Modification Proposal	**MP No: 109**	
	(mandatory by BSCCo)	

Title of Modification Proposal *(mandatory by proposer)*:
A Hedging Scheme for changes to TLF in Section T of the code

Submission Date *(mandatory by proposer)*:
1 November 2002

Description of Proposed Modification *(mandatory by proposer)*:

Section T of the BSC contains the term "transmission loss factor" (TLF), currently set to zero. In the future, the TLF value could be changed from zero via a modification to the code. Any change in TLF will impact on overall costs for all generators and consumers. This modification seeks to implement a hedging scheme to mitigate the risk that the BSC TLF will in future be set to any value except zero. The current arrangements allocate losses on a uniform basis across the grid system, with 45 percent of losses being allocated to generators and 55 percent of losses being allocated to consumers. Losses amounted to around 1.47 percent of all electricity generated in 2001/2, a decline from 1.99 percent in 1995/6.

Changes to TLFs may improve short term efficiency signals, but would not improve long-term efficiency signals if the new values (and the transition to them) create windfall gains and losses against which participants cannot hedge efficiently. This proposal is intended to enhance long-term efficiency (and hence competition in generation and supply), by providing a transitional scheme offering a way to mitigate the risk of changes in TLFs, that will avoid or diminish the distortions created by unhedgeable risks.

We propose a hedging scheme for generation and consumption which can be used with any future losses scheme. The F-factor hedging scheme retains any short-term incentives associated with new transmission loss factors. Other forms of risk mitigation, involving scaling or phasing in TLFs, would diminish any short-term economic benefit from adopting new TLFs. Under the F-factor proposal, each BMU would be allocated losses on the following basis:

- in relation to a fixed quantity of output or consumption (F), the BMU would receive an allocation at a rate equal to 45% or 55% of average losses, as at present;

- in the case of new BM units, in relation to a fixed quantity of output or consumption (F), the BM unit would be charged losses based on the transmission loss factor (TLF) applicable to a typical generator in the same zone over a twelve month period prior to the date on which it commissions;

- for the difference between the fixed quantity (F) and actual metered production or consumption (QM), the BMU would receive an allocation equal to the future loss factor (i.e., $TLF * (QM-F)$);

- any remaining balance of losses (positive or negative) would be allocated to each BMU as a uniform additive shift in a 45/55 split between generation and suppliers, as at present.

- F-factors would last for 15 years, a typical financing period for investments in generation and sufficient to provide equivalent protection for consumers' investments as well. Use of this period will reduce investors' exposure to risks that are currently unhedgeable and which discourage efficient investment.

F-factors would be based on metered volumes in a Baseline Period, which we propose to define as the last four whole quarters ending at least one month before the BSC Panel's approval of any modification affecting TLFs. (For any BSC Panel decision in November or December 2002, for instance, this period would be October 2001 to September 2002, which avoids the untypical period just after NETA was introduced.) This proposal should be interpreted as allowing a longer duration for the Baseline Period (involving an average over several years), if it is feasible to combine Pool data with BSC data.

F-factors are defined on a monthly basis for each BM unit in order to average out any untypical variation in output (such as forced outages) on some days in a month. Smoothing out daily fluctuations provides more scope for individual participants to remain in balance with their F-factor within the balancing mechanism, if they wish to do so. A monthly approach may also allow some simplification of the BSC payments, which are settled monthly in arrears.

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The F-factor hedging scheme will be voluntary for generation. Existing generators will have a one-off option to participate in the F-factor hedging scheme or to be exposed fully to the new transmission loss factors. Likewise new generators will have an opportunity, when they register on the system, to opt into a hedging scheme. For new generators, it provides the opportunity to "lock in" the transmission loss factors applicable in the period just before the time of their connection. For example, a new generator, encouraged to locate in the south by the new transmission loss factors, would receive some benefits defined by southern loss factors over the previous year, even if the presence of the new generator reduced the benefit from that time onwards.

The F-factor hedging scheme allows generators to capture the benefit they bring to the system by fixing the loss factors over the financing period for the plant. Thus the F-factor hedging scheme enhances locational signals for generators. Allowing generation to have firm rights and long term stable signals, which the F-factor provides, also underpins Ofgem's recent proposals on transmission access arrangements.

For demand, the F-factor hedging will be applied based on GSP group, but will be phased out linearly over a 15-year period. The scheme will offer consumers protection against the risk of a sudden large change in their charges (know elsewhere as "rate shock").

The proposal and the necessary modifications to the BSC are set out in more detail in the Attachment "Implementation of F-factors".

Description of Issue or Defect that Modification Proposal Seeks to Address *(mandatory by proposer)*:

The proposal seeks to address the lack of stable signals for long-term investment, and the potential stranding of sunk costs, through a voluntary hedging scheme for any change in TLF value envisaged under Section T of the BSC. By doing so, the amendment will reduce unnecessary risks, lower the cost of capital for investment in facilities to generate and consume electricity, and improve the efficiency of investment.

Impact on Code *(optional by proposer)*:

Changes to Section T2 of the BSC

Impact on Core Industry Documents *(optional by proposer)*:

Not known

Impact on BSC Systems and Other Relevant Systems and Processes Used by Parties *(optional by proposer)*:

Not known

Impact on other Configurable Items *(optional by proposer)*:

Not known

Justification for Proposed Modification with Reference to Applicable BSC Objectives *(mandatory by proposer)*:

The scheme will improve the efficient operation of the code and will promote effective competition in generation and supply by protecting market participants from windfall gains and losses on sunk investments and enhancing long term efficiency. New entrants to the market will be able to "lock in" the new transmission loss factors over 15 years, providing a more stable investment environment. A stable regime lowers risks to participants, thereby reducing the overall cost of producing electricity and the overall market price.

Details of Proposer:

Name:	**John Capener**
Organisation:	British Energy
Telephone Number:	**01452 654 182**
Email Address:	john.capener@british-energy.com

Details of Proposer's Representative:

Name:	Graham Shuttleworth
Organisation:	**NERA**
Telephone Number:	020 7659 8654
Email Address:	graham.shuttleworth@nera.com

Details of Representative's Alternate:

Name:	Isabelle McKenzie
Organisation:	NERA
Telephone Number:	020 7659 8730
Email Address:	**i**sabelle.mckenzie@nera.com

Attachments: YES

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

Title: "Possible BSC Rules for F-Factors" 14 pages

Title: "Economic Reasons to Favour F-Factors" 4 pages