



Energy for
generations

Generation & Wholesale Markets

ESB GWM Response:

Integrated Single Electricity Market

(I-SEM)

I-SEM Policy Parameters & Scheduling and
Dispatch Parameters (SEM-17-029)

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EXECUTIVE SUMMARY

The I-SEM design and implementation is at a critical juncture. While much of the design work is now complete, the setting of detailed parameters could ultimately have a significant impact on whether I-SEM will deliver for consumers both today and in the future. ESB GWM has reiterated this elsewhere but we are concerned that decisions being taken on the CRM parameters and on bidding controls will act as a barrier to the proper functioning of the market.

If the balancing market does not work as intended it will have widespread impacts. The balancing market should deliver high prices when the system is short and low prices when the system is long. If this does not happen, the business cases for flexibility and storage, either new or from existing equipment are threatened. Therefore, we strongly urge the SEM Committee to carry out an incentive compatibility study of the overall I-SEM design before finalising all the various market parameters.

Policy Parameters

We are not convinced that the implementation of the credit cover processes in the TSC and the creation of the Response Period Duration parameter actually address the underlying policy concern with regard to collateralisation. Leaving this aside, ESB GWM believes that the Response Period Duration should be set in line with the Query Period in BETTA and should be set to 24 hours which must include five consecutive hours on a business day.

ESB GWM could see that a case could be made for a transitional approach to the price cap and the price floor. We believe that the ability to do this is limited for the price cap parameter given that the price cap acts as a bid cap. We believe that there may be times when a generator legitimately might need to bid at VOLL and so we support a price cap at VOLL.

ESB GWM believes that a transitional approach to the price floor would be sensible. While we recognise the unwavering support from the SEM Committee for absolute priority dispatch, where the TSOs will increase demand at a cost of anything up to -€10,000/MWh, we believe that unintended consequences cannot be ruled out and that a price floor of -€500/MWh for may be more appropriate from Go-Live.

Pricing Parameters

ESB GWM is of the view that the proposed De Minimis Acceptance Threshold (DMAT) of 2.4MWh across the imbalance settlement period is too high. The SEMO proposals appear to mean that any action on a unit of less than 4.8MW would be excluded from price setting. We believe this to be too high and would favour a DMAT at 1MWh across the imbalance settlement period.

Earlier in the development of the balancing market pricing mechanism, ESB GWM would have seen the Price Average Reference (PAR) as a transparent route to managing the transition to I-SEM. However, given other decisions on NIV tagging and bidding controls, ESB GWM believes that no further pricing dampening should be included and so supports PAR set at 1MWh.

ESB GWM believes that the Price Materiality Threshold as proposed is too high and is based on an assumption that the BM will not have significant volumes transacted through it. Given the decisions taken by the SEM Committee, ESB GWM is concerned that the BM could become a market of first preference rather than last resort and so a lower threshold is needed. We suggest that the Price

Materiality Threshold be set to €2.50/MWh or 5% and is reviewed as we get greater experience of trading in the different markets.

Scheduling and Dispatch Parameters

ESB GWM is concerned that the balancing market may become the market of first preference given the decisions being taken by the SEM Committee. On this basis we believe that the scheduling and dispatch parameters must be turned on to stop the TSOs from taking early energy actions insofar as possible.

We believe that the use of these scheduling and dispatch parameters is a poor substitute for a well-functioning balancing market but believe they must be turned on to deliver a working market. We do not understand the workings of the parameters as the TSOs developed these outside of the market rules working group process. However they should be set at a levels which stops the TSOs from taking early actions that can undermine and frustrate the legitimate bids and behaviours of commercial players in the market.

1. INTRODUCTION

ESB GWM welcomes the opportunity to respond to this Consultation and to set out our concerns. The I-SEM detailed design is at a critical juncture and it is important that the decisions being taken across the various workstreams fit together to deliver an internally consistent market design. This response should be read in the context of previous responses sent before; we do not reiterate those points here again at length but make specific reference to the consequences that may arise.

With every Consultation Paper that is published by the SEM Committee, and given the need to move to prepare for the delivery of IT and commercial solutions to the complex market, ESB GWM is becoming more concerned about whether the I-SEM being delivered will be an internally consistent or sustainable market. ESB has supported the RAs in delivering their chosen high level design but as the detail becomes more transparent or as it is designed we can point to the operation of the balancing market and the actions of the TSOs that concern us.

In this response, we have set out our views on the various issues contained in this consultation. We are available to meet with the RAs to discuss any part of this response.

