Proposed 2025/26 Transmission Loss Adjustment Factors (TLAFs)

Accompanying Note

Version 1.0

30th June 2026

1. Background

This explanatory paper has been prepared by the Transmission System Operators (TSOs) to accompany the proposed Transmission Loss Adjustment Factors (TLAFs) which have been calculated by the TSOs, based on the approved TLAF methodology (SEM-12-049), for 2025/26 (1st October 2025 to 30th September 2026). TLAFs for interconnectors under the revised SEM arrangements are detailed in the I-SEM Interconnector Losses Information Paper published 02 June 2017[1].

2. TLAF Methodology

The methodology for calculating TLAFs is defined and published as Transmission Loss Adjustment Factor (TLAF) Calculation Methodology. Electrical losses occur as electricity is transported along networks from generators/interconnectors to demand centres. Losses occur on both the transmission and distribution networks which, must be accounted for in SEM market settlement. In SEM, all market settlement is assumed to take place at the interface between the transmission and distribution grids. Transmission losses are allocated to generators/interconnectors, by means of TLAFs. Some units are responsible for proportionally more transmission losses than others depending on their point of connection to the grid. For this reason, TLAFs are site specific. At present the following parties that participate in the SEM (market participants) are subject to TLAFs:

- Generators connected to the transmission network,
- Generators connected to the distribution network,
- Interconnectors, and
- Supplier TLAFs (the Trading and Settlement Code (TSC) specifies that TLAFs for Supplier Units are set equal to 1.0).

The purpose of TLAFs is to allocate transmission losses to market participants in a fair and equitable manner that is reflective of their contribution to transmission losses. The TLAFs therefore promote efficient dispatch. The principle is that market participants that contribute more to transmission losses due to their location should have a lower TLAF than those generators who contribute less to transmission losses.

TLAFs reflect the extent to which a market participant increases or reduces transmission losses. Factors that impact TLAFs include:

- Generation/interconnector dispatch quantities which determine the power flows on transmission lines,
- The level of demand in a particular area,
- Changes to the transmission network topology, and
- The commissioning or decommissioning of generation/interconnector connections can result in changes in network topology and transmission power flows.

[1] The TLAF for Greenlink has been updated from the 2024/25 approved figure to its actual TLAF determined through commissioning testing in January 2025.

3. TLAF Analysis - Overview

Following a comparison between 2024/25 and 2025/26 it was found that most nodes have seen their TLAFs increase. 89.71% of the TLAFs calculated are within 1% of the previous year's TLAFs and 100% are within 2%. The maximum average participant TLAF change is 1.99%. The overall average TLAF has increased by 0.28% from 2024/25.

The normal distribution and the frequency distribution are shown below in Figure 1 and Figure 2 respectively.

