alternative Modification.

4.1 BSCCo

The CVA Programme and CVA Operations will be required to support implementation and document the processes for dealing with Emergency Instructions. 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 the replacement Acceptances.

4.2 BSC Systems

No system changes would be required. However, the BSC Agent (SAA) would be required to enter Acceptance data into Settlement post event for Emergency Instructions and replace the prevailing price of the Acceptance with the replacement price at a later Settlement Run. This would require changes to documentation to formalise the process. In addition there would be an operational cost per incident for making the required data changes.

The BSC Agent Impact Assessment of P173 is attached as Annex 5.

4.3 Parties and Party Agents

An assessment has been undertaken by the PSMG in respect of systems and processes used by Parties and the following areas have been identified as potentially impacted by the Modification Proposal.

System / Process	Potential Impact of Proposed Modification
Settlement Calculations	Parties may be required to amend their systems, processes and procedures to account for the amended treatment of Emergency Instructions within Settlement.
Provide information	Parties and their Agents may be required to develop systems, processes and

System / Process	Potential Impact of Proposed Modification
for Determining Avoidable Costs	procedures to provide information to the Panel for the Panel to determine 'Avoidable Costs'.

5 IMPACT ON CODE AND DOCUMENTATION

5.1 Balancing and Settlement Code

An assessment has been undertaken by the PSMG in respect of all Sections of the Code and the following areas have been identified as potentially impacted by the Modification Proposal.

Item	Potential Impact of Proposed Modification
G	Amending to recognise Emergency Instructions as a contingency provision and to include the methodology and process for calculating the replacement price.
Q	New requirement for Transmission Company to identify Acceptances resulting from Emergency Instructions.
T	Amended to allow alternative prices to be applied to Acceptances resulting from Emergency Instructions.
X	New definitions required.

5.2 Code Subsidiary Documents

An assessment has been undertaken by the PSMG in respect of all Code Subsidiary Documents and the following documents have been identified as potentially impacted by the Modification Proposal.

Item	Potential Impact of Proposed Modification
SAA SD	The Settlement Administration Agent Service Description would need to be amended to reflect the adjustment of Acceptances Prices for Emergency Instructions.
BSCPs	A new process for the treatment of Emergency Instructions may be required. It may be appropriate for this to sit within an existing BSCP, alternatively a new document may be required.
NDFC	The NETA Data File Catalogue would require amendment.

5.3 Impact on other Configurable Items

An assessment has been undertaken by the PSMG in respect of other configurable items and the following have been identified as potentially impacted by the Modification Proposal.

Item	Potential Impact of Proposed Modification
BPM	The BSC Business Process Model will require amending
SAA URS	The Settlement Administration Agent User Requirements Specification would need to be amended in line with changes to the calculation of Energy Imbalance Prices where an Emergency Instruction has been issued.

5.4 Impact on Core Industry Documents and supporting arrangements

An assessment has been undertaken by the PSMG in respect of Core Industry Documents and the following documents have been identified as potentially being impacted by the Modification Proposal.

Item	Potential Impact of Proposed Modification
Grid Code	Although P173 would not require consequential changes to the Grid Code, it would amend the treatment in Settlement of Emergency Instructions under the Grid Code.

6 SUMMARY OF CONSULTATIONS

A consultation document was issued on 28 October 2004, with a deadline for responses of 9 November 2004. Eleven responses (54 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	Other
1. Do you believe Proposed Modification P173 better facilitates the achievement of the Applicable BSC Objectives?	2	8	1 (Yes/No)
2. Do you believe that the two potential Alternative Modifications better facilitates the achievement of the Applicable BSC Objectives as compared to the Proposed Modification:			
(a) Replacement Price Based on other Bids and Offers Available?	0	10	1 (Yes/No)
(b) Replacement Price Based on Amended version of Avoidable Costs?	2	8	1 (Yes/No)
3. Do you believe there are any alternative solutions that the Modification Group has not identified and that should be considered?	2	7	2 (No Comment)
4. Do you support the implementation approach developed by the Modification Group (see section 2.3)?	5	2	4 (Yes/No)
5. Which of the approaches (see section 2.3.3) identified for conducting Settlement in the interim period during which the Avoidable Costs are established Do you consider the most appropriate:			
(a) Option A?	2		3 (a/b/c/d)
(b) Option B?	5		1 (b or d)
(c) Option C?			
(d) None of the above (please specify approach favoured)?			
6. How much time do you believe a Party would reasonably require to establish the costs incurred through compliance with Emergency Instruction?	8 respondents provided timescales		3 (no opinion expressed)

7. Does P173 raise any issues that you believe have not been identified so far and that should be progressed as part of the Assessment Procedure?	3	6	2 (Yes & No)
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6.1 Modification Group's summary of the consultation responses

The following subsections provide a summary of the responses received to each of the questions consulted on.