2. I-SEM INTERNAL CONSISTENCY

A key component of any electricity market is an effective balancing market where prices reflect the cost of balancing the system and where prices increase when the system is tight and reduce when the system is over-supplied. Pricing in the balancing market will feed back through the ex-ante and forward markets and getting it right is vital.

Given the decisions of the SEM Committee on the balancing market design, it very difficult to see how the market can deliver sustainable price signals and elicit the right behaviour from market participants. In particular, the imbalance price will not reflect start costs associated with early TSO actions and NIV tagging will significantly dampen prices when the system is short. On top of this, it appears from recent documentation that the TSOs will operate the system in the same manner as they do today and will make no attempt to avoid early actions. Such an intervention will frustrate commercial decisions and may undermine certainty in the market that will support future investments and their funding.

In general, the SEM Committee might be content to deliver prices below sustainable levels but this will cause problems in the very near future. Given the increased electricity demand expected to materialise in the coming years, the potential for premature plant closures and the lack of any significant 'shovel ready' projects in development, Ireland and Northern Ireland could see a capacity crunch in the early part of the next decade, ESB GWM is strongly of the view that detailed design decisions can be taken now to avoid such an eventuality.

3. POLICY PARAMETERS

3.1 Response Period Duration

3.1.1 General Observations

The final drafting of the TSC brought closure to the issue of credit cover which had been developed over the previous year or so. The development of those procedures was difficult to follow as the proposals seemed to change a number of times particularly in relation to the linkage with ex-ante markets. ESB GWM has some outstanding concerns with the final approach chosen by the SEM Committee.

- ESB GWM has stated previously that the credit cover calculation in the TSC is very complex and is therefore difficult for participants to shadow calculate. Therefore, the publication of additional credit assessment reports by SEMO is welcomed in the final TSC. ESB GWM would still welcome the development of a facility by SEMO, similar to that provided by Elexon where participants can check their credit position at any time. The TSC which has been finalised by the SEM Committee does not have this and leaves participants in the position of having to wait until the credit assessment reports are published to find if they are in a Warning or Breach situation.
- The final credit cover arrangements chosen by the SEM Committee seem to purposely require an over-collateralisation by generators under general conditions. This is because the generators appear to be required to collateralise all ex-ante contracts in the BM with no provision being made for the energy actually delivered by the generator. In GB, this is addressed by feeding the generator FPN into the settlement process with the FPN being the proxy for delivery. ESB GWM raised this in our TSC response and we are disappointed that the SEM Committee chose not to address the point.
- In terms of limiting the exposure to the market from certain behaviours the final solution implemented in the TSC still allows participants to create a significant exposure. For example, it would appear that if a breach is identified late on a Friday, the participant can continue to increase its exposure over the weekend before its contracts would finally be rejected on the Monday. For long weekends the potential exposure could be up to four days.

However, given that the SEM Committee has decided that the market must be developed as per the TSC, we will work with that but restate our concerns here.

3.1.2 Response Period Duration Parameter

In terms of setting an appropriate parameter for the Response Period Duration, the proposal of 5 Working Hours by the SEM Committee suggests an urgency associated with the process that is perhaps not borne out when one looks at the end to end process. It is undoubtedly important that any participant seeking to increase indebtedness should be limited as quickly as possible. In this case however, it would appear that participants can still create significant exposures if, for example, the breach happens prior to the weekend. Therefore, the difference between 5 working hours and 8 working hours may not be significant. It would appear that tightening the process down to 5 working hours suggests a level of precision that may not actually be inherent in the process. The Consultation Paper suggests that the analogous parameter in GB is 5 working hours but it's not clear to ESB GWM that this is strictly the case.

The Query Period appears to be the parameter in GB that closest resembles the I-SEM Response Period Duration Period. However, the Query Period in GB refers to the time where a participant enters Level 1 Credit Default (the apparent equivalent of the Warning Notice in I-SEM). The I-SEM Response Period Duration Period refers to the time where a participant reaches the Breach Limit (the apparent equivalent of Level 2 Credit Default in GB). Therefore, there does not appear to be an equivalent to the Response Period Duration Period in GB.

In addition, the Consultation Paper suggested that the equivalent GB parameter is five working hours. However, our reading of the quoted clause of the BSC is that the Query Period is 24 hours and that it must include five consecutive hours occurring during Business Hours in a single Business Day¹. ESB GWM's reading of the GB clause would be that where a notification is received near the end of a working day, then the participant would have five consecutive hours on the next working day to address the issue. With the SEM Committee's proposals, any working hours on the day of issue would be subtracted from the five hours on the next working day.

