ESB GWM Response:

Energy Trading Arrangements – Trading and Settlement Code

24th January 2017

Contents

1. INTRODUCTION

ESB Generation & Wholesale Markets (ESB GWM) welcomes the opportunity to respond to the SEM Committee's Consultation Paper on the Trading and Settlement Code for I-SEM. ESB GWM acknowledges and welcomes the considerable interaction that has taken place between the TSOs and industry during the development of the TSC and recognises that the majority of drafting issues have been addressed there. To this end we have sought to focus this response on the key issues we believe are outstanding in the consolidated TSC. These outstanding issues are listed below.

- Imbalance Pricing

- Aggregation in Ex-Ante Markets

- PN Validation and Generator Mode Changes

- Cross Default Issues

- Data Publication

- Credit Cover Processes

- Interim Modification Procedure

Each of these issues is discussed in turn in the sections below. In addition, Appendix A contains a number of detailed comments on the suite of published market rules.

2. IMBALANCE PRICING

Following on from the SEM Committee's detailed design decision on imbalance pricing, the TSOs have developed a tagging and flagging mechanism for establishing the imbalance price. ESB GWM is of the view that there are issues with the mechanism but that overall it is appropriate to employ it in I-SEM from Go-Live. Outstanding issues are best addressed after a period of operation of I-SEM where historic data will be available to impact assess changes against. However;

- ESB GWM does have a number of suggested amendments to pricing and settlement which can be accommodated for Go-Live.

- ESB GWM is also suggesting that a holistic review of incentives across the market timeframes should be undertaken by the SEM Committee when finalising decisions on the TSC, on the capacity mechanism and on controls on three part offers.

2.1 Governance

In deciding to implement a flagging and tagging approach the SEM Committee was clear that process for the classification of actions taken by the TSOs needs to be clearly documented, thus avoiding ambiguity, and that the processes put in place by the TSOs to tag out non-energy actions from the calculation of imbalance prices must be published, and TSO performance be audited and reported on annually.

However, it became apparent in the later stages of the TSC development that there will be a significant reliance within the pricing process on the internal workings of the TSO scheduling and dispatch systems, namely the Security Constrained Unit Commitment (SCUC) and Security Constrained Economic Dispatch (SCED). For example, it had originally been the understanding that the published list of operational constraints would be the exact constraints inputted to the imbalance pricing process. However, it became apparent at one of the later working groups (WG11 in October 2016) that this was no longer the case but instead that the TSOs would consider the latest constraints used in their most recent SCUC iteration. These constraints will be based on the published constraints inputted to SCUC but there may be changes made before inputting to pricing based on system conditions. While participants will see the outputs of those SCUC runs through the published operational schedules, it will not be possible to understand the specific constraints that led to the expected actions.

The above lack of transparency creates an issue for participants in the market as they won't have any information on the specific constraints. Understanding these specific constraints is important in understanding the imbalance price and forecasting it. It is possible that these operational constraints will impact upon whether a unit is deemed to be held back by the TSO for reserve and excused from making RO payments.

ESB GWM suggests that the final framework for I-SEM must address this transparency and governance issue. To do this it is suggested that the operational constraints report is grounded in the regulatory framework through the licence, the TSC, the Grid Code or the Balancing Market Principles Statement (BMPS). The obligation could be phrased as a requirement to publish an operational constraints report with any deviations published updated more frequently where changes happen in between publication dates. Further to this, the TSO should be required to signal to the market where constraints are used in the pricing process which are different to the published list.

2.2   Flagging and Tagging Mechanism

In the draft TSC (Section F.3.3), there are three circumstances in which a balancing action will be removed from the pricing stack and deemed to be non-energy for settlement purposes:

1. Actions instructed before Gate Closure 2 (one hour ahead of the settlement period)

2. Actions flagged by the System Operator (FSO < 1)

3. Actions that are NIV tagged (TNIV < 1)

In the first case, previous detailed design decisions have confirmed that early (pre Gate Closure) TSO actions will be primarily concerned with resolving system constraints, leaving participants to focus on balancing their positions in the intra-day market timeframe.

2.2.1 System Operator (SO) Flagging

The System Operator flagging process is key to the I-SEM imbalance price calculation, indicating when a generator unit's output is binding on operational constraints (as noted above, this requires appropriate transparency on the nature of constraints modelled in the Indicative Operations Schedule).

ESB GWM notes that, where one action on a unit is SO Flagged that all actions on that unit in that imbalance pricing period will be SO Tagged (as per Appendix N – Paragraph 1) and therefore are not considered in price setting or settlement. This appears to have been introduced quite late in the rules drafting process by the TSOs. One of the original concerns with adopting a Flagging and Tagging process similar to GB was the concern that there could be over flagging of units. It is difficult to see how Appendix N Paragraph 1 doesn't result in significant over-flagging of units.

ESB GWM would question however, whether this solution (Flagging all actions) results in unintended consequences in the BM. For example, a CCGT could be brought on at its minimum stable level to address a local constraint issue. The dispatch instruction for this action would be issued before Gate Closure 2 and this action would likely be SO Flagged, it would be excluded from price setting and it would be settled off its three part offers.

If the TSO needs additional energy after the CCGT above has started it may take that energy from the same CCGT. Although not set out in the TSC, ESB GWM assumes that the SCED tool uses the simple bids and offers in real time and so the TSOs' decision to take additional energy from the CCGT will be based on the economics of these simple bids and offers. The example below sets out detail for a sample unit.

Example Data	
Capacity (MW)	400
MSL (MW)	200
Min on Time (h)	5
Start Cost (€)	50,000
Complex Inc (€/MWh)	35
Simple Inc (€/MWh)	43
Next Energy Action Taken (€/MWh)	32

Early Action followed by Energy Action
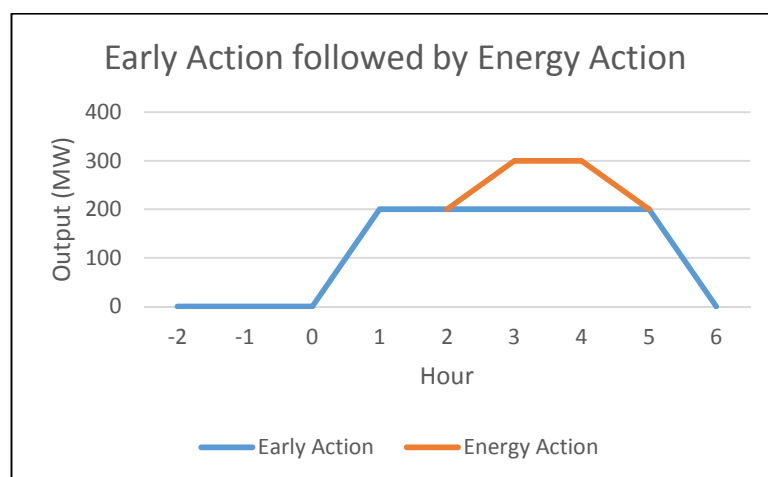
In pricing and settlement however, the simple bids and offers would not be considered given that the unit is still required for local constraint reasons and therefore SO Flagged. In such instances the unit's TSO dispatch decision would have been based on simple offers but the ultimate price could be lower or higher than this.

