Modification Proposal

MP No: 85
(mandatory by BSCCo)

Title of Modification Proposal *(mandatory by proposer)***:**

A Phased Implementation Scheme for changes to TLF in Section T of the code

Submission Date *(mandatory by proposer)***:**

31 May 2002

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

Section T of the BSC contains the terms 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 phasing scheme in the event that TLF is 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 the TLF value may improve short term efficiency signals, but may not improve long-term efficiency signals if the new value (and the transition to it) create new risks that are impossible to hedge efficiently. This proposal is intended to enhance long-term efficiency (and hence competition in generation and supply), by providing a transitional scheme, based on phasing in of TLF, that will avoid or diminish the distortions created by unhedgeable risks.

We propose a scheme that implements the phased implementation of transmission loss factors for both consumption and generation. Under a phased scheme, each (production or consumption) BMU would be allocated losses on a mixed basis:

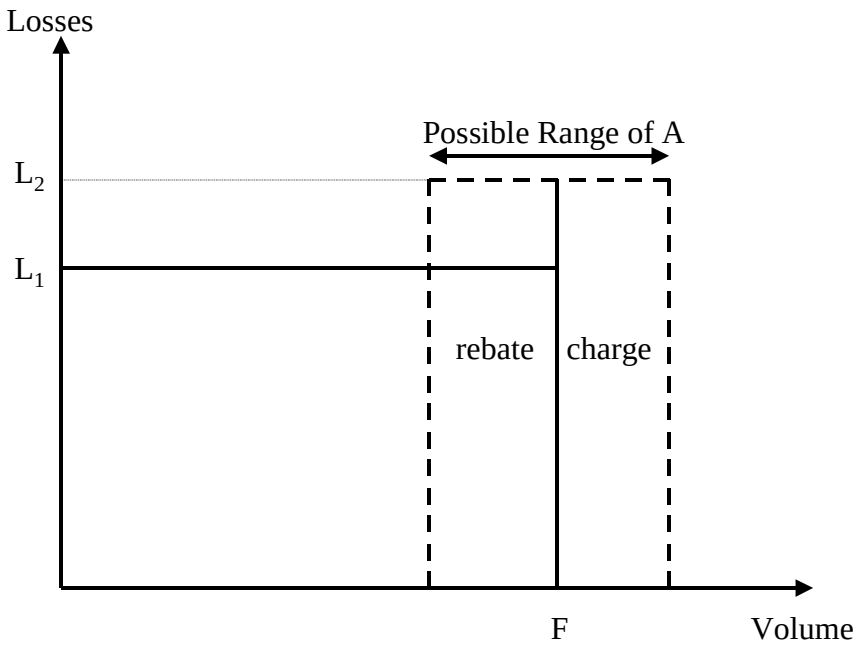
1. in relation to a fixed quantity of output or consumption (F), the BMU would receive an allocation equal to 45% or 55% of average losses, as at present;
2. in relation to the difference between the fixed quantity (F) and actual production or consumption (A), the BMU would receive an allocation equal to the future loss factor (ie, TLF * (A-F));
3. to ensure efficient cost recovery, any remaining balance of losses (positive or negative) would be spread (i) over all BMUs in proportion to the F term and (ii) by adjusting future loss factors via the TLMO+ and TLMO- term in section T fo the BSC.

To provide the transitional arrangement, the BSC would define a factor ($1>=\alpha>=0$) which would move gradually from 1 to 0 over a period of years. This factor would be used in step 1 to scale down the fixed quantities (F), such that the protection against risk afforded by the scheme in each year would be equal to αF. It would also be used in step 3, to allocate residual losses between the two schemes in the proportion to α and $1-\alpha$.

Over time, the proportion of energy subject to transmission loss factors will increase until all consumption and generation is subject to this factor. Phasing of transmission loss factors will protect consumers from abrupt chages in electricity prices, while protecting sunk investments in generation.

The proposed scheme provides the necessary combination of short-term signals and long-term stability needs to provide incentives based on any desired pricing signal, combined with the necessary **protection** against variation in charges (whether the changes are due to technical or regulatory factors).

Phasing in implementation of TLF by this method will retain any desired pricing signals under that TLF scheme for *changes* in volume of output, relative to some baseline. The phasing formula would establish a baseline volume of energy for any particular generating station or customer (BMU), most likely based on past generation or consumption. For this fixed volume, F, the user would be liable for losses at the current rate. Any difference between actual output, A, and F would incur (if positive) or earn (if negative) an allocation of losses at the marginal rate set out in TLF. (See diagram below.) If the BMU generated/consumed (as applicable) at the same level as F, it would pay the same losses as under the current system. However, short-term incentives to vary generation/consumption around F would depend on the marginal rate of losses. The baseline figure, F, would be tradeable among certain parties (nationally or within a zone), to ensure its value is determined by future loss factors, so that it would provide good long-term incentives. The baseline figures for each BMU would be allocated initially to the party connected to NGC's transmission grid, ie a generator, a customer or a distribution network.



L1 = losses allocated to volume F using current system (45% or 55% of average losses)

L2 = losses allocated to volume (A-F) using future loss factors

To effect a transition, the baseline figure, F, would decline over time towards 0, thereby increasing the user's exposure to the new loss 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 phasing adjustment to any change in TLF value envisaged under Section T of the BSC.

Impact on Code *(optional by proposer)***:**

Changes to Section T2 of the BSC

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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. A stable regime lowers risks to participants, thereby reducing the overall cost of producing electricity and the overall market price.

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Attachments: NO

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