

Mark Needham	Raymond Skillen
EirGrid	SONI ltd
"The Oval"	Castlereagh House
160 Shelbourne Road	12 Manse Road
Ballsbridge	Belfast
Dublin 4	BT6 9RT

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## Re: Methodology Options to be considered for the Implementation of Location Signals on the Island of Ireland SEM-09-060

Mark/Raymond,

SWS Energy welcomes the decision to consult on the methodology options to be considered for the implementation of location signals on the island of Ireland and the opportunity to respond to the System Operators (SOs) consultation paper.

At a high level, SWS considers the costs incurred by both the industry and the system operators of volatility and unpredictability in both TUoS and TLAF is far in excess of any benefit from most of the proposed implementations of location signals, and we support the idea proposed by IWEA of completing a full cost benefit analysis. We remain firmly of the view that only uniform TLAFs and postalised TUoS are appropriate charging mechanisms at this point.

We believe this to be true even if you were starting from scratch to design a charging methodology. But in fact, all of the existing operational generation (c.7000MW), and all of the contracted and committed generation (c4000MW) and most of the future generation have already selected their locations. With over 6000MW of thermal generation in the "Gate 4" queue and nearly 9000MW of wind generation, it would appear that developers have already enough potential projects to meet Ireland's needs well past 2030. We believe that it is clear that developers have not been prepared to heed the locational signals to date. How else would we have two CCGT's in Cork, causing a massive swing in TLAF and TUOS? (See SWS submission to RAs 2009 Proposed TLAFs on 15th Oct 2008 for more details of this swing).





For connections up to 2030 a wind developer will have made their decision on the location of their generation schemes based on grid access, wind resources and planning restrictions long in advance of accurate locational signals being available. (Thermal generators have done something similar, but allowing for fuel source such as gas pipelines). The locational signals could only have been predicted up to a year ahead, and for developers expecting up to a 10 year development lead time for projects with a 20 year operational timeframe. It may be true that developments will listen to a locational signal while at the site selection and filtering stage, while the cost of moving is still small, but once developers have committed to particular location and sunk significant development costs (as all Gate 3 wind now has for instance), they will build their plant, even if it is at a reduced profitability. Even a developer with two identical projects, one in a high TLAF and one in a low TLAF area will still build both if both are profitable. It is only if the locational signal is sufficient to actually kill a project that it will not be developed, and thus far it is not clear that any of the methods are aiming for that strength of a signal.

You must ask yourselves whether or not you want to set the signal to be strong enough to wipe out 20%-50% of Gate 3 wind. If you don't set it to that strength, you won't gain any advantage from your locational signal, you will just randomly increase and decrease some developer's profitability. If you do set it to that strength, you will be retrospectively punishing people for choosing certain project locations during a period when the TLAF and TUOS mechanism was patently broken and no predictability or transparency was available, and in any case the strength of the signal was also weak. Such a forced attrition will be clearly jeopardising Ireland's chances of hitting its 2020 targets, and the sunk development cost and effort is very unlikely to be recouped by getting more optimally located Gate 4 projects to plug the gaps. I also doubt that Eirgrid would feel that it is efficient to then re-write Grid 25 at this stage (as would have to happen if you are to gain any savings). It is vital that you address this question of transitioning between the current system and the new system, and it is worrying that you have not cleared that high level question before getting into so much detail. SWS believe the only fair and economically efficient solution in response to the historical reality outlined above is uniform losses and postalised TUoS, and that the scale of the cost impact on this alone dwarves all other possible benefits of a more technically or academically optimum solution.

The interaction with the GDS is also critical. If you had a full LMP style market in place for years, with both grid and generators developing in response to the market signals sent out by LMP, then you could probably assume that both resources would develop in a reasonably





efficient manner. But that is not how the Grid 25 was planned. Grid 25 has been set up to connect the wind generation that is included in Gate 3. That list in Gate 3 was in turn selected by date order, not optimum location to minimise grid build. (And as discussed, the Gate 3 applications did not listen to future TLAF or TuoS signals, since it was impossible to predict these 30 years out). So if the goal of locational signals was to get generation to locate closer to demand, so that you can build less grid, then great, but we're talking about the period after 2025, because up to 2025, we have Grid 25, and we're going to build that amount of grid, knowing it was not optimum. What possible value does a locational signal now have overlaid on top of that plan?

The possible objection to the uniform TLAF appears to be paragraph 4.4 of the SEM High Level design. Noting that there is no locational signal in SEM itself, it observes that this function then falls to TLAF, TUoS and constrained on and off payments, and comments that:

The Regulatory Authorities consider that these benefits [of a single gross mandatory pool] outweigh the locational signal that would arise from zonal or locational pricing and that the treatment of losses, use of system charges and constraint payments will provide adequate locational signals in the SEM.

SWS remain of the view that the TLAF and TUoS system has been sufficiently broken during the critical last 10 year period where people have lined up the generation projects for the next 20 years, and so the locationality benefits are already forfeited (or will be as soon as Grid 25 is built). We believe however that the non-firm constraint signal is strong and effective in preventing people connect prior to the grid being ready for them, and that is the best you can hope for at this point. We therefore disagree with the statement in the consultation that uniform or postalised charging is incompatible with the SEM design. You still have the constraint payments signal, and it is functional. The horse has bolted on the TLAF and TUoS.

We realise that the system operators have not developed the detailed analysis on any of particular charging methods at this stage, and so it is hard for us to say definitively whether or not any of the methods could address the volatility and transparency and predictability concerns we have. We have serious concerns about whether zonal charging for losses could. Even if the zone was as large as Munster, the 2011 TLAF study clearly shows that an area that large can be wiped out by two large CCGT plant building at the same time. Would you then make a larger zone to minimise the volatility? Perhaps one the size of the island? This

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surely becomes meaningless in terms of driving network upgrades, and in the extreme seems to approach the uniform approach.

We believe that the table setting out the relative merits of the various systems can only be speculation in the absence of the important details (size of zones, calculation methods etc.), and we are reluctant to try to agree or disagree with the SO's assessments. In the absence of it being demonstrated to the contrary, we cannot see that any of the methods (other than uniform/postalised) could satisfy the critical conditions of being non-volatile and predictable in the long term. It was an interesting exercise to look at what other countries do, but what matters is not their methods in isolation, nor even whether those methods are considered successful in those markets, but whether or not those methods are relevant to the Irish market given not only its current design, but that which was in place in the preceding decade.

We don't believe there is really a case for looking at any of the methods in more detail given the preceding analysis, but if any method other than the uniform/postalised approach is taken forward, then at least the uniform/postalised method should be brought forward alongside.

Once again SWS thank the Regulatory Authorities and System Operator's for the opportunity to respond to this consultation. SWS would like to request a meeting with you to further develop and discuss our response to your consultation.

Regards,

Peter Harte

SWS Energy

w: http://www.swsenergy.ie t: +353 23 8854131 m: +353 87 2463433

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