In light of this it is not clear to ESB GWM why all actions on unit in a pricing period must be SO flagged if one action is flagged. The table below sets out the difference in outcomes for the imbalance price and for the sample unit above where both actions are flagged and where the second energy action is not flagged.

Comparison of Outcomes		
	Both Actions Flagged	Energy Action not Flagged
Imbalance price (€/MWh)	32	43
Unit Revenue (€)	88,500	89,300

To address the issue above, ESB suggests that in finalising the TSC that further consideration be given to amending the provision in *Appendix N – Paragraph 1* that all actions on a unit be flagged where one action is flagged. If an energy action is taken on a unit after a non-energy action, that action should be permitted to set the energy price. ESB GWM believes that this would be more in line with the ETA Markets Decision Paper than the implementation in the TSC where the SEM Committee stated its view that the imbalance price should reflect any start costs incurred for energy balancing. In the specific example above, the additional monies recovered from a higher imbalance price would off-set the start costs payable by the TSOs through make-whole payments thereby rightly transacting a higher proportion of energy payments through the market as opposed to side payments[1].

If it transpires this rule is necessitated by the limitations of the TSO scheduling and dispatch tools, this reinforces the concerns raised above regarding the need for greater transparency around the TSO systems.

2.2.2 Net Imbalance Volume (NIV) Tagging

ESB GWM has concerns with NIV Tagging and its interaction with the market power decision. There was significant discussion about NIV Tagging early in the Rule Working Group process. At the time many participants (in particular suppliers) were concerned about pricing outcomes without NIV tagging and were concerned that there was an upward bias on prices. The outcome of the discussion at that time was that the TSOs incorporated NIV tagging albeit a different implementation than was seen in GB. At that time, the wider Working Group accepted this as a way forward for implementation.

NIV Tagging and Market Power

The SEM Committee decision on Market Power in May 2016 (SEM-16-024) and the TSOs' interpretation of that decision placed a significant emphasis and reliance on NIV Tagging. ESB GWM is concerned that NIV tagging may have unintended consequences with the result that many balancing actions are inadvertently treated as non-energy (and also subject to bidding controls). The recent proposals from the SEM Committee aim to significantly limit what costs can be included in three part offers resulting in what ESB GWM believes requires generators to offer below cost.

According to the detailed flagging rules (*TSC Appendix N*), all BOA actions in the opposite direction to the NIV in a five minute imbalance pricing period are NIV tagged. Moreover, the imbalance settlement calculations (TSC F.3.3) state that if any BOA on a generator unit is NIV tagged in any five minute pricing period, all the BOAs for that unit in the half-hour settlement period will be settled as non-energy actions subject to bidding controls. The system imbalance, NIV, will evolve over the course of a settlement period, and it seems plausible to assume there will be half-hour settlement periods in which the direction of NIV

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[1] In the ETA Markets Decision Paper (SEM-15-065) the SEM Committee stated that it is keen to avoid, as far as possible, out of market payments for start costs in the Balancing Market.

changes from one five minute pricing period to another. In this scenario, every BOA may be NIV tagged for at least one pricing period, implying that all BOAs on all generator units will be treated as non-energy actions and subject to bidding controls[2]. ESB GWM strongly questions whether this was the intention of the SEM-16-024 decision.

The SEM Committee has already made the decision that the BM price won't reflect start costs from early actions where they subsequently provide energy actions. In addition to this, NIV tagging may have the effect of removing genuine 'energy' balancing actions from imbalance price setting. For example, a flexible peaking unit may be brought on at short notice in the event of a plant trip; if this action is towards the top end of the BOA pricing stack, it may be NIV tagged, depending on the volume of actions that happen to have been taken in the reverse direction. Once NIV tagged, the action cannot influence the imbalance price and will be settled on the basis of its three part offers (which may be subject to below cost bidding controls).

NIV Tagging Example

The following worked example sets out the position of a 50MW Peaker in I-SEM which is required for one trading period. The plant is called because it's the cheapest option for the TSOs who need more energy as opposed to needing to address any local constraint issue. However, in two of the imbalance pricing periods there are some actions in the opposite direction to the NIV and the unit is removed from price setting. Because it is NIV tagged in one pricing period it is settled off complex offers for the trading period. The unit's commercial offer data is set out below.

|		Mitigated Offers		Non Mitigated Offers
Capacity (MW)	Output (MWh)	Start Cost (€)	Inc (€/MWh)	Simple Inc (€/MWh)
50	25	1000	90	135

*For simplicity No Load costs are not considered

In the above, the difference between the simple inc and the mitigated offer could be due to many reasons including start costs, the below cost bidding requirement on three part offers and the fact that the peaker has been unable to recover any sunk investment costs in the CRM. In the trading period in question the unit is NIV tagged for two pricing periods and in those pricing periods the price is set by another plant.

Pricing Period	**1**	**2**	**3**	**4**	**5**	**6**	**Avg**
Inc (€/MWh)	135	135	135	135	135	135	135
System NIV	Short	Short	Short	Short	Short	Short	
NIV Tagged	N	Y	Y	N	N	N	
Imbalance Price (€/MWh)	135	80	80	135	135	135	116.67

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[2] Assuming that the majority of BOAs span multiple imbalance pricing periods, all incs will be NIV Tagged when the system is long and all decs will be NIV Tagged when the system is short. In this scenario, the only BOAs which would not be subject to NIV Tagging and bidding controls would be very short duration actions which do span across pricing periods with NIV changing direction.

In the above example the price is set lower than the marginal cost of energy due to NIV tagging (€117/MWh rather €135/MWh), with the risk of sending inefficient price signals to the market. While this of itself is an issue, it is compounded for the peaker as they are paid based on their three part offers. The figure below sets out the impact on the peaker in question.
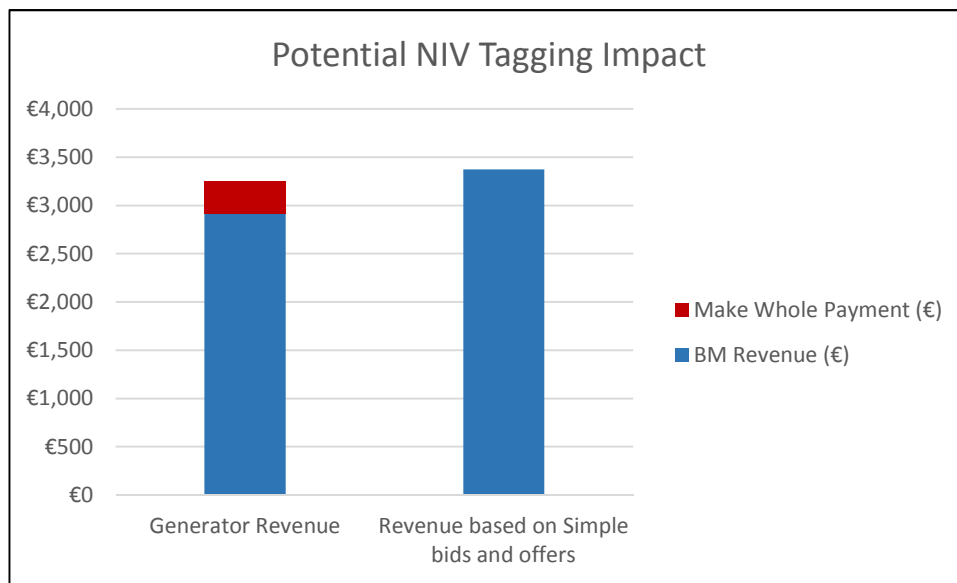
Proposed TSC Settlement Changes

Given the new emphasis that has been placed on NIV tagging through the TSOs' interpretation of the Market Power Decision, ESB GWM believes that further amendments are required in the final TSC and TSO systems.

