



Integrated Single Electricity Market (I-SEM)

**Offers in the I-SEM Balancing Market Consultation Paper
SEM-16-059**

A Submission by EirGrid and SONI

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1 EXECUTIVE SUMMARY

EirGrid and SONI welcome the SEM Committee's consultation on the important issue of treatment of market power in the I-SEM.

We consider that either option proposed could sufficiently implement the market power mitigation strategy for balancing market offer submissions. In this document we outline some thoughts we believe need to be considered in choosing between the two options. We believe there are benefits and disbenefits to both the flexibility offered through Option 1, and the explicit certainty offered through Option 2, which need to be traded off in considering which option to implement.

We believe that it may be possible to include both options in the overall market power mitigation framework, being able to implement Option 1 as a default with the ability of putting into force Option 2 as potential issues have been resolved and as necessary. The move from Option 1 to Option 2 does not necessarily need to be considered for I-SEM go-live, and licence conditions could be drafted to allow for further development of this option post go-live.

The change in the design of the market in moving from the relatively static SEM to the more dynamic I-SEM requires an increased focus on market power between markets, timeframes and arrangements across the electricity value chain. We emphasise in this response the importance of being able to identify and mitigate market power across all of the timeframes in the I-SEM and also to consider external arrangements that may give rise to market power.

Finally, EirGrid and SONI would like to reaffirm our commitment to working with both the industry and the Regulatory Authorities (RAs) to assist in the development of effective and appropriate I-SEM arrangements and to support the delivery of the new market arrangements.

2 INTRODUCTION

2.1 EIRGRID AND SONI

EirGrid holds licences as independent electricity Transmission System Operator (TSO) and Market Operator (MO) in the wholesale trading system in Ireland, and is the owner of the System Operator Northern Ireland (SONI Ltd), the licensed TSO and MO in Northern Ireland. The Single Electricity Market Operator (SEMO) is part of the EirGrid Group, and operates the Single Electricity Market on the island of Ireland.

Both EirGrid, and its subsidiary SONI, have been certified by the European Commission as independent TSOs, and are licenced as the transmission system and market operators, for Ireland and Northern Ireland respectively. EirGrid also owns and operates the East West Interconnector, while SONI acts as Interconnector Administrator for both of the interconnectors that connect the island of Ireland and GB.

EirGrid and SONI, both as TSOs and MOs, have roles defined within the draft EU regulations that the I-SEM is required to comply with. We are committed to delivering high quality services to all customers, including generators, suppliers and consumers across the high voltage electricity system and via the efficient operation of the wholesale power market. EirGrid and SONI therefore have a keen interest in ensuring that the market design is workable, will facilitate security of supply and compliance with the duties mandated to us and will provide the optimum outcome for customers.

As the transmission system operator in Ireland, EirGrid is required to “take into account the objective of minimising the overall costs of the generation, transmission, distribution and supply of electricity to final customers”¹. SONI is required to facilitate competition in the supply and generation of electricity². Therefore as TSOs we have an interest in the prevention of Market Power.

Although EirGrid owns the East West Interconnector, this response is limited to reflecting the views of SONI and EirGrid in their roles of TSO, MO and Interconnector Administrator.

2.2 STRUCTURE OF THE RESPONSE

This document sets out EirGrid and SONI’s response to the SEM Committee’s consultation on I-SEM Offers in the I-SEM Balancing Market (SEM-16-059) published on the 7th Oct 2016.

Section 3 of the response provides an overview of the key points that EirGrid and SONI would like to emphasise as being of most importance.

¹ SI 445/2000, Article 8 (3)

² The Electricity (Northern Ireland) Order 1992, Article 12 (2)

Section 4 of the response provides our detailed comments on the specific questions posed in the paper, which underpin the key points in Section 3.

3 KEY POINTS

This section sets out the key points that EirGrid and SONI wish to make with respect to the Offers in the I-SEM Balancing Market consultation paper.