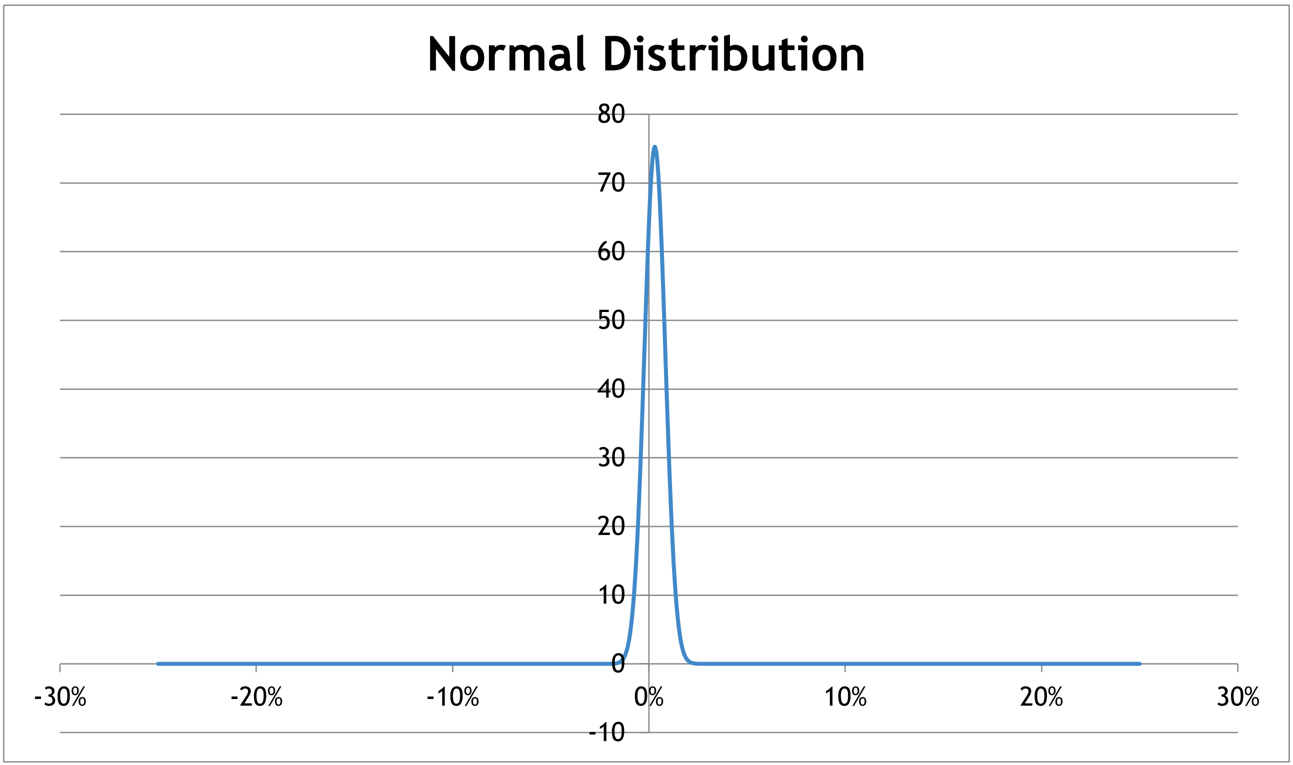

Figure 1 – Normal Distribution of changes in TLAFs from 2024/25 to 2025/26

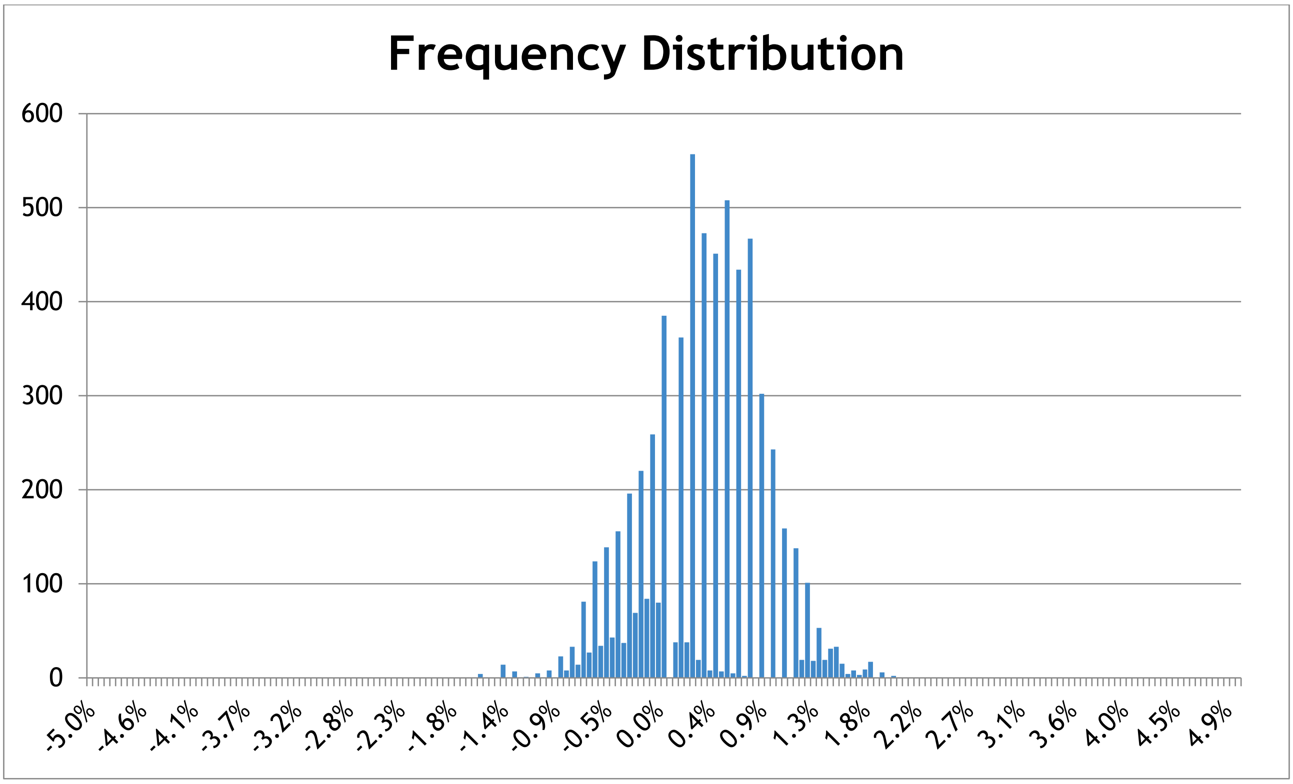

Figure 2 – Frequency Distribution of changes in TLAFs from 2024/25 to 2025/26

4. TLAF Analysis - Regional

Figure 3 shows an all-island overview of the TLAFs for 2025/26, indicating the locational range. Green signifies nodes with high TLAFs, while red signifies nodes with lower TLAFs. The TLAFs on the west tend to be lower than those on the east. This shows that the TLAF model is providing a valid signal, as it aligns with the expectation that generators contributing more to transmission losses due to their location should have a correspondingly lower TLAF.