Specifically, Section F.3.3.2 (b) should be amended to remove NIV tagging of an action as a reason to settle an action based on three part offers rather than its simple offers. In addition to amending F.3.3.2 (b), this would require deletion of F.3.3.2 (b)(ii). In making this change the TSOs would need to impact assess any other required changes in the TSC. ESB GWM believes this change is appropriate for the following reasons:

- NIV Tagged actions do not directly correspond to a non-energy action. There may be energy actions taken in the opposite direction to the NIV for reasons such as dealing with unit size etc. These actions should not be presumed to be non-energy and settled on three part offers rather than simple incs and decs.

- The SO flagging process will seek to identify any actions which are subject to an operational constraint and therefore this should satisfy the requirements of the market power decision. The additional requirement that NIV tagged actions are settled on three part offers is unnecessary and disproportionate.

- In making the Market Power Decision, the SEM Committee decided to proceed with its chosen option (Option 2b: Automated Intervention involving the "flagging and tagging" process) on the basis that it was suitably targeted towards non-energy actions where the TSO is constrained as to which plant it can call upon. This SEM Committee intention does not fit with proposals in the TSC where all NIV tagged actions are deemed to be non-energy.

In coming to a decision on this matter, the SEM Committee must give further consideration to the intention of the market power decision and whether the TSOs' interpretation appropriately implements that intent.

ESB GWM is of the view that the TSO implementation goes further than the decision requires and in doing so negatively impacts on market efficiency.

2.3   Integrity of I-SEM Pricing

ESB GWM understand the rationale for the evolution of NIV tagging through the Rules Working Group and in particular it was driven by supplier and wind generator concerns given their balance responsibility. However, the SEM Committee's decision on Market Power and its proposals for bidding controls on three part offers have given more significance to the operation of imbalance pricing and the separation of energy and non-energy actions.

The integrity of the I-SEM spot markets (the DAM, IDM and BM) is key to I-SEM success. If the BM price is significantly supressed it has the potential to impact on the dynamic across the three markets. This suppression could happen through SO Flagging, through NIV Tagging, through below cost mandating of three part offers or through a combination of all. In addition, the imbalance price will not include any carry forward of start costs where a unit was started early but subsequently contributed to an energy imbalance.

A key tenet of the recent EU Winter Package is that the short term energy market is allowed to function efficiently. In the revised internal electricity market Regulation it is explicitly stated that "it is therefore critical to ensure that, as far as possible, administrative and implicit price caps are removed to allow scarcity prices to increase up to reflecting the value of lost load". It is possible that the combination of aggressive NIV Tagging and draconian bidding controls could be result in an implicit price cap in I-SEM. While these measures have been implemented to address non-energy actions, their reach is much wider. If the combination of measures being implemented by the SEM Committee do amount to BM distorting actions it is likely that the implementation of the Winter Package will require a re-examination of the issue so it is prudent to get this right from the outset.

If the BM is under-priced it is likely that demand will migrate there. This will be at the expense of ex-ante market efficiency. There is potential for a snowball effect where demand migration to the BM leads to more and more demand migrating there and further exacerbating the problem mentioned above.

While we note that long notice adjustment factors will be used to seek to limit early actions, we would see these as a poor substitute for a functioning DAM, IDM and BM. In particular, we would caution an over reliance on such a regulatory instrument as it may have unintended consequences in terms of efficient market outcomes and efficient dispatch.

Systems testing by the TSOs and market trials will be important. During that time the RAs should be reviewing emerging outcomes and assessing whether they are robust and conducive to the development of competitive markets. At that time, issues such as Price Average Referencing (PAR) and NIV tagging should be assessed in detail.

In summary on this point, ESB GWM strongly encourages the SEM Committee to give significant consideration to the dynamics across the DAM, IDM and BM when making decisions on issues that affect each individual timeframe. In particular the compatibility of incentives to trade in each timeframe must be considered against any knock-on effects they might have on other timeframes. As part of this decisions on the TSC, the CRM and any bidding controls must be considered.

3. AGGREGATION IN EX-ANTE MARKETS

ESB GWM is disappointed that the TSC in combination with the emerging NEMO design does not cater for the aggregation of units in the ex-ante markets. Specifically, it is our understanding of the High Level Design that variable renewables would be permitted to participate in ex-ante markets on a portfolio basis if they so

choose. Paragraph 6.4.36 of the HLD Draft Decision stated the following with regard to portfolio bidding for variable generation.

6.4.36 The SEM Committee also considers it beneficial to allow portfolio bidding for variable generation. This will allow the aggregation of individual wind farms and other variable renewable technologies, such as solar generation, into single units that can participate in the market. While likely not an absolute necessity in the new arrangements, the SEM Committee is of the view that this will bring efficiency benefits for consumers, ensure that there is not undue discrimination between licence holders (the equity principle) and promote renewable generation sources through providing flexibility. Portfolio bids will include only one generation technology and will not allow aggregation of generation and demand. As part of the detailed design, the SEM Committee will consider further the specific rules around the use of portfolio bids.

ESB GWM believes that the intent of the above paragraph was with regard to variable generation including above 10MW units. This is because portfolio bidding for below de minimis units was covered in the preceding paragraph (6.4.35) which discussed AGUs. In implementing the HLD, the TSOs have only implemented Aggregated Generator Units (which cover only below de minimis units) and have ignored variable units above the de minimis threshold.

This issue was raised with the TSOs through the comments spreadsheet on 1st July 2016. The subsequent response from the TSOs suggested that because the detailed design didn't elaborate on the HLD they took the view that only AGUs (below de minimis generators) would be accommodated. This is unfortunate as the TSOs had the opportunity to clarify this matter with the RAs at any time. Had we known that the issue was not going to be addressed we could have escalated the matter but clarity came too late in the process.

ESB GWM is of the view that the SEM Committee's rationale for allowing portfolio bidding for renewable generation remains sound. There are over 230 windfarms on the island of Ireland. Of these circa 100 are above the de minimis threshold and therefore under current proposals would be required to participate in ex-ante markets as 100 distinct units.

- Encouraging liquidity in the ex-ante markets and in particular the participation of wind has been cited as a key challenge, but also a desirable of I-SEM. Requiring wind units to log in individually to bid each unit represents a huge barrier to ex-ante participation. If the windfarms participate in the DAM and the three IDM auctions this would involve 400 transactions which appears unsustainable given the volumes of power that would be traded. Such transactional burdens would mean participants would not participate in the IDM unless there are significant changes in expected output. This will pull liquidity from the IDM and see these generators go long or short in the BM.

