



IWEA Response to the Single Electricity Market Committee's consultation  
paper

“Transmission Use of System Charging: Methodology for All-island  
generation Tariffs SEM-08-067”

## **Introduction**

The IWEA is very concerned at the proposals included in the consultation paper on transmission use of system charging. We believe that there are many fundamental flaws in the theoretical arguments underpinning the approach and that this has created a need for a series of manual tweaks. The end result is a volatile and arbitrary set of tariffs that seem to unduly discriminate against wind generators. It is unclear how these signals are linked to the objective of efficient development of the energy infrastructure on the island. We believe that the proposal should be shelved and a more comprehensive analysis of strategic development and signals undertaken. This should incorporate the Grid Development Strategy envisaged by EirGrid and a similar study for NI. As the industry is on the cusp of significant investment over the next ten years there is significant benefit in having a joined up approach to planning and development.

The methodology proposed in the consultation paper would be large step away from this type of strategic development approach and will impose additional costs on consumers, by increasing risk to developers, without delivering any apparent benefit to transmission development.

It is noted that the industry has effectively had only one week to consider the important issues in this paper. While we are conscious of the time constraints in the tariff setting process and are grateful for the extension provided it is felt that this response may not fully address the concerns in the industry about the proposed approach. In the event that the RAs are minded to pursue the tariff approach proposed in this paper we believe that a workshop would be necessary to allow the industry to better understand the proposals.

## **General Comments**

The IWEA recognises the need for efficient development and utilisation of the transmission network. Consideration of long term effective and strategic development is key to delivering a 21<sup>st</sup> century energy system in an efficient manner. It is estimated that there will be over €6bn invested in renewable generation projects and several hundred million in transmission over the next decade. A strategic approach to development has the potential to greatly increase the pace and efficiency of delivery of this infrastructure.

However, the application of highly volatile “signals” that do not properly link into more general strategic development significantly damages efficient investment signals. The methodology proposed in this consultation paper introduces significant tariff changes based on a series of highly subjective assumptions – it is far from clear how these would tie into any longer term strategic development approach. The degree of volatility and the dependence on subjective assumptions is illustrated in the appendices to the

consultation paper. From these it is clear that the degree of variance between current signals and the signals derived under different scenarios and assumptions is disturbingly large. It is obvious that there is no single clear signal that this methodology has identified. On this basis it seems unreasonable to expose generators to significant additional risks based on assumptions of what a “satisfactory tariff” might be.

The IWEA recommends that the SEM committee initiate a detailed strategic review of locational investment signals. This should include; charging, planning, interaction between conventional and renewable plant, grid code compliance and loss factor allocation. Such a study should be open and inclusive and aim to deliver a framework that promotes the efficient development of generation and transmission on the island. There is an excellent window of opportunity ahead of the forthcoming flood of investment to deliver significant benefits for all users and consumers of the energy system on the island through such a review.

IWEA believes that the current proposal contains a number of very serious defects and that it would be very dangerous to apply it in its current form. The next section discusses these concerns in more detail. It is strongly recommended that no incremental changes to charges are made until a consistent framework is developed.

The consultation paper presents proposals for a substantial change to the charging regime for generators on the island of Ireland. The proposed approach relies on an inconsistent set of assumptions and numerous arbitrary judgements. It would appear that the effect of these proposals may lead to an effective change in tariffs of over 0.6 cents per kWhr generated for many wind producers.

This increase in charges will impinge on the financial viability of many projects (it may put around 10% of revenue at risk for wind developers) and the increase in volatility will greatly increase the costs of developing wind generation on the island. It is likely that the addition of this volatility will add disproportionately more costs than the incentives will save.

In the current gate processing system, locational investment signals seem essentially irrelevant. As the IWEA understands the current thinking, the system operator will essentially select projects to offer connections based on various locational considerations – largely related to the transmission system. It seems perverse having decided the locations where wind should be developed through a central planning process to expose the constructed projects to highly volatile “signals” that have no effect other than increasing the cost of development on the island.

## **Detailed Comments**

### **Wealth transfer effect**

The indicative tariffs seem to indicate a significant wealth transfer from renewable plants to conventional plants. The tariffs are highly dependent on a large number of subjective assumptions that influence this wealth transfer effect. The direct link between these tariffs and efficient network investment is difficult to determine.

### **Reverse MW Mile is inherently volatile**

The reverse MW mile approach to transmission charging is inherently volatile. It appears that the application of this methodology to the all-island network and the changing of other input assumptions has had a significant impact on tariffs. The RAs acknowledge that certain aspects of the methodology have had a larger impact than anticipated. This indicates the complexity and lack of transparency of the proposed method. It also underlines the absence of an obvious link between proper network development incentives and the tariffs. There are a wide variety of charging methodologies that meet the RAs' objectives. The IWEA believes that other charging methodologies should be assessed.

