



# **Integrated Single Electricity Market (I-SEM)**

## **Energy Trading Arrangements (ETA) Markets Consultation Paper**

### **Grange Backup Power Ltd Response**

**SEM-15-038**

**05 June 2015**

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## PURPOSE OF THIS DOCUMENT

### 1.1 PURPOSE AND STRUCTURE OF THIS DOCUMENT

- 1.1.1 This supplementary document provides a template for responses to the [ETA Markets Consultation Paper \(SEM-15-026\)](#). We request all responses to the consultation are submitted in this template, and in **Microsoft Word** format.
- 1.1.2 This template contains the questions presented in the consultation document.
- 1.1.3 Responses to the Consultation Paper are requested by 17:00 on 5 June 2015. Following a review of the responses to this paper the SEM Committee will publish its decision on the proposals set out in this paper in September 2015.
- 1.1.4 Responses should be sent to Kenny Dane ([kenny.dane@uregni.gov.uk](mailto:kenny.dane@uregni.gov.uk)) and Kevin Hagan ([khagan@cer.ie](mailto:khagan@cer.ie)). Please note that the SEM Committee intends to publish all responses unless marked confidential<sup>1</sup>.

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<sup>1</sup> While the SEM Committee does not intend to publish responses marked confidential please note that both Regulatory Authorities are subject to Freedom of Information legislation.

## 2 CONSULTATION QUESTIONS

### 2.1 RESPONDENT DETAILS

COMPANY	Grange Backup Power Limited
CONTACT DETAILS	Cassandra Ryan
MAIN INTEREST IN CONSULTATION	New Entrant Flexible Generator

### 2.2 GENERAL COMMENTS

Grange welcomes the opportunity to respond to the ETA Detailed Design consultation.

In summary our high level comments are as follows:

1. Grange is in favour of minimizing early TSO actions in order for the ex-ante markets to economically and efficiently balance supply and demand energy. The TSO should only have to commit or de-commit generation in advance of intraday gate closure. Grange believes that progressing proposal 2 – defined principles and contingency reserve monitoring better fits with the above objective while in keeping with the role of the TSO to maintain a safe and secure system.
2. Grange believes that interim regional continuous IDM and IDM auctions should be explored further. Issues in the current XBID project such as interconnector losses and pricing of congestion may not be overcome in time for a regional continuous IDM but could be surmounted by implementing auctions.
3. The following are Grange comments in relation to physical notifications:
  - a. Submitting PNs on each hour as a minimum is more reasonable for smaller participants. Market systems could also facilitate more frequent submissions.
  - b. Grange does not agree that wind units shouldn't be able to submit PNs. See section 4 for rationale.
  - c. Grange believes that Option 3 is optimal as it facilitates trading and notification flexibility.
  - d. Grange does not agree with the implementation of the information imbalance charge for the reasons outlined in section 4.
4. In relation to form of offers, bids and acceptances:
  - a. Grange is in agreement with the use of Absolute MWh form as it is a transparent method and can be easily used for bid/offer resubmission
  - b. Grange is in favour of representing explicit start-up costs with bids and offers

- c. Grange sees merit in progressing the freezing of accepted bids and offers and undo methodology ahead of the other options.
5. Interactions between the Balancing Market and the Intraday Market:
  - a. Grange proposes substitutive PNs should be implemented for the reasons outlined in section 6.
  - b. Grange requests more clarity in relation to the implementation of PNs and their links to imbalance settlement
6. Regarding system services Grange agrees that a unit that is deployed for reserves should be constrained to the minimum extent possible in the IDM and that market power issues should be dealt with in a market power framework rather than the market rules.
7. Strong imbalance and cost reflective price signals are important to promote greater participation and encourage investment in flexible generation and demand response. Grange sees merit in the price based method -unconstrained unit actual dispatch approach above the other options to improve cost reflectivity, provide appropriate signals to current participants and new entrants and allows a more nuanced algorithm approach to a highly constrained system.