- Not allowing portfolio bidding for larger wind will have detrimental effects on small windfarms. Participants with an existing portfolio of windfarms might be willing to aggregate a small wind unit into their portfolio thereby providing a route to market for the smaller windfarm. The current proposals stop this happening to the detriment of smaller windfarms. It is difficult to see how this in line with the spirit of what I-SEM sets out to achieve.

In summary on this issue, ESB GWM is strongly of the view that the final I-SEM implementation must include a facility to allow portfolio participation of variable renewable generation above de minimis in the ex-ante markets. Not doing so undermines the intent of I-SEM, places significant barriers in the way of developing efficient ex-ante markets and places additional barriers to small generators finding a route to market. ESB GWM has suggested to the TSOs that further industry engagement should take place on this issue and encourages the RAs to take this forward.

4. PN VALIDATION AND GENERATOR MODE CHANGES

ESB GWM is of the view that provisions with regard to generator mode changes should be amended and that further consideration is required with regard to Physical Notification (PN) Validation.

4.1 Generator Mode Changes

ESB GWM is of the view that the proposals in the TSC for changing Technical Offer Data sets are not appropriate for I-SEM. The current proposals imply that a generator must choose a TOD set at 13:30 on D-1. If a power station is available to operate in open cycle or combined cycle modes it must decide on which mode it wishes to operate well before the start of the trading day. If, for example, it chose CCGT mode but close to real time wishes to run in open cycle its Physical Notification would be rejected by the TSO.

Given the transition to a low carbon electricity system, greater flexibility should be welcomed by the TSO; instead the TSO is precluding this flexibility. This is ultimately to the detriment of the wider market and consumer.

The position that has been arrived at in the TSC is unfortunate. Earlier versions of the TSC allowed the generator to change their TOD set selection until 70 minutes ahead of real-time. This position was also reflected in the technical specifications circulated through the Technical Liaison Group. However, in late summer the TSC and technical specifications were amended to bring the submission back to D-1. If the facility had never been available to generators throughout the drafting it may be simpler to comprehend but in this case the TSOs would have actively completed an impact assessment to remove the flexibility. The rationale for the TSO actively removing this flexibility from the market has never been made clear.

In the final drafting of the TSC and in the TSO systems, generators should have freedom to change TOD sets until the last Gate Closure one hour before real time and a PN should not be rejected by the TSO once it is in line with one of a generator's validated TOD sets. . This facility should be a clear part of the market framework and should not be implemented as an exceptional circumstance or process.

4.2 PN Validation

The ETA Markets Decision was clear that PNs from participants should be feasible on a standalone basis. In implementing this, it would appear that the TSOs will reject any PN submission from generators which is not in line with the Technical Offer Data (TOD) in their systems. For characteristics such as ramp rates this likely doesn't represent an issue.

There is a likely issue for heat states and starting up. The TSOs appear to establish the heat state of a generator based on its submitted PN. If a CCGT has had a zero MW PN for the last week, the TSO will assume that it's in a cold state. Issues arise due to the fact submitted TOD has three heat states, namely Cold, Warm and Hot. These three heat states don't necessarily correspond exactly to the physical capabilities of the plant. For example, the TSO could assume that a generator is in a warm state based on the length of time since its PN went to zero. However, the plant could be much closer to a hot state than a warm state and so it may be able to start quicker than the warm start TOD implies. Alternatively, a generator may choose to take action on site to keep the generator in a warm or hot heat state for commercial reasons.

Given the new incentives being placed on generators in I-SEM they should not be restricted by any limitations of TSO systems. For example, if a generator submits a PN which is not in line with the heat state that the TSO assumes the plant is in, it should not reject the PN without further investigation or discussing with the generator. Specifically, the TSOs should not implement a systemised rule to reject all PNs that are not in line with what the systems believe are correct.

The TSOs and RAs may be concerned that the above proposal could be open to abuse by generators where they could offer more flexibility through their own PNs than through TOD. This should not be a concern however as the Grid Code requires generators to submit accurate TOD. The proposal above does not seek to allow generators to offer better flexibility through PNs than through TOD but rather reflects the reality of the TSOs' systems which have three heat states.

5. CROSS DEFAULT ISSUES

ESB GWM does not believe that the provisions in the TSC with regard to default are appropriate. Specifically, Section B18 allows the Market Operator (MO) to suspend and terminate the registration of a BM party by virtue of them being suspended or terminated under the NEMO rules. In such instances, a party could be in compliance with all its obligations under the TSC but could still be suspended by the MO.

ESB GWM has raised this issue through the rules development process but has not received a definitive answer as to why this is required. It was argued by the TSOs that the provision is only that the MO may suspend or terminate and that they would need the approval of the RAs before proceeding. While this may be the case, it still doesn't explain why this provision is needed in the TSC.

ESB GWM believes that the MO would be better off without this power. In particular, the provision of NEMO services will be open to competition and the MO will have an interest in one of the NEMO service providers. Participation in the BM should be considered on a standalone basis and where a party is in compliance with all BM related obligations there should be no case for their suspension.

Moreover, it is possible for BM parties to contract with a third party to represent their units in the ex-ante markets, as described in SEMO's "*I-SEM Entity Model and NEMO Entity Model Examples*" paper. The potential for different entities to represent units across SEMO and NEMO(s) would appear to further undermine the case for cross default provisions.

In coming to a decision on this matter, the SEM Committee needs to establish why cross default provisions are required and if not found to be explicitly required, consideration should be given to whether they are a proportionate inclusion. If no rationale for their inclusion can be established then B.18.3.1(o) and B.18.6.1(d) should be deleted.

6. DATA PUBLICATION

The TSC in combination with Appendix E and Agreed Procedure 6 provide for the publication of significant amounts of data and information. Before finalising the TSC however, a further consistency check is required across these parts of the Code. ESB GWM has identified the following high level issues.

- The approach to timings of publications and reports does not appear consistent across the TSC, Appendix A and AP6. For example, for a number of publication items the exact time of the publication is set out and there is no ambiguity. However, timings for publication of the imbalance price are not as clear. Tables 5, 6 and 7 of Appendix E fail to provide a specific timing for key pricing information. Although the TSC states that the imbalance price must be published within 30 minutes of the end of the trading period this is not supported in Appendix E. Similarly, the Data Reports section in AP6 has specific timings for some reports and no timings for others. This should be addressed in the finalisation of the suite of documents to ensure that there is no ambiguity for the market.

- The approach to publication of the Market Back-Up price is not clear. Section E.5 of the TSC requires the MO to calculate a Back-Up Price for each imbalance settlement period. Paragraph E.2.2.4 of the TSC states that the Imbalance Price will be set to the Back-Up Price if the MO hasn't been able to publish within 30 minutes. There is no mention of the Back-Up Price in Appendix E or AP6 and so it appears that the MO would calculate a price for each trading period but only publish it in the event of failure to publish the primary price. There is no timing for when that Back-Up Price will be published. ESB GWM suggests that given that the MO will calculate the Back-Up Price for each imbalance settlement period they should publish it for each trading period regardless of whether the primary imbalance price was published on time. This insertion should be made in Appendix E and AP6.