- The change in the structure of the market as a result of moving from the SEM to the I-SEM introduces the potential for more significant intertemporal market power and therefore requires an increased focus on monitoring market power between markets, timeframes, and arrangements across the value chain. There are a number of additional aspects of market power mitigation we believe need to be considered within the scope of future development of market power mitigation. This could be through consultations and decisions, licencing and governance developments, or information documents on the development of Market Monitoring Unit (MMU) processes.
- Great care needs to be taken when defining competitive behaviour, either through principles or through explicit limits, to ensure on one hand that market power is sufficiently mitigated to prevent market power abuse, and on the other that the appropriate degree of commercial risk is present to drive efficiency and innovation across the wholesale trading arrangements.
- We consider that both options may be suitable to sufficiently implement the market power mitigation strategy for balancing market offer submissions.
- We would like to highlight that there is potential to move from Option 1 to Option 2 in the future, and that the implementation of Option 2 would not need to be in place for I-SEM go-live. It would be possible to include a general licence condition to comply with requirements specified in the Bidding Code of Practice (BCOP), which could be updated subject to the appropriate processes being followed to ensure that the rights of participants continue to be respected. An update could introduce bidding limits within the BCOP if and when they are considered to be necessary and the appropriate procedures have been followed to enable their addition.
- The current approach of maintaining a BCOP would provide sufficient flexibility, allowing participants to make changes in prices which aren't related to exercising market power and allowing the MMU to make changes to the mitigation measures, while actively encouraging prices to be submitted in a way which prevents the exercise of market power.
- While Option 2 may be easier to operate from the point of view of removing ambiguity in the assessment of submission costs to determine whether market power is being exercised, the establishment and maintenance of the necessary benchmarks and methodologies to be applied in the assessment would be more difficult.
- We wish to reiterate the accuracy of the assumption that none of these options will have knock on implications for the Market Operator or Transmission System Operator systems or processes, and that it is expected that all studies and calculation work would be carried out by the RAs based on market surveillance data as already included in the scope of the market systems.

- As Incremental (“Inc”) Prices are a new aspect of the market, special consideration is needed on the appropriate cost-reflective levels of submission for these prices.
- In developing the final version of the documents for either approach, care is needed to ensure the approach does not contradict offer requirements (or the potential thereof) from other sources, such as the Electricity Balancing Guideline or system services agreements under some of the potential auction designs. This is particularly true for Option 2, where the requirement is explicit, whereas under Option 1 there is the possibility of flexibility to explain how prices submitted comply with all requirements.

4 EIRGRID AND SONI VIEWS ON THE CONSULTATION TOPICS

In the following section, EirGrid and SONI provide their comments on the topics discussed in the consultation paper and put forward its views on the consultation paper proposals and questions.

4.1 Q.1 DO YOU AGREE WITH THE PROPOSED APPROACHES TO OFFER CONTROLS IN THE BALANCING MARKET OUTLINED ABOVE?

4.1.1 MARKET POWER MITIGATION ASPECTS NOT IN CONSULTATION SCOPE

The change from the SEM to the I-SEM is significant in terms of impact on the market power mitigation strategy. It is important to understand how changes across the supply chain could diffuse or intensify market power in this context. Wording in the consultation document suggests that no further consultations or decisions would be needed if a principles based approach was decided upon as a result of this consultation. However EirGrid and SONI wish to reiterate the importance of developing and implementing other market power mitigation strategies, in addition to what is considered in this consultation, relating to intermarket and intertemporal impacts.

In particular, we believe the potential for market power in the interaction between the physical markets and other arrangements needs careful consideration. As market participants trading in the I-SEM energy arrangements may have market power arising from their participation in the other arrangements such as the capacity market, it would be important to ensure that impact of these other arrangements on trade in the all of the energy markets is fully considered in the market power mitigation framework.

Trading strategies in ex-ante market timeframes can be used to influence the outcomes in scheduling and dispatch, balancing market prices, and imbalance settlement, for example:

- Trading intentional imbalances which are not reflective of physical generation or demand to exaggerate the actual imbalance, which can influence the units scheduled in the ex-ante markets, and therefore the actions taken by the TSOs and the imbalance prices resulting;
- Limitations to unit-based bidding in the ex-ante markets to ensure participants are not representing all ex-ante trades in portfolios unintended by the market design.

