

REQUIREMENTS SPECIFICATION for:

P173 Revised Settlement Arrangements for Emergency Instructions

Prepared by: Pricing Standing Modification Group (PSMG)

Date of Issue28/09/04Document referenceP173ASReason for IssueImpact AssessmentIssue/Version NumberFinal/1.0

PURPOSE OF THIS DOCUMENT

The purpose of this document is to identify the requirements for implementation of Modification Proposals P173. It is intended that this document be used as basis for the Impact Assessment by Parties, BSC Agents, BSCCo, Core Industry Document Owners and the Transmission Company.

For the purposes of this assessment, the reader should assume that the changes will be implemented as a standalone development project managed by BSCCo.

Intellectual Property Rights and Copyright - This document contains materials the copyright and other intellectual property rights in which are vested in ELEXON Limited or which appear with the consent of the copyright owner. These materials are made available for you to review and to copy for the purposes of your establishment or operation of or participation in electricity trading arrangements under the Balancing and Settlement Code ("BSC"). All other commercial use is prohibited. Unless you are a person having such an interest in electricity trading under the BSC you are not permitted to view, download, modify, copy, distribute, transmit, store, reproduce or otherwise use, publish, licence, transfer, sell or create derivative works (in whatever format) from this document or any information obtained from this document otherwise than for personal academic or other non-commercial purposes. All copyright and other proprietary notices contained in the original material must be retained on any copy that you make. All other rights of the copyright owner not expressly dealt with above are reserved.

Disclaimer - No representation, warranty or guarantee is made that the information provided is accurate, current or complete. Whilst care is taken in the collection and provision of this information, ELEXON Limited will not be liable for any errors, omissions, misstatements or mistakes in any information or damages resulting from the use of this information or any decision made or action taken in reliance on this information.

I CONTENTS TABLE

I	Contents Table	2
Summa	ary of impacted parties and documents	3
1	Introduction	4
1.1	Proposed Modifications	
1.2	Background and Scope	
1.3	Requirements Specification Overview	6
2	Implementation Options	7
2.1	OPTION 1: P171/P172 Automated solution	
2.1.1	Inform Industry (D)	8
2.1.2	Enter Acceptance Data into Settlement (II)	8
2.1.3	Agree Replacement Acceptance Price (prior to SF)	8
2.1.4	BSC Agent (SAA) adjust Acceptance Price (SF)	
2.1.5	Iteration of Process	
3	Document Control	14
а	Authorities	14
b	References	

SUMMARY OF IMPACTED PARTIES AND DOCUMENTS

The following parties/documents have been identified as being potentially impacted by Modification Proposal P173.

Parties		Sections of th	e BSC	Code Subsidiary Documents	
Suppliers	M	Α		BSC Procedures	\boxtimes
Generators	\boxtimes	В		Codes of Practice	
Licence Exemptable Generators	\boxtimes	С		BSC Service Descriptions	\boxtimes
Transmission Company	\boxtimes	D		Service Lines	
Interconnector	\boxtimes	E		Data Catalogues	
Distribution System Operators		F		Communication Requirements Documents	
Party Agents		G	\boxtimes	Reporting Catalogue	
Data Aggregators		Н		MIDS	
Data Collectors		J		Core Industry Documents	
Meter Operator Agents		K		Grid Code	\boxtimes
ECVNA		L		Supplemental Agreements	
MVRNA		M		Ancillary Services Agreements	
BSC Agents		N		Master Registration Agreement	
SAA	M	Ο		Data Transfer Services Agreement	
FAA		Р		British Grid Systems Agreement	
BMRA		Q	\boxtimes	Use of Interconnector Agreement	
ECVAA		R		Settlement Agreement for Scotland	
CDCA		S		Distribution Codes	
TAA		Т	\boxtimes	Distribution Use of System Agreements	
CRA		U		Distribution Connection Agreements	
Teleswitch Agent		V		BSCCo	
SVAA		W		Internal Working Procedures	\boxtimes
BSC Auditor		Х	\boxtimes	Other Documents	
Profile Administrator				Transmission Licence	
Certification Agent					
MIDP					
Other Agents					
SMRA					
Data Transmission Provider					

1 INTRODUCTION

1.1 Proposed Modifications

Modification Proposal P173 'Revised Settlement Arrangements for Emergency Instructions' (P173) was raised on 25 August 2004 by National Grid Transco (NGT). P173 seeks to amend the treatment of Emergency Instructions under the Code. It is the intention of the Proposer that P173 would apply on a prospective basis only (i.e. would not be applied 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 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 or Offer price.

In accordance with the Balancing Principles Statement (Reference 3), 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 Instruction, 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 or Offer price which is significantly higher (in terms of relative cost to the Transmission Company) than would have been selected under normal operation.

Currently Acceptances resulting from Emergency Instructions are not distinguished within Settlement, therefore 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 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 Imbalance Price calculation at the prevailing Bid or Offer price. This may, subject to the existing tagging rules, impact imbalance payments, and consequentially Residual Cashflow Reallocation Cashflow (RCRC), for all Parties.

