

Memorandum

To P198 Cost-Benefit Analysis Service Provider **cc.** P198 Modification Group

From Kathryn Coffin

Date 18 April 2006

P198: PROPOSED MODIFICATION IMPLEMENTATION COSTS

This memo sets out the estimated implementation and operational costs of Proposed Modification P198, which will be used as part of the P198 cost-benefit analysis. These estimates are based on the results of impact assessments conducted by ELEXON, BSC Agents, BSC Parties and the Transmission Company.

The total implementation lead time for Proposed Modification P198 would be 12 months (i.e. there would be 12 months between an Authority decision to approve the Proposed Modification and the first use of zonal TLFs in Settlement). The TLF values for each BSC Year would be made publicly available 3 months prior to their use in Settlement.

Two potential implementation approaches are being considered by the Modification Group as follows:

- A 1 October implementation – Adjusted Annual Zonal TLFs would be applied in Settlement for 6 months of the first BSC Year of the scheme (i.e. from 1 October – 31 March), and for the full 12 months in each subsequent BSC Year (i.e. from 1 April – 31 March); or
- A 1 April implementation – Adjusted Annual Zonal TLFs would be applied in Settlement for each full BSC Year of the scheme (i.e. from 1 April – 31 March).

Transmission Company Costs

The Transmission Company has estimated that it would incur the following costs as a result of Proposed Modification P198:

- Initial Implementation Costs (including development costs and operational costs for the first BSC Year of the scheme): £40,000
- Ongoing Operational Costs Per Subsequent BSC Year: £40,000

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BSC Party and Party Agent Costs

P198 would have no impact on any Party Agents.

The following BSC Parties and Party Agents provided impact assessments in respect of Proposed Modification P198:

BSC Party/Party Agent Name(s)	Impacted?	Required Development Time	Implementation Costs
United Utilities	No	N/A	N/A
Energy Services Metering	No	N/A	N/A
E.On UK Plc	No	Minimal	None
Southern Electric Power Distribution, Keadby Generation Ltd, SSE Energy Supply Ltd, SSE Generation Ltd, Scottish Hydro-Electric Power Distribution Ltd, Medway Power Ltd	Yes	Not Specified	Confidential Costs Provided
EDF Energy	Yes	At least 3 months	£150,000-£200,000
Scottish Power UK plc, ScottishPower Energy Management Ltd, ScottishPower Generation Ltd, ScottishPower Energy Retail Ltd, SP Manweb plc, SP Transmission Ltd, SP Distribution Ltd	Yes	Minimum 8 months	c.£200,000
Npower Limited, Npower Yorkshire Limited, Npower Yorkshire Supply Limited, Npower Northern Limited, Npower Northern Supply Limited, Npower Direct Limited	Yes	At least 6 months	Confidential Costs Provided
British Energy Power & Energy Trading Ltd, British Energy Generation Ltd, British Energy Direct Ltd, Eggborough Power Ltd, British Energy Generation (UK) Ltd	Yes	3-6 months	Costs likely to be significant, measured in at least 6 figures

The full (non-confidential) responses submitted can be found on the BSC Website at the following link:
[http://www.elexon.co.uk/documents/modifications/198/P198_Party_IA_Responses_\(Non-Confidential\).pdf](http://www.elexon.co.uk/documents/modifications/198/P198_Party_IA_Responses_(Non-Confidential).pdf)

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ELEXON/Central Costs

The tables on the following pages show the estimated central costs of implementing and operating the solution for Proposed Modification P198 (i.e. the expenditure which would be incurred by ELEXON and its agents, and which would be recouped from BSC Parties as part of their BSC Charges).

The following points should be noted regarding these cost estimates:

- The Logica Central Services Agent (CSA) and ELEXON cost estimates have been based on the results of impact assessments conducted by these organisations.
- The Transmission Loss Factor Agent (TLFA) and Load Flow Model Reviewer (LFMR) would be new roles created by P198. A competitive tender process would be required for these roles, and the costs given therefore reflect the possibility that different organisations may be appointed than were used for the P82 development. In the absence of available impact assessments for Proposed Modification P198, the estimated combined cost for these new service providers has been based on:
 - The range of development and operational costs quoted within the bids which were submitted for the P82 TLFA role;
 - The actual expenditure which was incurred by the P82 LFMR as part of the P82 development work; and
 - An estimate of the likely LFMR operational costs, based on the day rate of the P82 LFMR and an assumption of 5 man days' effort per BSC Year (equivalent to the provision of services in support of 1 Trading Dispute per year).