The mitigation measures being considered only apply to generator units, and rely on licences as the means of enforcement. However other participants may be able to exhibit market power which results in adverse outcomes for the balancing market. For example assetless participants (which are not governed by licences and do not offer into the balancing market, therefore unaffected by the mitigation strategies considered in the consultation) may trade in a way in the

ex-ante markets which results in significant impacts to the balancing market prices and outcomes.

Some aspects which have been considered in past consultations, in particular the Energy Trading Arrangements (ETA) – Markets consultation, remain uncertain and need to be further developed as part of the market power mitigation strategy. This includes the ability for participants to update Physical Notifications (PNs) and Commercial Offer Data (COD) until the gate closure for the balancing market (one hour ahead of an Imbalance Settlement Period). A participant could exercise market power through how it changes COD to take advantage of the timing differences between System Operator scheduling runs, issuance of dispatch instructions, notice times, and the requirement to wait until the last possible moment to instruct units (“last time to call”).

In particular measures relating to PNs need to be considered, including:

- The link between Final Physical Notifications (FPNs) and the position of a unit due to their ex-ante market trades;
- The physical feasibility of PNs;
- The change in PN submissions over time (which could influence scheduling and dispatch outcomes, and could be a driver for changing parameters relating to Information Imbalance Charges); and
- The approach for determining whether or not Trade Opposite TSO settlement functionality will be utilised, where PN changes after a balancing market volume has been accepted by the TSOs could increase this volume.

4.1.2 MARKET POWER MITIGATION ASPECTS IN CONSULTATION SCOPE

EirGrid and SONI do not have a strong view on what the exact definition of competitive behaviour and pricing should be, but wish to highlight that great care needs to be taken when making this definition as the measure forms the basis for all assessments of outcomes, which in turn influences behaviour. While market power mitigation measures should be designed to ensure that units cannot exercise market power in the prices they submit, they also need to provide sufficient flexibility and to ensure that the appropriate level of commercial risk is present in the market arrangements to drive efficiency and innovation.

There is no consideration of circumstances where participants may not be exercising market power through deviating from their Short Run Marginal Cost (SRMC). For example, there may be legitimate reasons for a participant to offer based on their Long Run Marginal Cost (LRMC) while not exercising market power, if a unit has their revenue streams restricted by being unsuccessful in other arrangements such as the capacity market or system services, and rely on the energy markets to recover their capital costs. Whether this is an intentional aspect of the market power mitigation strategy needs to be considered.

In developing the final version of the documents for either approach, care is needed to ensure the approach does not contradict offer requirements (or the potential thereof) from other

sources such as the Electricity Balancing Guideline or system services agreements under some potential auction designs. This is particularly true for Option 2 where the requirement is explicit, whereas under Option 1 there is the possibility of flexibility to explain how prices submitted comply with all requirements.

An example of this is if the Guideline requires certain conditions to be followed around caps or floors on bids and offers. Option 1 does not create explicit caps or floors as part of the market power mitigation strategy and therefore could allow for a wider range of situations where sanctions could be considered against participants in breach. The limits calculated as part of Option 2 could be interpreted as a cap or floor, which may reduce the range of allowable values for such limits and therefore reduce the range of situations where sanctions could be considered against participants in breach. While the lack of an explicit value in Option 1 may make it more difficult to implement sanctions, it may be a benefit if it means it would not be considered a cap or floor.

Clarification is also needed in the final version of the documents for either approach as to whether Shut Down Costs, as the equivalent to Start Up Costs for Demand Side Units, are also in the scope of COD items considered.

4.2 Q.2 WHICH OF THE OPTIONS IDENTIFIED WITHIN THIS CONSULTATION PAPER WOULD BE MOST APPROPRIATE FOR THE INTRODUCTION OF OFFER CONTROLS UNDER I-SEM?