## 2.3 SYSTEM OPERATION IN THE I-SEM (CHAPTER 2)

Question	Answer
<p>1. What are the impacts of early action by the TSOs on the Intraday Market?</p>	<ul style="list-style-type: none"> <li>• Early actions by the TSOs impact the liquidity of the intraday market</li> <li>• Risks of undoes and late undoes, resulting physically infeasible schedules and imbalance charges could limit units from actively taking part in the IDM once BOAs have been received</li> <li>• Updates to market conditions as the balancing market window reduces could result in multiple bid/offer acceptances which increase the complexity of managing trading volumes and risk and reduce the efficiency of the IDM and the efficiency of cross border flows.</li> </ul>
<p>2. What measures can be taken to minimise early actions by the TSOs?</p>	<ol style="list-style-type: none"> <li>1. The TSO should only have to commit or de-commit generation in advance of intraday gate closure.</li> <li>2. Grange agrees Dispatch Balancing incentives should remain in the I-SEM. These could cover all Balancing Market bids and offers covering energy and non-energy actions. Even if substitutive PNs are implemented the replaced bids or offers should be accounted for when assessing whether targets have been breached. Substituted PNs may be an indicator that an early action was not required.</li> <li>3. Grange believes that there is more merit in progressing Proposal 2 than Proposal 1. The time based proposal is too vague and subjective and the status quo of setting this time to 'early' for the I-SEM go live may persist into the future. The current portfolio may not be encouraged to evolve or upgrade if units with long start times are committed before the day ahead market closes and can subsidise their entry into the DAM. These units may wish to limit the reduction of the time. Focussing proposal 2 on operational security and operational/security parameters is more transparent and in keeping with the role of the TSO.</li> <li>4. Grange agrees that the proposal for the TSO to report on early TSO actions should be implemented with option 1 or 2.</li> </ol>

## 2.4 EX-ANTE MARKETS (SECTION 3)

Question	Answer
<p>1. Which of the three options put forward for interim IDM arrangements is most appropriate?</p>	<ul style="list-style-type: none"> <li>• For interim IDM arrangement limiting the IDM to the I-SEM zone impacts using the interconnectors efficiently and limits the liquidity of the IDM as participants cannot access cross border volumes and prices. Relying on the TSO countertrading after DAM would be a regressive step for electricity markets compared to the current SEM intraday auctions and implicit allocation of interconnector capacity. Grange would not be in favour of this option</li> <li>• A GB IDM already exists and therefore there is an increased likelihood that this market could be extended to encompass the I-SEM zone in time for go live. However the challenges of coupling of the zones, pricing of congestion and treatment of losses, which have to be surmounted by the XBID project, would also need to be resolved.</li> <li>• If continuous IDM trading issues could not be overcome or are considered too onerous to be implemented in time for go live intraday auctions should be considered. As the EU DAM has already been implemented in GB the provision of additional intraday products may be welcome and implementation issues may not be as onerous as the continuous IDM.</li> </ul>
<p>2. Should intraday auctions be implemented in I-SEM? Are there any advantages to those auctions not described in this paper?</p>	<p>If interim auctions are to be considered it would be practical to consider the implications of maintaining them permanently in I-SEM. A balance would need to be struck between the number of auctions and the potential liquidity available for continuous trading.</p>

