Approved 2022/23 Transmission Loss Adjustment Factors (TLAFs) Accompanying Note

Version 1.0

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EIRGRID SONI

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 2022/23 (1st October 2022 to 30th September 2023). TLAFs for interconnectors under the revised SEM arrangements are detailed in the I-SEM Interconnector Losses Information Paper published 2nd June 2017.

TLAF Analysis - Overview

Following a comparison between 2021/22 and 2022/23, it was found that most nodes have seen their TLAFs increase. 64% of the TLAFs calculated are within 1% of the previous year's TLAFs and over 88% are within 2%. The maximum average participant TLAF change is 1.71%. The overall average TLAF has increased by 0.66% from 2021/22.

The normal distribution and the frequency distribution are shown below.

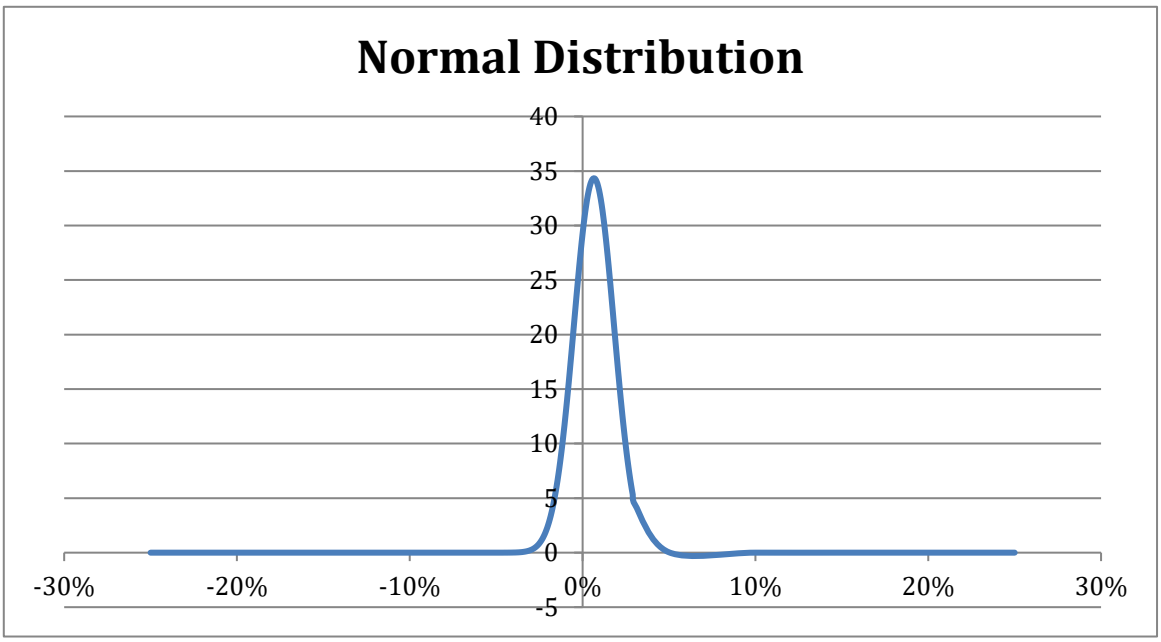

Figure 1 – Normal Distribution of changes in TLAFs from 2021/22 to 2022/23

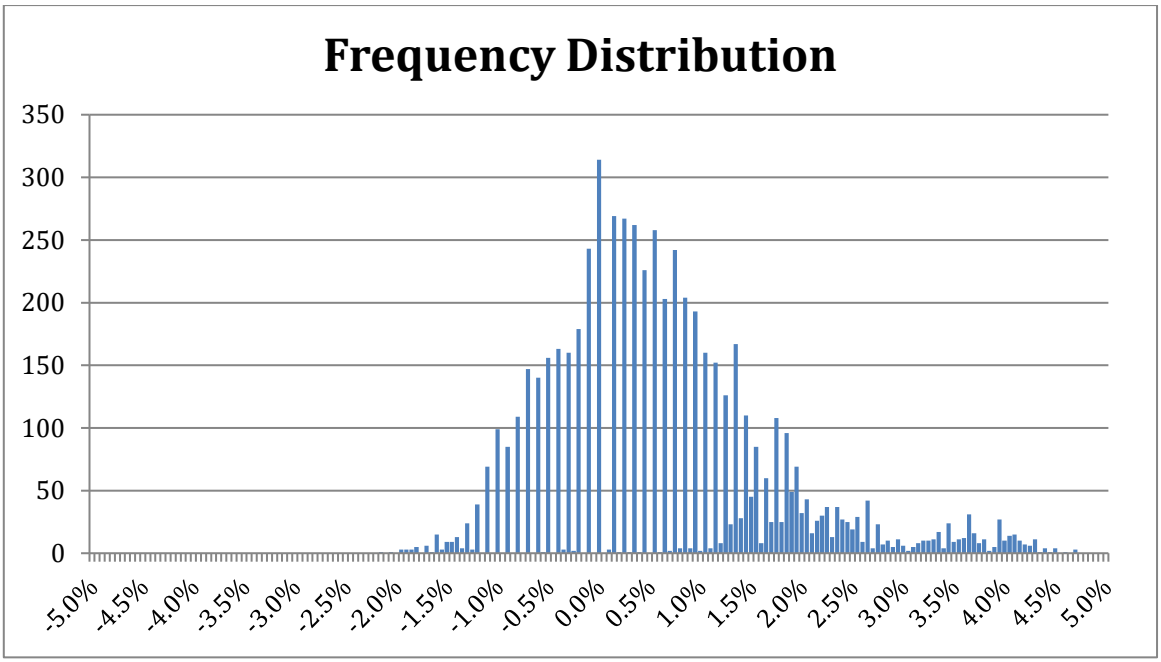

Figure 2 – Frequency Distribution of changes in TLAFs from 2021/22 to 2022/23

TLAF Analysis - Regional

There is a reasonable link between regional dispatch change and the TLAF trend in that region. It should be noted that whilst changes in dispatch between years will change base case flows, this does not indicate how a single participant's generation will add to, or offset, flows on an all-island basis. Instead, it may provide an indicator for possible expected regional changes.

Figure 3 shows an all-island overview of the TLAFs for 2022/23, indicating the locational range. Green signifies nodes with high TLAFs and moving to red signifies nodes with lower TLAFs.

The Interconnectors (EWIC and Moyle) have seen an increase in imports from 2021/22 to 2022/23. EWIC has changed from a net exporter to a net importer, with a net change of circa. 50 MW. Moyle has changed from a being a low net importer to a higher net importer, with an increase of approx. 50 MW. When the interconnectors import more, they reduce the requirement from generators, and this is seen on an all-island basis.

The all-island average demand has increased by circa.8%, with higher demand increases in the Dublin area.

The changes outlined above have resulted in a tendency for increased flows from North-South in 2022/23, compared with that in 2021/22. The result of this is a reduction in flows on an almost all-island basis, and this is reflected in the increase (improvement) in the all-island average TLAF.