4.2.1 OPTION 1

Maintaining a principle based approach would have more flexibility than a more explicit approach such as using formulae or calculating limits. The approach allows changes in prices which are not related to the exercise of market power to be reflected in bid/offer submissions and allows for changes to the mitigation measures as determined through monitoring and assessment of competitive behaviour. The principle approach should actively encourage prices to be submitted in a way which prevents the exercise of market power, providing a benchmark for assessing whether this is the case, and where breaches are found, allowing intervention.

In the advantages to Option 1 outlined, it is stated that no further consultation and decision papers would be required from the SEM Committee. As we've highlighted in section 4.1.1, we wish to reiterate the importance of developing other aspects of the market power mitigation strategy which have not yet been addressed. This could be through consultations and decisions, licencing and governance developments, or information documents on the development of MMU methodologies and processes.

In the disadvantages to Option 1 outlined, it is stated that there have been challenges in the SEM as to whether to include, and how to value, a number of cost items. This challenge would remain under implementing Option 1 or Option 2, the only difference would be when, and the

frequency at which, it would become an issue. Under Option 1 it may become an issue as cases for breach of the code are brought forward, whereas under Option 2 it may become an issue in the development of the methodologies for calculating the limits, and over time as the limits are recalculated. As this would be implemented through the licence, the process followed should ensure that rights accorded in law relating to modifications to licences are respected.

Also discussed in the disadvantages is that high prices may result from an invisible perceived boundary of RA enforcement action. This differs from the explicit actual boundary of RA enforcement action. There is a trade-off between the flexibility of enforcement afforded by the invisible boundary and requirement for strong enforceability to limit the potential for submission of prices higher than that interpreted by the RAs as being the optimal cost-based price. With an explicit limit under Option 2, prices above the limit would not be expected in submissions, whereas cases for submitting prices above this level could be made under Option 1. However if a participant submits a price just below that limit, under Option 2 there are much smaller grounds for claiming that they are in breach, despite being at a near equivalent level of price submission to that which would be considered in breach.

One resolution for this would be to consider a tolerance band around the limit, stating that submissions within that tolerance band could be considered for cases of breaching the limit. However this may just move the problem to the lower level of this tolerance band. Under Option 1, at all levels of price submission a case may be argued for being in breach of the principles, however because of its flexibility more effort would be required in detailing why that is the case than under Option 2. Under Option 2, there is extra certainty in presenting cases for being in breach of a limit, however the option's lack of flexibility places a lot of focus on fine-tuning the limit calculated so that it allows for sufficient flexibility while ensuring that prices submitted just below the limit are sufficiently cost reflective.

The ETA – Building Blocks decision also sets out obligations for the formulation of prices of certain participants, in particular for priority dispatch units. These may need to be either directly reflected in the principles, or at least must be taken into account in the final drafting of the BCOP to ensure there is not a conflict between the decision and the BCOP obligations.

4.2.1.1 NOTES FOR DETAILED DRAFTING OF CODE AND LICENCE TEXT

Draft text in the annexes mentions a “Single Market Operation Business”. It should be sufficient to refer to participant submission of Commercial Offer Data under the Single Electricity Market Trading and Settlement Code, as the entity to which they submit this data is stated in that document. If it is desired to mention an entity, “Market Operator” is the entity defined in the Trading and Settlement Code to which participants submit Commercial Offer Data. This applies to paragraphs 2 and 3 of the draft Code, paragraphs 1, 4 and 6 of the draft Balancing Market Offer Principles (BMOP) licence conditions, and paragraphs 1, 6 and 8 of the draft Balancing Market Offer Limits (BMOL) licence conditions.

As Decremental Prices are a new aspect of the market, special consideration is needed on the appropriate cost-reflective levels of submission for these prices. In the draft Code, paragraph 25 suggests that paragraph 7A should define the short run marginal cost for decremental price curves as well and incremental price curves, but paragraph 7A seems to consider the costs of increasing generation by one MWh. In the ETA – Markets consultation, it was considered that the costs for decreasing power output could be different to the costs for increasing power output over the same operating range, and hence the concept of Incremental and Decremental offer curves was created. Applying the same set of principles for calculations of prices in both curves suggests that the same prices should be submitted for the same operating ranges. It would be worth clarifying, in combination with the ETA – Markets decision, whether this is the intention (e.g. it may be the intention that having differences between Incremental and Decremental prices should be reserved for simple offer data submissions, not for complex offer data submissions). If this is not the intention, care needs to be taken in the drafting of the code text to ensure it is not the resulting obligation.

