

Preferred Options – the implementation of locational signals in the SEM

Synergen's response to SEM-09-107

1 Introduction

This paper is Synergen's response to the consultation paper SEM-09-107 published by Eirgrid and SONI on 26th November 2009. Synergen has no objection to this response being published.

The consultation paper sets out the System Operators' (SOs') preferred options on the future integrated arrangements for TUoS, and revised treatment options for TLAFs.

This response refers both to the content of the paper, and where noted, comments made at the workshop held to discuss this paper that took place on 9th December 2009 in Dundalk. This paper discusses the proposed approach to TUoS and TLAFs in turn.

2 Synergen's response to SEM-09-060

In its submission to SEM-09-060 Synergen set out its observations on the SOs' options for both TUoS and TLAF charging arrangements – these being for postage stamp charging for TUoS, or, as a second preference the static hybrid model (i.e. locational demand charged on a static basis with a residual postage stamp element). Synergen suggested that the charging of TLAFs should be based on developments to the existing loss adjustment factor approach.

Synergen also made a clear request that any future proposals put forward by the SOs should set out the envisaged positive cost benefits (including an assessment of financing costs) of any proposed approach. It is disappointing that this remains outstanding, and that the assessment presented is qualitative, and subjective.

3 Synergen preferred view

This section summarises Synergen's preferred approach to TUoS charging, and the charging of losses. These views are expanded on in the sections that follow – Section 4 considering the TUoS issues in more detail, with Section 5 setting out Synergen's comments on the TLAF options.

With respect to the charging of TUoS, Synergen believes that:

1. Postage Stamp pricing remains the appropriate option, given the limited influence that locational TUoS has on generator investment decisions, particularly given the Grid 25 process;
2. Given that only 15% of TUoS revenues under the SOs' proposals would be locational (60% of the 25% of charges paid by generators) the cost and

- complexity associated with applying a locational charge to 15% of the total TUoS cost base is complex, costly and does not drive the behaviour that it seeks to influence;
3. If there is to be a locational charging element of TUoS it should be based on a static, not a dynamic model, with a residual postage element;
 4. This split of locational and postage stamped can be fixed (as it is not looking at marginal costs) – Synergen suggests an initial 50:50 split, with a review of this ratio after 5 years; and
 5. Dynamic locational charging is unsuitable given the dependence on that approach on forward looking modelling, and the uncertainties associated with that approach. It is also likely to give rise to unnecessary price risk to existing generators based on network investment decisions that are not a consequence of their location, and are not able to be influenced by them.

With respect to TLAF charging, Synergen believes that:

1. Significant further work is needed – notably on cost benefit analysis. There should be no decision to implement change in the absence of such assessments being undertaken;
2. A multi-staged approach, as proposed by the SOs, increases direct costs and both regulatory and market uncertainty. There should be a clear preferred approach, and the existing arrangements should be maintained until that solution is implemented;
3. Compression, splitting and purchasing losses are all contrary to the SEM design principles, dilute locational signals within the market arrangements, and give rise to increased cross subsidies between generators. They would be regressive changes;
4. The RAs should seek to ensure that the market schedule and dispatch schedule are as close as practical to each other – changes should not be made to increase the differences between the schedule and dispatch, with the consequential impact on constraint costs; and
5. The existing TLAF charging approach could be developed to improve elements of the charging methodology, with TLAFs charged on the basis of a 3 year rolling average with some additional protections from spikes. This would reduce volatility, whilst ensuring that generators faced the actual costs of their losses – at least over time.

4 TUoS

Synergen remains unconvinced that new generation locational decisions are driven by locational TUoS charges. The nature of long term investment decisions is that once made, they are not capable of being changed. This means that a generator

cannot react to decisions taken by other parties that may influence its future level of charging under some of the options proposed – notably the pattern of demand and the location decisions of new generation. Indeed, under the Grid 25 initiative, future locational decisions are increasingly centrally co-ordinated. In principle, risks should be allocated to those parties best able to manage them. Synergen does not believe that significant changes in contributory TUoS costs would provide a meaningful signal to existing generators on the system. Even if such a signal was meaningful, the impact of the SOs' proposal would be to limit the impact of this – notably where the split between suppliers and generators is 75:25 and the locational element would be capped at 60%. This would mean that the locational signal to generators would be capped at 15% of total TUoS charges, or put another way, at least 85% of TUoS would be postage stamped.

Synergen thus continues to believe that a Postage Stamp pricing model would be appropriate, and that the cost and complexity associated with applying a locational charge to 15% of the total TUoS cost base is complex, costly and does not drive the behaviour that it seeks to influence – i.e. locational decisions of new generation.

Notwithstanding Synergen's strong ongoing preference for a postage stamping approach, our second preference would be for a static locational charge, plus postage stamping residual element. The remainder of this section comments on our concerns regarding a dynamic basis for any locational charging element and comments on why a static approach would be better suited to the SEM.

