Power NI Energy Limited
Power Procurement Business (PPB)

I-SEM Energy Trading Arrangements

Trading and Settlement Code

Consultation Paper

SEM-16-075

Response by Power NI Energy (PPB)

24 January 2017.

Introduction

Power NI Energy – Power Procurement Business ("PPB") welcomes the opportunity to respond to the consultation paper on the I-SEM Trading and Settlement Code (TSC).

Concerns with the TSC development process

PPB has actively engaged in the detailed design of the revised market arrangements, and has participated fully in the Rules Working Groups that were established to progress the development of the TSC. Whilst we supported this approach to the development of the TSC, we have major concerns that the engagement was constrained and the dynamic discussion and consideration of the intent and drafting of the various sections of the TSC, particularly in relation to pricing and settlement, that we expected did not happen and as a consequence the proposed TSC is not as robustly defined as it should be or would have been, had appropriate time and resources been available to provide a more thorough challenge.

We had anticipated the development process would have been an industry wide process but this quickly changed to become a TSO/MO driven process through which they largely developed the rules in isolation and the Working Group (WG) meetings provided little opportunity for engagement and discussion but rather became a broadcast high-level commentary on the papers that had been circulated. This in itself raises significant concerns given the TSOs and MOs are key participants in the market and have multiple roles that risk conflicts of interest as the potential for bias (conscious or unconscious) over their design interpretations, responses to participant comments and questions and ultimately the drafting slant of the TSC. There was limited third party oversight of the process which could have helped address this imbalance.

The volume of documentation driven by the compressed timetable, and the overlap with other substantive consultations and workstreams meant participants had inadequate time to review the documentation and attempts at discussion in the WGs were quickly closed down. Notwithstanding this, the separate Viridian business units submitted a substantial number of comments and queries. We note ESP's comment from their recent Stocktake report[1] which confirms that industry were overloaded and as a result the quality of the scrutiny was diminished which can only raise questions over the integrity and "fit for purpose" of the rules.

A further concern is that the proposed approach of developing the documentation in a sequential basis, deriving Plain English documentation against which the legal drafting could be correlated was not adhered to and hence we doubt the current draft could be verified to be fully aligned with the Plain English documentation. This makes it virtually impossible to assess whether the drafting is delivering the intent.

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[1] "the design has been developed in consultation with the industry, who have also been part of Rules Working Groups scrutinising that design - albeit recent workload at the Rules Working Groups has inevitably impacted the level of scrutiny of rules by participants, and hence the level of comfort that can be derived from this process"

There are also areas where the TSOs/MO have taken interpretations of policy decisions that may have unintended consequences. Examples include, (i) Imbalance Pricing where the energy imbalance price may not reflect the cheapest cost of unconstrained energy balancing action, (ii) calculating imbalance prices every 5 minutes, and (iii) allocation of Ex-Ante trade quantities, where the duration is longer than the imbalance settlement period, on a simple averaged basis. The effect of such interpretations on customer pricing and on the wider market interaction and dynamics is unknown. Many concerns were raised by participants throughout the WG phase on these approaches and while there were some adjustments made (e.g. to include the option to revert to the GB approach to NIV tagging), the proposed approaches remain unproven.

Tthere has only been very limited and simplified modelling and no prototyping of the rules. Undertaking such an exercise would have tested the veracity and integrity of the rules, particularly in relation to the Pricing and Settlement sections of the TSC that will affect the commercial success of the market. Again we note ESP's comments in their Stocktake report that "*it is best practice for complex areas of market rules to be prototyped to provide assurance that they work and do not give rise to unintended consequences*". The proposed I-SEM market design is more complex than most markets given the contemporaneous trading in the IDM and BM, dual BM bidding formats and different trading boundaries between Ex-Ante and Balancing markets. As a result the outcomes or expectation of outcomes in one market will influence behaviour in other market timeframes and hence there should be some degree of internal consistency and coherence across the markets. The drafting in the TSC in terms of BM pricing will affect this market dynamic and hence the need for modelling and prototyping is clearly evident.

As we note above, ESP have recommended in their Stocktake report that the market rules should be prototyped to provide confidence that they work. Our concern is that this should have been conducted at a much earlier stage and certainly before the algebra was provided to system developers given any re-working will result in significant change control costs. This is also a concern for sections of the TSC where drafting was progressed in advance of policy decisions (e.g. in respect of CRM Settlement) and which may require re-work (where the vendor has commenced systems development) should the decisions differ from the previous assumptions.

There are substantial sections of the draft TSC that remain to be completed and that are dependent on wider policy decisions. The sections that remain to be drafted are not an inconsequential sections and therefore we consider there remains a requirement for a further consultation on the finalised document, specifically focusing on those sections and on sections that are materially changed following this consultation.

Structure of response

We set out below (i) some general concerns with the draft TSC, (ii) responses to specific queries raised in the consultation paper and (iii) specific comments on the TSC drafting in the form of the template requested. Note that these specific comments represent an amalgamation of comments collated by Viridian Group based on input from each of the individual business units and from Viridian's corporate team (including Legal, Treasury, Finance, IT, and from the Viridian I-SEM project team.

<u>General Comments</u>

Parties to the TSC and obligations thereon

The RAs are not a party to the TSC yet there are many references to obligations on the RAs to undertake actions which, as they are not a party to the code, are unenforceable. Any such obligations should be removed. There are occasions where RA actions result in input to the TSC, such as through the consultation upon and determination of various parameters. In all such circumstances, the TSC should be drafted such that upon notice by the RAs of changes to those inputs, the actions that the MO must take following such notice are clearly set out.