On a point of drafting style in the draft Code, we would suggest that the “A” in paragraph 7A is not needed, and that the paragraph for decremental offers (25) should be incorporated into the section for price components (i.e. following paragraph 8) rather than following the section for no-load components.

In paragraph 33 of the draft Code, the example given for an energy limited unit is the optimisation horizon for a pumped storage unit. However this is no longer an accurate representation of the scheduling of a pumped storage unit. A more relevant example may be an Energy Limited Unit in the Trading and Settlement Code, which for example could be a run-of-river hydro unit, which submits an Energy Limit for the Trading Day.

In paragraph 9 of the draft Code, in addition to the clarification around acquired ex-ante trading position, it may also be worth clarifying that the condition still needs to be maintained if the unit is already physically on and generating.

The draft text for the licence conditions for implementing limits place a large amount of obligations on the RAs in the generator licence. Some obligations or rights for the RAs are stated in the draft text for the BMOP licence conditions, but they are always referencing the effects these RA rights or obligations have on the licencees. We suggest either a similar approach is needed for the BMOL conditions, as otherwise there are standalone RA obligations in a document with which they would not be required to comply.

4.2.2 OPTION 2

There may be merit in considering explicit limits, and as explained in this response there are a number of issues which need to be considered in the development of these limits. However the framework could be developed in a way that Option 1 could be implemented for I-SEM go-live and could be maintained as the default, with Option 2 being implementable later or periodically

implemented as deemed to be required. This allows for flexibility in the market power mitigation strategy to work through the challenges associated with both options, and adapt the implementation approach as experience is gained in the effectiveness of different approaches. Licence conditions could be drafted in a way which requires compliance with both the BCOP, under Option 1, and anything published reflecting the intentions of the BCOP, such as limits under Option 2. This means that the licence conditions required for I-SEM can be drafted within the timelines required for go-live, while allowing for more work post I-SEM go-live for the implementation of Option 2 if desired. The process followed to implement any modifications or additions should preserve the relevant rights in law of the parties affected.

We wish to reiterate our assumption, and our interpretation of the statement in the consultation paper, that the introduction of such measures would not impact on TSO or MO systems or processes. We assume that the MO and TSOs would not be required to change systems to incorporate such limits, or carry out any of the studies required for the calculation of such limits. Any option which involves the TSOs or MO switching offer data to another set of data, or calculating offer limits, could be perceived as the TSOs or MO intervening in the bidding process, even with transparent methodologies, mechanistic or external non-subjective triggers, and the data being supplied by participants or regulators.

While Option 2 may be considered easier to operate from the point of view of removing ambiguity in the assessment of submission costs to determine whether market power is being exercised, the establishment and maintenance of the benchmarks and methodologies to be applied in the assessment may be more difficult. There could be trade-off between transparency and resource intensity depending on the level of detail included in a methodology, and the level of consultation on and update of this methodology. There would be an appetite for highly detailed and robust modelling and analysis work. This may be more resource intensive than the case-by-case detailed investigations of non-compliance with the principle based approach.

In addition to this, Option 2 may not actually be easier to operate as expected in the consultation paper. Whether the limits are fit for purpose would be constantly scrutinised and potentially challenged, on both sides (i.e. if the limits are too low to allow for flexibility and recovery of costs, or if they're too high to act as a useful means of mitigating market power). Also, as highlighted in the consultation paper, the could act as a signal for participants to submit values just below what is allowed (with the potential for encouraging implicit cross-market collusion using published information), with the limit-triggered action potentially restricting the RAs from being able to investigate the potential for exercise of market power with those participants who submit very close to, but below, the limit.