## 2.5 PHYSICAL NOTIFICATIONS (SECTION 4)

Question	Answer
<p>1. What are your views on the timing of PN submissions to the TSO</p>	<p>Grange accepts that the earliest and most up to date PN information is beneficial to the TSO and also aids in the minimisation of early BM actions. Consideration needs to be given the burden of submissions placed on smaller participants.</p> <ul style="list-style-type: none"> <li>• Within [x] minutes of an IDM trade being completed may be onerous to implement if frequent trades are being matched in the IDM. Participants need sufficient time to convert trades into physical nominations. Even if it isn't a requirement until the FPN to submit a physically feasible nomination sufficient time will still be required. Time to do this may differ from participant to participant.</li> <li>• Within a change of [y] MW of previous PN is a difficult number to establish per unit and per participant as capacities of units in the SEM have a wide range. If 50MW was the change value a smaller unit with a change of 10MW may not update a PN until gate closure. Too small a change value may result in too frequent a submission update which could be onerous for smaller participants.</li> <li>• Submitting updated PNs on each hour as a minimum would be more reasonable for smaller participants. Participants, depending on system implementations, could also submit more regularly.</li> </ul>
<p>2. What are your views on the removal of the requirement on wind generation and non-dispatchable demand to submit PNs</p>	<ul style="list-style-type: none"> <li>• It is a concern that if wind and non-dispatchable demand forecasts improve or are better than the TSO forecasts then this information will not be available to the TSO or the market.</li> <li>• While noting that the submission of PNs may be onerous for smaller participants or suppliers Grange believes that all units should have the choice to submit PNs. For example if a wind unit does not wish to generate according to its forecast but store wind power in a storage unit which may or may not be in the market the TSO may not know to update its forecasts to take this into account and may take BM actions that are not necessary. The materiality of these scenarios may increase in the future as the All Island portfolio evolves.</li> </ul>
<p>3. What are your views on how PNs from participants should be linked to their ex-ante trades and what are your opinions on which of the three options outlined in this chapter is optimal</p>	<p>There is merit in not having to submit physical notifications linked to ex ante trades until gate closure. However it does seem likely that the TSO and participants would require updated traded positions to judge the validity of the PNs before gate closure and to assess trading conditions. A unit sitting behind a constraint may indicate an intention to generate in PNs then withdraw that capacity while inflating offers to generate in the Balancing Market. Unit traded positions versus submitted PNs would need to be monitored to mitigate market power abuse. This scenario could also apply to option 3. Grange believes that at this time Option 3 is optimal as it facilitates trading and notification flexibility.</p>



for I-SEM.	
<p>4. What are your views on the potential for the inclusion of an information imbalance charge. In addition, comment is sought as to whether this issue is best addressed under the generator performance incentives.</p>	<ul style="list-style-type: none"> <li>• Grange is not in favour of an information imbalance charge. EUPHEMIA poses challenges for physically feasible schedules in the Day Ahead market. Sculpting during the IDM will be necessary for many units. It is not clear on a unit basis if XBID orders will provide enough flexibility for full physical feasibility to be achieved through commercial trades. This may result in units carrying imbalance volumes or differences between a unit's metered quantity and FPN. If the imbalance price signal is strong enough units should be incentivised where possible to minimise these imbalance volumes. A further incentive should not be required.</li> <li>• Incentivising early submission of PNs interferes with the efficiency of the IDM and the flexibility of participants' trading strategies. Penalising units for perceived inaccurate information because the TSO requires a long balancing market window is not reasonable. Units will then default to matching PNs to ex ante trades at all times so the TSO cannot challenge the accuracy of the information provided. Intended physical running information available at an earlier stage would then be lost.</li> <li>• As already outlined in the paper BETTA has a charge rate of zero for the last 15 years. This is not a strong indictment for the implementation of this charge.</li> <li>• The uninstructed imbalance method in the SEM can be carried over to the I-SEM and therefore removes the requirement for an information imbalance charge or a generator performance incentive.</li> </ul>

