

# **Single Electricity Market Committee**

## **Transmission Loss Adjustment Factors for 2008**

### **A Decision Paper**

**SEM-07-04**

*7<sup>th</sup> December 2007*

## **Table of Contents**

I.	Introduction	2
II.	TLAFs from 1 <sup>st</sup> January 2008	3
III.	Responses to the October Consultation	4
III.1	Comments Received	4
III.2	Position of the Regulatory Authorities	5
III.3	SEM Committee's Decision	6

## I. INTRODUCTION

In June 2005 the Commission for Energy Regulation (“CER”) and the Northern Ireland Authority for Utility Regulation (“NIAUR”), collectively known as the Regulatory Authorities, published a decision paper titled “SEM High-Level Design Decision Paper”<sup>1</sup>. This paper outlined the design of the Single Electricity Market (the “SEM”) for the island of Ireland, and included a decision requiring that transmission losses in the SEM be accounted for on an all-island basis, using a consistent methodology involving the application of locational Transmission Loss Adjustment Factors (“TLAFs”) to the outputs of generators.

Following the publication of this paper, the Regulatory Authorities (“RAs”) had extensive discussions on the issue with EirGrid and the System Operator for Northern Ireland (“SONI”), the transmission system operators in the Republic of Ireland and Northern Ireland respectively, leading to the publication in May 2006 of a consultation paper on the treatment of transmission losses<sup>2</sup>. Following consideration of the comments received to the consultation paper, in August 2006 the Regulatory Authorities published a decision paper on the matter<sup>3</sup>.

---

<sup>1</sup> “The Single Electricity Market (SEM) High Level Design Decision Paper”, 10 June 2005, AEP/SEM/42/05.

<sup>2</sup> “The Single Electricity Market: Treatment of Transmission Losses. A Consultation Paper”, 24 May 2006, AIP-SEM-58-06.

<sup>3</sup> “The Single Electricity Market: Treatment of Transmission Losses. Decision Paper”, 31 August 2006, AIP/SEM/112/06.

## II. TLAFs FROM 1<sup>ST</sup> JANUARY 2008

The Regulatory Authorities have already consulted on and published the TLAFs which apply for November and December 2007<sup>4</sup>.

EirGrid and SONI submitted to the Regulatory Authorities, in accordance with section 4.41 of the SEM Trading & Settlement Code<sup>5</sup>, a set of draft all-island TLAFs to apply from 1st January to 31<sup>st</sup> December 2008. These were calculated jointly by EirGrid and SONI in accordance with the Regulatory Authorities' decision on the treatment of transmission losses published in August 2006. On 4<sup>th</sup> October 2007 the Regulatory Authorities published for consultation these draft all-island TLAFs. This current paper discusses the responses received to the consultation and gives the decision of the SEM Committee<sup>6</sup> in relation to these TLAFs.

---

<sup>4</sup> "The Single Electricity Market: Transmission Loss Adjustment Factors. A Decision Paper", 26 April 2007, AIP-SEM-07-124.

<sup>5</sup> "Trading and Settlement Code, Version 2.0", AIP/SEM/07/379, 3<sup>rd</sup> July 2007.

<sup>6</sup> The SEM Committee is a Committee of both the CER and NIAUR (together the Regulatory Authorities) that, on behalf of the Regulatory Authorities, takes any decision as to the exercise of a relevant function of CER or NIAUR in relation to a SEM matter.

### **III. RESPONSES TO THE OCTOBER CONSULTATION**

Three responses were received to the consultation published on 4<sup>th</sup> October. These are summarised below along with the RAs' responses, followed by the decision of the SEM Committee.

#### ***III.1 Comments Received***

One respondent commented that TLAFs have a significant impact on the profitability and dispatch of generators and thus it is important for existing and prospective investors to understand how TLAFs are set on an annual basis. The respondent expressed concern that, although there was an understood principle on which the calculation was based, there was still latitude afforded to the system operators in assessing how to apply the principle. The respondent called for the system operators to publish the assumptions used in calculating TLAFs together with a procedure sufficiently detailed to allow independent verification. It said it would welcome a review of the RAs to seek to bring more transparency together with analysis of how these locational signals could be stabilised.

A second respondent described the locational signals as “entirely dysfunctional”, noting that large swings could result from the addition of small amounts of generation to lightly-loaded lines. The respondent stated that, for the market signal to work, the TLAF must be frozen for 15 to 20 years so that the developer can receive the benefit of the market signal to which it has responded. As a fallback, the respondent suggested that the system operators should provide a model so that developers can assess the effect of adding generation in particular areas.

