ISG261/01A – ATTACHMENT A: TREATMENT OF TRANSMISSION LOSSES IN THE BSC

A) The trading rules governing the allocation of transmission losses are set down in clause 2 of Section T of the BSC. These rules provide for the determination of half-hourly, BM Unit specific Transmission Loss Multipliers. The Transmission Loss Multipliers are used in a number of the settlement calculations in the BSC, the principal applications being as follows:

- to scale the quantity of metered energy associated with each BM Unit up or down within each Settlement Period before calculating energy imbalance volumes; and
- to scale the payments and charges associated with Balancing Mechanism action. As well as affecting the payments and charges made in the Balancing Mechanism, this also has a direct impact on the calculation of the main Energy Imbalance Price.

B) The definitions of the Transmission Loss Multipliers for BM Units in delivering and offtaking Trading Units are:

- BM Units in delivering Trading Units:

  $TLMij = 1 + TLFij + TLMO^{+}j$

- BM Units in offtaking Trading Units:

  $TLMij = 1 + TLFij + TLMO^{-}j$

In respect of each Settlement Period, for each Interconnector BM Unit, the Transmission Loss Multiplier shall be calculated as follows:

- $TLMij = 1$

irrespective of whether the Interconnector BM Unit belongs to a delivering or offtaking Trading Unit in the Settlement Period.

C) The rules pertaining to the allocation of transmission losses also provide for the calculation of two transmission losses adjustments: the delivering Transmission Losses Adjustment ($TLMO^{+}j$); and the offtaking Transmission Losses Adjustment ($TLMO^{-}j$). In each Settlement Period, the Transmission Losses Adjustments are used to allow a pre-specified proportion of the actual volume of transmission losses to be allocated in aggregate to BM Units in delivering Trading Units and to BM Units in offtaking Trading Units. Delivering Trading Units are Trading Units that are net exporters of energy in a Settlement Period, whereas offtaking Trading Units are those that are net importers of energy in a Settlement Period.

D) The proportion of losses allocated to BM Units in delivering and offtaking Trading Units respectively is determined by the value of the BSC System Parameter α. A proportion $(-\alpha)$ of the losses is allocated to BM Units in delivering Trading Units, with a proportion $1 - \alpha$ being allocated to BM Units in offtaking Trading Units. In accordance with clause 2.2.1 (b) of section T, the value of α is currently set to 0.45.

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E) As set out in BSC Section T Paragraph 2.3.1 the TLMOs are calculated as:

- $TLMO^{+}j = -\{\alpha\ (\sum^{+}QMij + \sum^{-}QMij) + \sum^{+}{}_{(non\text{-}I)}(QMij*TLFij)\}/\ \sum^{+}{}_{(non\text{-}I)}QMij$
- $TLMO^{-}j = \{(\alpha\text{-}1)(\ \sum^{+}QMij + \sum^{-}QMij) - \sum^{-}{}_{(non\text{-}I)}(QMij*TLFij)\}/\ \sum^{-}{}_{(non\text{-}I)}QMij$

Where $\sum^{+}$ represents the sum over all BM Units other than Secondary BM Units belonging to Trading Units that are delivering Trading Units in the Settlement Period;

Where $\sum^{+}{}_{(non\text{-}I)}$ represents the sum over all BM Units other than Interconnectors BM Units and Secondary BM Units belonging to Trading Units that are delivering Trading Units in the Settlement Period;

Where $\sum^{-}$ represents the sum over all BM Units other than Secondary BM Units belonging to Trading Units that are offtaking Trading Units in the Settlement Period;

Where $\sum^{-}{}_{(non\text{-}I)}$ represents the sum over all BM Units other than Interconnectors BM Units and Secondary BM Units belonging to Trading Units that are offtaking Trading Units in the Settlement Period.

F) As a consequence of the respective definitions of $TLMO^{+}j$ and $TLMO^{-}j$:

- Metered volumes for BM Units in delivering Trading Units are scaled down (so Parties are generally credited for a smaller quantity of exports than they have actually produced)
- Metered volumes for BM Units in offtaking Trading Units are scaled up (so Parties are generally charged for a greater quantity of imports than their actual offtake)

G) The indicative data published on the BMRS has to be based on Estimated Transmission Loss Adjustments (ETLMOs) as actual metered data is not available.

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