

NETA Change Form	MP/CP/TP No: MP82
	Logica reference: ICR427
Title: Introduction of Zonal Transmission Losses On An Average Basis	
Identified by: First Hydro Company	Date received: 02-Oct-2002

Statement of requirement
Baseline affected: NETA Service Definition Baseline (V2.0)
Assumed changes over baseline: None
Description of Change: See attached original MP82.
Proposed solution: See attached original MP82.
Justification for Change: See attached original MP82.
Proposed changes to Service Levels: None
Proposed changes to the Agreement: None
Attachments/references: MP82 Design Analysis, MP82

To be completed by Logica			
	High Level Impact Assessment	Detailed Level Impact Assessment	Quotation
Tick which stage is being completed:		✓ (revised)	
Signed by Logica Contract Manager:			
Date:		04-Nov-2002	
HLIA category: Small/Medium/Large/Other		Price for DLIA:	
If this is a Quotation, are consequential modifications needed to the DLIA? Yes/No.			

Logica's proposal
Logica's understanding of the requirement: See Design Analysis.
Logica's proposed design solution: See Design Analysis
Consequential changes to Project Deliverables: See Design Analysis.

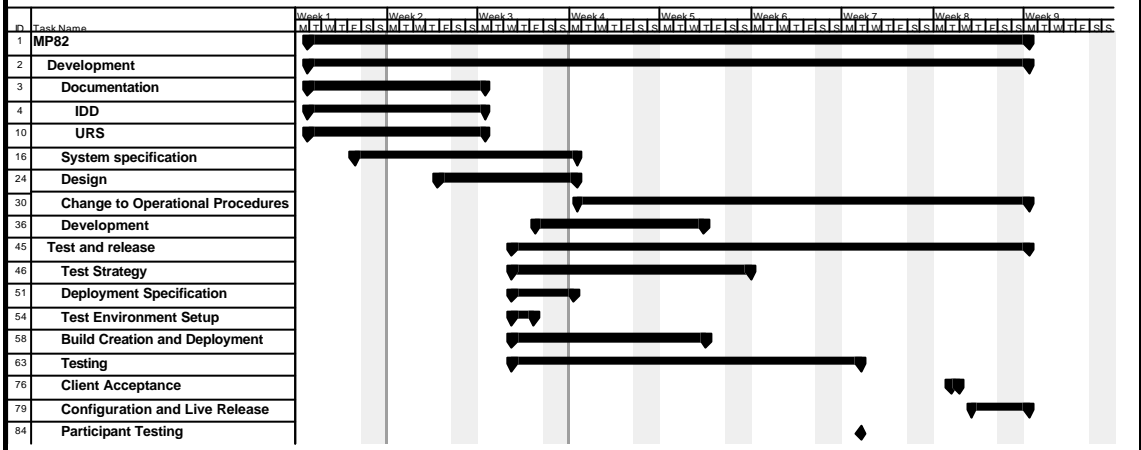
Consequential impact on BSC Service Users or Other Service Providers:

Testing strategy:

- Testing will only be performed on our own system with external interfaces being simulated as necessary. No allowance has been made for testing with external systems.
- (See Design Analysis for further details.)

Management plan for developing the Change:

Project plan for developing the Change:
 The estimated time to complete the development of this change is 8 weeks.



Method of deployment:

Patch	Is a planned outage required? Yes
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Price for Design and Build:

Item description:	Price (ex VAT)	Type of price:
CRA modifications	£109 000	Fixed
This price is for a stand alone patch, and includes the associated patch testing costs.		

Price for Operate and Maintain:

Item description:	Price per month (ex VAT)	Type of price:
Operate	£168	Fixed
Maintain	£1 272	Fixed

If this is a DLIA or Quotation, is a price breakdown in the agreed format attached? Yes

Terms attaching to the offer

Validity period of offer: 30 days	Type of offer: Firm
Assumed start date:	

Payment milestones:

Logica will invoice 30% on receipt of Purchase Order or authorised start of work, 50% on completion of acceptance tests, 20% on deployment or one month after completion of acceptance tests, whichever is sooner.