- According to AP6, there appear to be some Member Public reports available through the Balancing Market Interface (BMI) which will not be published on the SEM-O website (e.g. Commercial Offer Data Report). In the current market, this is addressed by SEMO publishing XML versions of the reports on the Static Reports Section of the SEM-O website. If this is to continue, there likely is no issue for those seeking the information in question. However, if this data was no longer made available on the SEM-O website the only way it could be accessed would be through the BMI. While not an issue for those with a BMI, market data is accessed by numerous individuals including academics and new market entrants and these individuals could be at a disadvantage and SEMO could ultimately find themselves with more requests for manual extraction of data. ESB GWM suggests that if the intention is to discontinue making the XML reports available in the static reports section of the SEM-O website then further consideration should be given as to whether there is appropriate and sufficient information being made available through the general publications section of AP6.

Finally on data publication, ESB GWM would urge the SEM Committee to carry out a high level review of the overall suite of publications and to decide what is the appropriate level of transparency for a competitive market. This review should consider the ex-ante markets in addition to the BM. The approach in the TSC is to publish all available information. SEMO will publish significant amounts of data on difference payments and given the hybrid reference settlement process it may be possible to identify individual units' ex-ante trading behaviour through these reports. This is appropriate if the SEM Committee wishes to see all ex-ante positions published but if this is not the case the publications in the BM need further consideration.

7. CREDIT COVER PROCESSES

SEMO has retained the core underlying elements of its credit cover process to carry forward to I-SEM. This appears reasonable given that those processes have worked well since 2007. The introduction of ex-ante markets in I-SEM does require additions to SEM processes particularly with regard to the introduction of traded not delivered quantities and generator imbalance cashflows. In the sections below ESB GWM has proposed some additions and changes to the proposals in the draft TSC.

7.1 Information on Required Credit Cover Position

As per the TSC, SEMO will carry out credit cover checks for each participant following contract notification from the NEMO. Although not stated in the TSC, it is assumed that these contracts will be notified at some time before Gate Closure for each imbalance settlement period. Where SEMO finds that the contract notification on behalf of a participant places them in a position where they need additional credit cover, they will reject the contract. There is no timing stated in Agreed Procedure 9 for this check but it is our assumption that it happens around Gate Closure.

The participant is to some extent in the dark about its credit cover position from hour to hour. SEMO will issue a Required Credit Cover Report to each participant once each Working Day at 14:30. Between issuance of reports each Working Day the participant would need to calculate it credit cover requirements itself on a shadow basis. This is not straightforward given the complexities of the Required Credit Cover Calculation in G.15.

To address this issue, SEMO should make a facility available to participants to check their credit cover position whenever they want. As per AP9, SEMO will have this facility and will be recalculating credit cover and so it's a case of giving participants access to their systems. To achieve this, there should be an additional paragraph added after F.2.2.2 stating that the Market Operator will make a facility available to participants to check their own credit assessment at any time. Also the result of the Market Operator's credit assessment for each participant should be made available to that participant shortly after completion by the Market Operator.

Related to the above, ESB GWM believes that further steps are required in 3.1 of AP9. Specifically, after Step 8, where the Market Operator finds that posted credit cover is greater than the Warning Limit it should tell the participant. The current TSC and APs seem to suggest that where the ratio of required credit cover to posted credit cover becomes more than the warning limit at a time other than the working day 14:30 report that they don't take any action. ESB GWM believes that where any credit assessment pushing the participant above the warning limit, a Warning Notice should apply. In addition, consideration should be given by the RAs as to whether the identity of any participant under a Warning Notice should be published to the market. This is currently done in GB.

7.2 Traded Not Delivered Calculations

It is not clear to ESB GWM how exposure to Traded Not Delivered Quantities will be calculated. The rationale for its inclusion is that a generator creates a potential exposure in the BM when they sell quantities in the ex-ante markets. To cover this exposure, generators will be required to hold credit cover in the BM to cover the volume of the ex-ante contract at the credit assessment price. For suppliers, traded not delivered volumes reduce their credit cover requirements.

The equation for calculations in respect of Volumes Traded Not Yet Delivered in G.14.13 appears to consider only the Trading Day for which the credit cover assessment is being carried out. For example, when the Market Operator carries out a credit cover assessment at 14:30 it would be considering all ex-ante traded volumes for the trading day that started at the previous 23:00 and which ends at 22:59 later in the day. It would appear to ignore the results of the day ahead market which would have recently completed as those contracts' delivery would fall in the following day. Also, the calculation would ignore the fact that the generator might have delivered on the volumes before 14:30 on the current Trading Day.

ESB GWM believes that further consideration is required with regard to Traded Not Delivered Volumes. In GB, all Traded Not Delivered Quantities are considered in the credit cover calculation but there the Final Physical Notification (FPN) from the generator feeds into the calculation as a proxy for delivery confirmation. This approach could be considered for I-SEM; the approach put forward in the TSC could be adopted but it needs to be recognised that it doesn't necessarily provide for collateralisation of all ex-ante quantities. However, the approach in the TSC should not be simply extended to cover all ex-ante contracts without a feedback loop from FPNs to reflect that delivery has occurred.

7.3 Undefined Potential Exposure calculations for Generators

The proposed methodologies for assessing Undefined Potential Exposure are derived from existing SEM credit cover processes. However, ESB GWM questions whether it is necessarily appropriate to extend these processes to Generator Units without further modification. In particular, we note that the application of the Analysis Percentile Parameter (AnPP) effectively assumes a normal distribution over the Historical Assessment Period. This may well be a reasonable approximation for the price and demand components of

the Supplier Undefined Potential Exposure calculations. However, it may be less appropriate for Generator Unit cashflows, which might be expected to show significant variation depending on the incidence of plant forced outages, RO difference charges and system balancing actions, for example.

8. INTERIM MODIFICATION PROCEDURE

Section H – Interim Arrangements proposes to give powers to the Market Operator and the Regulatory Authorities to set aside the Modifications Process to make any changes they see fit arising from issues identified from the coming into force of the Code until six months after Go-Live.

The TSC already has a set of provisions for Urgent Modifications and it's not clear why the Market Operator has not given greater consideration to these provisions rather than proposing a set of new arrangements outside the normal governance process. At the October TSC Modifications Committee meeting the RAs stated that they had not sought this insertion in the TSC. In their comments fed through the Rules Working Group, the TSOs suggested that such a provision for new market implementation is commonplace given the amount of new systems being implemented. However, such a set of provisions were not required for SEM and SEM did have a lot of Modifications at market start.

ESB GWM is of the view that Provision H.2 should be removed from the TSC for the following reasons.

- The Modifications Process is well established and has been in place since 2007. The Market Operator and the RAs should continue to rely on it as opposed to potentially bypassing it for up to eighteen months (from coming into force until six months after Go-Live). The current modifications process requires due consideration to be given to changes including the completion of an impact assessment. The procedures in H.2 could reduce this basic requirement and could see the Market Operator and the RAs making changes to the market in haste without a full end to end consideration. There have been numerous instances in SEM where inconsistencies have been identified between the systems and the TSC and the Committee has worked with the Market Operator to address them.

