Response to SEM Consultation Paper SEM-12-039

All Island Generator Transmission Use of System (TUOS) Charging

on behalf of

AES Kilroot Power Ltd and AES Ballylumford Ltd

16 July 2012

1. Introduction

AES Kilroot Power Limited and AES Ballylumford Limited (collectively "AES") welcome the opportunity to comment on the consultation on the decision paper relating to All Island Generator Transmission Use of System Charging (SEM-12-039.

2. General Comments

In our response to last year's consultation paper, we indicated that that the methodology adopted by the TSOs to determine the GTUOS tariffs was inappropriate and suggested that it was fundamentally flawed as it:

- Disproportionally levied charges on Nothern Ireland (NI) generation which do not appropriately or accurately reflect the use of the transmission system by many NI generators, particularly those owned by AES;
- Created an explicit cross subsidy from NI generators to ROI generators; and
- Arbitrarily derives a locational charge for generators which are out of merit and likely only to be dispatched in the Summer Min scenario on a constrained on basis to support the system.

Rather than repeat the detail of our comments set out in our response last year, we attach a copy of the paper for ease of reference. We believe that the majority of the points raised last year have not been addressed and we continue to have substantial concerns in relation to the ongoing methodology deployed by the TSOs to determine indicative Generator Transmission Use of System (GTUoS) Tariffs for 2012/13.

AES does welcome the reduction in the proposed GTUOS tariffs for generators located in Northern Ireland. However, we believe that the proposal to accept tariff set 2b is entirely arbitrary in nature. If detailed analysis indicates that a unit is not dispatched under certain scenarios, then it is entirely logical and consistent with the methodology to use the average of their maximum tariff in those scenarios were the generator is dispatched. Consequently, we firmly believe that tariff set 2a is the appropriate tariff set to use.

AES also welcomes the inclusion of the historical assets within the modelling cost base as it provides an element of stabilisation to the tariff setting methodology. We would again question the timing of including the costs of the second North-South Tie Line within the cost base – there are significant uncertainties associated with this project particularly in relation to costs and impact of planning/consent delays on commissioning timescale.

One of our primary concerns with last year's GTUOS tariff process was the lack of transparency and detail provided by the TSO in relation to their modelling and analysis. We are therefore disappointed by the continuing lack of sufficient detail on the assumptions and analysis to support the results provided by the TSOs.

AES would welcome confirmation from the RAs that they have reviewed and are satisfied with the robustness and accuracy of the TSOs' cost files, technical assumptions (particularly in relation to wind), power flow analysis and Plexos modelling.

Appendix 1 – AES Submission to SEM Consultation Paper SEM-11-036

Response to SEM Consultation Paper SEM-11-036

Generator Transmission Use of System Charging – 2011/12 Indicative Tariffs

on behalf of

AES Kilroot Power Ltd and AES Ballylumford Ltd

25 July 2011

1.0 Introduction

AES Kilroot Power Limited and AES Ballylumford Limited (collectively "AES") welcome the opportunity to comment on the consultation on Generator Transmission Use of System Charging – 2011/12 Indicative Tariffs and the associated Eirgrid/SONI paper (SEM-11-037) - All-Island Generator TUoS Methodology.

2.0 General Comments

AES has substantial concerns in relation to the proposed indicative Generator Transmission Use of System (GTUoS) Tariffs for 2011/12. AES does not believe that the methodology adopted by the TSO to determine the tariffs is appropriate and would suggest that it is fundamentally flawed as it:

- Disproportionally levies charges on Nothern Ireland (NI) generation which do not appropriately or accurately reflect the use of the transmission system by many NI generators, particularly those owned by AES. On average, the indicative tariffs for NI generators are 23% higher than in the Republic of Ireland (ROI);
- Creates an explicit €7m cross subsidy from NI generators to ROI generators;
- Arbitrarily derives a locational charge for NI generators which are out of merit and likely only to be dispatched in the Summer Min scenario on a constrained on basis to support the system; and
- Determines GTUoS tariffs which are inconsistent with TLAF locational signals.

AES contends that the proposed tariffs would provide a flawed signal to new investors indicating that new generation should be located in ROI and is contradictory to the most recent BNE consultation paper SEM-11-025, which indicates that a BNE peaker would be located in NI. This could give rise to significant challenges in terms of NI meeting its own renewable targets and also in the longer term, to generation capacity issues for NI.

