



Response to

**Proposed RAs Decision on All-Island Harmonised
Transmission Loss Adjustment Factor**

(SEM/10/039)

16 August 2010



SSE Renewables (formerly as Airtricity) has been consistent in objecting to the dynamic transmission losses regime that existed in the Republic of Ireland, which was subsequently introduced into Northern Ireland during implementation of the SEM. As stated by the System Operators, transmission loss factors are calculated to recover the estimated total kWh of transmission system losses. This is done in a manner that purports to send a locational signal to generators encouraging developers to locate new capacity where it will not increase losses. While transmission system losses are real and have to be accounted for, we have argued since at least 2002 that dynamic and locational loss factors cannot deliver on their stated objective.

Our objections to the existing methodology are eight-fold. We have rehashed these in responses to various TSOs' and RAs' consultations on locational signals. We summarise these points here again for the record.

1. The calculation methodology is flawed because it:
 - a. uses a scenario-based, deterministic approach to address a stochastic problem;
 - b. incorporates simplifications to reduce complexity of the calculation required to allocate losses to individual system nodes;
 - c. assumes losses in an area are caused by local generators, even though they may have been caused by system topography or generation/demand changes that occur at a material distance from the node in question;
 - d. inherently assumes that generators can relocate as required.
2. Use of a marginal loss calculation exaggerates real losses, as marginal values are greater than the average. Conversely so are the benefits provided to generators in favourable locations. As a result an inherently unfair wealth transfer between generators occurs. This arises as the marginal loss calculation doesn't add up to the total forecast estimate of losses, a scaling factor is applied to give final TLAF values, but this factor is distorted by the initial error arising from the difference between marginal and average losses and so compounds the bias in the original calculation.
3. No account is taken of changing locational demand, which affect TLAFs but over which generators have no control.
4. The transmission/distribution boundary is not fully metered, so actual losses are unknown.
5. No retrospective analysis of actual dispatch against scenarios adopted for the determination of loss factors has ever been published and there is no arrangement for reconciliation where outturns differ from forecasts.
6. The methodology conflicts with important energy policy objectives. It favours generation that is located close to load centres (where there is little renewable power resource) and acts against:

- a. Both jurisdictions policy objectives on development of sustainable and renewable generation;
 - b. EU law on non-discrimination against renewable generators in remote and sparsely-populated locations;
7. Location of renewable projects is dictated by quality of wind resource, planning considerations and grid availability (and in the Republic, the date of connection application). Hence there is no practical response to the concept of locational signalling.
8. Finally, TLAFs are reviewed annually and can move significantly from year to year as new capacity comes on to the system. A developer, therefore, cannot accurately forecast TLAFs, adding significant financial risk to projects and in turn pushing up the cost of development.

On these bases, SSE Renewables has long campaigned for uniform transmission loss factors, a position that has equally being supported by other industry players for many years. As a consequence **SSE Renewables considers the current RA proposal for a uniform TLAF, applying to all generators from October 2010, to be the most equitable and sensible approach. We strongly support this proposal, which is a most welcome move away from the current arrangement that arbitrarily creates winners and losers.**

Adopting a uniform TLAF at the very least addresses the worst effects of the current methodology as regards the volatility introduced year-on-year and the grossly unfair burden borne by only a subsection of generators on the system. Given the lengthy process already undertaken through the current iteration of the review of transmission losses as locational signals, starting in January 2009 and at this time approaching 20 months, it is only reasonable, and a fair expectation of participants, that these most unpleasant aspects of the methodology are factored out. As noted by the RAs, moving to a uniform TLAF meets the objectives of predictability, stability and transparency. To that we would add 'equitability', as it removes an artefact of modelling which in no way reflects true operating conditions, but which allows certain generators significant advantages over others.