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Ref: SEM-09-107 Preferred Options to be considered for the Implementation of Locational Signals on the Island of Ireland

Dear Mark and Raymond,

I attach ESB Independent Generation (ESB I_g) response to the above consultation

Kind regards

Ramón Cidon

**Market Strategy Manager
Independent Generation
ESB International**



ESB International Response to Preferred Options to be considered for the Implementation of Locational Signals on the Island of Ireland (SEM-09-107)

ESB International appreciates the opportunity to comment on this consultation paper. We have no objection to all or part of it being published by the Regulatory Authorities (RAs).

1. Executive Summary:

We have summarised our comments in the following paragraphs:

Transmission Loss Adjustment Factor (TLAF)

- ESBI agrees that the current regime for TLAFs should be improved by providing full transparency and predictability and reducing its high volatility.
- The compression factor methodology chosen by the TSOs could be a good first step, in order to reduce the TLAF volatility year to year. Some recommendations about how to improve transparency and predictability of the methodology are detailed in section 2 of this document.
- Customers should pay for all losses. Customers won't be adversely affected because now they are paying the cost of the losses through the SEM price.
- The purchase of losses by the TSO is a good solution, because it gives incentives on TSO to minimise system losses. We believe that the five year deadline proposed to settle this methodology is excessive and recommend its immediate implementation. The intermediate splitting methodology should be avoided.

Transmission Use of System Tariff (TUoS)

- Any arrangements for charging TUoS must provide full transparency, full predictability, minimum volatility, and equity.
- There should be a harmonised all island TUoS charging methodology.
- All transmission use of system costs should be charged to the customers.

- A minimum installed capacity threshold of 5MW is reasonable.
- With the information included in the document, ESBIg is not able to conduct enough analysis to determine which would be our preferred option. Some recommendations about how to reduce volatility and increase transparency of the methodology are detailed in the section 3.
- It is necessary that the TSOs' model and provide to the industry estimated TUoS under the five options for the next five years.

2. Loss factors. TLAF:

2.1 Compression Factor:

ESBIg believes that the compression factor methodology could be a good first step, in order to reduce the TLAF volatility year to year, which is currently its most important flaw. Additionally, it is a methodology which encourages efficient dispatch.

Nevertheless, we consider that additional information should be provided to meet with two important objectives, predictability and transparency.

In order to meet the predictability requirement, we would like to suggest the following recommendations:

- Publish the estimated TLAF under different compression factors of at least the next five years, by end Q1 2010. We would like to suggest to provide results with compression factor equal to 4 and 10
- Once decided the final compression factor, publish the estimated TLAF for all the generators for a scenario of at least the next five years, including the estimated TLAF for the future generators. These estimated numbers could be revised at regular intervals, say two years, as firmer figures become available.

- Modelling the impact in SEM price and the dispatch for the next five years under these new TLAF, including the new TLAFs in the PQ bids. It could be done setting as constant the fuel prices and just modifying the TLAFs
- Establish the final TLAFs for longer periods than one year. For example it could be settled for the next two years.

In addition, to get a higher transparency and reliance with the new methodology, ESBIG would like to suggest:

- Publish all hypothesis considered in the Plexos *unconstrained* modelling, so that it could be easily replicated. It should include the efficiency and load factors of future generators.
- Publish all hypotheses considered in the Plexos *constrained* modelling, as fuel costs/constraints, system constraints, reserve constraints.
- Publish a consultation paper where the industry could comment on the hypotheses.
- Publish the results of the Plexos Unconstrained Model, in order that it could be possible to replicate these numbers.
- Publish an explanatory paper each year including all necessary information needed to replicate the results. So far, the papers published by the Regulators in Q4 about the next year TLAFS don't provide enough information and the TLAF calculation seems to be like a "black box".
- Organise different workshops where the agents could understand the constraint model in Plexos and ask all the questions related with its use and the grid hypothesis considered.
- Publish the all-island model used to calculate generate Marginal Loss Factors in PSS/E.
- Provide enough explanation about which is the compression factor chosen

2.3 Splitting methodology:

ESBIg has studied the proposal about the splitting methodology, and we believe that this intermediate step should be avoided.

Although it could reduce the volatility and improve the predictability of the future TLAFs, it introduces an additional dispatch to optimise the losses, so the final SEM price and dispatch will lose in transparency and simplicity. We believe that having a simple market is much more important than getting stable TLAF.

Nevertheless, if the TSOs do proceed with this intermediate step, we would like to suggest that they provide agents with information about this option as follows:

- Modelling the impact in SEM price, inframarginal rents and the dispatch for the five next years with a unique TLAF equal to one.
- Publish the estimated cost of the losses signal included in the TUoS for all the generators for the next five years.
- Publish the proposed methodology for loss optimisation in dispatch.