## 2.6 FORM OF OFFERS, BIDS AND ACCEPTANCES (SECTION 5)

Question	Answer
<p>1. Which of the proposed formats should be used for bids and offers for deviating from PNs?</p> <ul style="list-style-type: none"> <li>• Simple MWh</li> <li>• Relative MWh</li> <li>• Absolute MWh</li> </ul>	<p>Grange is in agreement with the use of the Absolute MWh format for bids and offers to deviate from PNs.</p> <ul style="list-style-type: none"> <li>• Grange believes implementing the Absolute MWh method is less onerous for smaller participants and participants with unit costs curves that may not need to be updated as regularly as other units</li> <li>• Grange agrees with the ability to submit separate cost curves for being instructed up and instructed down.</li> <li>• For market monitoring or market analysis purposes using the Absolute MWh format should be more straightforward to analyse without having to factor in changing PN volumes.</li> <li>• Regardless of the format chosen resubmission of bids and offers will be necessary to reflect changes in market conditions and costs.</li> </ul>
<p>2. How should fixed costs be represented within bids and offers?</p> <ul style="list-style-type: none"> <li>• Explicit start up contracts</li> <li>• Block bids</li> <li>• Explicit start-up (and no load) costs</li> </ul>	<p>On balance Grange believes that explicit start up and potentially no load costs should be represented in conjunction with bids and offers.</p> <ul style="list-style-type: none"> <li>• Grange is not in favour of start-up contracts. They are a less transparent and more subjective method for procuring services. If the remuneration of these costs is not included in imbalance pricing but could have been classified as an energy balancing cost imbalance pricing cost reflectivity is impacted.</li> <li>• Reflecting block bids in DAM EUPHEMIA is complex and limits on the number of bids will be necessary for the algorithm to perform. This same issue would apply to the balancing market systems. Explicit start costs can be more easily implemented in balancing market systems without impacting system performance.</li> <li>• Explicit start-up costs can feed through to the unconstrained imbalance pricing method</li> <li>• Explicit start-up and no load costs are more transparent for market monitoring and analysis</li> <li>• No load costs could be factored more easily into bid/offer costs curves than start costs</li> <li>• Generators should be allowed to put elements of their fixed costs into their energy bids if they so choose.</li> </ul>
<p>3. Should it be possible to rebid offer and bid prices following an acceptance? Three options are proposed:</p> <ul style="list-style-type: none"> <li>• Fixing prices of accepted bids and offers</li> </ul>	<ul style="list-style-type: none"> <li>• Grange is not in favour of freezing all prices. This removes trading flexibility for market participants and the TSOs. It also prevents the costs of changing market conditions from feeding through to the real time market, thereby limiting the cost reflectivity of the imbalance price</li> <li>• Grange accepts that there is merit in freezing of accepted bids and offers and also in using the undo methodology. Due to the early opening of the balancing market Grange is concerned that the corresponding bid or offer of the accepted bid or offer would be frozen. This is due to the risks that participants face</li> </ul>

<ul style="list-style-type: none"> <li>• Undo prices</li> <li>• Freezing all prices</li> </ul>	<p>such as changes in costs during the lengthy timeframe the balancing market is open; the risk of physically infeasible PNs if the TSO unwinds a BOA after a participant has secured further trades in the IDM, especially after the IDM has closed. These concerns also apply to frozen undoes attached to accepted bids and offers.</p> <ul style="list-style-type: none"> <li>• A potential option to consider is depending on the length of time a BOA was in place before it was unwound an increasing proportion of costs could be recovered. This option would also incentivise the TSO to minimise early BM actions.</li> </ul>
<p>4. Should open or closed instructions be used to move participants away from their PN?</p>	<ul style="list-style-type: none"> <li>• While there may be an increase in frequency of closed instructions in the I-SEM compared to closed instructions Grange agrees that closed instructions provide more clarity, if not necessarily additional certainty, to participants and clearer tracking of instructions versus DAM, IDM and BOAs especially if substitutive PNs are implemented.</li> </ul>