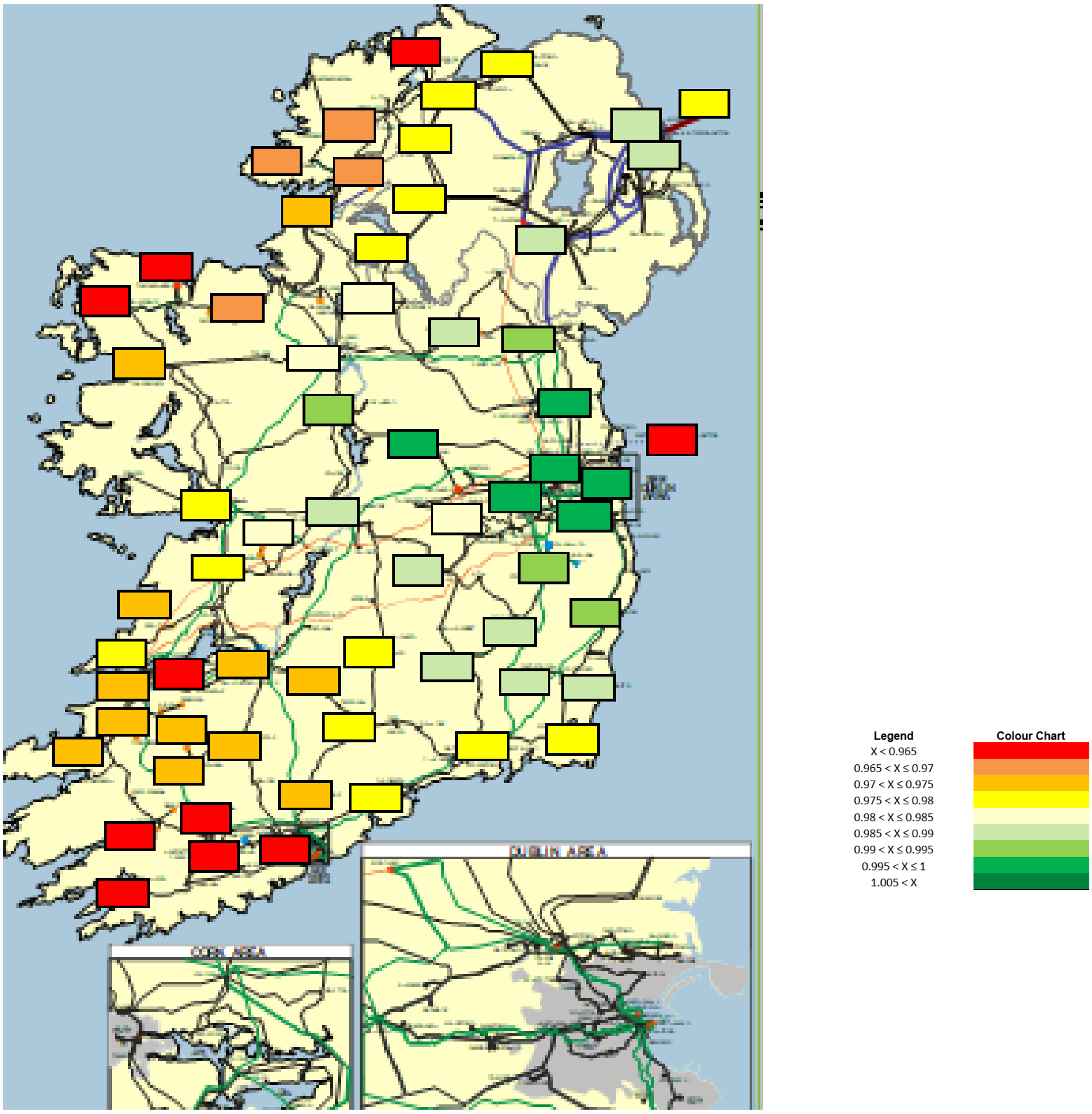

Figure 3 – Locational breakdown of 2025/26 TLAFs

The change in TLAFs from 2024/25 to 2025/26 is shown in Figure 4. Yellow signifies nodes where TLAFs have declined from their respective values in 2024/25, with dark orange representing the largest change. Green represents the node with an improvement, while white block represents no significant change. EWIC, Moyle and Greenlink TLAFs, highlighted in purple, are fixed as per the I-SEM Interconnector Losses Information Paper. The main observation from this graph is that:

- the average TLAFs have increased on an all-island basis from their respective values in 2024/25.
- TLAFs on the west coast have improved in 2025/26 model compared to 2024/25 TLAFs

- TLAFs in southeast have decreased in 2025/26 model compared to 2024/25 TLAFs
- TLAFs in NI and along mid-east coast have had relatively small change