We do not believe that the signals from this methodology can be relied on due to the number of subjective fixes that have been applied to provide, "satisfactory tariffs".

### **Dispatch Methodology**

The methodology for determining the dispatch used will have a large bearing on the results obtained. We would like to request more information on this methodology. It would also be useful to have the final dispatches used in the scenarios published.

### **Planning Criteria**

The paper notes that the scenarios used to derive tariffs should reflect those used for investment planning. It is crucial that appropriate scenarios and criteria are applied both in planning and in tariff selection. These should reflect the reality of system development and operation.

### **Volatility**

The appendices indicate the significant changes that may occur to tariffs under the proposed methodology. Even with minimum year on year changes applied, participants will see a significant change in their charges. In some cases this may be over €20 per kW/year. For a renewable generator this may result in an additional cost of 0.6c per

kWhr. This increased volatility will impact on the cost of all renewable projects developed and it is highly likely that this additional volatility will cost more than the benefit of the new charging methodology. A cost benefit analysis of the proposal would be necessary to quantify this.

The level of volatility also undermines the effectiveness of TUoS to act as a signal. Given that large changes are anticipated (without any underlying changes in network) participants may be reluctant to respond to the “signal”.

The degree of change in tariffs from previously approved levels in Ireland to the new levels is difficult to reconcile with a concept of efficient investment signals on a network that is largely unchanged.

The proposed caps on levels of changes are not an adequate response to this issue.

### **Scenarios**

The scenarios selected for study are completely unrepresentative of network conditions. If these conditions are the basis for transmission planning then this situation should be urgently reviewed. As the maximum charge under each of these scenarios is used to determine the generator tariff, the impact of unrepresentative scenarios is magnified. The scenarios seem to analyse statistically unlikely conditions relating to wind but not to other generator occurrences. It is likely that a series of coincident forced outages on thermal plant in an area with equal probability would have an equal impact on required transmission infrastructure. If all these events were studied it is probable that in some cases, they would lead to maximum tariffs for some generators. The IWEA believes that the scenarios studied should be governed by a probability threshold and that all generation scenarios that may impact on development of transmission infrastructure inside the threshold should be studied. The use of extreme assumptions about wind generation alone is unreasonable.

It is also unclear if the dispatch scenarios used are reflective of normal network usage patterns.

### **Satisfactory Tariffs**

There are several mentions of “satisfactory tariffs” in the consultation paper. We would welcome clarity on what criteria are used to determine this. As many manual tweaks have been made to achieve “satisfactory tariffs”, the argument that the reverse MW mile approach, applied to the Irish network, sends an efficient economic signal seems very weak.

### **Transparency**

It is evident from the paper that the RAs have carried out a significant amount of analysis with the system operators. As many subjective decisions have been made on

the basis of this analysis increased transparency would be welcome. It is also noted that many players in the renewable industry were unaware of this process. A workshop to outline the detail of these discussions would be very helpful to rectify this.

### **Network Costs**

It is unclear why an increase in asset valuation methodology should translate into an increase in tariffs. It appears that the overall revenue requirement is materially unchanged.

The absence of relevant cost data in both jurisdictions is concerning. This has led to a series of arbitrary assumptions that has had a material impact on tariffs. Again this makes the link between economic signals and tariffs more difficult to determine.

Applying replacement costs to long run signals seems highly inappropriate. All investment decisions are based on current costs and an expected future value of costs. Increasing charges to users already connected due to increasing replacement costs is analogous to a car manufacturer looking for customers to compensate them for the increased replacement costs of the steel used to manufacture cars two years ago. The arbitrary application of individual pure academic economic principles creates significant uncertainty and disrupts the overall economic signal.

If the logic of replacement value is to be applied it should be applied in full. This would require an assessment of what a replacement network would be and evaluating its price rather than just applying replacement prices to historic assets.

### **Charging for usage**

The paper notes that the tariffs should charge users for their usage of the network. However, it also notes that the tariffs should incentivise efficient network development. In many cases these objectives will lead to different results. Given the large number of manual alterations to the tariffs it is important to understand the relative priority of these objectives.

### **Lightly loaded lines**

The decision to exclude lightly loaded lines is a further arbitrary decision with minimal justification or supporting analysis. This may result in tariffs for different units being derived from different scenarios that use very different underlying networks. It would seem that the motivation for this decision is based in underlying flaws in the basic methodology rather than an objective application of economic principles. This is recognised several times in the paper

### **Long term signals**

The paper notes that investors should respond to the long term signals arising from the projected future tariffs. This is not possible as these future tariffs are not published or possible to forecast. The large change in current tariffs in RoI due to administrative tweaks rather than a change in methodology or network demonstrate this.

### **Threshold Effects**

The current proposal charges generators over 10MW for all of their capacity while distribution connected generators under 10MW are exempt. Thus creates a significant step effect in charges for generators just over 10MW. The IWEA recommends that generators should be charged on the basis of capacity above 10MW only.