Modification Proposal

MP No: 135
(mandatory by BSCCo)

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

Marginal System Buy Price During Periods of Demand Reduction

Submission Date *(mandatory by proposer)*: 1st August 2003

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

In the event that there is insufficient generation to meet demand and system requirements in real time, Demand Control (as defined in the Grid Code) will be initiated. The start and end of Demand Control will be notified to the market in as close to real time as is practicable. Post event, the Transmission Company will define the time period that Demand Control was active (by a start time and an end time) and notify this to the BSC Company as a "Period of Demand Reduction". When the market is short (NIV>0), System Buy Price for each settlement period that falls within, or partly within, a "Period of Demand Reduction" will be calculated at the price of the most expensive accepted whole (or part) Offer in the NIV stack - i.e. accepted Offers that are **not:**

- De Minimis Accepted Offers;
- Arbitrage Accepted Offers;
- NIV Tagged Offers.

The table below summarises which calculation will be affected by the proposal:

Imbalance Price	NIV	Under normal system conditions	During a "Period of Demand Reduction"
SBP (Main Price)	**> 0**	Existing BSC methodology	Proposed 'Marginal' Methodology
SBP (Reverse Price)	**≤ 0**	Existing BSC methodology	Existing BSC methodology
SSP (Main Price)	**≤ 0**	Existing BSC methodology	Existing BSC methodology
SSP (Reverse Price)	**> 0**	Existing BSC methodology	Existing BSC methodology

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

Experience of imbalance prices to date shows that the average imbalance price can significantly understate the cost of the marginal balancing action. This occurs particularly in times of energy shortage (i.e. high demand and/or low generation availability) when the marginal cost of balancing energy is likely to be high, and the differential between the average price and the marginal price is the greatest. The Transmission Company believes that as average imbalance prices can understate the cost of the marginal balancing action, weakened price signals are being provided to the forward markets which may threaten security of supply this winter. Particularly in times of energy shortage, the averaging methodology used to calculate imbalance prices means that market participants will not be exposed to the full cost of the marginal balancing action required to balance generation and demand. Thus there is insufficient incentive for them to contract in the forward markets to mitigate the risk of not being able to achieve a balanced position in all scenarios. During periods of energy shortage this could lead to involuntary customer Demand Control.

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

Section T, Paragraph 4.4 would need to be revised.

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

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

It is envisaged that the calculation of SBP during "Periods of Demand Reduction" would be performed manually to avoid incurring significant development costs and associated lead-time.

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

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

The calculation of the 'main' energy imbalance price, using a marginal methodology, will provide more appropriate price signals to incentivise Market Participants to contract forward in order to mitigate the risk of not being able to balance at Gate Closure. This is because marginal pricing provides an undiluted signal to the market as to the underlying cost of supplying the last increment of energy required to balance generation and demand. It is particularly important that imbalance prices provide appropriate signals in times of energy shortage, as weakened signals could threaten security of supply. In this respect the modification proposal will better facilitate the applicable BSC objective (b) the efficient, economic and co-ordinated operation by the Transmission Company of the Transmission System.

Times of energy shortage are most likely to be seen over the winter period (starting post October clock change) as this is when the peak demand for electricity is greatest. As the defect to be addressed potentially affects security of supply during these times, Urgent status is requested for this Modification Proposal in order to implement the new methodology and provide more appropriate signals to the forward markets in the shortest possible timescale, lowering the risk that customer Demand Control measures will be required this winter.

The proposed change to the 'main' energy imbalance price calculation is limited to SBP during "Periods of Demand Reduction" only, so that implementation could potentially be achieved as soon as possible. It is anticipated that the risk of exposure to a marginal imbalance price during these periods should improve incentives to market participants to contract sufficiently so as to reduce the risk of such Demand Control measures becoming necessary.

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Attachments: Yes

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

Supporting Paper entitled "Marginal Imbalance Pricing" (5 pages)