- The criteria in H2 for using this bypassed procedure are very open and this creates uncertainty for the market. It will ultimately be for the RAs to decide on whether the proposal falls within H2 but it is conceivable that any potential change could be argued to come under H.2 (in particular H.2.1.1(b)). This is a level of uncertainty that the RAs should not seek to introduce.

- The I-SEM delay has given the TSOs additional time to carry out testing and market trials. This should provide ample opportunity to identify issues and to raise any required modifications either as urgent or as standard modification. To the extent that the TSOs feel the Urgent Modifications provisions are not sufficient, consideration should be given to amending them as opposed to bypassing the Modifications Committee as is proposed in H.2.

- Introducing this bypass procedure could be counterintuitive in that it could provide a backstop to all involved in the market where any one actor could take the view that rigorous checks etc. are not as important given that the TSC can be changed if needs be. This could introduce complacency in I-SEM implementation and the RAs should be concerned by this.

9. APPENDIX A: DETAILED COMMENTS

I-SEM TSC COMMENTS

ID	I-SEM TSC Reference	Short Title	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
1	B.7.2.9	DSU Registration	Consideration should be given as to whether it is still necessary to require RA approval for DSU registration. In particular, does the change in commitment model in the CRM make this clause less important than in the current market?		B.7.2.11
2	B.18.3.1(o)	Grounds for suspension	Cross default provisions between codes proposed by the TSOs are inappropriate. See detailed comment on main body of response.	This clause should be deleted	
3	B.18.3.1	Default	Consideration should be given to adding a procedural step where the MO indicates to the Party that they have applied to the RAs to issue a Suspension Order against them.		AP 18 – 3.2.1 (between Steps 3 and 4)

ID	I-SEM TSC Reference	Short Title	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
4	B.18.4.7	Suspension Order	The last part of this paragraph should be deleted. The TSO's response when this was raised through the RWG comments process B.18.6.1(d) presumes a direct causal link between initial default and subsequent defaults, however, each Default needs to be considered on its own facts. As such an existing Suspension Order may not adequately deal with the circumstances of a subsequent Default, e.g., the Units affected, nature of default, the timelines and/or remedies required. In the case of Suspension Orders issued under B.18.3.1, the MO should at the very least have to revert to RAs for authority.	The Market Operator shall lift the Suspension Order if the relevant Party remedies the matter or matters giving rise to the Suspension Order, or the circumstances giving rise to the Suspension Order no longer apply ~~and there are no other circumstances in existence which would entitle the Market Operator to issue a Suspension Order~~.	

ID	I-SEM TSC Reference	Short Title	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
5	B.18.4.8	Suspension Order	This should be deleted because there should be no requirement for the Market Operator to amend the Suspension Order once issued. It will have been issued in limited circumstances on foot of Regulatory Authorities approval or directly by MO under B.18.3.2 and the relevant time periods and suspensions/restrictions will be set out in the Order. In addition, B.18.5.5 already gives MO powers to do any act, matter or thing to give effect to the Suspension Order. If the MO has the ability to amend the Suspension Order, then the Participant will have no certainty with regard to what conditions must be met in order to comply with the Suspension Order and ultimately have it lifted.	Delete paragraph B.18.4.8	
6	B.18.6.1 (d)	Termination	Cross default provisions between codes proposed by the TSOs are inappropriate. See detailed comment on main body of response.	This clause should be deleted. If it is decided not to delete then an additional procedural step should be inserted where the MO tells the party that they are seeking RA approval to issue a termination order.	

ID	I-SEM TSC Reference	Short Title	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
7	B.19.2.1(c)	Reasonable Endeavours Obligations	As written, this almost suggests that for the subsequent 4 Working Days the parties don't have to act in good faith or use reasonable endeavours to resolve the dispute.	Suggest "within 1 Working Day; and" be replaced with "as soon as reasonably practicable but in any event,…".	
8	B.19.6.1	Dispute Resolution Board	In this paragraph, the word "notwithstanding" should be changed to "subject to" or possibly "without prejudice to". As currently drafted it suggests the authorised reps must meet even though the dispute may have been resolved otherwise under the timelines set out B.19.2 and B.19.4 or if not resolved it creates an additional step for B.19.2 and B.19.4 to take, whereas these disputes should proceed directly to B.19.6.2.	the word "notwithstanding" should be changed to "subject to" or possibly "without prejudice to"	
9	B.29.3.1(d)	Permitted Disclosure	Improve clarity of Drafting	Clause should be amended to "As may be required by a Market Code or the NEMO Rules".	
10	D.5.4.1	Validation Technical Offer Data	This paragraph severely restricts the ability of generators to update their TOD close to real time, as outlined in the main body of this response	Allow TOD changes until (around) Gate Closure 2, as proposed in previous TSC drafts	AP4: 2.7

ID	I-SEM TSC Reference	Short Title	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
11	D.7.1	Physical Notification Data	Concern that PNs may be rejected inadvertently due to limitations of TOD in the validation process (e.g. interpolation between Warmth States), as outlined in the main body of this response		
12	E.1.1.2(c)	Unit Constraint	Although the term "Unit Constraint" is defined in the Glossary, the TSC does not explicitly state which elements of TOD or COD are treated as limits for the purpose of Non-Marginal Flagging		Glossary Appendix N
13	E.2.2.4	Market Back Up Price	This paragraph implies the Market Back Up Price will be used whenever the Market Operator is unable to publish an imbalance price within 30 minutes (e.g. in event of unplanned outages to pricing or communication systems). However, E.3.8.1 provides for the Market Operator to publish corrected prices within 5 Working Days. We presume that corrected imbalance prices should be used whenever possible for settlement in place of the Market Back Up Price.	Propose that, whenever possible, the Market Operator should publish corrected prices within 5 Working Days (per E.3.8.1) to replace the Market Back Up Price	E.3.8.1

ID	I-SEM TSC Reference	Short Title	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
14	F.2.2	Ex-Ante Market Data & Renewable Aggregation	Currently no explicit provision for aggregation of renewables in ex-ante markets (above de minimis), despite HLD Decision (see main body of this response)	This section may require modification to support mapping of aggregate ex-ante trades to individual Generator Units	
15	F.2.2.2	Ex-Ante Market Data & Credit Assessment	There should be an additional paragraph added after F.2.2.2 stating that the Market Operator will make a facility available to participants to check their own credit assessment at any time. Also the result of the Market Operator's credit assessment for each participant should be made available to that participant shortly after completion by the Market Operator.		
16	F.2.7.1	DSU Demand Side Non-Delivery Percentage	What methodology will the TSOs apply to determine the Demand Side Non-Delivery Percentage (FNDDS) for DSUs? Should this be set out in the TSC?		
17	F.3.3.2(b)	Settlement Commercial Offer Data & NIV Tagging	Query why NIV Tagging of an action should result in that action being settled on its three part offers (see main body of this response)	Amend F.3.3.2(b) and delete F.3.3.2(b)(ii) to remove references to NIV Tags	