The dynamic model proposed would allocate network costs based on the marginal cost of the network. Synergen considers that:

- The apportionment of future costs based on the locational decisions of other parties and the Grid 25 initiative may create financial exposures to existing players that are not capable of being managed by them. This arises when new assets built to support new entrants are deemed to also be used for existing players;
- The rationale for a five year cost horizon is not set out in a compelling manner, and may prove to be volatile;
- The dynamic model creates a potential barrier to entry compared to the static model; and
- Under the CPM mechanism, the BNE plant may, or may not, be assessed as paying TUoS costs based on a dynamic assessment and this will have a material impact on the cost base of the BNE, and thus the CPM pot size.

If there is to be a locational charging element, Synergen believes that a static model has a number of advantages over the dynamic model:

- It is more equitable – all parties pay for all common assets on the same calculative basis (even if contributions differ between parties);

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- The arrangements would be more stable; and
- The arrangements would be more transparent and predictable than a dynamic model.

Furthermore, Synergen considers that a dynamic model (where charges reflect future network reinforcement costs) is more dependent upon the forecasting approach taken, and its accuracy. There is a significant risk in any forecasting approach around factors such as plant availability, fuel cost differentials, and demand levels and location. In its response to SEM-09-060 Synergen concurred with the SOs' position that a static model may be preferable where there is a high risk of forecasting error. It does not believe that the issue of mitigating these risks has been addressed in SEM-09-107 and remains of the view that cost forecasting approaches under a dynamic model are material and area material reason for adopting a static rather than a dynamic approach.

Regarding the de-minimis limit, the consultation suggests that a 5MW de-minimis limit is adopted, with MWs above this threshold being charged only on a marginal basis. Synergen believes that the 5MW limit remains too high, and that a lower threshold (say to 0.5 MW) should be adopted. Regarding the application of marginal charging:

- (1) Synergen considers it to be inequitable and may lead to distortions in the smaller scale generation market; and
- (2) Synergen believes that the adoption of any such principle should be universal and should not apply only to smaller scale generation.

5 TLAFs

Synergen does not support the three stage approach to TLAF charging proposed by the SOs. Notwithstanding the approach ultimately adopted, the staged approach created instability in the arrangements until such time as an enduring solution is adopted. Staging changes would increase regulatory risks (with negative impacts on the cost of capital) as well as giving rise to direct implementation cost – particularly where any changes to the central systems are required, or additional software needs to be procured and operated.

In addition to opposing a staged process in principle, Synergen does not support any of the elements set out as the SOs' preferred options – specifically, compression, splitting and the purchasing of losses.

Before addressing the specific issues associated with each of the proposed methodologies, Synergen first comments on the staged approach proposed, and Synergen's concerns regarding the lack of Cost Benefit Assessment (CBA), or even cost assessments, with any of the proposed approaches.

5.1 Lack of a demonstrated cost benefit assessment.

None of the stages proposals have a CBA associated with them. Synergen urges the RAs not to adopt approaches that are both contrary to the SEM design principles, and may lead to material changes in the competitive position of generators in the unconstrained schedule, in the absence of a demonstrated cost benefit. Further, the RAs need to explicitly ensure that the direction proposed by the SOs' is in line with other market developments.

5.2 Compression

Synergen is concerned that if "compression" is adopted there would be a negative impact on efficient dispatch, a separation between the market schedule and the dispatch schedule and will distort the unconstrained schedule.

Synergen notes that the paper, states that the "compression" approach would maintain the merit order. This was also the position put forward by the SOs representatives at the workshop on 9th December. Synergen disagrees with this assessment. Clearly, any changes to treatment of TLAFs (changes in values between generators feeding into the unconstrained schedule) have the potential to change the merit order, particularly when some tranches of generation are competing for market share overnight. Under the existing TLAF arrangements there are significant differences between the TLAF values of this generation. When the new plant in Cork comes on line, that plant will have significant negative TLAF levels – and this will be a significant determinant of its place in the merit order. This applies particularly where the latitude that generators have in determining their bid price is significantly constrained by the Bidding Code of Practice. The effect of compression will be to significantly reduce the differential in TLAF values between these new entrants and plant located more advantageously (by which Synergen means plant where the delivered MW cost per unit is lower).

Synergen's view is that changes to the merit order are an acceptable consequence of changes in the charging structures seen by generators. Where these are cost reflective, market outcomes are more efficient. In this case the proposal is to decrease market efficiency. The consequences of particular investment decisions will thus be re-allocated amongst generators – essentially cross subsidisation will increase. In terms of increasing market efficiency, compression is a retrograde step.

Part of the justification for compression is that it reduces the volatility in TLAFs Synergen believes that this would be best addressed through the application of the present TLAF methodology with (a) a three year smoothing factor applied, and, (b) specific insulations for generators against major shifts in demand – assessed against a materiality threshold.