Similarly there are a number of instances, such as in clause E.2.1.2, where obligations are placed on the MO to perform certain obligations upon request by the RAs. Any such obligations are more appropriately specified in the MO Licence and the outputs of any such obligation, where relevant to the TSC, should then be treated as a change of input and all the TSC need address is the action that is required following notice of a change to those inputs.

We also note that while Section B sets out obligations on various parties, there is no detailed specification in respect of obligations on the TSOs. As the TSOs have a significant role in the balancing market, their obligations should be specified in greater detail in a similar manner as is set out in section B13 for the MO obligations.

Complexity

The design of the I-SEM has developed into a very complex set of arrangements which we consider to be more complex than is necessary or warranted. This has resulted in extremely complex pricing and settlement algebra which as we have already highlighted is largely un-tested. The commercial impacts of these arrangements are difficult to predict and similarly it adds significant complexity to operation in the market. The primary causes of the complexity are :

    (i)   Dual Order Formats (complex and simple);

    (ii)   Parallel trading in the IDM and BM which means there will be:

- multiple data submissions of Bid/Offer data to be managed;

- scope for multiple Bid/Offer Acceptances (BOAs) which need to be matched with the correct data submission prices; and

- complexities added to cope with Substitution of trades, trading in the opposite direction to BOAs, and premium and discounted pricing.

(iii)   The use of Open Instructions which must be turned in to a "proxy closed" instruction for settlement purposes. This is further compounded by the decision to price over 5 minute intervals;

(iv)   The automated Tagging and Flagging process upon which pricing queries are not allowed but which drives the BM price and as a result participants' trading behaviour in the ex-ante markets.

This adds substantial complexity to the algebra and to the systems required to ensure that the market is settled at the correct prices. Testing of all the possible permutations will be a significant challenge and the development of proper models and proto-typing would have provided the basis to both confirm the logic and to develop test scenarios to test the systems once developed.

We remain extremely concerned that a lot of the complexity is unnecessary and could have been avoided and that this could have been identified at a much earlier stage had it been properly modelled whereas the cost of changing it at a later stage will be much greater for both SEMO and for participants who are developing systems to shadow the central systems.

Other gaps and flaws in the draft TSC

As noted earlier in this response, the TSC development process has not been as coherent as it should have been and has consequently resulted in a draft TSC that in addition to the complexity problems, has flaws and omissions that will impede the efficient functioning of the market.

A key issue for PPB is the failure to facilitate multi-mode capability in the BM. PPB trades units that can operate flexibly in either combined or open cycle mode with very different technical parameters and price structures in each mode. The DAM and IDM markets will facilitate trading of the units using mutually exclusive bids for each operating mode but when trading the units in the BM we will be forced to select an operating mode with no scope to select an alternative approved TOD data set over the course of the day following GC1. This conflicts with the TSOs requirements under DS3 where they actively seek the provision of flexible services to facilitate their operation of the system but the TSC proposals do not enable the delivery of such flexibility through the market.

A further key concern that cuts across both the TSC and the Capacity Code is the risk to generators under Reliability Options where such generators will be exposed to paying out under the RO when they are not dispatched for reasons beyond their control. The I-SEM is a centrally dispatched market and hence generators cannot simply self dispatch to manage (some of) the risks. We believe generators' payment obligations should be waived in such circumstances and to do otherwise will mean higher costs for customers as generators will have to make provision for this risk in

the bids into the CRM auction. Such events outside the control of a generator include:

(i) planned network outages (where the generator is also declared unavailable for 5 days);

(ii) Gas network failure or limitations that require re-dispatch on backup fuel;

(iii) TSO forecasting errors resulting in their failure to dispatch the generator or to dispatch the generator in a manner that makes it unable to respond (e.g. dispatching the generator off which creates an exposure during the generator's minimum off time);

Such risks may also be compounded by the LNAF and SIFF parameters that may skew TSO decisions and similarly the failure to facilitate multi-mode operation may exclude generators from dispatch because their selected TOD data set does not reflect the actual capability of the units to commence operation in open cycle mode with only a few minutes notice.

Increased Market Risks for Generators

Generators' market risks are significantly higher in the I-SEM, particularly for mid-merit generators whose scheduling and dispatch mostly depends on the availability of Wind. This leads to scheduling risks in the DAM where the scheduling will be heavily influenced by how wind generators choose to participate in the ex-ante markets and by the demand participant strategies. There remains uncertainty over the offer formats that will be available to help mid-merit generators manage such risks given the uncertainty they will face over how to allocate startup and no-load costs. Such generators will have similar difficulties trading in the IDM which may well be illiquid and hence generators may have difficulty securing trades.

In addition to these energy market risks the generators will also face substantial exposures under Reliability Options particularly where they have not been able to secure ex-ante trades and are relying on the TSO dispatching them in the BM on all occasions when scarcity pricing events occur. We are concerned that the process to determine whether there is a shortfall in reserve could result in scarcity pricing even where there is no real scarcity. This could arise because of TSO forecasting errors, and we fear this risk is compounded by the pricing being conducted over 5 minute windows when the data used may not support such calculations. If these risks are not managed by ensuring scarcity pricing only occurs for genuine reasons, then generators' only option would be to price this risk into their CRM bids which will ultimately increase costs for consumers and/or increase the risk to security of supply.