AES would strongly urge the SEM Committee to recalculate the cost of the BNE peaking plant using, as a minimum, the indicative GTUoS outlined in SEM-11-036. However, since the Annual Capacity Payment Sum (ACPS) will not be finalised until the end of November when the Annual Capacity Exchange Rate is calculated, then AES sees no reason why the BNE peaking plant cost should not also be updated at this time for the actual 2011/12 GTUoS tariffs, as decided by the RAs.

3.0 Generator TUoS Methodology

General

In our response to SEM-11-18, AES agreed that it was appropriate to harmonise the charging methodologies so that it is consistent between both NI and ROI. However, we argued that it was not reasonable or prudent to aggregate the allowed revenue on an all island basis as this would give rise to an explicit need for cross-border financial flows resulting in cross subsidies between one jurisdiction and other. The proposed GTUoS tariffs confirm that this is indeed the out-turn result from the TSO proposed methodology and also confirms the extent to this cross border flow at approximately €7m/year.

The allowed revenue in each jurisdiction will be separately determined by NIAUR and CER to support distinct Government energy and renewable policy and similar policies may not be adopted in each jurisdiction. Consequently the energy policy of one jurisdiction may result in substantive/aggressive infrastructure investment whilst the other jurisdiction may choose a more prudent/cautious approach. Either way, aggregating the allowed revenue on an all island basis will result in one set of generators

subsidising another and AES does not support this approach.

Since the allowed revenue is determined by each Regulatory Authority (RA) on an autonomous, jurisdictional specific basis, each RA may adopt a different regulatory approach which may have an impact on allowed revenue which is inconsistent or divergent with the trajectory of the allowed revenue in the other jurisdiction. Again, under this charging method a cross-subsidy will be established.

Given the above, as a general point of principle, AES believes the proposed methodology is fundamentally flawed.

Postalisation of Existing All Island MEAV

Based on our analysis, the postalised element of the indicative tariffs results in NI generators paying approximately an additional €3.4m, above what they are paying under the current NI GTUoS tariff regime. We believe that this is a direct cross subsidy being paid by NI generators as it does not relate in any way to their use of the All Island transmission system and believe this to be flawed and inappropriate.

Dynamic Tariff Modelling and Methodology

As stated previously, we do not have sufficient information to comment on the accuracy or robustness of the TSOs modelling in relation to cost files, power flow analysis and Plexos modelling however we would make comment as follows.

<u>Dispatch Scenarios</u>

The TSOs have indicated that a dispatch file for each generator was created against four scenarios:

- Winter Peak with 0% wind;
- Summer Peak with 80% wind;
- Summer Peak with 0% wind; and
- Summer Min with 80% wind.

The TSOs have explained that the rationale behind these four scenarios is that they are used within Network Planning analysis by both SONI and Eirgrid. We have reviewed both Eirgrid's Transmission Forecast Statement 2011-17 and SONI's Transmission Seven Year Statement 2009-2015 and we can only identify three scenarios – Winter Peak, Summer Peak and Summer Minimum with no explicit reference to wind capacity assumptions.

AES have significant concerns with respect to the TSOs wind assumptions. We would welcome some detailed clarification as to why the TSOs believe it is appropriate to use an 80% wind capacity figure within the GTUoS methodology. We would also welcome clarification as to whether this 80% figure is based on overall installed wind capacity or only wind installations connected to the transmission system.

AES would agree that it may be appropriate to use such a figure within transmission network analysis, particularly in terms of assessing the technical impact of maximum wind generation output on overall system capability, compliance with planning standards and short circuit current ratings. However, such exceptional levels of wind output coinciding with periods of minimum summer demand, occurs only rarely and even then for a very short period of time. Consequently, AES would suggest that even when it comes to network planning and transmission investment decision making, it is not economically prudent to base decisions on a deterministic worst case approach. Rather, a more probabilistic approach should be adopted which quantifies the risks to the system within an overall balanced

investment framework.