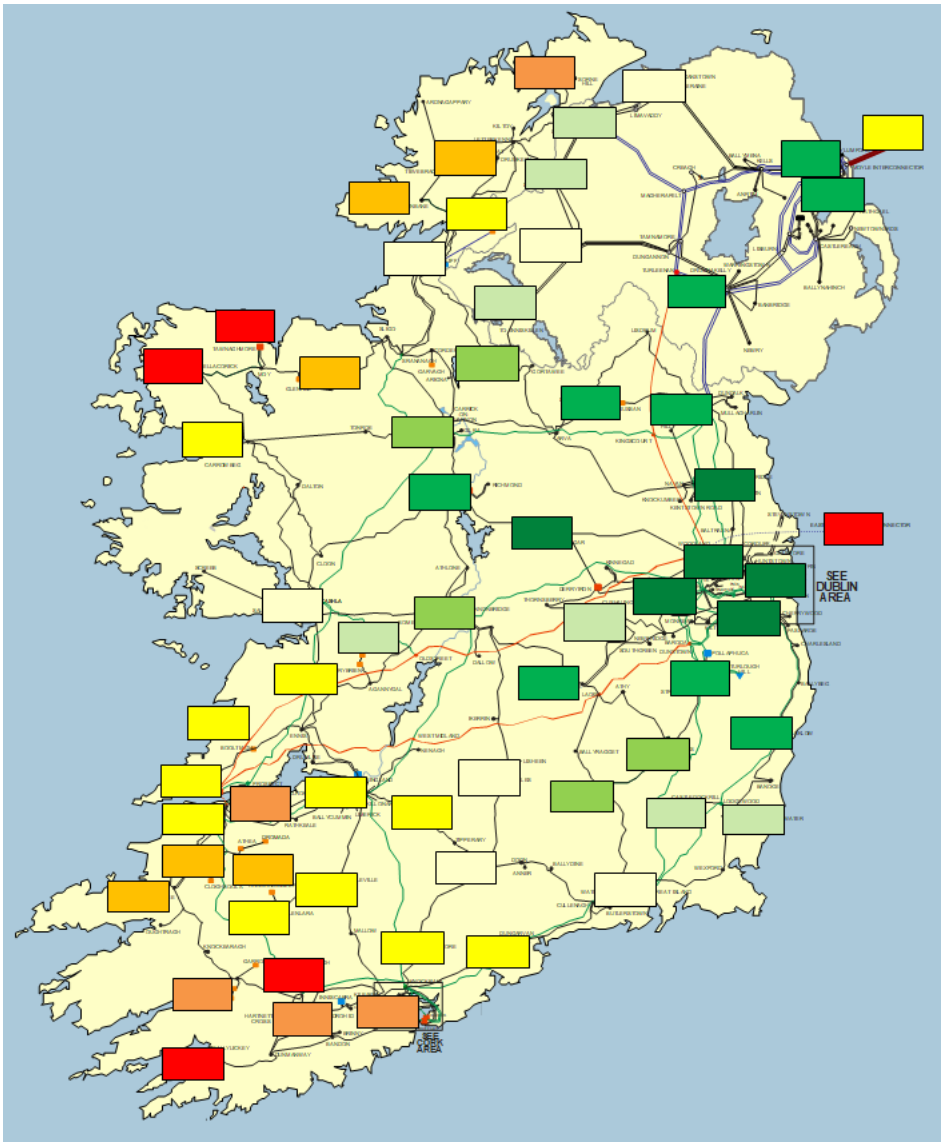

Figure 3 – Locational breakdown of 2022/23 TLAFs

The change in TLAFs from 2021/22 to 2022/23 is shown in Figure 4. Green signifies nodes where TLAFs have improved from their respective values in 2021/22, with Dark Green representing nodes with the greatest improvement. Yellow/Peach signifies nodes where TLAFs have dis-improved, with dark orange representing the largest change. Although, the average TLAFs have increased on an all-island basis, the average TLAFs in the West have decreased from their respective values in 2021/22, as a result of additional wind generation. EWIC and Moyle TLAFs, highlighted in purple, are fixed as per the I-SEM Interconnector Losses Information Paper.