We also highlight that the load following adjustment to the RO obligation is of lesser benefit to mid-merit generators whose ex-ante market scheduling is most volatile and who may not achieve a traded or dispatched position to meet even a reduced obligation.

We have similarly highlighted concerns earlier in this response over the wider exposure to payments under the CRM where generators are unable to meet their RO obligations for reasons beyond their control (e.g. due to electricity or gas network

failures or TSO actions) which again exposes generators to very substantive financial risks which if not addressed will ultimately be reflected in higher costs for customers. Viridian provided a response[2] to the escalation on the issue of exposure to CRM difference payments which provided suggestions to remove such risks.

Generators are also exposed to a number of regulatory risks where the governance over changes to key parameters is not robustly defined. Of most concern is the Tagging and Flagging methodology which is opaque with results emanating from a "black box" and which market participants have little scope to query or challenge. The rules and functionality of this process must be formally baselined and documented and assurance provided that the system is functioning in accordance with these rules. Change control must thereafter be locked down such that changes can only occur having followed a rigorous process.

We are also concerned over other parameters such as the ASP and CRM parameters where changes could undermine the assumptions used by generators when formulating their RO bids. For example in a T-4 auction, the generator will need to take a view on their potential RO liabilities but those payments would reflect the ASP curve. Hence if the RAs were to change the curve just in advance of the year T, then the generator would be exposed to that change. The TSC should remove such risks by tying the ASP for any year to the ASP curve notified to CRM participants prior to the auction. Similar risks exist in relation to exchange rates, etc.

Operational risks are significant

The detailed design of the market and the implementation of that design through the requirements set out in the TSC place significant operational risks on participants that increase their trading risks. We have already identified a number of these risks above in relation to the complexity of the I-SEM, including :

- Dual Order Formats (complex and simple);

- Parallel trading in the IDM and BM with further operational risks arising from trades being conducted at different trading points;

In addition there are other features that create operational difficulty and which increase participants' system requirements and require significant risk management overhead. These include:

- The difficulty forecasting BM prices which, as Poyry highlighted in their report to the EAI[3] appraising issues with the imbalance settlement methodology, is likely to result in unpredictable pricing, not least driven by the Flagging and Tagging methodology which may exclude lower cost BOAs from setting the BM price. There is also a risk that failure to included fixed costs from early Balancing actions as an uplift to the BM price, will lead to a pricing discontinuity relative to the IDM which will need to reflect such fixed costs;

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[2] Response titled "Comments in response to Escalation 'Exposure to the CRM Difference payment due to Operational Constraints'" submitted on 25 November 2016
[3] Poyry report to the RAI titled "Review of I-SEM Imbalance Pricing Methodology" and provided to the RAs on 19 May 2016

- Trade Substitution of BM trades by trades concluded in the IDM provides a different basis for pricing since the conclusion of any trade that would result in substitution will naturally reference the pricing relative to the expected BM price and the original Bid/Offer acceptance price, rather than the value of incremental trading in the IDM;

- The DAM and BM are both traded in Dual Currencies, using the daily exchange rate published by SEMO to translate the trades between Euros and Sterling. However IDM trading is being conducted solely in Euros which creates exchange rate risks for NI based participants who will be transacting all their other trades in Sterling. This adds operational complexity for PPB and, more widely, could inadvertently influence market dynamics by influencing decisions on which markets NI participants trade in. There is little difference between the DAM and the IDM and trading in Dual currencies should be facilitated in the IDM.

- The collateral requirements are substantially increased in the I-SEM and each market is operating in silos with only limited scope for credit netting between the DAM and IDM markets[4] and with no credit netting between the Ex-Ante and Balancing markets. This was raised as a critical issue at the High Level Design stage but as the detailed design has evolved, the separation has got progressively worse such that there is less scope for netting across the markets and the scope for credit netting between Generators and Suppliers has also reduced in the BM. This has a major impact for participants, given that failure to have sufficient collateral excludes participants from trading in that market. Hence participants will need to have very active credit management processes in place to manage costs and trading foreclosure risks.

The aggregate of the above means that trading is operationally complex and addressing the above issues would be beneficial for market participation and lower costs for customers.

Balancing Market price formulation

The derivation of BM prices is critical as the cost of imbalance will directly influence participants' trading strategies and hence liquidity in the ex-ante markets. This is also particularly critical as a consequence of the high level of wind generation that exists in the I-SEM. Prices should be internally consistent across the market timeframes and any inadvertent distortion of prices in the BM will affect the market dynamics and any such inefficiency will result in poorer outcomes for customers.

There remains significant uncertainty over how SO-SO trades are addressed. Such trades should not be conducted on more preferential terms than can be accessed by I-SEM participants and hence the pricing should reflect the BM price that all generation or demand not contracted in the Ex-Ante markets can access, including any Administered Scarcity Pricing. There must also be restriction on TSO actions to

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[4] Possible if a participant appoints a Clearing Bank but this may not be achievable for all participants

ensure SO-SO trading does not trigger ASP or increase prices over what they would have been had no SO-SO trading occurred.

We have highlighted above concerns that have been raised with the automated Tagging and Flagging methodology that is opaque and for which no rigorous pro-typing has been conducted to give any comfort on the integrity of the proposals. This is further compounded by the proposals to determine prices on a 5 minute basis which will inevitably result in many small BOAs in each 5 minute window, the effect of which is unclear. The Poyry report[5] highlighted a number of concerns with the pricing and set out examples where pricing gave unexpected results. The methodology must be pro-typed prior to Market Trials and a full description of the "black box" must be documented with strong change control governance established around it.