AES would argue strongly that it is inappropriate to base wind assumptions within the GTUoS tariff methodology on wind output scenarios which are rare and often distinct from other system variables. We would suggest it would be more appropriate to utilise historic wind capacity factors which have occurred previously during each dispatch scenario.

Load Flow Analysis

The TSOs have confirmed that the load flow analysis is based on first establishing the dominant flows on transmission network via a base case model. Subsequently the methodology then establishes the contributory flow from each individual generator across the network, given the dominant flows.

This analysis is based on an Plexos forecast of unconstrained dispatch and whilst we have not been provided with the Plexos analysis, SONI have confirmed that in the Summer Min scenario, many generating units in NI (including all units at Kilroot and most at Ballylumford) are out of merit and not dispatched. However, the TSOs have decided to arbitrarily allocate a 1MW dispatch to out-of-merit units "in order to derive a tariff for every unit in all scenarios". AES believes that this logic is fundamentally flawed.

Firstly, if units are out-of-merit in a scenario then it would be logical to say that the locational element of the tariff should be zero, as they are not making use of the system or contributing to the dominant flow. 1MW does not need to be added to derive a tariff - the tariff should essentially be set at the postalised figure.

Secondly, AES agrees that most units in NI are out of merit in the Summer Min scenario (our analysis supports this in the near and medium term). However, such units will only be dispatched on a constraint basis to support the system, due to either established transmission constraints (which are a result of insufficient transmission infrastructure) and/or to offer reserve and reactive power to assist with the management of wind. It is illogical and perverse to then allocate a penal locational charge on such generation when the system is actually reliant on such generation to ensure system integrity and security.

And thirdly, it is evident that in the Summer Min scenario, there is a dominant flow N-S and SONI have confirmed that this is due to Moyle imports. Moyle imports are not charged GTUoS, however these imports are driving the dominant flow in this dispatch scenario and this, combined with the arbitrary allocation of 1MW to out-of-merit units, is setting the locational tariff for all NI Generation. We believe that this approach is fundamentally unfair and does not represent an appropriate method for allocating costs in using the transmission system.

Assets within the Cost File

Both TSOs have confirmed that a main contributory factor behind the high locational charges for NI generators is the inclusion of the second N-S interconnector and associated ROI transmission circuit between Cavan-Woodland. AES are aware that the ROI Government has just appointed a Commission to investigate the feasibility of using underground cabling within the southern section of the route corridor and the findings of this Commission could have far reaching implications for both the cost and timescales for the overall N-S interconnector project. Furthermore, both jurisdictions are holding Planning Enquiries in relation to the project and this in itself adds considerable uncertainty in relation to overall timing and commissioning of the project. Given the substantive uncertainty in relation to the costs and commissioning date of the second N-S interconnector, AES would suggest that it is inappropriate to include these costs within the cost file for this upcoming tariff year.

AES also consider that existing thermal generators in NI (and indeed ROI) are not driving the need for investing in the second N-S interconnector. The RAs in their introduction to SEM-11-036 state that "those participants that drive investment pay higher tariffs". The need for the second N-S is primarily being driven by both Governments' targets in relation to renewable generation, and also an overall strategic ambition to improve the efficiency and security of the transmission systems on the Island. We believe that a more equitable solution must be found in relation to recovering the costs of the second N-S interconnector, and that NI generators should not have to shoulder the burden of investment costs which they are not driving.

4.0 Indicative Tariffs

As indicated above, AES believes that the flawed methodology has resulted in excessive GTUoS tariffs for NI generators.

Specifically in relation to AES generating units, the proposed tariffs result in almost an 80% increase in use of system costs compared to what we have had to pay for the year 2010-2011. This increase is not only a result of the locational element of the tariff but also due to the all Island postalised element.

More generally SONI have confirmed that the average ROI tariff is approx €4.8/kW/year whilst the average NI tariff is approx €5.9/kW/year i.e. NI generators are paying on average 23% more for the use of the transmission system than generators in ROI. The overall net effect of the proposed tariffs is that NI generators will be making a €7m/year contribution to ROI generators.