6.1.1 Assessment of Proposed Modification Against Applicable BSC Objectives

The majority of respondents believed that Proposed Modification P173 would not better facilitate achievement of the Applicable BSC Objectives.

The principal argument made against P173 was that the combination of its mandatory nature and departure from the 'pay as bid principle' would have a negative impact on Applicable BSC Objective (c) (i.e. the competition objective). The mandatory nature of the process would create an unnecessary burden on market participants and the BSC Panel, especially where the changes to prices were non material. In addition, current practices allow Parties to submit Bids-Offers in the context of a competitive market and therefore are felt to be acceptable. Prices submitted by market participants are reflective of the risks and costs of being Bid off or Offered onto the System and therefore appropriate. Bid/Offer prices are also submitted prior to Gate Closure and therefore it was thought to be unlikely that Parties could exploit the situation. The process of having to go through an appeals process is lengthy and disadvantages the Party concerned creating future risk. Moreover, it was noted that Parties could potentially lose money through reacting to an Emergency Instruction under P173 (i.e. a Party might be required to make a payment based on the costs it 'avoided' through responding to an Emergency Instruction).

One respondent indicated that they believed that the notion of 'cost neutrality' embodied in P173, which could conceivably result in a Party being required to make a payment for responding to an Emergency Instruction was in contravention of Article 1 of the First Protocol of the European Convention of Human Rights. Under Article 1, the Market Participant is entitled to the free enjoyment of its 'possessions', an example of which is a power station. Through issuing an Emergency Instruction, the GB System Operator would be legitimately interfering with the Affected Party's use of its property. In such circumstances, for this interference to be proportionate, the European Convention on Human Rights requires that compensation is paid (although the level may not be the full market value).

A minority of respondents believed that P173 would better facilitate achievement of the Applicable BSC Objectives, arguments were put forward against Objectives (b) and (c).

In terms of Objective (b) (i.e. efficient operation of the Transmission System), the point was made that P173, through ensuring that the Lead Party of an affected BM Unit would remain cost neutral, would remove any potential commercial disincentive to respond to an 'Emergency Instructions and thus facilitate efficient management of the Transmission System by the System Operator.

In terms of Objective (c), the point was made that it was inappropriate for any Party to be disadvantaged or benefit financially through complying with an Emergency Instruction. P173 would remove this potential and promote effective competition. Furthermore, it was noted that P173 would be beneficial to the Energy Imbalance Price calculation by ensuring that only costs prudently incurred as a result of an Emergency Instruction would be factored into them.

6.1.2 Potential Alternative Modifications

a) Replacement Price Based on other Bids and Offers Available

No respondents supported this potential Alternative Modification on the basis that (1) it represented a departure from the principle of 'pay as bid' and (2) it would generate a price/payment potentially even less reflective of the costs and perceived risks associated with responding to Emergency Instructions than that generated by the Proposed Modification.

b) Replacement Price Based on Amended version of Avoidable Costs

The majority of respondents did not support this potential Alternative Modification on the basis that, in addition to departing from the principle of 'pay as bid', it would introduce the risk of significantly distorting Energy Imbalance Prices.

One respondent questioned whether the inclusion of costs associated with plant damage was within the vires of the BSC and noted that, were it included, it would represent an underwriting of the generation side of the market by the supply side.

A minority of respondents indicated that this potential Alternative Modification was superior to the Proposed Modification in that the calculation of 'Avoidable Costs' would be more reflective of the costs incurred by Parties in responding to Emergency Instructions.

6.1.3 Alternative Solutions Not Identified by PSMG

One respondent noted that a potential alternative existed whereby the Panel would appoint an independent committee to consider estimates of 'Avoidable Costs' submitted by an Affected Party and make a recommendation to it on that basis.

In addition, two Parties noted that P175 constituted an alternative to P173 and one that P172 constituted an Alternative.

6.1.4 Implementation Approach

The majority of respondents supported the proposed implementation approach on the basis that it appeared to represent the lowest cost solution.

However, one respondent raised two concerns with the inputs under the proposed approach. One was with respect to what Acceptance data would be fed into Settlement prior to the establishment of the replacement price. The second concern was over the definition of 'Avoidable Costs' and whether or not plant damage would be included.

Another Party raised concerns that the process of establishing the Avoidable Costs would delay the determination of the replacement price so that it could potentially miss the SF run.