We have also previously stressed our concerns about the impact of BM pricing on the wider market dynamics and as we have noted above, the proposals would benefit from an extensive pro-typing exercise, including testing the potential impact of pricing in the BM on market dynamics and incentives to trade in the Ex-Ante markets. ESP recommended pro-typing the market rules in their Stocktake report and our interpretation is that "market rules" in this context must represent the end to end market arrangements from the DAM through to the BM.

Administered Scarcity Pricing Methodology

The proposals in relation to ASP have a number of flaws. Firstly while the ASP curve is established as a piecewise linear curve, the fact is that the TSOs will disconnect demand before exhausting the reserve. Hence at the point where the TSOs take such action, the demand control action will mean the ASP is set to equal FASP. As a result the ASP curve is not a smooth curve that progresses smoothly to FASP but will jump to FASP at the point the TSOs determine the minimum reserve requirement at which they instigate demand control measures. This should be corrected such that any early demand control actions are corrected for or removed such that the curve remains smooth and only triggers FASP when reserves are exhausted on an unconstrained basis.

The formulae in the TSC also make no allowances for TSO decisions, including forecasting errors and rescue trades to GB. Participants should not be exposed to TSO decisions or errors, or emergency arrangements with National Grid and hence the ASP pricing must make provision to correct for and remove any such distortions to avoid contaminating the true underlying price.

Information Imbalances

While we note that information imbalance charges are proposed to be set to zero at the commencement of the I-SEM, we remain concerned that the potential for such charges remains. Such charges would be discriminatory since they would primarily be a charge affecting mid-merit generators whose daily load factor will be volatile,

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[5] Poyry report to the RAI titled "Review of I-SEM Imbalance Pricing Methodology" and provided to the RAs on 19 May 2016

depending heavily on the output of wind generation and hence will be exposed to wind forecasting errors and the trading strategies adopted by wind generators. Other factors that will also influence the predictability of production for mid-merit and peak generators will include demand forecast errors, generator availability, trading strategies adopted by other generators and relative pricing and/or scarcity in interconnected markets that affect interconnector flows.

Given these uncertainties are all beyond the control of a generator, levying a charge for failing to accurately predict its final PN will not change the underlying volatility and hence the imposition of a charge will just increase the risk and cost to generators which will result in higher costs that will ultimately be recovered from customers e.g. through its bids to the energy market or via a higher price in the CRM auction. In either case this will result in higher overall costs for consumers. The proposals should be abandoned and removed from the TSC.

Response to Specific Queries raised in the Consultation Paper

Chapter F – Ex-Ante Contract Refusal

We do not agree with the proposition that a previously executed Ex-Ante contract could be refused in the Balancing Market. The contract will have been conducted with an unknown counterparty and the consequences of refusal are unclear.

We do not understand how the contract could be repudiated in a different market (DAM or IDM) that has already taken account of the trade and may have adjusted interconnector flows to reflect the transaction, which in turn will amend the potential for subsequent trades to occur on the relevant interconnector. The repudiation of a trade (even if it were legally possible which we doubt), would leave two parties out of balance and would have frustrated and/or distorted other potential trades that could have occurred, the extent of which would depend on the timeframes involved between the contract being executed and the refusal under F.2.2.3. Further, if the trade was price setting in the DAM any repudiation would mean the pricing in the DAM is incorrect yet we don't believe there would be any scope to re-run the DAM in such circumstances.

If the proposition is to not cancel the Ex-Ante trade but to just ignore it for settlement purposes then that would create an artificial imbalance in the BM.

The problem, to the extent it exists, arises because of the failure to facilitate credit and collateral netting across the DAM, IDM and BM where SEMO are the BM market operator and the TSOs are the designated NEMOs. The best solution is to reconsider the credit and collateral arrangements, particularly as the segregation of collateral is even worse than was anticipated when the industry, when responding to the HLD proposals, stressed the need for a netting arrangement (e.g. there is may only be scope to net off between the DAM and IDM markets if a participant can appoint a clearing bank). This additional segregation increases participation costs

even further. This is a major market design failure when SEMO are a common entity with responsibility across all the markets.

Chapter H - Interim Arrangements and overlap with urgent modifications in B.17.16

We believe the provisions of Chapter H.2 are not required and that the existing Urgent Modifications process should be used for any necessary urgent amendments. Further, clause H.2.1.1(b) is very broad and any modification could satisfy this requirement which is inappropriate. We believe using the existing modifications arrangements provides proven and much better governance arrangements and should be used for all modifications.

Part C - Transitional Arrangements – Modifications Committee and Disputes Panel resignation.

We do not see any need for requiring all members to resign after one year. The TSC is rolling forward with revisions to switch between the existing market rules (Part A) and the I-SEM rules (Part B) and it would be simpler to maintain the existing process whereby half of the member's terms expire each year with subsequent new appointments or re-elections. There is no reason for this process to be abandoned and we understand 50% of the posts will up for selection around the time of I-SEM commencement.