As discussed above, we are not convinced that the solution that has been put in place addresses the underlying concerns that were first raised on this issue of ex-ante / balancing market linkage. However, on the basis that the SEM Committee has taken the decision it has, we would recommend that the Response Period Duration is set in the same way as the Query Period in the BETTA BSC and that there should be five consecutive hours within a working day.

Related to this, if the term working hour is to be used it may need to be referenced and defined in the TSC. Also, Agreed Procedure 9 may need to be amended (presumably through the modifications process) to reflect the existence of the Response Period Duration parameter. In particular 2.10.4 seems to require amending to confirm that cash will be recognised in the next credit assessment report and not just the report on the next working day. Also, Step 5 in Table 3.1 likely needs to have more dynamic timelines than what is currently specified and the issuance of credit cover increase notice should be confirmed within 15 minutes of issue.

3.2 Price Cap and Price Floor

In the current SEM market, the key function of the price cap and floor is to avoid unintended consequences. In particular it is set to avoid the MSP software operation from delivering unintuitive prices. SEM however, is an internally consistent market where the capacity mechanism is designed to remunerate long run marginal costs.

The I-SEM does not have the same internal consistency as the CRM is being designed to move the potential for LRMC recovery to the energy market. Therefore the SEM Committee decisions on the CRM require the ability to recover fixed costs in the energy market. This of itself would appear to warrant a higher price cap than the current SEM.

¹ We reviewed Section M of the BSC Version 27 which was the current version available on the Elexon website at https://www.elexon.co.uk/wp-content/uploads/2017/02/Section_M_v27.0.pdf (Accessed on 09/06/2017)

3.2.1 The case for a transition

As discussed above, the price cap and floor in SEM guards against unintended consequences of the operation of the MSP Software. The potential for unintended consequences of imposing the same in I-SEM should not be discounted. The I-SEM will see a new set of energy trading and capacity arrangements and this will take time for participants to get used to. On this basis, ESB GWM would, in general, see merit in transitioning to more extreme caps and floors.

The CRM design has incorporated a transition in the setting of the administered scarcity price. Specifically, it is intended that ASP will be set at €3,000/MWh at the outset with a yet to be defined pathway to VOLL to follow on from this. This was deemed to be a sensible approach by the SEM Committee.

The SEM Committee appears to have placed weight in their considerations on the existence of a price cap and floor in the intraday market. In particular, the SEM Committee seems to see these parameters as fixed and outside their control. ESB GWM is not convinced that this is the case. It is true that XBID will ultimately have an EU wide approach to the setting of caps and floors but XBID is in all likelihood many years away and in the interim, the setting of caps and floors should be within the gift of the SEM Committee. For the cross border auctions there may need to be an involvement from Ofgem but for the internal continuous market, the SEM Committee should be able to set caps and floors. In light of this ESB GWM is not convinced of the SEM Committee's logic of being bound by + and – €10,000/MWh caps and floors in the IDM.

For I-SEM, there may well be a case for a transitional approach to price caps and floors to avoid unintended consequences.

3.2.2 Price Cap

The PCAP in I-SEM also acts as a limit on offers into the BM. ESB GWM raised this as an issue during the development of the Trading and Settlement Code but the TSOs ruled it out of scope. However, it wasn't out of scope based on the issues being raised now. Given that PCAP will limit offers it is likely that the higher PCAP will need to remain. This could be addressed by the SEM Committee by exploring, with the TSOs, the potential to amend the TSC by deleting paragraph D.4.4.3 and making corresponding changes to market systems.

It is likely that PCAP will need to be at VOLL to allow generators to recover costs they have been unable to recover elsewhere. For example if a plant has been unsuccessful in the CRM process but is later required in the market it would need to be able to offer up to VOLL. Similarly, given the price cap for existing capacity in the CRM auction, plants will need the opportunity to recover fixed costs in the energy market at times of system tightness.

ESB GWM is of the view that this is best addressed by deleting paragraph D.4.4.3 of the TSC and making corresponding changes to SEMO systems. Absent this change, it is likely not possible to transition to I-SEM with a Price cap lower than VOLL.

3.2.3 Price Floor

The SEM Committee has proposed to set the price floor at minus €10,000/MWh. ESB GWM understands the driver for this may be from the EC's Clean Energy Package or from the SEM Committee's belief that they are bound by the price floors on the intraday market.

ESB GWM accepts that markets will move towards having no price caps or floors but would urge caution on price floors for go-live given the potential for unintended consequences.