The third respondent also observed the “ongoing lack of transparency”. The respondent observed that locational TLAFs are applied for generation and are, on average, lower for Northern Ireland generating units than for generating units in ROI, but are not applied to demand. It argued that this had the potential to create an inter-jurisdictional distortion that would result in NI customers providing a cross-subsidy to ROI customers, but that the calculation of the demand of NIE Supply using the Error Supplier Unit algebra overcame this problem. The respondent noted that the decision paper on TUoS charging (AIP/SEM/07/50) referred to a change to Error Supplier Unit algebra such that the jurisdictional imbalances will not be redistributed to the local PES. The respondent commented that, as yet, no change seems to have been put forward.

There were no comments from any respondent on TLAF values.

### ***III.2 Position of the Regulatory Authorities***

In respect of the comments concerning transparency, the Regulatory Authorities have stated in the August 2006 decision paper that they consider suggestions for transparency in the TLAF calculation process have merit, whether through: the publication of, and/or consultation on, input assumptions; enabling participants to reproduce results; or the auditing of calculations. The RAs have already undertaken to pursue with the system operators options for improving transparency and accordingly will make additional information available for the TLAFs which will apply from 1<sup>st</sup> January 2009.

The RAs do not agree with the comment that the locational signals are dysfunctional. The true marginal effect of generation on losses can vary significantly with the addition of small amounts of generation, so that it is not incorrect per se for the calculation of TLAFs to reflect this. That it is not to say that some means of mitigating year-to-year volatility cannot be considered. However, if a 15 or 20 year fixed TLAF were to be considered, the appropriate value would not necessarily be the TLAF prevailing when the generator connected but might perhaps be an expectation of the TLAF over the whole 15 to 20 year period. This would raise issues such as on whose expectation the figure should be based and what information should be taken into account in forming that expectation. Nevertheless, the RAs have already stated in the August 2006 decision paper that, whilst they are content that a number of issues, including year-on-year volatility, are not fully resolved in time for SEM Go-Live, they are keen to see them reviewed for subsequent years. The RAs will therefore follow-up on volatility mitigation measures for the TLAFs post 2008.

The issue of locational TLAFs being applied to generation but not to demand has already been discussed in response to comments made to the consultation on TUoS charges<sup>7</sup>. As the RAs stated before, the determination of customer demand for NIE Supply using the original Error Supplier Unit algebra does not redistribute them to customers in that jurisdiction in general but only to the particular supplier that registers the Error Supplier Unit. Far from removing any perceived distortion, this could put that supplier at an unwarranted competitive advantage over other suppliers in that jurisdiction. Nor is the respondent correct in stating that no change seems to have been put forward. Paragraph 4.91 of the Trading and Settlement Code sets out the relevant algebra.

---

<sup>7</sup> "Transmission Use of System Charging Decision Paper", AIP/SEM/07/50, 15<sup>th</sup> March 2007.

### ***III.3 SEM Committee's Decision***

Having considered carefully the above comments received, none of which were concerning the draft TLAF values in the consultation paper, the SEM Committee considers that it is appropriate that the TLAFs in the appendices be adopted for the period 1<sup>st</sup> January 2008 to 31<sup>st</sup> December 2008.

The TLAFs in the appendices are almost identical to the draft values contained in the consultation paper. There is a slight change in TLAFs for some nodes in both the Republic of Ireland and in Northern Ireland due to a refinement of the treatment of the Shellybanks bus, which is due to be sectioned in 2008. The extent of the change amounts to a slight improvement of 0.001 for some generators.

Four new participants that were not in the market trial but are in the market from SEM "go live" have been added to the Republic of Ireland market participant list, as follows:

- TU2      Tursillagh 2;
- AR2      Arthurstown Phase2;
- AR3      Arthurstown Phase3; and
- ARX      Arthurstown Phase1 and Phase 4.

The following market participants, which are connected to the distribution system in Northern Ireland, have been added to the Northern Ireland market participant list:

- Altahullion;
- Callagheen;
- Lensdrum Bridge;
- Snugborough; and
- Tappaghan.

In addition, the revised Trading & Settlement Code requires the point of connection to the SEM to be defined at the Scottish side of the Moyle interconnector. Hence, the TLAFs for Moyle are now provided at both ends of this HVDC Link; at Ballycronan More on the NI Transmission System and at Auchencrosh on the Scottish Transmission System.

The TLAFs are shown in the appendices as follows:

Appendix 1:

- set of TLAFs for Republic of Ireland Market Participants; and

- set of indicative TLAFs for nodes on the transmission system in the Republic of Ireland.

Appendix 2:

- set of TLAFs for Northern Ireland Market Participants; and
- set of indicative TLAFs for nodes on the transmission system in Northern Ireland.