Specific Comments on the Draft TSC

SEM-16-075 Draft TSC Part B: Chapter A - Introduction and Interpretation

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
1	A1.1.3	Introduction	1	A1.1.3 refers to "paragraph (b)" – probably intends to refer to "A1.1.2" [suspect referencing]	Delete reference to "paragraph (b)" and replace with: "paragraph A.1.1.2"	N/A
2	A.2.1.1	Scope and Objectives	2	DS 3 arrangements are interlinked with code and should be references	Reference DS 3 arrangements appropriately through the code	N/A
3	A.2.2.2	Code Scope and objectives	2	A.2.1.2 reference to "includes" should be singular? [suspect typo]	A.2.1.2 reference to "includes" should be "include"	N/A
4	A.4.2	Calculations (a)	5	The terms "MW" and "MWh" are not defined	"MW" and "MWh" to be defined in the Glossary	Glossary
5	A.4.2	Calculations (g)	5	"ramp rates (MW/min)" Units do not appear in Glossary and should it be referring to "Ramp Rates"?- only reference to the Unit (MW/min- appears in "Net Output Function"- Para D.6.2.1 (page 93) [suspect definition/ unit]	Reference to "ramp rates" and unit "MW/min" needs to be checked- not immediately apparent they are being used correctly here.	Para D.6.2.1 (page 93)

SEM-16-075 Draft TSC Part B: Chapter B - Legal and Governance

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
6	B.4.1.2 (b)	Priority	7	Reference to "Disputes process" should be to "Disputes Resolution Process"- parties should not be obliged to participate in some other disputes process [suspect typo]	B.4.1.2 (b) change reference to "Disputes process" to "Disputes Resolution Process"	N/A
7	B.13	Legal and Governance	7	The role and obligations of the System Operator should be set out clearly in the Trading and Settlement Code.	Similar to the approach taken in B13 the roles and obligations of the System Operator should be set out.	
8	B.4.1.6	Priority	8	Insert the word "Parts" to ensure consistency	B.4.1.6 before the word "Chapters" insert "Parts"	N/A
9	B.7	Registration Wind Aggregation	11	Under the current proposals wind will not be able to aggregate in-market wind units. Without being able to avail of aggregation such units will have to be traded separately, increasing the complexity of trading and settlement processes and systems, and bloating resourcing requirements. This unnecessarily increases the cost of market participation.	A practical solution to the aggregation of wind needs to be found and reflected in the TSC. One solution may be that unit participation is only mandatory for dispatchable units.	
10	B.7.2.1 (f)	Participation Notices	11	There does not seem to be any definition of who the "Agent of Last Resort" is	Define Agent of Last Resort	Glossary

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
11	B.8.1.2 B.8.2.1	SEM NEMOS and Shipping Agents	18	B.8.1 and B.8.2 is confusing as it has the NEMO as Scheduling Agent under B.8.1.2 but then in B.8.2.1 says that a A Party (not sure who) shall be appointed to be the Scheduling Agent of the Shipping Agent which seems to conflict with the fact under B.8.1.2 that says the Scheduling Agent is the NEMO.	Clarify SEM NEMO roles and responsibilities.	F.2.2.4
12	B.8.1.3	SEM NEMOS and Shipping Agents	19	Whilst there is an obligation created to notify there is no process or timelines for such notification	Insert appropriate process and timelines with respect to notification by Participant of changes with respect to SEM NEMOs	N/A
13	B.9.3.1	Generator Unit with Non-Firm Access	20	The term "qFAQst" is not defined in the Glossary	Insert definition into Glossary of qFAQst	Glossary
14	B.10.1.8	Registration	23	The term "Interconnector Technical Data" does not appear to be defined anywhere.	B.10.1.8- define what is meant by "Interconnector Technical Data"	Glossary
15	B.10.1.15	Registration	24	B.10.1.15 defines the term "Interconnector Administrator Grace Period" it would be helpful if that definition is therefore referenced in the Glossary	B.10.1.15- no change, but defined term "Interconnector Administrator Grace Period" should be cross referenced in the Glossary	Glossary
16	B.14.1.5 (d)	Obligations on Parties	31	This is a new free standing obligation it is considered that this is already adequately captured in the relevant rules surrounding submissions and licence obligates	Delete clause	
17	B.15.1.2	Balancing Market Operations Timetable	31	It is our understanding that information under paras (a); (b) and (c) are by Participants to MO- therefore references to Systems Operator should be removed	Remove references to "Systems Operator" in B.15.1.2 (a) to (c) inclusive.	

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
18	B.15.1.3	Balancing Market Operations Timetable	32	"Reasonable endeavours" obligation is too low a threshold- given the importance of time tables	Change "reasonable endeavours" to "best endeavours"	
19	B17.3.1 (b), limbs (i) & (ii)	Constitution of the Modifications Committee and Voting Rules	34	As drafted this leaves the code vulnerable to there being no Generation or Supply member from a jurisdiction- i.e. it is possible that all the Supply or Generation members are from one jurisdiction	Amend B.17.3.1 (b) (i) & (ii) so that there is at least 1 Generation member and 1 Supply from each respective Jurisdiction.	
20	B.18.3	Suspension	48	Given much of the trading in the NEMO will be prefunded the full extent of exposure to the Balancing Market should be reviewed and provisions considered as necessary.	Viridian request clarity supported with examples how SEMO can invoke this provision when participants default in the NEMO market resulting in suspension from the Balancing Market.	
21	B.19.9.1	DRB Procedures	59	Is the referencing correct? Should it be as per suggested draft	B.19.9.1:- For the purposes of paragraphs B.19.2.1, B.19.4.2 B.19.4.1, and B.19.6.2 and B.19.6.3, a Dispute is deemed to be referred to the DRB as of the date of the receipt or issue of the Referral Notice by the Market Operator	N/A
22	B.19.14.1 (c)	Consequences of DRB Decision	61	Word "appropriate" gives too much discretion to MO, and makes it vulnerable to accusations that it did not do what was "appropriate"`	B.19.14.1:- (c) take any other action that the Market Operator considers appropriate necessary to implement the decision.	N/A
23	B.22.1.1	Concept	64	The structuring of this paragraph is a little confusing and would benefit from being split out and renumbered- to avoid any argument that the criteria are a to i inclusive, should just be a to c inclusive, with the inclusions then split out and the exclusions split out.	B.22.1.1, split out the criteria, the inclusions and the exclusions.	N/A