Document turnaround time:

5 days

Impact on Service Levels:

None

Impact on performance of the System:**Other terms:**

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

Responsibilities of ELEXON:

- For all DCRs which are subject to review, Logica shall provide one draft issue and a maximum of 5 working days has been allowed for ELEXON to review and comment on the updates. Comments will be addressed and the final issue will be provided. A maximum of 2 working days has been allowed for review confirmation and signoff by ELEXON.
- Within reasonable levels, ELEXON will make available appropriate staff to assist Logica during the development of this change.

Assumptions made by Logica:

- Price is for a separate patch.
- Price and duration assume that this change is developed in isolation and the effects of other changes are excluded.
- Price excludes provision for indexation of daily rates from 1st April 2003.
- Price is for creating DCRs, not a formal documentation issue.
- Deployment of any software on the Participant Test Environment is outside the scope of this impact assessment.
- No allowance is included in the price for Service Descriptions being different from the Change/Modification Proposal.
- See also assumptions in Design Analysis.

Options and alternatives:

MP82 Design Analysis

Overview

The aim of Modification Proposal MP82 is to spread the cost of transmission charges more fairly. It is therefore proposed that transmission charges are applied on a zonal basis rather than a uniform system wide basis.

MP82 proposes to calculate Transmission Loss Factors on an Annual basis whilst the similar change MP75 proposes to calculate Transmission Loss Factors on a daily basis

Document Changes

	BMRA	CDCA	CRA	ECVAA	SAA	TAA
URS			✓			
SS			✓			N/A
DS			✓			N/A
MSS			✓			N/A
OSM			✓			

IDD	Part 1 document	✓ (CDCA-I029, CDCA-I030, CDCA-I042)
	Part 1 spreadsheet	
	Part 2 document	✓ (CRA-I015)
	Part2 spreadsheet	

Software Changes

1. Modifications to CRA to provide a full refresh of CRA-I015 to the TLFA in time for the TLFA to produce the annual TLF values.
2. Modifications to send CRA-I042, CRA-I029 and CRA-I030 to ELEXON through existing redirection.
3. Amend CRA to allow it to receive a manual flow containing TLFs for each BMU for each year.

Other Changes

1. None.

Assumptions

1. It is assumed that the CRA full refresh provided to the TLFA will be provided by e-mail in plain text format.
2. SAA and BMRA will remain unchanged and use TLF. Scaling will not be required.
3. TLF details will be entered manually on receipt.
4. CRA will not be required to run any additional reports (TLFA will receive a copy of an existing report) or perform any additional checks on the entered TLF values.
5. No changes will be made to the way CRA report the CRA-I015, CRA-I020, CRA-I029 and CRA-F032.
6. No changes will be made to the way SAA report the SAA-I001, SAA-F007 and SAA-I0146).
7. No changes will be made to the way BMRA report the BMRA-I001 and BMRA-F003.
8. TLF details will be entered manually on receipt.

Testing

1. Regression testing will involve tests RT-01, RT-02, RT-04 and RT-06.
2. No ECVAA testing (either Regression or Change-specific) is required.
3. No estimates for running any Functional Area Tests (FAT) have been included.
4. To allow for an increase in the scope of regression testing (currently under discussion) extra effort added in under "Increase".
5. No Clock change testing is included.
6. No interim run is needed.

Modification Proposal

MP No: 82
(mandatory by BSCCo)

Title of Modification Proposal (mandatory by proposer):

Introduction Of Zonal Transmission Losses On An Average Basis

Submission Date (mandatory by proposer): 03 May 2002

Description of Proposed Modification (mandatory by proposer):

In accordance with Section T of the BSC, losses incurred on the transmission system are allocated to BSC parties in proportion to the energy they meter, whether production or consumption. There is no geographical differentiation in this allocation. Transmission Loss Factors for all BMUs in all Settlement Periods are set to zero.