The primary argument set out in the paper for the compression approach is that the reduced volatility in TLAFs that it would reduce the cost of capital employed by generators. The hypothesis is that that this benefit would be greater than the decrease in dispatch efficiency. Even if this was demonstrated to be true, the SEM is a market mechanism, and one that should evolve over time to be more "market" and less "mechanism". There are a number of steps that could be taken that would

reduce the cost of capital by reducing some market risks, but this fails to account for the benefit of increased competition. Reducing un-manageable risks is a valid way to reduce market participant costs, neutralising the competitive process is not.

Notwithstanding the concerns that Synergen has regarding the rationale for compression, and its impact, it is notable that there is no quantified case set out for its adoption. Synergen urges the RAs not to consider such an approach in the absence of any demonstrated cost benefit assessment.

If it is not demonstrated, and any assessment is not made available and open to critique, any decisions taken by the RAs to implement compression may prove to be open to challenge. Synergen would expect that any assessment would take account not only of the putative cost of capital savings (clearly only for plant that is financing or re-financing projects) but also any impacts on SMP and constraint costs.

5.3 Splitting

Synergen is concerned that splitting is (a) contrary to the future direction of the development of the unconstrained schedule, (b) contrary to the principles of the SEM design (c) will distort the unconstrained schedule, and is inefficient in terms of market outcome, and (d) there is no demonstrated net benefit for such an approach. These are addressed in turn.

Synergen's primary concern with market splitting is that it separates the unconstrained schedule from real time dispatch outcomes as a consequence of the use of uniform TLAFs for the creation of the market schedule, and some form of "live" TLAFs for dispatch.

This position, proposed by the SOs, appears to be wholly contrary to the RAs position on the relationship between the unconstrained schedule and real time dispatch expressed in the workshop held by the RAs to discuss the development of the Scheduling and Dispatch principles. In this context, the RA's consultants in discussion about SEM-09-073 clearly stated that the unconstrained schedule and dispatch outcomes are close to each other, and in principle should be closer. For the RAs to contemplate the splitting option requires an explicit consideration of this question both in the context of TLAFs and the future development of the Unconstrained Schedule.

Synergen considers that there is likely to be an impact on the Unconstrained Schedule position of existing and new entrant generators as a consequence of such an approach, and thus the distribution of revenues between generators. SOs' suggested on 9th December that there would be no impact on the merit order, but this appears to be very unlikely – indeed Section 9.2.2.1.2 of the consultation paper clearly accepts that there would be an impact on the unconstrained schedule. Synergen has the same concerns regarding the distortion of the merit order as are set out in the discussion on "compression" – but these concerns are greater with "splitting" as it moves beyond the suppression of a locational valuation of energy in terms of generator revenues, onto a removal of any locational valuation.

Synergen concurs with the position set out in the consultation paper that uniform losses are not compatible to the high level design. If the approach set out in Section 5.3.1 of the consultation paper is contrary to the SEM design, then Synergen believes that logically the approach set out in Section 3.2 is also contrary to it. For the avoidance of doubt, Synergen does believe that there are a number of areas where the SEM design needs to be changed. Radical changes may be required in the future and thus the SEM design is not sacrosanct. However, the principles in question here are around minimising cross-subsidies and locational signals and Synergen believes that these should not be diluted within the market's price setting mechanism¹.

In terms of the recovery of losses costs, the suggestion is that this would be through the TUoS mechanism. Regardless of the extent of any locational signal in TUoS, charging losses through this route recovers short term dispatch costs through long term investment horizon mechanisms.

Synergen prefers a postage stamping approach for TUoS as it doesn't believe that TUoS signals are a significant determinant of generator locational decisions. If TUoS is to a significant extent postage stamped, then the signal becomes more smeared. In essence it mixes up dispatch efficiency and locational signals (short term and long term efficiencies) and the outcomes are potentially perverse.

Synergen believes that there is no compelling case presented for adopting splitting – notably there is no cost benefit presented. As with any CBA on the other of the SOs' preferred options the impact on constraint costs needs to form part of the assessment.

5.4 Purchasing Losses

The SOs' approach to purchasing losses envisages a longer term approach, and in need of being worked up before it can fully appraised by stakeholders.

At this initial stage, Synergen has considerable reservation regarding this approach, as inevitably the question of how such costs are recovered becomes pre-eminent. Should this be through TUoS charging (as envisaged in the paper, and as also proposed for "splitting") then our concerns regarding the merging of what should be short term dispatch efficiency signals and investment timeframe decisions will be distorted.

In SEM-09-60 the SOs' view was that such an approach is inconsistent with the SEM design. Synergen believes that this remains the case, and this approach should be rejected by the RAs.

¹ Note – Synergen does not believe that TUoS charges fall within the market mechanism as they do not relate to the setting of SMP – such costs being recovered through the CPM, if at all, by generators.