Although not specifically referenced in the Consultation Paper, the price floor is linked to the treatment of priority dispatch. In the SEM Committee's ETA Building Blocks Decision Paper (SEM-15-064), it was made clear that there would be a price floor below which the TSOs would not be obligated to take decremental bids from demand to increase demand during a curtailment event (thereby avoiding the curtailment of wind). The SEM Committee also made clear that they would consult on such a price floor (Page 45 of the decision). While the SEM Committee's adherence to the principle of absolute priority dispatch appears unwavering, we would encourage further consideration of the matter.

Below, ESB GWM has set out some issues that the SEM Committee might want to take into account before finalising the price floor.

It's not clear that there are any underlying fundamentals inherent in Ireland and Northern Ireland which would drive very low negative prices. Typically in other markets, negative prices might be driven by nuclear plants looking to stay on overnight or large industrial customers who, for process reasons, don't want to turn off. It is possible however, that the current price floor of -€100/MWh is too high. The fact that some demand side units bid at the price floor today suggests it could be too low. ESB GWM believes that this would support a higher price floor than -€10,000/MWh and lower than -€100/MWh.

The propensity for the market to be priced at -€10,000 could influence behaviours in the market that may not be ultimately welcomed by the TSOs. Where there is a potential for very high prices, the market might, in general, tend to go long. However, the potential for very low prices will send a very blunt signal to participants not to go long as they could pay €10,000 for every MWh they over generate by. Having an extremely low price floor in the early days of the market could drive a certain behaviour that might not be desired.

A very low price floor could also have an impact on dispatch balancing costs. If a DSU is called at -€10,000/MWh to increase demand it is very likely that such an action will be NIV Tagged and the price will be set at a much higher level. In this case, the wind that has spilled will be paid a higher price while the DSU will be paid -€10,000/MWh with the difference ultimately being paid through DBC.

On the basis of the above, we would recommend a price floor of -500/MWh. This figure is in line with the price floor in the day ahead market also.

3.2.4 Policy Parameters Summary

ESB GWM can see value in transitioning to more extreme price caps and price floors. This is limited however by the design of the TSO systems and the wording of the trading and settlement code. For the price cap in particular, ESB GWM believes that it needs to be set at VOLL given the SEM Committee's design decision that outstanding fixed costs will need to be recovered through the energy market. Therefore, ESB GWM would favour the following;

- Response Period Duration set at 24hours which must include 5 consecutive hours on a working day
- Price cap at VOLL
- Price Floor at -€500/MWh

4. PRICING PARAMETERS

ESB GWM remains concerned that the BM pricing in I-SEM will not deliver a sustainable market that provides signals for flexibility, storage or indeed any new investment. To some extent this consultation is seeking to find a second best solution. To this end, we generally favour the setting of the pricing parameters to seek to deliver sharper signals in the BM.

4.1 De Minimis Acceptance Threshold (DMAT)

We note from the SEMO proposals that it is difficult to model the impact of different levels of DMAT. From the external standpoint of a participant it is still not clear exactly how the pricing and scheduling works and so we have not been able to do any additional analysis in addition to what SEMO has done.

However, ESB GWM is of the view that the proposed DMAT of 2.4MWh across the imbalance settlement period feels low. Unless we are oversimplifying the issue, it would appear that an action moving a unit by anything less than 4.8MW would be excluded from price setting. This comparable number in GB appears to 2 MW with the GB system being circa ten times that of I-SEM. This does not seem intuitive. Given the size of the I-SEM system ESB GWM would be of the view that there could easily be energy actions below 4.8MW.

The rationale for the higher number proposed by SEMO appears to be related to open instructions and how their scheduling and dispatch systems operate. This is most unfortunate as it may well have a material impact on price. This is also unfortunate because the TSOs and SEMO have procured new systems for I-SEM and these limitations should not be incorporated in them. For example, no reference is made in the SEMO proposals as to why GB can have a 1MWh DMAT and they are not limited by their systems.

In summary however, we would favour a DMAT at or below the level of GB (1 MWh across the imbalance settlement period) given that the proposals from SEMO appears to exclude any action of less than 4.8MW from pricing. However we accept that we don't know the specific impact of this and we don't know what additional limitations are inherent in SEMO's new systems that are not in the GB systems.

4.1.1 Price Average Reference (PAR) Quantity

Earlier in the process to decide on the imbalance pricing regime, ESB GWM would have been of the view that PAR is the appropriate place to institute any averaging in the imbalance price. In particular, the use of PAR would be transparent and it would be possible to identify what the price would be absent the averaging.