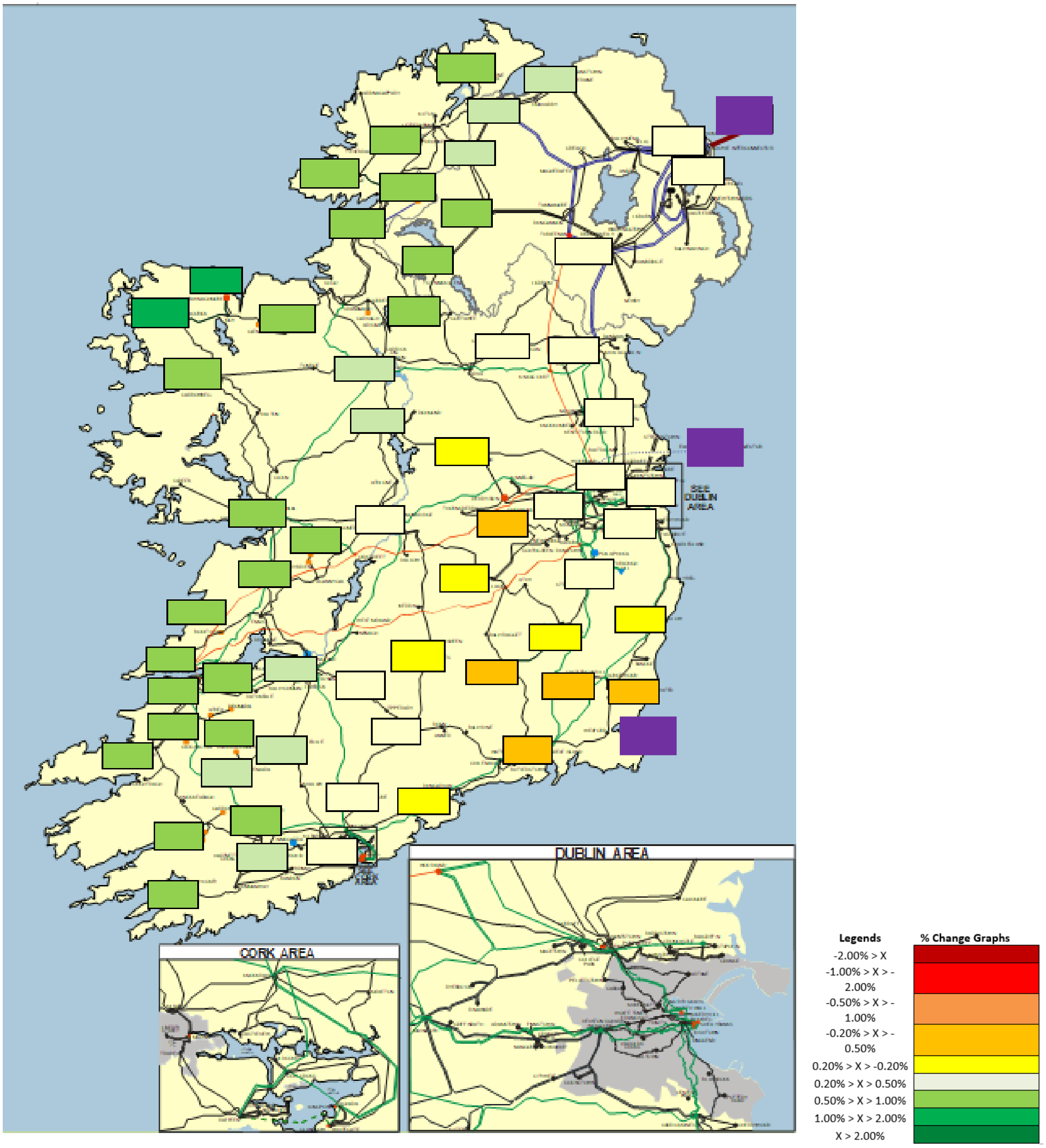

Figure 4 –TLAF changes from 2024/25 to 2025/26

Many factors have driven the change in TLAFs between the two years in question. A key factor that can help explain changes between TLAFs in 2 different years is the changes in regional dispatches assumed in the respective models.

There is a link between regional dispatch change and the TLAF trend in that region. However, it's important to note that while changes in dispatch between years will change base case flows, they do not indicate how an individual participants generation will impact flows. Instead, it may provide an indicator for possible expected regional changes rather than on an individual generator basis.

There has been a change in direction of interconnector power flows assumed in the models between 2025/26, 2024/25 and 2023/24. The interconnectors have changed from being a net exporter until 2023/24 to a net importer onwards. This increase in interconnector imports is likely to be a reason why the overall model losses have decreased in 2025/26 compared to 2024/25. With greater interconnector imports assumed in the model, they supress the requirement for more remote generators to support the demand centres.

The TLAFs in the west have increased in 2025/26 compared to 2024/25. There is less generation assumed on the west coast in 2025/26 compared to 2024/25. This is due to a combination of less thermal generation and wind generation assumed in the west region in 2025/26. This gives rise to higher TLAFs in the west in 2025/26 compared to 2024/25.