## 2.7 INTERACTIONS BETWEEN THE BALANCING MARKET AND INTRADAY MARKET (SECTION 6)

Question	
<p>1. Which of the options put forward should apply to participation in the IDM in the event that the TSOs take a balancing action pre-gate closure:</p> <ul style="list-style-type: none"> <li>• Freeze PNs</li> <li>• Additive PN Changes</li> <li>• Substitutive PN Changes</li> </ul>	<p>Grange believes on balance that substitutive PN changes should be applied to participation in the IDM for the following reasons:</p> <ul style="list-style-type: none"> <li>• Access to liquid markets is essential for all market participants to manage balance responsibility and trading risks. Freezing PNs would limit liquidity and potentially force more volume into imbalance.</li> <li>• Grange agrees that additive PNs could unnecessarily distort the IDM. In relation to a unit's start cost being paid for by the consumer in any event there is an alternative argument to consider. In the IDM an alternative unconstrained unit may be able to more efficiently cover more trading periods than the pre-BM unit in the IDM. The pre-BM unit can now enter the IDM and additional trading periods surrounding the periods it has a BOA for because it has recovered its start costs so does not need to recover them. As the early action does not have the latest market information the efficiency of the IDM will likely be reduced.</li> <li>• However the above scenario can also occur for substitutive PNs. For e.g. in the event a pre-BM unit has a BOA for 4 hours, including the recovery of a start, the unit may be able to compete in surrounding trading periods knowing its costs are covered by the BOA, regardless of whether an IDM trade substitutes the BOA. This could be at the expense of an efficient unconstrained unit.</li> <li>• Complexity of implementation is a concern in addition to the complexity of monitoring the level of BOAs being substituted by IDMs. Monitoring the level of substitution may form an essential measure of the impact of pre-BMs on the IDM and whether too many pre-BM actions are being taken.</li> </ul>
<p>2. If the substitutive PN Changes option is taken, there are two further options for swapping out or netting IDM trades against bid-offer acceptances:</p> <ul style="list-style-type: none"> <li>• If the participant wishes to trade in the IDM and substitute the bid-offer acceptance they will need to</li> </ul>	<ul style="list-style-type: none"> <li>• Given early actions may already provide a cost advantage to pre-BM units wishing to trade additional volumes above the pre-BM volume and additional trading periods around the pre-BM trading periods the IDM Grange believes that locking in a premium which hedges the imbalance price volatility is a further disadvantage to unconstrained units competing in the IDM.</li> <li>• Other participants without pre-BM BOAs are trading in the IDM based on the expectation of the imbalance price and without the imbalance price volatility hedge. It would seem to Grange that the first option is the most transparent and that where possible early actions by the TSO should be minimised so the markets can clear energy volumes as efficiently as possible. Reducing early actions would also reduce the</li> </ul>

<p>achieve a more advantageous price in the IDM than the bid-offer acceptance price</p> <ul style="list-style-type: none"> <li>• Implement a methodology which sees the unit lock in the premium above or below the imbalance price through the bid-offer acceptance</li> </ul>	<p>likelihood of an unwound BOA creating an infeasible PN. It should be considered that unwinding of BOAs cannot be implemented after IDM gate closure. It would be expected that the risk of imbalances from infeasible PNs due to the unwinding of a BOA would be priced into whichever undo method is selected.</p>
<p>3. Which of the three options put forward for dealing with “Trading in the Opposite Direction” should be implemented:</p> <ul style="list-style-type: none"> <li>• No specific consideration of this would be reflected in the market design</li> <li>• Implementing a rule that would prohibit PN changes that increase the quantity of any offer or bid acceptances</li> <li>• Permit PN changes in either direction but, in the settlement of the offer or bid acceptances, to limit the quantity on which the premium is payable, such that a change in PN cannot increase this quantity</li> </ul>	<p>Grange maintains the options described below do not clearly link with the settlement options in section 9 so it is difficult to come to a conclusion on a suitable option.</p> <ul style="list-style-type: none"> <li>• Grange is in agreement with the issues raised in option 1</li> <li>• The 2<sup>nd</sup> option could impact IDM liquidity</li> <li>• The way the 3<sup>rd</sup> option is described implies that a unit may have successfully completed arbitrage trades only to receive the imbalance price on an additional accepted offer which could be below cost.</li> </ul>

## 2.8 TREATMENT OF SYSTEM SERVICES (SECTION 7)

Question	Answer
<p>1. What are your views on the proposal whereby a unit that is deployed for reserves should be constrained to the minimum extent possible in the IDM</p>	<p>In general Grange is in agreement with the principle and believes increased liquidity would be available in the IDM but have concerns about the:</p> <ul style="list-style-type: none"> <li>• Ability of heavily constrained units to manipulate day ahead markets. The larger incumbents have many units with active constraints and could use the BM to subsidise entering the day ahead markets at the expense of smaller participants or unconstrained units.</li> <li>• Additional concern that initially, in particular, the TSO will schedule both early energy and non-energy actions more frequently as SEM transitions to I-SEM and that this status quo will continue and limit other units' access to IDM volume.</li> </ul>
<p>2. Are there any market power issues that need to be specifically addressed in relation to System Services?</p>	<p>This is a market power issue that does not warrant market rules that prejudice all commercially driven actions as market power abuses.</p>
<p>3. Which of the two approaches should be utilised where the TSOs have to schedule a plant before the opening of the Balancing Market:</p> <ul style="list-style-type: none"> <li>• A system services framework would be used to contract with those generators that need to be scheduled prior to the BM opening.</li> <li>• The TSOs would use incremental offers and decremental bids from previous trading day to call a plant pre-BM.</li> </ul>	<p>Grange would prefer a market mechanism to call a pre-BM unit as this is a more transparent and competitive method.</p> <ul style="list-style-type: none"> <li>• It prevents an unintended reliance on TSO discretion to call on certain units through a warming contract. In other words through BM incs and decs the whole of the portfolio is available to the TSO in the dispatch scheduling system instead of a subset of units.</li> <li>• As the portfolio evolves with more flexible generation and demand side response there will be an automatic change to dispatch scheduling and a reduction in the requirement for early TSO actions as opposed to having to forecast when warming contracts are no longer required.</li> <li>• Minimising the number of specific bilateral contracts which can only be served by a subset of units is essential in a competitive and transparent market.</li> <li>• Also the bids and offers accepted by the TSO for units with long notification or ramping times can be monitored more easily through market publications.</li> </ul>