However, we believe that the decisions taken by the SEM Committee have already moved away from a marginal imbalance price with the instituting of NIV tagging. In light of this, ESB GWM is of the view that no further dampening or averaging should be carried out in the final setting of the imbalance price and so a PAR volume of 1MW should be used.

The TSOs' PAR modelling results would appear to imply that NIV tagging had a much greater impact on pricing outcomes than the entire range of PAR values assessed. Taking the Marginal Energy Action Price (PMEA) as the energy price prior to NIV tagging, the modelled imbalance price profiles indicate that NIV tagging significantly dampened the price in both predominantly short and long periods². The results of the TSO modelling reinforce the concerns over NIV tagging that ESB GWM has expressed consistently over the last year.

There is a suggestion in the TSO report that plants that do not have a capacity contract will still be bound by bidding controls on their three part offers. We have explicitly sought clarification on this issue from the SEM Committee but have not received an answer. It would be concerning if the SEM Committee has made a decision on this or has provided guidance on this matter to the TSO and not to the wider market. Plant that does not hold a CRM contract cannot be subjected to bidding controls as it would provide them no opportunity to make any return in the market should they be called upon to generate.

4.1.2 Price Materiality Threshold

SEMO has proposed a Price Materiality Threshold of 15%. A key underlying assumption that seems to be inherent in SEMO's proposal is that the balancing market will be a residual market and that individual participants should not be transacting significant quantities there.

ESB GWM is concerned that this assumption may no longer be sufficiently robust to assume a 15% threshold. We have elaborated on this further in the next section but we are concerned that decisions being taken by the SEM Committee elsewhere will move significant market volumes to the balancing market. Therefore it's not inconceivable, if the SEM Committee persists with the decisions it has taken that a large percentage of I-SEM demand will transact through the balancing market. If this is the case the Price Materiality Threshold needs to be appropriate to that.

In addition, it's not clear that expressing the Price Materiality Threshold as a percentage value is appropriate. The Trading and Settlement Code does not seem to require the parameter to be a percentage so presumably it could be an absolute number. For example, the Settlement Reallocation Threshold has been proposed as an absolute number.

Given the potential for significant portions of the market to be transacted through the balancing market it would appear appropriate to commence the market with a lower threshold. ESB GWM suggests that a threshold of €2.50/MWh or 5% be used for the Price Materiality Threshold for I-SEM Go-Live.

Setting a lower threshold appears to be a prudent response for Go-Live. In addition, it would appear that the Settlement Reallocation Threshold would still provide a limit on the number of small resettlements that would need to be carried out.

4.1.3 Pricing Parameters Summary

ESB GWM recommends the following settings for the Pricing Parameters;

² As shown, for example, by comparing the PMEA and PAR1 price profiles in Figure 6 (SEM-17-029a). We note that only annual average values have been published, and more detailed results would be helpful

- De Minimis Acceptance Threshold of 1MWh across the Imbalance Settlement Period
- Price Average Reference Quantity of 1MWh across the Imbalance Settlement Period
- Price Materiality Threshold of €2.50/MWh or 5%

5. SCHEDULING AND DISPATCH PARAMETERS

This section sets out ESB GWM's views on the proposals from the TSOs for scheduling and dispatch parameters. In addition, this section sets out our concerns with regard to how the new I-SEM market may or may not work depending on the decisions being taken by the SEM Committee.

5.1 I-SEM Design Issues

The development of I-SEM is a massive undertaking for everyone involved in the energy industry in Ireland. It has had huge monetary costs for the last number of years but has, in conjunction with DS3, disrupted the natural investment cycle in the energy market with very little progress being made on anything other than supported renewable projects for the last number of years. It is not inconceivable that the SEM Committee's decisions will impose hundreds of millions of costs on consumers.

The SEM Committee chose the I-SEM design on the basis that there would be significant efficiencies in the new trading arrangements, particularly on the interconnectors. ESB GWM is gravely concerned that the integrity of the overall market design is being undermined by decisions on the detail now being taken by the SEM Committee and by the TSOs in how they have designed their IT systems. If this does happen, the benefits proposed in the cost benefit analysis will not materialise and consumers on the island will be much worse off. Further to this, it's conceivable that the SEM Committee's decisions will cause a capacity crunch in the early part of the next decade given the projections for new data centres that will result in stepwise increases in system demand, while specific SEM Committee decisions may incentivise existing plant to exit prematurely. In the proceeding sections we have expanded on a few themes that we request the SEM Committee consider further before finalising the various I-SEM design pieces.