Under this option as outlined in the consultation paper, the efficiency gains from participants would not be expected to be incorporated into the prices submitted, so consumers may not gain access to these cost savings. The MMU would need to carry out further research into the efficiency gains by participants so that they could be incorporated into the offer limits calculated. The incorporation of efficiencies into the limits may be challenging from the point of

view of finding accurate information on the savings. Participants would be best placed to know this information, but it would not be in their interests to have the limits reduced as it would result in their inframarginal rents being reduced.

The question of whether limits should be technology-wide or individual would also need to be resolved. Technology based limits would seem to be the most equitable as it is treating similar participants the same, and could drive the most innovation as there are very clear signals from a single limit for all participants under that technology type to compete against each other. However there may be strong arguments for exceptions where, for example, some participants of a certain technology type have made efficiency gains which the RAs intend to incorporate into a decrease in the offer limits, but other participants have not made these efficiency gains and argue for a separate limit to apply to them to reflect their costs.

A number of options exist for how to implement this, each of which appear to have benefits and shortfalls in trying to meet the goals of these limits:

- Incorporate efficiency gains in a reduction of a technology-wide limit once a critical mass of participants have achieved the gains, but despite some participants having not yet achieved these efficiency gains. This would likely result in cost recovery issues for those participants who have not yet achieved the efficiency gains, which could be argued to be inequitable treatment, but which also may be a strong means of driving efficiencies as it requires those participants to make the efficiency gains in order to ensure cost recovery, and encourages continuous innovation in order to maintain inframarginal rents with reducing limits;
- Only incorporate efficiency gains in a reduction of a technology-wide limit once all relevant participants have achieved these gains. This would result in quite slow changes to these limits, where consumers do not have sight of the reduction in generation costs for longer in order to be equitable to all participants. It may also slow innovation to drive efficiency, as participants may feel they are earning sufficient inframarginal rents from the limits being maintained at a higher level for longer that there is little incentive to innovate further;
- Implement individual participant limits so that efficiency gains can be incorporated into the limits of those who made the gains, and higher limits can be maintained on those participants who have not yet made those gains. A more granular, participant-specific limit may be less effective at incentivising innovation to create further efficiency, as it is easier to reduce the limits to match efficiencies. If limits can be adjusted more frequently to reflect these efficiency gains, the inframarginal rent benefits would be eroded quicker, so that there may be a lower perceived benefit in achieving these gains.

Under Option 1, assuming that the perceived boundary of RA enforcement is sufficient to discourage submitting offers above cost, there appears to be more of an onus on participants to incorporate efficiency gains into their offers. Competing in the way envisioned for Option 2 seems to assume the principle of participants offering in a cost-reflective manner is no longer the intention. Instead the principle seems to be for the RAs to determine the cost reflectivity of offers, and for participants to bid at that level, increasing their inframarginal rents by decreasing

their actual costs, creating an intentional disconnect (or at least a temporal lag) between the actual cost reflectivity of offers and the offers submitted. It must be considered if this change in principle is intended as an outcome of the I-SEM market power mitigation strategy.

The means of implementing obligations on participants needs to be cognisant of this disconnect also, to ensure there is no conflict between obligations, for example between principles and limits if the participant is required to be compliant with both. If participants are obliged to offer cost reflectively under principles (for example under paragraph 4 of Annex 1 of the consultation document), but are allowed/expected to offer above their actual costs under limits (as explained through the text of the consultation document), this may cause a conflict between obligations and rights.

While modelling and prediction of future revenues is stated as an advantage of Option 2, this is not necessarily an intended outcome of the market power mitigation strategy. It may become more difficult to predict the bidding behaviour of market participants when explicit limits are used than when principles alone are used. This is because, under a principle approach, one could make assumptions that participants will submit cost reflective offers, that these costs will be based on market fundamentals, which can be forecasted or assumed to a certain extent. However, under an approach which utilises limits, a new assumption needs to be made about whether all, or some, participants will submit in a cost reflective way or a limit reflective way. The differences in offers between these binary assumptions could be significant to the point where it becomes a key sensitivity affecting the ability to accurately forecast potential outcomes.