6.1.5 Interim Approach

a) 'Option A'

One respondent supported this option A on cost grounds and another respondent supported it on the basis that it would provide the greatest protection against exposure to bad debt in any interim period.

b) 'Option B'

Option B was the approach which received the most support from respondents on the basis that it would allow for relevant Acceptance volumes to be entered into Settlement prior to the calculation of the replacement price, without significant distortion to Energy Imbalance Prices or cash-flows in the interim.

c) 'Option C'

Respondents expressed concern that option C would lead to incorrect calculations of NIV, creating significant errors at SF. It was further noted that this could potentially cause market length to 'flip'.

6.1.6 Time Required to Establish Cost Estimate

Consultees were asked how much time they believed a Party would reasonably require to establish the costs incurred through compliance with an Emergency Instruction. Responses ranged from approximately two weeks to three months.

Most respondents highlighted that a general and an exceptional time limit would be required. In most circumstances, the majority of respondents considered that a timescale of approximately one month would be adequate. However, under certain circumstances (e.g. complex scenarios and/or a need to involve auditors), a significantly longer time would be required.

Several respondents expressed concerns that the potential length of this process could delay the establishment and use in Settlement of a replacement price.

6.1.7 Further Issues & Comments

Respondents made the following additional comments:

- One respondent questioned the rationale for departure from the 'pay as bid principle'. In particular, what the definition of a 'sleeper' Bid was and at what level a Bid could be considered a 'sleeper'.
- One respondent questioned the rationale for 'inappropriate' Bid or Offer prices referred to in P173. In particular, did the definition of an 'inappropriate' Bid or Offer price create a notion of an 'appropriate' Bid or Offer price which would have the effect of capping market prices.
- Two respondents felt that the lack of a clear definition over what constitutes an 'emergency' could create a perverse incentive on the System Operator (and other Parties) to abuse the Emergency Instructions.
- One respondent noted that, to address the disproportionate materiality of the impact of the Damhead Creek Emergency Instruction on small Parties, P173 ought to be retrospective.
- One respondent noted that the legality of P173 on the basis of the European Convention of Human Rights needed to be clarified and considered further.
- Finally, one respondent stated that P173 incorrectly implied that BM Units are required to respond without regard to the Settlement implications. Grid Code BC2.9.2.1 requires response on a 'reasonable endeavours basis' i.e. subject to an economic test. Therefore P173 needs to be assessed in this light.

6.2 Comments and views of the Modification Group

The PSMG noted that the majority of respondents believed that neither the Proposed nor the potential Alternative Modifications would better facilitate achievement of the Applicable BSC Objectives. In addition, the PSMG also noted that 'option b' (i.e. entry of Acceptance as un-priced volume into Settlement) was the favoured interim approach amongst respondents.

The PSMG considered the potential Alternative Modification proposed by one respondent whereby the Panel would appoint an independent committee to consider estimates of 'Avoidable Costs' submitted by an Affected Party and make a recommendation to it on that basis. However, The PSMG concluded that this potential

Alternative Modification was not necessary because the Panel already has the ability to call on independent expertise where it deems necessary.

7 SUMMARY OF TRANSMISSION COMPANY ANALYSIS

7.1 Analysis

The Transmission Company indicated that P173 would not affect its ability to discharge its Licence obligations, its ability to operate the Transmission System or security of supply. Furthermore, the Transmission reported that P173 could be implemented at minimal cost using existing system functionality and processes (e.g. use of Systems Warnings page on the BMRS to notify industry of an Emergency Instruction).

A copy of the Transmission Company analysis of P173 is attached as Annex 4.

7.2 Comments and views of the Modification Group

The PSMG noted that the Transmission Company Analysis reported that implementation of P173 would have minimal impact on its processes and systems.

8 IMPLEMENTATION APPROACH

The PSMG proposes that P173 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 P173 would only apply to Emergency Instructions 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 P173. In addition, the PSMG noted that this approach was consistent with that proposed under P171, P172 and P175.

9 DOCUMENT CONTROL

9.1 Authorities

Version	Date	Author	Reviewer	Change Reference
0.1	19.11.04	Change Delivery	PSMG	Initial Draft
0.2	24.11.04	Change Delivery	PSMG	Revised Draft
0.3	02.12.04	Change Delivery	Change Delivery	Revised Draft
0.4	03.12.04	Change Delivery	Change Delivery	Final Draft
1.0	03.12.04	Change Delivery	BSC Panel	Final Version