5.1.1 Balance Responsibility

Much has been made of the concept of balance responsibility in I-SEM with some commentary viewing balance responsibility as a significant burden on participants. It is true that it is a new burden on participants but it should be pointed out that balance responsibility is not a homogenous concept and exists in different forms in different markets. ESB GWM suggests that the balance responsibility in I-SEM is one of the more basic versions of the concept.

- In I-SEM, balance responsibility means that where a generator generates more or less than their ex-ante contracts they transact the difference through the balancing market. Similarly, where suppliers' consumption doesn't match their ex-ante positions they transact the difference in the BM. Therefore, in

I-SEM, signals from the balancing market are the key drivers of balance responsibility. The sharper the signal from the BM, the more likely the market player is to be in balance.

- Some other markets have additional obligations around balance responsibility. In addition to the financial aspects in the BM there are equivalence grid code obligations to provide balanced injection and withdrawal programmes to the TSOs at certain timeframes (we understand this to be at the day ahead stage in Norway for example). We understand this to be the case in a number of European markets with the obligation executed through Balance Responsible Parties (BRPs). This, to some extent reduces the importance of the signals from the balancing market and undoubtedly makes the TSOs' scheduling processes more straightforward.

The chosen implementation of balance responsibility in I-SEM places significant importance in getting the right signals coming back from the balancing market to incentivise behaviours in the preceding timeframes.

5.1.2 Balancing Market Pricing Signals

The design of the balancing market in I-SEM is critical. The BM should be the market of last resort when all other trading opportunities have been exhausted. The signals from the balancing market impacts on the incentives to invest for flexibility and storage. It has been widely proclaimed that the transition to a low carbon energy system will require flexible plant and storage. This includes incentivising existing plants to be more flexible. If the BM price is benign and doesn't react to the system being long or short there will be no signal to reduce or increase consumption or generation or to become more reactive to such signals.

5.1.3 I-SEM Decisions

The SEM Committee has made a series of decisions that will significantly undermine the integrity of pricing in the BM.

- The decision has been taken to ignore start costs of plants started early by the TSO even if they contribute to balancing energy
- Net Imbalance Volume (NIV) Tagging will be employed in BM pricing. ESB GWM believes that NIV Tagging will systematically remove the most expensive actions from the pricing stack making prices lower when the system is short and higher when the system is long. Some might argue that NIV tagging is inherent in the Flagging and Tagging mechanism in GB but there are significant distinctions. In particular, GB has a pay as bid market and has no bidding controls. Therefore there is no significant difference in outcomes depending on whether a unit is SO or NIV tagged or not. In I-SEM the likely significant difference between controlled offers and competitive offers will impact on pricing and outcomes.
- The SEM Committee has signed off on TSO systems which seem to operate in broadly the same manner as the current SEM systems where the TSO is constantly optimising the entire system rather than seeking to address the residual that the market hasn't transacted as was the original expectation and objective of the I-SEM design
- The SEM Committee has decided to place, what we believe to be draconian bidding controls on three part offers. These controls - in conjunction with the TSOs' approach to operating the system - will result in many early actions being taken, the costs of which will be based on the three part offers rather than

competitive offers. This was originally justified by the SEM Committee as being required to address local market power. However, the SEM Committee's belief appears to be that any offer which deviates from an accounting interpretation of short run marginal cost is exerting market power. This more 'text book' philosophy of how markets should work sees the SEM Committee controlling overall market outcomes rather than just local market power.

The above decisions by the SEM Committee combined with the proposal from the TSOs on scheduling and dispatch parameters will see the balancing market being a more benignly priced market than the current SEM.

5.1.4 I-SEM Market Failure

ESB GWM is of the view that the decisions on the detailed rules that have been taken by the SEM Committee could lead to an unsustainable, inefficient and uneconomic outcome contrary to that envisaged when deciding on implementing the I-SEM High Level Design. We believe that the evidence now points to this as the most likely outcome.

The focus of many of the decisions of the SEM Committee has been on generator bids but the behaviour of counterparties (demand) in the market is key to how the market ultimately operates. Given the decisions that the SEM Committee has taken, it appears entirely possible that the rational behaviour for a supplier will be to procure all its demand in the balancing market. Our assessment is underpinned by the following.