## 2.9 IMBALANCE PRICING (SECTION 8)

Question	Answer
<p>1. What are your views on the Tagging and Flagging Approach. A “cause” based method for identifying energy and non-energy actions with the imbalance price being set only on energy actions.</p>	<p>Grange is of the view that a tagging and flagging method for imbalance pricing is not suitable for the I-SEM for the following reasons:</p> <ul style="list-style-type: none"> <li>• National Grid in GB produces a Flagging methodology statement which is not audited by OFGEM currently. Grange is not in favour of a methodology that would not come under audit review, given the importance of the formation of imbalance price.</li> <li>• Method has layers of processing from real time to post processing which can’t be replicated easily by participants and is complex to monitor and isn’t very transparent.</li> <li>• Key concern, given the all island system is highly constrained, that there will not be sufficient or robust volume available for energy imbalance pricing formation. This may lead to over or under estimation of net imbalance volumes for pricing and lack of transparency and confidence in the method especially at go live. Having the need to implement back up or alternative methods to calculate net imbalance volume and imbalance pricing means I-SEM should consider a different and more appropriate for solution for the energy trading arrangements and transmission systems.</li> <li>• There is a risk of multiple modifications to the pricing process and challenge of the method statement which would negatively impact the functioning of the balancing market and imbalance pricing</li> <li>• Grange is not in favour of short duration and de minimus actions being removed as these actions are relevant in a small island system with a high penetration of wind which may need flexible, smaller responsive volumes with shorter durations. In the RLG workshops the lack of materiality of these actions in GB was noted and therefore, notwithstanding settlement granularity of metering issues, it is not sufficient to exclude these actions based on experience of a completely different transmission system without an understanding of the impacts on the all island system</li> </ul>
<p>2. What are your views on the Simple Stack? With this approach there would be a simple stack of the available bids and offers and the price would be set based on the net imbalance volume.</p>	<ul style="list-style-type: none"> <li>• Although the non-inclusion of early actions may encourage the TSO to minimise early actions Grange believes the use of the actual dispatch, accepted bids and offers and plant dynamics is a more suitable and transparent approach for imbalance pricing formation.</li> <li>• Similar net imbalance volume concerns as outlined above exist in this option as well</li> <li>• If imbalance prices are not linked to actual dispatch there may be an increased risk of price manipulation due to generators that couldn’t technically deliver energy in a</li> </ul>

<p>3. What are your views on the unconstrained stack with plant dynamics included. These are two additions that this option would have over the simple stack:</p> <ul style="list-style-type: none"> <li>• Plant Dynamics</li> <li>• An optimisation time horizon</li> </ul>	<p>settlement period being able to set the imbalance price.</p> <ul style="list-style-type: none"> <li>• The same risks apply to the calculation of net imbalance volume as in the above 2 options</li> <li>• If imbalance prices are not linked to actual dispatch there may be an increased risk of price manipulation due to generators that couldn't technically deliver energy in a settlement period being able to set the imbalance price.</li> <li>• While the inclusion of plant dynamics may be an improvement on the simple stack method a generator or demand unit that couldn't deliver energy may still set the price.</li> <li>• There is a lack of clarity about the length of optimisation time horizon required. The setting of the time horizon may be complex and a particular time horizon could incorrectly dampen prices which would have negative impacts on signals to trade and provide liquidity in the DAM and IDM.</li> <li>• Strong imbalance and cost reflective price signals are important to promote greater participation and encourage investment in flexible generation and demand response. Grange does not believe the above option will transparently achieve these signals.</li> </ul>
<p>4. What are your views on the price based method – unconstrained unit from actual dispatch?</p>	<p>Strong imbalance and cost reflective price signals are important to promote greater participation and encourage investment in flexible generation and demand response. Grange sees merit in this approach above the other options to improve cost reflectivity, provide appropriate signals to current participants and new entrants and allows a more nuanced algorithm approach to a highly constrained system.</p> <ul style="list-style-type: none"> <li>• The use of this method in other international markets means I-SEM can leverage this experience, participants can replicate or more easily forecast imbalance prices once algorithm rules, system operational parameters and sufficient market data is published.</li> <li>• This method retains the link to actual dispatch and plant dynamics which provides cost reflective signals and stronger imbalance price signals for new entrants.</li> <li>• This method is more appropriate than the flagging or tagging method which is complex to implement, monitor, subject to multiple modifications and difficult for market participants to replicate. The flagging and tagging method in I-SEM would need to rely on TSO operator discretion to flag non-energy actions or split actions into energy and non-energy volumes due to the constrained nature of the all island transmission systems.</li> <li>• This method does not need to exclude short duration and de minimus actions. If 5 minute pricing is chosen there will be some dampening through averaging over the settlement period but without removing actions which provide a useful and necessary flexible energy balancing function.</li> <li>• The use of unconstrained algorithms is familiar to</li> </ul>



	<p>participants in the SEM. Grange would be in favour of a well benchmarked and trialled system to establish if there are instances where all constraints are binding, for e.g., which could mean a cap or a floor or system administrative price would set the imbalance price.</p> <ul style="list-style-type: none"> <li>• Grange is in agreement with a method that reduces the need to set multiple hour optimisation time horizons which could be difficult to set and will result in a solution which does not include all final updated bids and offers for future settlement periods but these bids and offers would impact the setting of previous settlement periods .</li> <li>• Grange would like more clarity on and would be in favour of transparency in the publication of operational constraints and how they would be applied in an unconstrained imbalance pricing algorithm. Regular reporting on units with non-binding constraints which set imbalance prices would be useful to monitor the performance of the algorithm and to establish any tuning requirements.</li> </ul>
<p>5. What are your views on the sharpness of the marginal imbalance price? Do any concerns relate to the transition between SEM and I-SEM or are there other broader concerns?</p>	<p>Grange is not in favour of implementing a PAR volume which would ultimately dampen imbalance prices and therefore imbalance price signals which would negatively impact the liquidity in DAM and IDM and signals for investment for new and innovative generation, storage and demand side response technologies in the future portfolio.</p> <ul style="list-style-type: none"> <li>• The I-SEM provides futures, day ahead, intraday, balancing and capacity remuneration markets to enable market participants to manage pricing and volume risks. Sufficient market and system trialling can mitigate the transition risks of participants.</li> <li>• A 1 MWh marginal imbalance price provides strong and cost reflective imbalance price signals which encourage greater participation and investment in flexible generation, storage options and demand side response. These signals will encourage the all island portfolio to evolve to meet the challenges of intermittent renewable generation and resulting system constraints.</li> <li>• A strong imbalance price signal is important to encourage liquidity in the day ahead and intraday markets.</li> <li>• The PAR volume in GB has been subject to multiple modifications which have been rejected over many years. While GB is moving to a single imbalance price through modification P316 in November 2015 this modification still resulted in an alternative PAR volume of 100MWh being chosen over the original 50MWh proposed. Once a PAR precedent has been set there will always be participant risks that the PAR volume will be used to mitigate instead of other market mechanisms and the likelihood of reaching a 1MWh marginal price will be reduced.</li> </ul>

## 2.10 IMBALANCE SETTLEMENT (SECTION 9)

Question	Answer
<p>1. What are your views on the issues set out in the imbalance settlement section?</p>	<p>1. In relation to settlement of curtailment please see Grange’s market building blocks response.</p> <p>2. It is a concern that SEMC are rowing back on the proposal that a unit with ‘priority dispatch’ could become price making for part of its output. The SEM price making and price taking definition no longer holds for I-SEM. Wind units will have to submit prices and quantities in the DAM and IDM and therefore will be managing price and volume risk. Because the TSO currently centrally controls many wind units should not preclude market competition through aggregators etc from providing the same central dispatch/controllable services and accepting dispatch instructions from the TSO. Given the SNSP and system constraint issues wind units face in conjunction with increased markets and market timeframes wind units should not be constrained further from managing market risks. The settlement of wind units with a physical notification needs to be addressed in the market design.</p> <p>3. There is merit in considering the SEM method for uninstructed imbalances. Grange believes that this method more than suffices currently in the SEM and that the additional imbalance information charge or a generator performance incentive is not required.</p> <p>4. On the interaction between the Balancing Market and the Intraday Market Grange would like more clarity on the interactions between PNs and settlement.</p>
<p>2. What are your views on the refined proposal whereby the payment rule applies only to incremental offer acceptance volumes above the PN and to decremental bid acceptance volumes below the PN?</p>	<ul style="list-style-type: none"> <li>• The section on settlement of multiple acceptances addresses minimising costs to the TSO to revise its instructions. However this section does not deal with the risks units need to manage if there are multiple acceptances while trading in the IDM. The balancing market gate window is very long and the TSO has the opportunity to do, undo and redo bids and offers. If multiple acceptances are a significant feature of the I-SEM and if option 2 is implemented a unit could limit trading in the IDM to minimise a) the risk of a later undo creating a physically unfeasible schedule in its physical notification which may be difficult to reverse in the IDM, b) and consequently the risk of having imbalance volumes and c) the risk of an uninstructed imbalance charge. These risks are exacerbated if the TSO can undo acceptances after IDM gate closure. Option 2 removes some of the incentives for trading in the IDM.</li> <li>• Given the above risks and that a mechanism for units to claw back the costs of an undo after gate closure has not been addressed in the paper Grange is in favour of option 1.</li> <li>• Instead of a non-delivery rule the uninstructed imbalance rule could be adjusted to a unit receiving 80% of the min of the offer and imbalance price in the case where metered quantity is greater than dispatch quantity and paying 120% of the max of the bid and imbalance price where metered quantity is less</li> </ul>

	<p>than the dispatch quantity</p>
<p>3. What are your views on the possible consequences of ex-ante trades based on trading periods of different duration to the Imbalance Settlement Period (ISP) and what are your views on the options put forward in the paper.</p>	<ul style="list-style-type: none"> <li>• Units should not be liable to imbalance cashflow exposures due to differences in trading periods of different durations. There are risks involved in managing physically feasible schedules in the DAM and IDM and uncertainties regarding the availability of IDM products</li> <li>• With the above in mind Grange believes that option (ii) or (iii) could be implemented. With option (iii) measuring imbalances over an hour may reduce the burden on smaller participants required to submit both PNs and allocations of ex ante contract quantities.</li> </ul>

## 2.11 OTHER ISSUES (SECTION 10)

Question	Answer
1. Global Aggregation – what are your views on the current policy and the three alternative options put forward in the paper for dealing with global aggregation	Suppliers are best placed to comment on the proposed options.
2. Local Market Power – What are your views on whether there are any specific issues in relation to local market power which need to be considered at this stage.	In general the SEMC should not design the market with the presumption of market power abuse
3. Metering – What are your views on the proposal for metering put forward in the Consultation Paper.	No comment
4. Instruction Profiling – What are your views on the instruction profiling section. In particular, is it feasible to more accurately model the precise loading of units and whether more technical characteristics need to be accommodated in the technical offer data.	No comment
5. Units Under Test – What are your views on the two	To reduce burden on smaller participants Grange is in favour of option 1 where the FPN is taken from testing profile and Balancing Market bid offer submissions are not required.

options put forward for units under test in I-SEM.	
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