It is proposed that the BSC be modified to give effect to a zonal differentiation in the allocation of the volume of transmission losses, similar to that set out for the Pool in 1997. A change to Section T of the BSC is proposed to give effect to this whilst adhering to the following principles:

1. the allocation is a simple and cost effective process;
2. the allocation does not introduce unnecessary or untoward risks on parties; and
3. the process should be simple to audit.

Within these principles, losses should be allocated, to a first approximation, according to the manner in which they are incurred, and the degree to which they are due to the energy produced or consumed by each BMU, and give rise to stable economic signals.

It is proposed that the zonal transmission loss allocation is introduced as follows:

For each GSP Group a single Transmission Loss Factor (TLF) would be derived ex ante for application to generation and supply throughout the coming year April to March. The manner in which these would be calculated would be under the governance of the BSC. In principle, nodal marginal TLFs would be derived for a representative collection of historic power system conditions during the previous year January to December. Zonal marginal TLFs would be derived from these nodal figures by demand-weighted averaging, and then annual zonal marginal TLFs would be derived by time-weighted averaging.

The resulting average annual zonal TLFs would be submitted to BSCCo at least two months prior to the implementation of this modification and thereafter by the February prior to their application in the following April to March period. The BSC Panel would be invited to endorse the TLFs prior to their application.

The volume of transmission losses in each Settlement Period would then be allocated amongst individual BMUs by substituting these zonal TLFs, modified by a fixed scaling factor, for the parameters TLF_{ij} in Schedule T, Section T2.3.1 of the BSC.

The value of this scaling factor would be fixed from time to time (typically every few years) under the governance of the BSC at a level that, to a first approximation, (a) allocated the heating element of the transmission system losses on an average basis, with little under or over recovery, and (b) resulted in other transmission losses being allocated on a uniform basis through the parameters TLM_{0+j} and TLM_{0-j}. To this extent the value of the scaling factor would be around 0.5. Any inaccuracy in (a) would be compensated for in (b).

Modification Proposal	MP No: 82 <i>(mandatory by BSCCo)</i>
<p>Whilst the calculation of the annual TLFs would be under the governance of the BSC, this task would be undertaken by a TLF Agent. The BSC Panel may choose to allocate this task to NGC.</p>	
<p>Description of Issue or Defect that Modification Proposal Seeks to Address <i>(mandatory by proposer):</i></p> <p>Currently the volume of transmission losses is allocated amongst BSC Parties regardless of the extent to which they give rise to them. To the extent that long term locational signals are to be introduced into the energy market, this Modification seeks to address this perceived defect. The Modification does not seek to introduce strong short term economic signals as it is felt that these would have a detrimental effect on overall efficiency.</p>	
<p>Impact on Code <i>(optional by proposer):</i></p>	
<p>Impact on Core Industry Documents <i>(optional by proposer):</i></p>	
<p>Impact on BSC Systems and Other Relevant Systems and Processes Used by Parties <i>(optional by proposer):</i></p>	
<p>Impact on other Configurable Items <i>(optional by proposer):</i></p>	
<p>Justification for Proposed Modification with Reference to Applicable BSC Objectives <i>(mandatory by proposer):</i></p> <p>This proposal will contribute to the better achievement of the BSC objective of 'promoting effective competition in the generation and supply of electricity, and (so far as consistent therewith) promoting such competition in the sale and purchase of electricity' by introducing long term economic signals for siting of generation and demand. This proposal achieves this by allocating losses in such a manner that does not unduly penalize individual BMUs. It allocates only according to the degree to which individual BMs give rise to losses.</p> <p>Transmission losses are an integral part of the energy market and should remain so. For this reason the proposal places the governance of all aspects of their allocation under the BSC. This will allow for implementation in a way that is consistent with BSC objectives.</p> <p>The proposal introduces zonal transmission losses through annually fixed TLFs so as to avoid unwarranted administrative burden and to provide greater certainty about the costs to be incurred. It is therefore consistent with "promoting efficiency in the implementation and administration of the balancing and settlement arrangements" and will also contribute to the development of competition.</p>	

Modification Proposal

MP No: 82
(mandatory by BSCCo)

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Attachments: NO

If Yes, Title and No. of Pages of Each Attachment: