



John Lynch
Commission for Energy Regulation Queens House
The Exchange
Belgard Square North
Tallaght
Dublin 24

Sarah Friedel
NIAUR
Queens House
14 Queen Street
Belfast
BT1 6ER

10 October 2008

Energia House
62 New Forge Lane
Belfast
BT9 5NF

Tel: +44(0)28 9068 5941
Fax: +44(0)28 9068 5935

Dear John and Sarah,

RE: DRAFT TRANSMISSION LOSS ADJUSTMENT FACTORS FOR 2009

Thank you for the opportunity of responding to this consultation. Transmission loss adjustment factors (TLAFs) have a significant bearing on the profitability and dispatch of generators and thus it is very important for existing and prospective investors to understand what TLAFs aim to achieve and how they are set on an annual basis. As consumers and the environment ultimately pay for losses on the transmission system it is also important to minimise these losses. We support a design of TLAFs that efficiently and fairly attributes losses among market participants such that it incentivises these losses to be minimised both in the short term through dispatch signals and as a longterm investment signal for generators to locate in low loss areas.

Viridian Power and Energy (VPE) have previously expressed concern about the lack of transparency in the formulation of TLAFs (see our response to the draft TLAFs for 2008). This remains a significant concern, especially given their ongoing volatility which destabilises locational signals and creates uncertain revenue streams for both current and prospective investors in generation.

In this response, we call for a wider review of TLAFs by the regulatory authorities with a view to establishing a clear understanding of the basic principles behind TLAFs and introducing sufficient transparency to ensure TLAF values can be independently replicated. An investigation of volatility mitigation measures would also be welcomed. We elaborate further on each of these points below.

1. Volatility

Investments in generation are typically substantial, long term, site-specific commitments; a generator capital cost can run into hundreds of millions of Euro and have an economic life of at least twenty years. The commitments underpinning a generator investment are normally based on detailed market analysis, and any factor affecting the revenue to the generator over its life will have a bearing on the investment decision and the risk/reward balance for the investment. In this regard, TLAFs should be relatively stable and consistent but this is not the case as evidenced in the attached annex which plots yearly changes in TLAF values. Such volatility sends a risky investment signal to prospective investors which increases the cost of finance and potentially discourages otherwise efficient investment because even small changes in TLAF values have a substantial impact on revenues. For example, a one percent decline in TLAFs in 2008 for a typical 400MW CCGT generator would reduce annual revenues by over €300,000 in terms of capacity payments alone. The revenue loss from energy payments could be even greater but this is more difficult to measure.

Annual fluctuations also distort the locational signal implicit in TLAF values. In fact the very act of connecting a new generator changes the TLAF in that location and can mean that investors cannot capitalise on the investment signal to which they have responded. Beyond the decision to commit a generator to a given location, there is nothing the generator can do if the location subsequently develops an adverse yearly set TLAF. This could occur as a result of other generator decisions (new build or closure) or changes in load patterns. In this instance, it might be worthwhile considering some mechanism that would give greater certainty to new generation plant for a fixed period after commissioning. To some extent, the uncertainties and inefficiencies created by volatility could be mitigated by increasing transparency.

2. Transparency

In previous consultations VPE have asked for greater transparency in how TLAFs are calculated. Other respondents have asked for the same (see SEM Committee Decision Paper on TLAFs for 2008). In response to these requests, the RAs have provided further information in this year's consultation - namely, the generation and demand scenarios are now included. This is a positive development but more information and data is required. Sufficient transparency should include everything required to fully replicate the calculation of TLAF values. This would include all dispatch modelling (Plexos) assumptions and how these are processed in the load flow model (PSSE)¹. Only with this data can current and

¹ A SEM committee paper published in May 2006 on the Treatment of Transmission Losses acknowledges that "...the resulting TLAFs will still be dependent on the assumptions on which the dispatch model is based" (p. 16).

prospective generators adequately replicate and forecast TLAF values to make informed and efficient investment decisions.

In terms of transparency it might also be appropriate to consider how TLAFs values are applied to generator quantity bids into the SEM. Currently generator bids are corrected for TLAFs at source by generators themselves. Perhaps consideration should be given to other methods of TLAF application that might be more transparent.

3. Basic principles

There is a basic need to understand what the system operators are trying to achieve with TLAFs and how they have achieved it. Are TLAFs, for example, designed to minimise transmission losses, and have measures been taken to assess the impact of TLAFs in this regard? The treatment of TLAFs was considered in a SEM consultation paper published in May 2006, where the need for monitoring actual system losses was acknowledged². At the time, ESB Networks were in the process of installing metering at Bulk Supply Points in order to monitor actual transmission losses. It would be instructive to get an update of the progress on this and to understand the impact TLAFs have had on transmission losses. It would also be helpful to understand what mechanisms are in place to incentivise system operators to reduce transmission losses in the current climate of high energy costs, climate change and major plans for network development and reinforcement.

Assuming TLAFs have an economically rational signalling function, we understand they should provide some form of locational signal³. Is this correct and how well has it worked? We find it difficult to see how TLAFs could provide a good investment signal given their volatility, lack of transparency, and transient nature with respect to changes in load and generation on the system. In our view the primary location signals relate to efficient generator location for minimising losses and congestion. We suggest that an industry discussion is needed on how TLAFs and TUoS can deliver efficient locational signals.

Finally, consideration might be given to the optimal allocation of losses. We note in the SEM that losses are allocated entirely to generation. This is in contrast with other countries which have adopted a different approach, such as Spain, the UK and the United States where losses are assigned to both generation and demand. Is there a particular rationale for the differential treatment of losses across countries?

² That paper referred to a 2003 Review of the methodology used for deriving TLAFs.

³ The assumption that TLAFs provide a locational signal seems to be confirmed in the previously cited SEM consultation paper of May 2006 where it is stated in footnote 9 that “The disadvantage of this approach [reducing over-recovery of losses by reducing locational differentials] is that it also impairs the efficiency of the locational signals that are inherent in the MLFs [marginal loss factors]”.

In summary therefore VPE have serious reservations about the lack of sufficient transparency in the formulation of TLAFs which creates considerable risk and uncertainty for current and prospective generators. We have provided evidence of high volatility in TLAF values. This volatility further exacerbates the problem and signals the need for volatility mitigation measures to be implemented. In last year's decision paper, the RAs acknowledged the problem of year-on-year volatility and were open minded about the need for review in subsequent years. A wider review of TLAFs this year would be appropriate and would include consideration of TLAF volatility, transparency and basic principles from the perspective of promoting efficient investment and minimising transmission losses.

We suggest that the first steps should be a comprehensive set of procedures setting out how the current TLAF is produced and that this could form the basis for an industry forum on development of transparent and efficient locational signals in the SEM.

Please do not hesitate to contact us if you would like further information or you would like to meet with us to discuss the points we make.

Yours sincerely

A handwritten signature in blue ink that reads "K Hannafin". The signature is written in a cursive style.

Kevin Hannafin
Senior Regulation Analyst

Annex – Volatility of TLAFs

Annual dispersion in TLAF values: max and min versus average 2007 - 2009