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
24	B.22.3.2 & B.22.3.3	Consequences	66	These paragraphs do not apply to the MO, position in relation to the MO is set out in B.22.3.1 and the position under the current TSC should be re-instated.	B.22.3.2 When an Affected Party is rendered wholly or partially unable to perform all or any of its obligations under the Code by reason of Force Majeure, the Affected Party's relevant obligations under this Code shall be suspended and the Affected Party shall be relieved from liability, subject to paragraph B.22.3.3, in respect of such obligations provided that such liability and suspension shall be of no greater scope and of no longer duration than is required by the Force Majeure. B.22.3.3 The Affected Party shall be relieved from liability only for so long as and to the extent that the occurrence of Force Majeure and/or the effects of such occurrence could not be overcome by measures which the Affected Party might reasonably be expected to take as a Prudent Industry Operator with a view to continuing or resuming performance of its obligations as appropriate.	N/A
25	Deletion of Entire Agreement provision			The deletion of the Entire Agreement Provision (which was at 2.341 of the TSC is ill advised- the Code should represent the "entire agreement" in relation to what the Code covers	Reinstate clause 2.341 of the TSC, with suitable amendments to remove references to "pool"	
26	B.32.2	Notices to Other Parties	71	Generally- the ability to serve notices by fax- as opposed to e-fax should be preserved (i.e. fax is a fall back communication channel- if IT systems are not operating e-fax will not operate either)	Amend notice provisions to cater for service of notices by FAX.	
27	B.32.2.5	Notices to Other Parties	71	Incorrect clause reference	B.32.1.5 change reference to "B.32.2.5" to "B.32.2.6".	

SEM-16-075 Draft TSC Part B: Chapter D – Balancing Market Data Submission

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
28	Chapter D	Dual Order Formats	N/A	The use of dual order formats within the I-SEM balancing market (complex and simple orders) is unorthodox and could result in an anomaly in imbalance price formation – i.e. the start costs associated with longer notice plants may tend to not be included in the imbalance price calculation. This could result in a systemic difference in price formation between the intra-day and balancing market that could distort trade incentives.		
29	D.2.1.2 (a)	Gate Closure	85	GC1 could occur prior to receipt of day-ahead market results (e.g. in the event of full decoupling). This presents potential commercial risks to participants and if inaccurate data is used in scheduling systems it could result in inefficient early dispatch decisions. GC1 is not really a gate closure as there is further opportunity to change all data, it is a requirement to submit initial data.	Consideration should be given as to whether use of the term 'Gate Closure' is appropriate and the deadline for submission of data should be amended to be the later of either 13:30 TD-1 or 30mins after publication of EUPHEMIA results.	
30	D.2.1.2 (a)	Submission of Initial PNs	85	If timing of GC1 are not changed and requirement to submit Initial PNs remains 13:30 TD-1 then if EUPHEMIA results are delayed beyond this deadline participants should be exempt from any information imbalance charging. Our objections to the concept of Information Imbalance Charging are set out in detail in Section 2 of this response. We appreciate the charge will be set at zero for go live but its presence represents a latent risk for participants and if the mechanism is not removed from the code participants should be exempted from the charge, at the very least until the time that EUPHEMIA results are published.	If Information Imbalance Charging mechanism is not removed from the code participants should be exempted from the charge under the circumstances described in our commentary, at the very least until the time that EUPHEMIA results are published.	F.10

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
31	D.3.2.2	Data Submission	85	This clause implies that a Validation Data Set Number is required to be submitted at every GC1 gate. This however seems to contradict D.5.4.1 and D.5.4.2 taken in conjunction with paragraphs 7 and 8 in appendix I, which imply submission of a A Validation Data Set Number is optional.	Clarify the code so there is no ambiguity for participants in this area.	D.5.4.1, D.5.4.2 and Appendix I paragraphs 7 and 8
32	D.3.2.2 (c)	Physical Notification Data	85	Term is not defined in glossary	Define term in glossary	Glossary
33	D.3.2.2.(d) to (f)	Forecast Profiles	85-86	Reference to paragraphs is inconsistent across paragraph sub-section (a) to (e).	Either remove referencing and ensure it is included correctly in Glossary or add relevant referencing across all terms.	
34	D.3.2.3	Submission of TOD Data	94	Participants should be able to change their TOD data within day to provide additional flexibility. The scheduling and dispatch risk for multi-mode units could be significantly reduced if multi-mode is facilitated.	The market rules and central market systems should facilitate mutually exclusive submission of commercial and technical data for different potential operating configurations, or allow intra-day changes to technical parameters – i.e. the ability for a generator to switch between operating modes within day.	
35	D.3.2.3 (c) to (e)	Forecast Profiles	86	Reference to paragraphs is inconsistent across paragraph sub-section (a) to (e).	Either remove referencing and ensure it is included correctly in Glossary or add relevant referencing across all terms.	
36	D.3.2.6	Prudent Electric Utility Practice	86	We do not believe that Prudent Electricity Utility Practice is relevant to submission of commercial offers to the balancing market?	Remove reference to Prudent Electricity Utility Practice and if provision is maintained then find an alternative suitable criteria for MO.	
37	D.4.2.7	Simple Bid Offer Data	88	Reference to D.4.3.4 looks incorrect? Should be D.4.4?	Amend reference from D.4.3.4 to D.4.4	
38	D.4.2.9.	Minimum Output Profile	88	The last sentence states that Forecast Minimum Output values must be zero except as otherwise specified – where is this specified?	Add reference as to how/where this is specified. We do not believe it is included in Appendix I but suggest it could be included there.	Appendix I
39	D.4.2.8 to D.4.2.13	Obligations relating to submission of data	88	Unclear what the rationale is for the difference in the drafting of the obligation across these paragraphs.		
40	D.4.4.3	Price Cap and Floor	89	Unclear why price cap and floor are being applied to bids and to price outcomes.	Application of price caps and floor to bids and offers and market prices must not prevent recovery of costs or restrict the proper function of the market – i.e. introduce missing money.	E.3.6.3