ID	I-SEM TSC Reference	Short Title	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
18	F.11.2.4(a)	Recoverable Start Up Costs	"*CSUR$_{uγ}$ for the first Imbalance Settlement Period, γ, within the Period of Market Operation shall have a value equal to value of the Start Cost submitted in accordance with chapter D relating to the Warmth State at the start time of the Period of Physical Operation*" Clarify the reference to the 'Period of Physical Operation' here, given that DQ is likely to be zero when start costs recoverable? Is the intent to consider the warmth state at the start of the last Period of Physical Operation before this Period of Market Operation?	Given that some time (e.g. days, weeks) may have passed since the start of the last Period of Physical Operation, consider whether more appropriate to refer here to "the Warmth State at the start time of the Period of Market Operation"	
20	F.18.6.1	DSU non-performance difference charges	The equation for DSU non-performance refers to QDIFFTRACK but how is this calculated if F18.4 and 18.5 do not apply to DSUs?		

ID	I-SEM TSC Reference	Short Title	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
21	Section B. G.2.6.2		This section addresses how Credit Call will be processed where both LOC and CRA exist, i.e., Market Operator has a discretion. ESB GWM does not agree with the amount of discretion here. If both CRA and LOC exist, there should at least be an agreement in advance with the Participant as to which credit support document will be called upon first and the other only where the first credit support document has been exhausted. Possibly this should be addressed in AP15 (Settlement & Billing – 3.3, Payment Default).		
22	G.7	Market Operator Charge	Could consideration be given to not having separate invoices for fixed and variable market operator charges? Either the fixed portion could be pro-rated on a weekly rather than monthly basis or the last invoice of the month could include the monthly fixed portion.		AP 15 – 2.4
23	Part B G.7.1.5		This paragraph references "Northern Ireland". Does this need to change to "United Kingdom"		
24	Part B G.13.1.1(k),(l)			"Risk Assessment Period r" should read "Settlement Risk Period r"?	

ID	I-SEM TSC Reference	Short Title	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
25	G.14.10.4	Undefined Potential Exposure for Generator Units	Query whether the implicit assumption of a normal distribution in the use of AnPP and standard deviation is appropriate for generator Billing Period Cashflows		
26	G. 14.13	Volumes traded not yet Delivered	Further consideration required for the equation in G.14.13.1. See response in main body.		
27	Part B G.15.1.1			Incorrect reference to ETND$_{pd}$ "as calculated in accordance with paragraph G.14.12.6" – should be G.14.13.1?	
28	Section B – H.2		Proposed procedure to bypass the Modifications process is not appropriate and should be deleted. See comment in main body of response. Notwithstanding this, some comments on H2 are included below for consideration in the event that the RSAs keep the TSO wording.	Suggest section is deleted.	

ID	I-SEM TSC Reference	Short Title	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
29	Section B – H.2.1.1(b)		This clause goes beyond what the TSOs have said they wish to achieve with H.2. Any issue affecting the "orderly, effective or sustainable operation of the SEM" should be considered by the Modifications Committee through normal processes.	This clause should be deleted.	
30	Section B H.2.1.2		Market Operator should be required to provide an impact assessment to the Modifications Committee when circulating the proposed change.	Insert "including an impact assessment" after "proposed Modification	

ID	I-SEM TSC Reference	Short Title	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
31	Section B H.2.1.3		Members of the Mods Committee should be given a minimum time period to review the proposed Modification. This could be set to normally be normally at least 10 Working days but can be reduced to 5 Working Days if the matter is particularly urgent.	When forwarding a proposed Modification under paragraph H.2.1.2, the Market Operator shall specify a time by which members should respond with their views. *This should normally be at least 10 Working Days but can be reduced to 5 Working Days having regard to the urgency of the proposed Modification.* ~~In specifying that time, the Market Operator shall have regard to the urgency of the proposed Modification.~~	
32	Section B H.2.1.3		The Market Operator should be available for a meeting or conference call with members of the Modifications Committee to explain the Modification proposal it has proposed.		
33	Section B H.2.1.4		In addition to providing views of the members of the modifications the Market Operator should be required to address and provide comment on any comment from the members also.	Add "*The Market Operator must also provide comment on the views of members of the Modifications Committee*" at end of sentence.	

ID	I-SEM TSC Reference	Short Title	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
34	Glossary	Cutover Time / Date	Part B, H1 (Interim Arrangements) refers to Cutover Date whereas Part C (Transitional Arrangements) refer to Cutover Time. Possibly it is intended that these will be separate definitions?		
35	Glossary	Working Day	Given that the SEM Bank can be located anywhere in the UK (not just Northern Ireland), consideration should be given as to whether any conflicts could arise around non-processing days etc.		
36	Glossary	Bid Offer Acceptance Time	Cross-reference to Appendix O.14 is incorrect and perhaps should be O.18		
37	Glossary	External Data Provider	Consistency check required with AP13, 2.2, para.5, which refers to System Operator, Interconnector Administrator and Meter Data Provider.		

ID	I-SEM TSC Reference	Short Title	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
38	Part C Transitional Arrangements	C.4 Parties and Accession Process	There may be confusion here regarding the Framework Agreement. There appear to be two Framework Agreements, the one in existence today and the revised Framework Agreement with any I-SEM changes made. Some distinction between the two documents may be useful, e.g., confirmation that C.4.1.1 is a reference to the existing Framework Agreement		
39	Part C Transitional Arrangements	C.4.1 Parties and Accession Process	Consideration should be given to the addition of a clause making clear that in the period before signing the revised framework agreement the Party continues to be a party to the Code.		
40	Part C – Transitional Arrangements	C.4.1.4	There is no reason why effective date has to come after the signature, this should depend on the facts. We have no visibility yet as to the materiality of the proposed amendments to the Framework Agreement nor the time between Amendment Date and Cutover Time.	Delete "…*provided that the date of receipt of the executed Framework Agreement shall be earlier than the effective date specified in the Framework Agreement*".	
41	Part C Transitional Arrangements	C.5.2.1	C.5.2.1 references "Cutover Date". Should this be "Cutover Time"?		