- If the GB market is priced higher than the I-SEM given the carbon price floor and more free forming prices associated with the BETTA market, suppliers will not be interested in accessing the interconnectors as power will be cheaper within the I-SEM market as BM prices will be regulated to costs.
- By purchasing all their demand in the balancing market, suppliers will be able to access a price that in general doesn't include start costs. This because start costs to generators are paid as a side payment. There is a possibility that a peaker could set the price from time to time with an offer inclusive of start costs, but given NIV tagging and the TSOs' general aversion to using peakers, this could be the exception rather than the norm.
- Compared to other market designs, the existence of the RO acts as a cap on prices in the BM and in general suppliers will not have to pay any more than the RO strike price for power transacted there. This makes the I-SEM BM a lower risk market than would be seen in other markets.
- It might be argued that CfDs struck against the DAM price would encourage suppliers to transact there but if the BM tends to trade 20% or more (uplift tends to make up c. 20% of the SEM price) below the DAM their behaviour will soon be rectified. This will also lead to the DAM price being a poor reference price.

ESB GWM believes that the SEM Committee's decisions in the last year will undermine the I-SEM. It is likely that hundreds of millions of euro of costs will be imposed on consumers, through IT system and market design, and the I-SEM will operate as SEM does except with the uplift algorithm turned off. This would see less efficient pricing signals for entry or exit or investing in greater flexibility or type of generators that are needed in a low carbon system as set out in the vision that supports the DS3 programme

While in the very short term it could be seen as a positive to deliver lower prices for today's customers it will cause a security of supply challenge in the medium term and will set Ireland and Northern Ireland

considerably back on the road to decarbonisation by removing any signals for increased flexibility. This will impose significant costs on future customers.

The impact of the above situation on wind generation is significant. The DCCAE is proposing to make the DAM the reference price for REFiT contracts. ESB GWM believes that this is a sensible decision as it incentivises the right behaviour in the market. The SEM Committee's decision completely undermines this by encouraging demand to move to the balancing market thereby leaving contracted wind in a precarious position.

5.2 Scheduling and Dispatch Parameter Settings

Given the concerns set out in Section 5.1 with regard to the functioning of the I-SEM, GWM is of the view that the scheduling and dispatch parameters may now be very important in trying to establish a working market to offset some unintended consequences of some of the recent decisions taken by the SEM Committee. This safeguard, as we transition in to I-SEM, is an effective means to limit risks and to provide participants some stability as they engage with this new and unique market design.

5.2.1 Use of Administrative Levers

At the outset, it should be noted that ESB GWM is not generally in favour of administrative interventions in the market to rectify for the absence of a particular behaviour. Specifically, the development of a well-designed and robust balancing market with strong signals would be ESB GWM's first preference. We do not see this forthcoming so the focus should now be on achieving the optimum second best option that can limit any unintended consequences.

The Long Notice Adjustment Factors (LNAFs) and associated parameters are a somewhat crude measure and will likely have unintended consequences. However, it does appear that they will be required. Any unintended consequences should be easily addressed through the absolute powers of the TSOs in relation to security of supply and maintaining system integrity.

To address the impacts of unintended consequences it may be important to take ex-ante mitigation measures such as an ability to review the parameters on an ongoing basis and to change them if required following an early consultation. In addition, the TSOs should be financially resourced to deal with any changes in dispatch balancing costs compared to original forecasts.

5.2.2 Setting of Scheduling and Dispatch Parameters

The TSOs have proposed that the scheduling and dispatch parameters are turned off for go-live. This is surprising given the very explicit decisions taken by the SEM Committee in the ETA Markets Decision Paper (Section 2). At the time of detailed design, there were significant concerns about the impact of TSOs taking early actions. The SEM Committee explicitly recognised this and made a decision that the TSOs would avoid taking early actions insofar as possible. Therefore we would have expected the SEM Committee to ensure that the TSOs followed through on this and would not have expected the SEM Committee to publish proposals for consultation that are not in line with the SEM Committee's own very explicit decision.

Back in 2014 and 2015, there was significant concern with the I-SEM design and in particular, there was a concern that the TSOs proposed to operate the system in exactly the same way as they do in SEM. The decision from the SEM Committee addressed this matter and allowed the SEM design and implementation to move ahead. If the SEM Committee is now countenancing the moving away from the 2015 detailed design decision it must re-open that decision through a full consultation and potentially must review any related decisions taken since.

In its April 2017 decision on Complex Bid Offer Controls, the SEM Committee stated that the TSOs will be discouraged from taking early energy actions by the use of LNAFs. The SEM Committee recognised the risk of ex-ante bidding controls impacting the pricing of energy actions, but the anticipation of early energy actions being unusual was presented as a mitigating factor. The proposals in this consultation to drop LNAFs for I-SEM Go Live would appear to undermine the SEM Committee's rationale from April.

The process for developing the scheduling and dispatch parameters was not brought through the market rules working group and therefore the standard and opportunity for review has been less than for other areas of the design. The TSOs in their submission seem to have now suggested that the parameters are too complex and are encountering difficulties in choosing correct parameters. However, the TSOs like other industry participants have faced tight time lines to develop new IT and commercial arrangements. It is disappointing that such a concern was not set out at the time of the stock take. Moreover, the draft Balancing Market Principles Statement, issued for consultation in April 2017, also still made extensive reference to the role of LNAFs in the scheduling process.

The TSOs have not considered the impacts of LNAFs on the wider market. Their purpose will be to influence a certain behaviour from demand participants. Specifically, they will tell demand that if they wait to buy their power in the BM, there will be a significant cost associated with it. Once in place, the short notice plant shouldn't actually see any extra run hours as demand will contract earlier with the longer notice dispatching of more efficient plant. The proposals will undermine the price signal that will elicit the economic behaviour of demand participants.

It is also interesting that the TSOs have expressed a reluctance to rely on short notice plants. This seems to be an irrational concern. If those short notice plant are in the market and have taken on a reliability option etc., they should be deemed to be available and reliable. The extent they have limited running hours remaining will be represented in their offers if applicable.

As noted in the Annex to this response, ESB GWM questions the start cost assumptions used in the TSOs' LNAF analysis. Our understanding is that cold start costs from current SEM commercial offers were applied. However, the RAs' proposed I-SEM bidding controls are much more prescriptive (e.g. excluding risk adders from start costs) and so current SEM data is unlikely to be a suitable starting point for the LNAF analysis.

Notwithstanding the fact that we believe they are in general a poor substitute for a functioning balancing market, ESB GWM is strongly of the view that the scheduling and dispatch parameters must be set in a way that limit the TSO scheduler from taking early actions and therefore it must make long notice plant look more expensive than short notice plants over the relevant time horizon.

5.2.3 Summary

The TSOs have developed a complex set of parameters to limit early actions. These appear to be so complicated that the TSOs themselves don't want to use them, again representing the very complex market and the interactions between the many moving parts.

ESB GWM is generally against LNAFs but is of the view that they must be turned on at Go-Live to limit early actions by the TSOs to incentivise demand to contract as would be expected under normal market conditions. If the SEM Committee decides not to use them it must reopen decisions it took as part of the ETA Markets Decision paper back in 2015.

ANNEX: COMMENTS ON MODELLING ANALYSIS

ESB GWM welcomes the modelling analysis undertaken by the TSOs to inform the assessment of the pricing and scheduling parameters. In this annex, we comment on the modelling assumptions and results.

Methodology and assumptions

ESB GWM recognises that modelling the multiple market timeframes of I-SEM is not trivial, and the TSOs are to be commended for the comprehensive analysis undertaken. Inevitably, the modelling requires a number of simplifying assumptions to be made. Here, we note some of the key assumptions likely to have a bearing on the results:

- Complex bids – modelling only considered SRMC-based three part offers, whereas in practice participants will be submitting simple offers without SRMC bidding restrictions for post gate closure actions (and noting that simple offers will likely internalise no load and start costs, even allowing for the SRMC bidding assumption)
- Price caps and floors – assumed DAM limits of +€3000/-€500 rather than the more extreme limits (€11,048/-€10,000) now proposed by the RAs
- Interconnectors – does allowing unrestricted changes to interconnector flows in the Real Time Dispatch run overstate the flexibility provided by interconnectors in balancing timeframes?
- Granularity – will modelling at hourly rather than five minute resolution have a material impact on the findings?

Transparency of results

We would like to see more results from the TSOs' analysis. In the case of the PAR analysis, it is difficult to infer too much from the limited results published, such as annual average price profiles. More detailed results, including a breakdown between short and long NIV periods, would help clarify the modelled impact of different PAR levels and the deviation from the Marginal Energy Action Price (PMEA).

Likewise, it would be helpful to understand the distribution of NIV outcomes modelled (whilst recognising that the analysis is not intended as a 2020 forecast). The annual average price profiles imply that the modelling tended to see more long than short periods, other than at the daily demand peak. More insight on the drivers of these NIV outcomes would be useful, given that we understand the modelling of energy imbalances was intended to reflect plant forced outages and wind forecast errors.