9.2 References

Ref No.	Document Title	Owner	Issue Date	Version	Hyperlink
1	Modification Proposal P173	-	25.08.2004	-	http://www.elexon.co.uk/documents/Change_and_Implementation/CVA_-_Circulars/P173.pdf
2	Balancing Principles Statement	NGC	04.10.2004	4.1	http://www.nationalgrid.com/uk/indinfo/balancing/pdfs/Appendix_B_BPS_v1.pdf
3	Modification Proposal P173 Initial Written Assessment	ELEXON	03.09.2004	1.0	http://www.elexon.co.uk/documents/BSC_Panel_and_Panel_Committees/BSC_Panel_Meetings_2004_-_082_-_Papers/82_007a.pdf
4	Modification Proposal P171	-	25.08.2004	-	http://www.elexon.co.uk/documents/modifications/171/P171.pdf
5	Modification Proposal P172	-	25.08.2004	-	http://www.elexon.co.uk/documents/Change_and_Implementation/CVA_-_Circulars/P172.pdf
6	Modification Proposal P175	-	01.10.2004	-	http://www.elexon.co.uk/documents/modifications/175/P175.pdf

ANNEX 1 DRAFT LEGAL TEXT

Attached in separate document

ANNEX 2 MODIFICATION GROUP MEMBERSHIP & TERMS OF REFERENCE

Membership

The membership of the PSMG for the purposes of P173 is indicated in the table below. The columns to the right

Member	Organisation	14/09	11/10	12/11	22/11
Sarah Parsons	ELEXON (Chairman)	✓	✓	✓	✓
Mark Duffield	(Proposer) P173	✓	✓	✓	✓
Garth Graham	Scottish and Southern	✓	✓	✓	✓
Man Kwong Liu	SAIC	X	X	✓	✓
Bill Reed	RWE Trading	✓	✓	✓	✓
Paul Jones	E.On Uk	✓	✓	✓	✓
Lisa Waters	Waters Wye	✓	X	X	X

Jan Devito	Jade Energy	✓	X	✓	✓
Mark Manley	BGT	x	✓	✓	✓
Helen Bray	EDF	x	✓	✓	✓
Martin Mate	British Energy	✓	X	✓	X
Roger Salomone	ELEXON (Lead Analyst)	X	✓	✓	✓

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

Attendee	Organisation	14/09	11/10	12/11	22/11
Simon Bradbury	Ofgem	✓	✓	✓	✓
Fiona Lewis	Ofgem	✓	✓	✓	✓
Mark Brackley	National Grid	✓	✓	✓	✓
Paul Chesterman	EDF	✓	X	X	X
Adam Cooper	Entergy-Koch	✓	X	X	X
Rekha Patel	Conocophillips	✓	X	✓	X
Thomas Bowcutt	ELEXON	✓	✓	✓	✓
Sanjukta Round	Cornwall Consulting	x	X	✓	✓
Barbara Vest	GDF	x	Part	✓	X
Danielle Lane	BGT	✓	X	X	X
Keith Munday	Bizz 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 P173:

- **Replacement Price:** An appropriate methodology and process for calculating this replacement price;
- **Impact on Imbalance Prices:** A consideration of the implications of applying a cost neutral price to an Acceptance in terms of the calculation of Imbalance Prices and requires assessment;
- **Solution development:** Details of the process changes to support the calculation and agreement of a replacement price and the inclusion of this price in Settlement (including details of the process to be conducted by the Panel). Also the point in the Settlement/ Reconciliation process the price of the Acceptance should be amended; and

- **Background:** Details of the circumstances under which and Emergency Instruction may be issued under the Grid Code;
- **Consideration of the interaction with P172 and P172:** Details of the interaction between P171, P172 and P173; and
- **Alternative Modifications:** Details of any Alternative Modification that would better facilitate achievement of the Applicable BSC Objectives in comparison to the Proposed Modification.

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 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	
Meeting Cost	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.
Legal/expert Cost	This is the cost associated with obtaining external expert advice, usually legal advice.
Impact Assessment Cost	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.
ELEXON Resource	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 Procedures.

SERVICE PROVIDER ¹¹ COSTS	
Change Specific Cost	Cost of the Service Provider(s) Systems development and other activities relating specifically to the Modification Proposal.
Release Cost	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.
Incremental Release Cost	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.

IMPLEMENTATION COSTS	
External Audit	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.

¹¹ 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.

Design Clarifications	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%.
Additional Resource Costs	<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>
Additional Testing and Audit Support Costs	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 Releases this is estimated on a Modification Proposal basis.

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

ELEXON Operational Cost	Cost, in man days per annum multiplied by project average daily rate, of operating the revised systems and processes post implementation.
Service Provider	Cost in £ per annum payable to the Service Provider(s) to cover staffing requirements, software or hardware licensing fees, communications

Operation Cost	charges or any hardware storage fees associated with the ongoing operation of the revised systems and processes.
Service Provider Maintenance Cost	Cost quoted in £ per annum payable to the Service Provider(s) to cover the maintenance of the amended BSC Systems.

ANNEX 7 LEGAL ADVICE ON HUMAN RIGHTS

Attached in separate document

ANNEX 8 RESPONSE TO LEGAL ADVICE ON HUMAN RIGHTS

Attached in separate document