ID	I-SEM TSC Reference	Short Title	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
42	Part C Transitional Arrangements	C6 MODIFICATIONS COMMITTEE AND DISPUTE PANEL CONTINUE	Suggest that a pragmatic approach is taken where existing Modification Committee and Dispute Panel members continue until the later of one year and their next scheduled election as per timelines in current TSC.		
43	Appendix I, paragraphs 6 to 8	Technical Offer Data	Typos in references "paragraphs 11 to 1" and "paragraphs 8 to 1"?		
44	Appendix N, paragraph 1	System Operator Flagging	Concern over governance and transparency of Operational Constraints included in the Indicative Operations Schedule (see main body of this response)		
45	Appendix N, paragraph 1	System Operator Flagging	Concern that all actions on a Generator Unit are SO Flagged when one action is flagged (see main body of this response)	Further consideration of this proposal required due to risks to pricing efficiency as a result of over flagging	
46	Appendix N, paragraphs 5 to 9	NIV Tagging	Concern that NIV Tagging may undermine integrity of I-SEM pricing (see main body of this response)	Further consideration required	
47	Appendix N, paragraphs 10 to 12 (?)	PAR Tagging	Typo in paragraph numbering after paragraph 9 in this Appendix		

ID	I-SEM TSC Reference	Short Title	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
48	AP 1		The registration AP in the current TSC has a detail timeline set out for registration starting at AP1-62. There is no corresponding detailed timeline in the I-SEM AP1.	Detailed registration timeline, similar to page AP1-62 should be included.	
49	AP 6, page 25	Intraday Trade Quantity, Intraday Trade Price	Trade Quantity is shown with subscript u but Trade Price with subscript v – presumably these should be consistent?		
50	AP 9	2.12.1 Excess Cash Collateral	Bullet (b) here implies that Settlement Reruns will be fed through separate Settlement Documents. It is our understanding that there will only be on settlement statement and that these will include Settlement Reruns. This is supported in Section 2.3 (second paragraph) of AP 15.		
51	AP 9	3.2 Timing	Suggest that the timeline in Step 4 should be reduced. The MO can take up to two working days to check the letter of credit. This is a long time for the participant and it may affect their ability to trade.	2 WD requirement should be reduced based on shortest time that the MO can do the checks.	
52	AP 10	2.2.3	Following insertion should be made at start of last paragraph	*Subject to Para 2.5 (Cancellation and Termination of a Settlement Reallocation Agreement)…*	

ID	I-SEM TSC Reference	Short Title	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
53	AP 10	3.2	Step 6 – should come before Step 4. Otherwise the Secondary Participant will be left with no time to put alternative credit cover in place.		
54	AP 10	Appendix 2 Clause 5 of the SRA.		The following should be added to the end of the clause *"except to the extent that such SRA Losses are the direct result of the negligence, wilful default or fraud of the Market Operator or its directors, officers, employees, contractors or agents."*	
55	AP 10	Appendix 2 Clause 9 of the SRA	It would be preferable to include a longstop date at the end, e.g., *"provided the date is no later than XX days after the date of the Principal and Secondary Participants execution."* While we appreciate that the intention of AP10 is for the MO to review and execute "on submission", delays can occur. Therefore, to provide certainty with regard to the Principal/Secondary Participants commercial arrangements, there should be a more definite date.		

ID	I-SEM TSC Reference	Short Title	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
56	AP 10	Appendix 2 Draft SRA	The template should be suitably amended to reflect that the SRA may be cross currency zone. This could be achieved by including the participant identifier or a tick box to denote two currency zones.		
57	AP. 12		"Interested Parties" are mentioned throughout the document but is not defined in the TSC or AP Glossary		Glossary
58	AP 12	2.2 (Voting)	The sentence starting "For the avoidance of doubt…" with three bullet points (a) – (c) is not consistent with B.17.21.1(b). It should either be deleted or made consistent with B.17.21.1(b) by listing all those making up quorum.		
59	AP 13	2.3 (a) and (b)	Should "Settlement Statement" in points (a) and (b) read "Settlement Document". Note: in the current TSC points (a) and (b) end at €50,000. It's not clear why this addition has been made.		
60	AP. 14	3.1 Step 8.	Suggested drafting improvement. If left as is, it would be possible for a Disputing Party to hold up the procedures.	Recommend replacing "(unless a Disputing Party opposes this arrangement)" with "(unless otherwise agreed between the Market Operator and Affected Participants)".	

ID	I-SEM TSC Reference	Short Title	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
61	AP 14. 3.1, , 3.2 & 3.3		Suggest the formality of raising the dispute needs to be more than just email and suggest it uses fax/efax. Email communication can be quite informal and could lead to a dispute over whether a "Dispute" has actually been notified or whether the parties are simply attempting informal amicable resolution before commencing formal dispute procedures. In addition, B.32.2.2 (Notices) already provides that Dispute Notices are not intended to be served by email. Whilst the parties may be satisfied to receive copy Notices by email, timelines should only run from the prescribed post/fax date.	In 3.1, 3.2 & 3.3 replace "email" with fax/e-fax as appropriate.	
62	AP 14. 3.1 – Step 9.		Recommend the beginning be changed to *"If all or at least half of, Dispute Counterparties agree to extend…"*. Otherwise one dissenting Disputing Counterparty could hold up the procedures or unfairly hold the other Disputing Counterparties to an unrealistic timeline. The RA can then take into account that there has been one or more dissenting parties when granting or opposing the extension.	Add *or at least half of"* after "if all" in first sentence.	

ID	I-SEM TSC Reference	Short Title	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
63	AP 14. 3.1 – Step 14.		For clarity should also be headed up "Pricing Dispute". Also suggest that this step should occur at the beginning of the procedure when submitting the Appendix 2 Form.	Add heading "Pricing Dispute"	
64	AP 14	Definitions Negotiation Period And 3.1, Step 5	Step 5 and Negotiation Period state "subject to" the reasonable endeavours obligation in B.19. This seems to directly contradict the negotiation period set out in B.19.6.1 which states "notwithstanding" the reasonable endeavours obligation.	Amend to ensure consistency between Code and AP provisions.	
65	AP 15	2.10	This section should set out procedure referenced in the comment above on G.2.6.2 where Participant has more than one form of Posted Credit Cover, i.e., which form will be drawn upon first?		
66	AP 17	2.3	Should 17:00 in the second paragraph read 12:00?		
67	AP 18. 3.2.1, Step 2		Timing column should be amended to read "within the prescribed time period". The time period will be dictated by the Default Notice and also the effective date of the Notice, which will take into consideration notice periods under B.32.	~~Immediately on receipt of Default Notice~~ *Within the prescribed time period*	

ID	I-SEM TSC Reference	Short Title	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
68	AP 18. 3.2.1, Step 4		A copy of the notice to the RAs should also issue at the same time to the Defaulting Party. The Defaulting Party should be afforded time to challenge the Suspension Order.		
69	AP 18. 3.2.1, Step 6		Presumably "Registered Post" will be inserted in the Method cell here.		
70	AP 18. 3.2.2, Step 2		Timing column should be amended to read "within the prescribed time period". The time period will be dictated by the Default Notice and also the effective date of the Notice, which will take into consideration notice periods under B.32.	~~Immediately on receipt of Default Notice~~ *Within the prescribed time period*	
71	AP 18. 3.2.2, Step 3		Presumably "Registered Post" will be inserted in the Method cell here.		
72	AP 18. 3.4, Step 1		This should more properly refer to B.18.6 (involuntary Termination) and/or B.18.8 (Voluntary Termination). In the case of involuntary Termination, Defaulting Party should also be copied/notified of the intention of to seek Termination Order.		

ID	I-SEM TSC Reference	Short Title	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
73	AP 18. 3.4, Step 6		Timing cell should be amended to read "*in accordance with the timelines specified in the Termination Order*" because B.18.8.5 already sets out the effective date of the Voluntary Termination and B.18.7.1 provides for the involuntary Terminations.		

NB please add extra rows as needed.