Changes Proposed under 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, Manifest Errors and Past Notification Errors) and treated as follows:

- The Lead Party of the affected BM Unit would not be paid (or pay) for the associated Acceptance at the prevailing Bid or Offer price. Rather a replacement price would be calculated for the affected BM Unit and agreed by the Panel post event;
- BSUoS payments for all Parties would reflect the replacement price; and

• The Acceptance would feed into the existing 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 when responding to an Emergency Instruction.

Background:

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 here.

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, NGC 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 System Sell Prices which will result from the inclusion of the Bid Acceptance is:

- £96.68/MWh in Settlement Period 27¹; and
- -£5,870.87/MWh in Settlement Period 28.

NGC 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.

As a prospective Modification Proposal, P173 would not apply to the Damhead Creek incident. However, the incident remains relevant for the consideration of P173 as it illustrates the potential consequences of such an incident under the existing arrangements.

1.2 Background and Scope

ELEXON presented an Initial Written Assessment (IWA) for P173 (Reference 2) 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). The Assessment Report is scheduled to be presented at the Panel meeting on 9 December 2004.

Issue/Version number: Final/1.0 © ELEXON Limited 2004

¹ 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).

To date the PSGM have met once, on the 14 September 2004, to consider P173. This document sets out the interpretation of P173 and the issues considered by the PSMG during the initial part of the Assessment Procedure. The purpose of this document is to identify the requirements for implementation of Modification Proposal P173, in order to allow the cost and impact of the proposed changes to be identified. It is intended that this document be used as a basis for the Impact Assessment by Parties, BSC Agents, BSCCo, Core Industry Document Owners and the Transmission Company. Responses to Impact Assessment will enable the PSMG to agree an implementation approach and reach a recommendation on whether P173 would better facilitate achievement of the Applicable BSC Objectives.

1.3 Requirements Specification Overview

This version of the Requirements Specification is based on the conclusions reached by the PSMG as of 14 September 2004. The document includes one potential implementation option currently being considered by the PSMG:

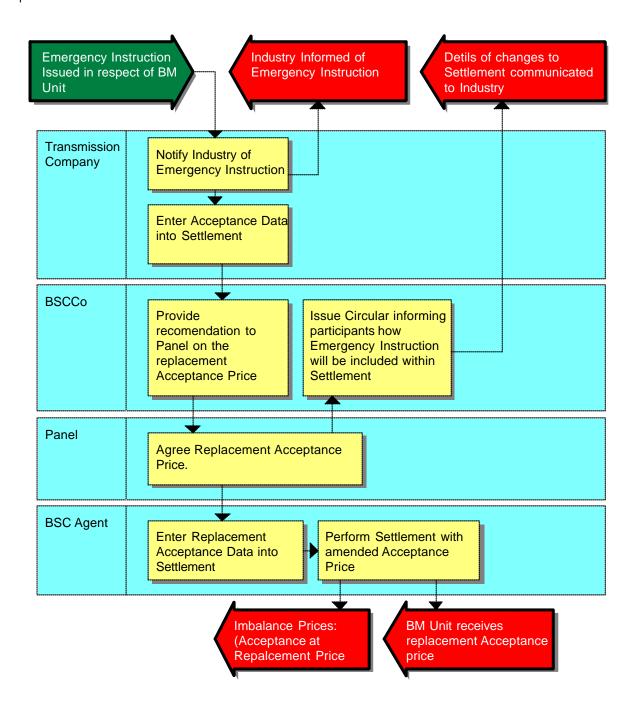
1. Implementation of Proposed Modification P173 via adjustment of Acceptance Prices post event in order to represent the Avoidable Costs incurred by a BM Unit in delivering an Emergency Instruction.

Details of this implementation option are included in Section 2 of this document. It should be noted that two potential Alternative Modifications are also outlined and impact assessment should consider these solutions.

2 IMPLEMENTATION OPTIONS

2.1 OPTION 1: P173

The following diagram illustrates, at a high level, how P173 would be implemented; each stage of the process is considered in detail in sections 2.1.1 to 2.1.4.



2.1.1 Inform Industry (D)

The Transmission Company would inform the industry (on a reasonable endeavours basis), as soon as possible following an Emergency Instruction being issued to a BM Unit, via the BMRS (using existing System Warning message functionality). This information would be limited to the time of the Emergency Instruction and the affected BM Unit.

2.1.2 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.

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. Therefore, the Acceptance would be manually entered into Settlement post event (NB: the system functionality to perform this exists and is currently utilised under the Manifest Error process). This would be conducted prior to the Interim Information (II) Run performed at D+5WD.

At this point the Acceptance would be included within Settlement at the prevailing Bid/ Offer Price; however the price of the Acceptance would be adjusted in consequential Settlement Runs.

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.

2.1.3 Agree Replacement Acceptance Price (prior to SF)

Once the Acceptance Data (and hence the Acceptance Volume) had 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 Acceptance Price to be entered into Settlement.

P173 proposes that the replacement Acceptance 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 Acceptance Price would be calculated as follows:

Replacement Acceptance Price (£/MWh) = Avoidable Costs (£)/ (Emergency Instruction Acceptance Volume *TLM (MWh))

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 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 premia;
 - 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.