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
41	D.5.1.1	Units for TOD data items	90	No units are set out in code, appendix I or glossary for technical data items not referenced in D.5.1.4 or D.5.1.5.	Units for technical data items should be clearly set out.	Glossary – List of Variables
42	D.5.1.4 and D.5.1.5	Additional TOD Items for 'Special Units'	90 and 91	Unclear why these provisions are required as already covered in D.5.1.1 to D.5.1.3 given inclusive definition of 'Generator Units'. Specific data items to be submitted by each generator class are then set out in Appendix I.	Consider removing paragraphs D.5.1.4 and D.5.1.5 subject to adequate description being included in referenced appendix I including units for each data item.	Appendix I
43	D.5.2.3	Approved Validation Set Number	92	This is not defined in glossary	Define term	Glossary
44	D.5.3.1	Drafting	92	Wording of final sentence in paragraph is confusing.	We believe the last reference to "Validation Data Sets" should be changed to "Approved Validation Data Set"	
45	D.5.4.1	Submission of TOD	92	Participants should be able to update their TOD within day and have them reflected in settlement for that day. See comments on provisions f or multi-mode operations.		
46	D.5.4.1	Validation of Data Transactions containing Validation Technical Offer Data	92	It is not clear why submission of change in TOD is required 10 minutes before GC1 given the extensive time still available prior to real time physical dispatch. The importance associated with correct TOD for the initial scheduling run seems inconsistent with the lack of concern regarding accurate PNs (when EUPHEMIA results are delayed) – see comments on D.2.1.2 (a) above. We also observe that a Validation Data Set Number could be submitted as part of every submission – if this is how participants chose to set up their systems and processes. This clause thereforecould override Clause D.3.2.2 which only requires TOD submissions prior to GC1.	Remove the words "at least 10 minutes".	D.3.2.2
47	D.5.4.3	Notification of Technical Data to SO by MO	92	The need for this paragraph is unclear as this data transaction is covered via Appendix J. It does not seem to be explicitly stated for COD.	Suggest removal of D.5.4.3.	

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
48	D.5.4.4	Drafting	93	We do not believe the wording "in respect of that Imbalance Settlement Period and any subsequent Imbalance Settlement Period in the same Trading Day" Is required unless participants can update TOD within day.		
49	D.6.2.1	Net Output Function	93	Should this condition be at the start of chapter D as a blanket statement.	Consider revising the placement of this paragraph within Chapter and make section D.6.2 specific about SO translations using Net Output Function.	
50	D.6.4.2	Derivation of Actual Availability	95	We would welcome confirmation that using the average outturn availability in conjunction with the mechanism used to adjust offers under D.4.4.6 will not result in errors in settlement.	Use maximum instead of average and confirm appropriateness of mechanism for adjusting bid and offer prices	D.4.4.6
51	D.6.5	Interconnector Availability	95 to 96	There are a large number of undefined terms used in this section.	Provide definitions to all terms used within the glossary.	Glossary
52	D.6.5.4 and D.6.5.5	Interconnector Availability	96	References to "relevant agreement" should be made more specific. What types of agreements?	Provide more clarity.	
53	D.7	Physical Notification Data	96	Physical Notification Data is not defined in glossary, nor is 'some other capitalised terms in this section.	Please provide definitions in glossary.	
54	D.7.1.3	Physical Notification Data	96	This clause seems problematic as participants may not be able to achieve an ex-ante contract position that meets their intended running profile and therefore in conjunction with D.7.1.5 they would be subject to potential adverse treatment under the settlements algebra (e.g. PN bias) or potential sanction by the MMO.	Revise clause to make it consistent with the intended market design.	D.7.1.5
55	D.7.1.4	Physical Notification Data	96	It is not clear what "consistent with" means. Does it mean it must comply with the TOD or is there some discretion?	Clarify what "consistent with" means in this context.	
56	D.7.1.6	Physical Notification Data	97	We do not believe defaulting to zero in all circumstances is optimal. It could make PNs inconsistent with technical data as there could be large ramps down to and ramp ups from zero. This could have an adverse impact on TSO scheduling.	Consider extrapolating between PN data submissions in some cases – e.g. if only a single settlement period is missing.	
57	D.7.3	Generator Unit Under Test	97-98	There are a large number of undefined terms used in this section	Please provide definitions of these terms in the glossary.	Glossary