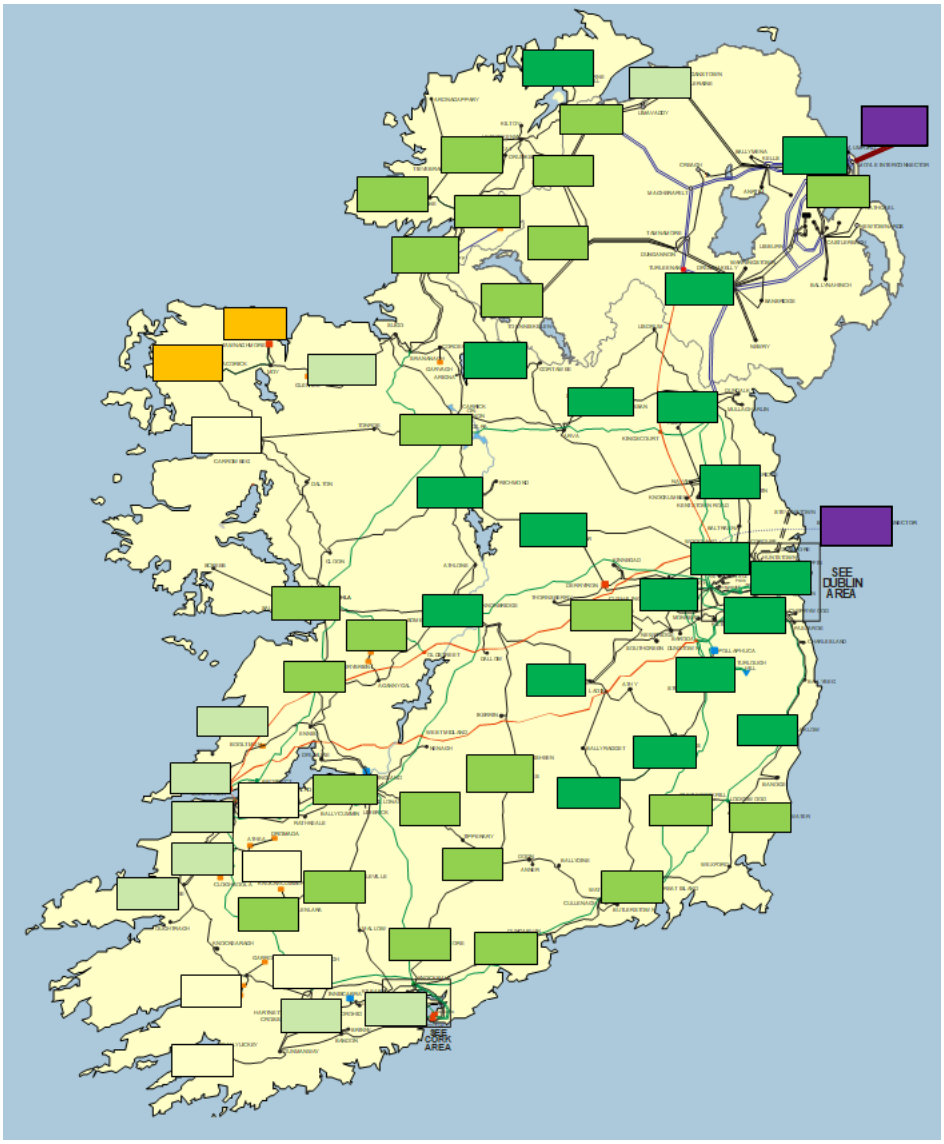

Figure 4 –TLAF changes from 2021/22 to 2022/23

Figure 5 shows the total regional MW dispatch change from 2021/22 to 2022/23. For commercial sensitivity reasons, data is shown at a regional level, and aggregated from all generation types, (thermal, wind, solar, etc.). The interconnector imports are shown in red, which are in addition to the aggregated generation in blue.

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.

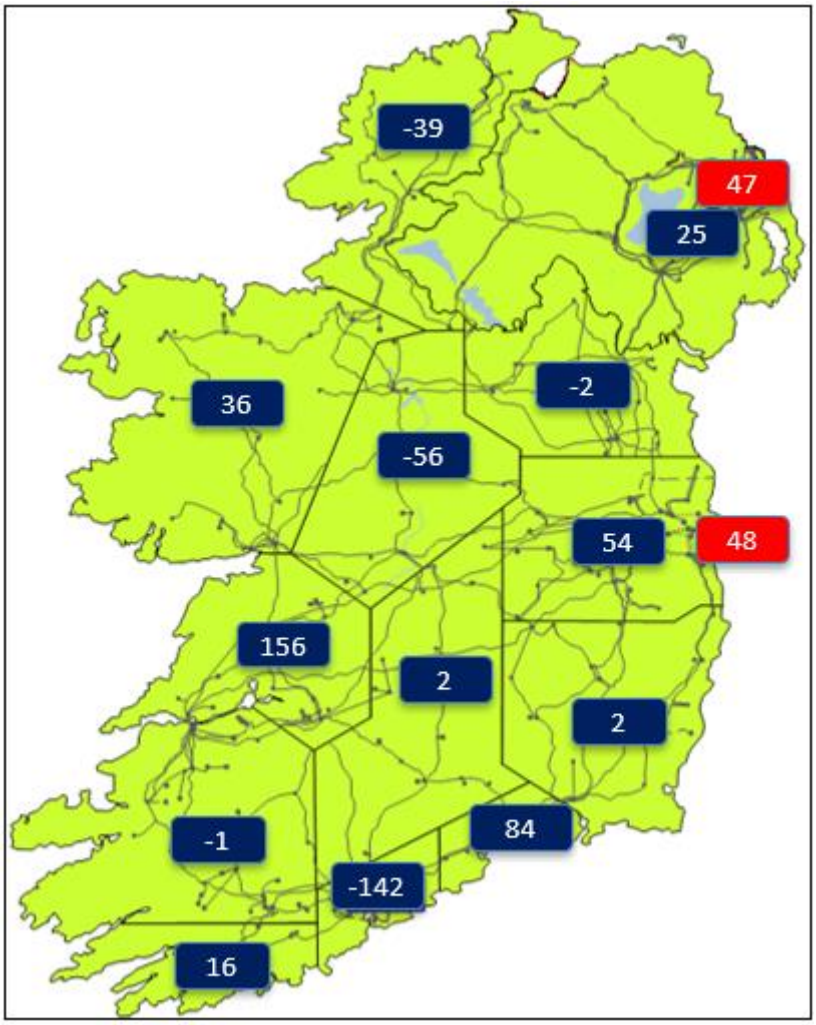

Figure 5 – Total regional MW dispatch change from 2021/22 to 2022/23

Contact

If you have any queries or comments on the Proposed 2022/23 TLAFs please E-mail: Tariffs@EirGrid.com or Tariffs@soni.ltd.uk by COB on 1st July 2022.