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

- 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.

Potential Alternative Modifications:

Two potential alternative approaches to determining the replacement Acceptance price are currently under consideration by the PSMG (NB: if progressed either of these would form Alternative Modification P173). Impact Assessment respondents should consider the impact of each of these potential approaches.

1. Replacement Prices represent the Bids and Offers available to the Transmission Company at the time of issuing the Emergency Instruction.

Under this potential Alternative Modification P173, the Panel would determine the replacement Price considering which Bids and Offers would have been taken by the Transmission Company had the Emergency Instruction not been issued. 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 5). The Panel would determine, in consultation with the Transmission Company, the replacement Acceptance Price as follows:

- (i) The Bid-Offer Pairs (submitted by any Party) which were available to, and not already accepted by, the Transmission Company at the time of issuing the Emergency Instruction would be identified;
- (ii) The Panel will then determine which of those other Bid-Offer Pairs would (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 time of the Emergency Instruction, if it had not issued the Emergency Instruction; and
- (iii) The replacement Acceptance Price would then be the Bid Price or Offer Price of such Bid-Offer Pair (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).

2. Amended version of Avoidable Costs:

Under this second potential Alternative Modification P173, a new defined set of costs would be defined and the Replacement Acceptance Price would be calculated as follows:

Replacement Acceptance Price (£/MWh) = **P173 Alternative Costs** (£)/ (Emergency Instruction Acceptance Volume *TLM (MWh))

A number of factors would be included and excluded from the calculation of the newly defined 'P173 Alternative costs' as follows:

- costs 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;
 - costs or losses in respect of damage to property (including Plant or Apparatus) or death or injury to persons;
 - insurance premia;
 - 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 included.

Under the potential Alternative Modification the authority would not have the ability to direct the Panel to exclude any of the above costs.

2.1.4 BSC Agent (SAA) adjust Acceptance Price (SF)

Once the Avoidable Costs have been agreed by the Panel, a replacement Acceptance Price would be entered into Settlement by the BSC Agent (SAA) prior to the SF Run (D+16 WD). The Acceptance with 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 or Offer price via the Period BM Unit Cashflow;
- The Acceptance Volume will feed into the existing Imbalance Price calculation at the replacement Bid or Offer price. As such, the normal tagging process will determine how the Acceptance contributes to the calculation of Imbalance Prices.

2.1.5 Iteration of Process

Once the Acceptance Data has been entered into Settlement and the replacement Acceptance 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 Acceptance 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).

3 IMPACTS

3.1 Impact on BSC Systems and processes

An assessment has been undertaken by the PSMG in respect of all BSC Systems and processes and the following have been identified as potentially being impacted by the Modification Proposal.

BSC System / Process	Potential Impact of Proposed Modification			
Balancing Mechanism Activities	A new process would be required in order to allow Acceptances which result from Emergency Instructions to be identified within Settlement.			
Settlement	Settlement processes would require amending in order to allow the prevailing price of Acceptances resulting from Emergency Instructions to be adjusted.			
Contingencies	Amendments would be required to include a new contingency provision under which the prevailing price of any Acceptances resulting from Emergency Instructions is determined.			

3.2 Impact on other systems and processes used by Parties

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	Parties may be required to amend their systems to account for the amended				
Calculations	treatment of Emergency Instructions within Settlement.				

3.3 Impact on documentation

3.3.1 Impact on 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 Acceptance price.
Q	New requirement for Transmission Company to identify Acceptances resulting from Emergency Instructions.
Т	Amended to allow alternative prices to be applied to Acceptances resulting from Emergency Instructions.
Х	New definitions required.

3.3.2 Impact on 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.

3.4 Impact on Core Industry Documents

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 does not propose to amend the treatment of Emergency Instructions under the Grid Code there is a potential interaction to be considered.				

3.5 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.

4 IMPACT ON BSCCO

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

Area of Business	Potential Impact of Proposed Modification			
BSCCo Procedures	BSCCo internal procedures would require amending to include a new process for handling Emergency Instructions.			

5 DOCUMENT CONTROL

a Authorities

Version	Date	Author	Reviewer	Reason for review	
0.1	22/09/04	Change Delivery	PSMG	Modification Group Review	
0.1	22/09/04	Change Delivery	Design Authority	Technical Review	
0.1	22/09/04	Change Delivery	Service Delivery	Technical Review	
1.0	28/09/04	Change Delivery	Industry	Impact Assessment	

b References

Ref	Document	Owner	Issue date	Version
1	Modification Proposal P173 – 'Revised Settlement	ELEXON	03/09/04	1.0
	Arrangements for Emergency Instructions'			
2	Initial Written Assessment P173 – 'Revised Settlement	ELEXON	03/09/04	1.0
	Arrangements for Emergency Instructions'			
3	Balancing Principles Statement	NGC	01/05/04	4.0

Modification documentation is available for download on the BSC website at:

 $\underline{http://www.elexon.co.uk/change implementation/ModificationProcess/modificationdocumentation/defaul}\\ \underline{t.aspx}$

NGC documentation is available at:

http://www.nationalgrid.com/uk/indinfo/balancing/mn_transmission.html