Under the Security of Supply programme, the ESB units (MP1, MP2, MP3) at Moneypoint are contracted to remain open but for the 2025/26 tariff year they will behave like TEG units under the Targeted Contracting Mechanism (TCM). As a result, there was no dispatch considered from any of these units in all of the TLAF assessments as the units will only be dispatched by the TSO when the system is near or in alert. This had the effect of improving the TLAF of all other participants in the vicinity.

The TLAFs in the Southeast have decreased in 2025/26 model compared to 2024/25 TLAFs. This is likely due to an increase in the generation in this region predominantly due to the introduction of Greenlink in the TLAF model this year.

Figure 5 shows the total regional MW dispatch change, inclusive of the interconnector imports from 2025/26 to 2024/25. For commercial sensitivity reasons, data is shown at a regional level, and aggregated from all generation types, (thermal, wind, solar, etc.)

As previously stated, although regional changes from one year to the next can be generalised using Figures 4 and 5, they should not be used as the single determinant for TLAF changes. A participant's TLAFs are a result of how generation at its node will offset, or add to, all-island base case flows. This graph shows that there is a general link between the change in dispatch and changes in TLAFs within a region, i.e. this year, there is less generation assumed on the west coast compared to last year, resulting in a higher TLAF this year compared to last year.

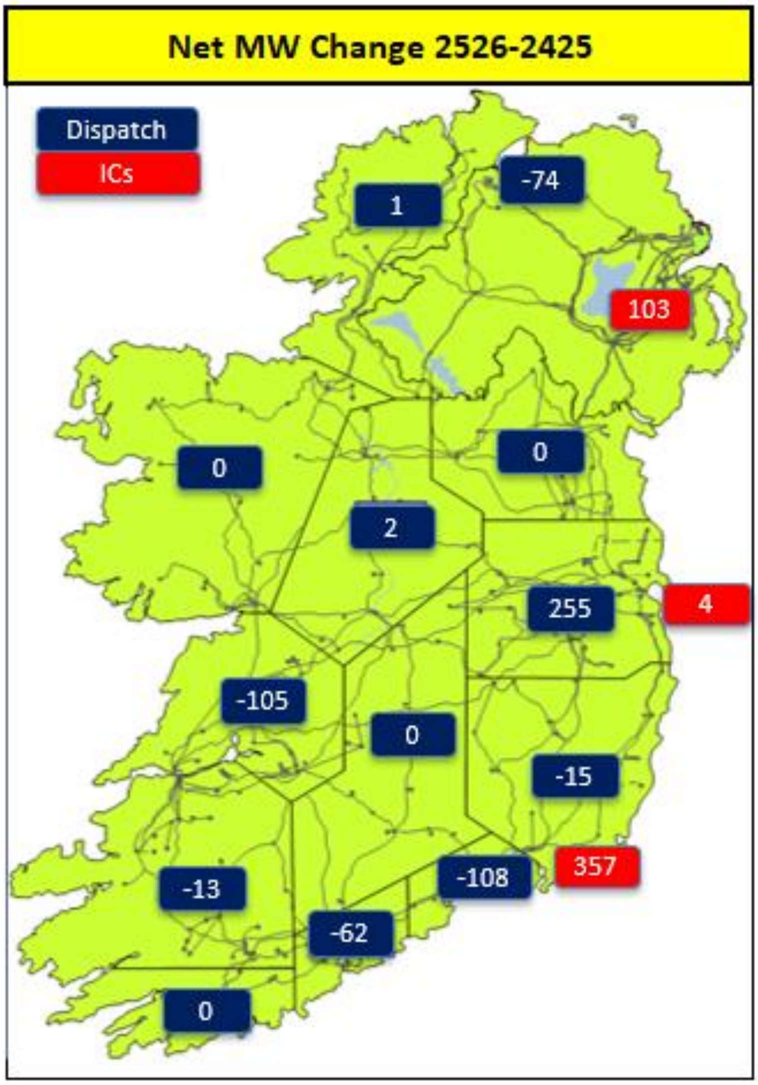

Figure 5 – Total regional MW dispatch change from 2024/25 to 2025/26