The +/-50% tolerance reflects the uncertainty of the applicability of these costs to Proposed Modification P198 (due to the time passed since the P82 tender process and the introduction of BETTA), and the possibility for cost-savings if the outcome of the TLFA competitive tender is that the P82 organisations are re-used.

- As the BSC Audit is required to include the systems and processes of all BSC Agents, the BSC Audit Scope would need to be extended to cover the new BSC Agent created by Proposed Modification P198 – the TLFA. The exact impact and costs resulting from this extension would depend on the specific TLFA audit requirements set by the BSC Panel as part of its annual agreement of the BSC Audit Scope.

Since the P82 judicial review ruling occurred before the P82 TLFA had been incorporated into the BSC Audit Scope, no costs for the Audit impact of a zonal transmission losses scheme are available. The costs of extending the BSC Audit to include the Market Index Data Providers (MIDPs) in 2002/2003 have therefore been used to estimate the likely order of magnitude of the additional Audit costs for Proposed Modification P198. The +/-50% tolerance reflects the uncertainty of the applicability of the MIDP Audit costs to the TLFA.

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a) Implementation Costs

The table below shows the estimated cost of implementing Proposed Modification P198 (i.e. the costs that would be incurred between the Authority's approval of the modification and the first use of zonal TLFs in Settlement). The tolerances given in the table show the predicted limits of how certain these cost estimates are.

2 key points should be noted regarding these estimates as follows:

- The 12-month implementation lead time for Proposed Modification P198, coupled with a 1 October or 1 April Implementation Date, means that it would not be possible to align the TLFA systems development with ELEXON's normal release strategy. Proposed Modification P198 would therefore be implemented largely as a 'stand-alone' project, with the associated release overheads that this would incur.
- The ELEXON implementation effort estimate is based on the assumption that a new organisation would be procured as the TLFA for Proposed Modification P198, requiring the development of a new Load Flow Model and supporting documentation. This assumption has been used since it is not possible to pre-empt the outcome of the competitive tender exercise which would be undertaken for the role. However, it should be noted that if the outcome of the tender process was that the P82 TLFA was reprocured, this would have the potential to achieve a significant reduction in the level of effort required.

		Cost	Tolerance
Logica CSA Cost	Change Specific Cost ¹	£18,762	Nil
	Release Cost	£17,114	Nil
	Total Logica CSA Cost	£35,876	Nil
TLFA/LFMR Cost	Development, Testing and Deployment	£250,000	+/- 50%
BSC Audit Cost	Planning and Development	£15,000	+/- 50%
Implementation Cost	External Programme Audit ²	£0	Nil
	Design Clarifications ³	£14,294	+/- 100%
	Additional Resource Costs	£0	Nil
	Additional Testing/Audit Support Costs	£20,000	+/- 50%
Total Demand Led Implementation Cost		£335,170	+/- 50%
ELEXON Implementation Resource Cost		600 man days £132,000	+/- 5%
Total Implementation Cost		£467,170	+/- 35%

¹ System functionality for zonal TLFs was previously developed for P82 – P198 costs are therefore limited to testing this functionality and updating documentation.

² Not required as a verification tool for the TLFA calculations was developed by ELEXON for P82.

³ Based on 5% of combined Logica/TLFA/LFMR development costs.

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b) Operational Costs (Per BSC Year)

The table below shows the estimated costs of operating the Proposed Modification P198 arrangements for each full BSC Year of the zonal TLF scheme.

Under Proposed Modification P198, zonal TLFs would be calculated on an ex-ante basis for each BSC Year. The total operational cost for each year therefore includes the activities required to calculate TLFs for the following year, in addition to other operational activities such as allocating TLFs to any new BM Units registered part-way through a year.

	Cost	Tolerance
Logica CSA Operation Cost Per BSC Year	£2,645	Nil
Logica CSA Maintenance Cost Per BSC Year	£0	Nil
TLFA/LFMR Operational Cost Per BSC Year	£100,000	+/- 50%
BSC Auditor Cost Per BSC Year	£40,000	+/- 50%
ELEXON Operational Cost Per BSC Year	70 man days £15,400	+/- 5%
Total Operational Cost Per BSC Year	£158,045	+/- 45%