Hence, ESBIg believes that this solution shouldn't be implemented in a medium term, because an extensive scope of work is required to determine these possible economic effects of this proposal.

A fundamental change, such as the splitting option could have has unknown consequences and requires further analysis before implementation.

Our position is that the TSOs should put all the efforts in implementing the purchase of losses.

2.4 Purchase of losses by the TSO:

ESBI believes that these solution is the optimal, because introduces an incentive to the TSO to reduce the losses and eliminate the problems associated with the TLAF factors.

Our point of view is that this methodology has a number of advantages:

- It does not need any complicated calculation for estimating the losses under different scenarios.
- It is based on real measurement of losses
- It fulfils all of the criteria, optimises short term dispatch and doesn't bring volatility to the generators.
- It incentivises the TSO to reduce the transmission losses.
- The losses are paid by the demand, which is currently indirectly paying through a higher price of the SEM price.

Currently, the TSOs do not face risks for operating the grid in an inadequate way. The TSOs are in a better position than generators to manage the risk of future TLAFs since they have some control over future transmission investments, which in turn affect TLAFs.

We believe that the TSO should do all the efforts needed to implement the metering infrastructure. We consider that the term of five years indicated in the paper is too long.

ESBI considers that it is possible, the purchase of losses should be the medium term solution chosen, avoiding if possible an intermediate step.

ESBIg would be pleased if the TSOs would describe this option in more depth, detailing at least the following points:

- Who will finally pay the losses (generators, customers,...)?
- How it will be estimated the future losses and compared with the real ones?
- How the TSO will deal with the profit or economic losses if the real transmission losses are higher or lower than estimated?

3. Transmission tariff. TUOs

ESBtg welcomes the paper from the RAs where different options for the calculation of the TUoS are studied.

Coolkeeragh CCGT, like all generators in NI, and unlike RoI generators, had to pay for the deep reinforcement cost of connection to the grid which means that NI generators are at a financial disadvantage in this respect to generators in RoI. We believe that the movement from the current postalisised methodology in NI to any SEM locational methodology should be as smooth as possible.

We consider that the paper does not provide enough information to meet with two important objectives, as predictability and transparency.

The paper just provides estimated TUOs for the five options during 2009 and estimated TUOs in the year 2014 for options 1 and 3.

We can't understand how the TSOs can chose option 4 without developing estimated TUOS under this option in some future scenarios. With the data provided in the paper, ESBtg is not able to set a formal decision about its favourite option

At least it would be needed to publish estimated TUoS under all the options for the next five years.

We believe that the RAs should focus on option 2 and 4:

Option 2: It sends efficient locational charges to each different node, therefore is cost reflective. Volatility could be solved increasing the number of years where an asset keeps charging cost to the model.

ESBtg would like to suggest additional modelling under Option 2 (Pure transmission locational signalling Dynamic Model) because we consider that it is a small step from

the current RoI methodology but improving some of its flaws, as volatility and predictability.

Additionally, this type of tariff is in line with the ultimate European trends, Dynamic model has been applied elsewhere and is due to be implemented in 2010 in England, Scotland & Wales for distribution network charges.

Option 4: It improves cost reflectivity and the transparency. In the paper, the SOS have decided that the percentage covered by locational charges would have a maximum of 60%. ESBIG would be pleased if other percentages would be studied and published the results.

Finally we would like to suggest a review about the score given by the SOs to Option 4 in the table 13. We believe that it is not very logical to give option 4 a higher punctuation than Option 2 in cost reflectivity and efficiency (great part of the cost are postalised and not paid by the founder) and transparency.

In order to get a higher transparency and reliance with the new methodology, we would like to suggest:

- Publish all hypothesis needed to replicate the load factor modelling (level and location of generation and demand). The hypothesis should cover a scenario of a minimum of five years.
- Publish all the transmission details needed to develop the dynamic modelling, as the following:
 - a) Future network requirements;
 - b) The year when these works are required;
 - c) The cost of these assets in that year is determined;
 - d) Discount rate used to calculate the NPV of these assets and its justification;

- Justification of the period of 7 years after built while the transmission asset will continue having a cost in the model.
- Publish all the details associated with the 4 scenarios considered (Winter Peak with zero wind generation assumed, Summer Peak with zero wind generation assumed, Summer Peak with wind generators dispatched at 80% of their installed capacity and Summer Minimum with wind generators also dispatched at 80% of installed capacity)

In order to achieve higher predictability and lower volatility, we would like to suggest:

- The costs should be calculated and allocated on a multi annual basis.
- The period of seven years after built while the transmission asset will continue having a cost in the model could be increased.
- Publish the estimated TUoS under all the options for the next five years.