AES also has concerns in relation to the consistency of locational signals provided by TLAFs and the proposed GTUoS tariffs. For example, TLAFs for Whitegate and Aghada are amongst the worst on the Island, yet the indicative GTUoS tariff is in no way consistent with this. Conversely, Ballylumford and Kilroot have 'good' TLAFs (greater than 1) yet have a very penal GTUoS tariff. We understand that TLAFs are addressing more short term dispatch efficiencies however we would expect there to be a much stronger correlation between TLAFs and GTUoS tariffs given that they are both important locational signals.

Given the above, and also our concerns raised in relation to the methodology in section 4.0, we do not believe that the proposed tariffs represent a fair or reasonable apportionment of cost for using the transmission system. Furthermore, we would suggest that the proposed tariffs would provide a flawed signal to new investors indicating that new generation should be located in ROI. This could give rise to significant challenges in terms of NI meeting its own renewable targets and also in the longer term, in relation generation capacity and system security issues for NI.

5.0 Consultation and Regulatory Process

Previous SEM Committee Paper – SEM-11-018

The RA's recently consulted on GTUoS in its April 2011 paper SEM-11-018. AES responded to this paper in May 2011 however the RAs have yet to issue any decision, indicative or otherwise, as to what options detailed in SEM-11-018 are to be implemented. AES has therefore found it difficult to thoroughly assess the impacts of these most recent GTUoS consultation papers, as there are a number of variables which still remain subject to change. It would have been preferable if SEM-11-018 and SEM-11-036 had been published contemporaneously.

In our response to SEM-11-018 and the options relating to tariff fixing we indicated a preference for a term of five years, however that view was expressed in advance of the current papers setting out the

indicative tariffs and methodology. Having reviewed the methodology and indicative tariffs, we now have substantial concerns that fixing the tariff for a period of five years is inappropriate, given the weakness in the GTUoS calculation methodology. Whilst it would afford predictability it will lock in NI generators into GTUoS tariffs which are not cost reflective and substantially higher than those generators located in the ROI.

Transparency

AES considers that the TSOs have provided insufficient detail on the assumptions and methodology used for calculating the indicative tariffs and the TSOs should have provided a detailed breakdown of the locational and postalised tariff elements for every generator and specifically the assets contributing to the locational charge and the 'share' of this asset each generator is to pay for.

AES requested additional information from SONI on the 14th June and eventually received a response to all our queries on the 8th July, over three weeks later. SONI's response is attached as Appendix A and you will note that in terms of our queries relating to commodity assumptions, COD, TOD and Plexos analysis, we have been referred to Appendix 1 of the "Transmission System Operators' Submission for Dispatch Balancing Costs October 2011 – September 2012". This document does not provide any detail as to the commodity prices, COD, TOD, wind generation or Plexos results that we requested. We note that it is not even clear if the TSOs utilised the RAs Validated SEM Generator Data Parameters as the TSOs have amended elements of production costs 'where necessary' (page 24 of the TSOs Dispatch Balancing Costs response). In the absence of this requested information, we have found it difficult to determine the veracity of the TSO analysis particularly in relation to the Plexos assumptions and modelling and the impact of assuming an 80% capacity factor for wind.

We note that the SEM-11-037 is a TSO paper which has been used as a basis for the RAs consultation paper SEM-11-036. AES would welcome confirmation from the RAs that they have reviewed and are satisfied with the robustness and accuracy of the TSOs' cost files, technical assumptions (particularly in relation to wind), power flow analysis and Plexos modelling.

Best New Entrant

In our response to SEM-11-025 "Fixed Cost of a Best New Entrant Peaking Plant & Capacity Requirement for the Calendar Year 2012" consultation paper, AES drew attention to the fact that the proposed indicative GTUoS tariffs were not included within the calculation to determine that the cost of the Best New Entrant (BNE) Peaking Plant.

AES would strongly urge the SEM Committee to recalculate the cost of the BNE peaking plant using, as a minimum, the indicative Generator TUoS outlined in SEM-11-036. However, since the Annual Capacity Payment Sum (ACPS) will not be finalised until the end of November when the Annual Capacity Exchange Rate is calculated, the AES sees no reason why the BNE peaking plant cost should not also be updated at this time for the actual 2011/12 Generator TUoS tariffs, as decided by the RAs. AES does not consider there to be any justification for calculating the BNE peaking plant using the historic GTUoS tariffs for 2010/11.

Appendix A – Additional Information provided by SONI