SEM-16-075 Draft TSC Part B: Chapter E – Imbalance Pricing

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
58	Chapter E	Imbalance Pricing Period	N/A	The use of a 5 minute imbalance pricing period increases scheduling and dispatch risk.	Implement appropriate mechanisms under the code to exclude capacity market participants form making difference payments due to circumstances that are beyond their control.	
59	E.1.1.2 (C)	Definition of term 'Operational'	99	"Operational" is not a defined term and believe this should refer to "Operational Constraint"	Define or change term	Glossary
60	E.1.1.2 (d)	Referencing	99	E.3.4 is a section and not a paragraph	Change "paragraph" to "section"	
61	E.1.1.4	Curtailment Price	99	"Curtailment Price" is undefined in glossary	Define term	Glossary
62	E.2	Imbalance Pricing – SO Data Provision		Viridian would welcome clarification of the data transactions required between the System Operator and SEMO to facilitate the calculation of the imbalance price by SEMO. These do not seem to be included in Appendix K.	Include references to where these transactions are captured within the code.	Appendix K
63	E.2.1.1	Parameter Setting	99-100	Viridian would welcome confirmation that these parameters will be fully consulted upon and that industry inclusive testing of the imbalance pricing methodology will be carried out on 'real-world' scenarios to inform this consultation process.	N/A	
64	E.2.1.2 & E.2.1.3	Role of MO	100	It does not seem consistent with the role of the MO to advise the RAs on the setting of these policy parameters. The role of the MO is to perform the administrative functions required to operate the market.	Suggest removal of paragraph	
65	E.2.2.1 and E.2.2.2	Imbalance Price Publication Times	100	Given the importance of the imbalance price to trading decisions Viridian would appreciate if the maximum time afforded to the MO to publish imbalance prices on a pricing period and settlement period basis could be reduced. The Markets decision references a typical time of 15 minutes for publication of the imbalance price in the GB market. We would also welcome reassurance that following system testing this maximum time will not be increased.	Reduce the maximum time for publication of the imbalance settlement price if possible.	
66	E.2.2.3	Timing of imbalance pricing	100	System environments should be designed to minimise the need for scheduled outages. If scheduled outages do occur they should be of minimal duration and carried out at off-peak times - e.g. overnight or weekends?	We would welcome an obligation reflecting our comments in this area being introduced into the TSC.	

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
67	E.2.2.4	Use of Market Back Up Price	100	If an issue is expected to last a reasonably short time period (one or two Imbalance Settlement Periods) then it may be more appropriate to use the last available imbalance price and switch to the back-up price for the next open imbalance settlement period following appropriate prior notification to market participants if the issue is expected to be longer term. Similarly, if the issue is only for a few Imbalance Pricing Periods it may be better to calculate the price using the available pricing periods in that imbalance settlement period. These measures could avoid large swings in the imbalance price for short or even single periods. If these issues can be corrected post-event then we would expect the imbalance price to be corrected and the periods re-priced under manifest error because the market back up price is unlikely to equal the imbalance price that should have been published. We would welcome confirmation that this will occur under the code.	Revise use of market back-up price as set out in comment and confirm re-pricing will occur under E.3.8.1.	E.3.8.1
68	E.3.1.2	Accepted Offer Quantity and Bid Offer Price for Demand Control	101	We are still unclear as to why these provisions are required. We note under E.4.6.2 the Bid Offer Price for Demand Control is set equal to the FASP for Affected Imbalance Pricing Periods and under E.4.7.1 the Demand Control Price is set at the same level under the same conditions. Under E.4.2.3 and E.3.6.3 respectively the Administered Scarcity Price is set equal to the maximum of the Demand Control Price and the Reserve Scarcity Price and the Imbalance Price is set equal to the maximum of the Initial Imbalance Price and the ASP. As the Bid Offer Price for Demand Control is set at the same level as the Demand Control Price, and under the same conditions we do not see why the actions described under E.3.1.2 are required. We are concerned that they could result in local demand control events influencing imbalance pricing or triggering ASP. We hope this is prevented by E.4.5.1 (a). If this is prevented by E.4.5.1 (a) then there seems to be no reason for the process described under E.3.1.2 to be in the code.	Previously raised as comment 1528. Confirm if actions described under E.3.1.2 are required and if not remove this process from code.	E.4.6.2, E.4.7.1, E.4.2.3, E.3.6.3 , E.4.5.1 (a) and E.3.1.2

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
69	E.3.2.5	Ranking Adjustments	101	We appreciate that adjustments are small and will not materially impact the imbalance price but could drafting be more explicit on this point?	Clarify drafting.	
70	E.3.3.2	System Operator Flags	102	Description of system operator flags provided in Appendix N is insufficient. See section 3 of main response and comments on Appendix N.	Provide appropriate governance arrangements and full transparency flagging and tagging process, including advanced warning of changes,	Appendix N
71	E.3.3.3	Non-Marginal Flags	102	Description of non-marginal flags provided in Appendix N is insufficient. See section 3 of main response and coments on Appendix N.	Provide appropriate governance arrangements and full transparency flagging and tagging process, including advanced warning of changes,	Appendix N
72	E.3.5.3	Imbalance Price Tag	103	Term is undefined in glossary.	Provide definition of term.	
73	E.3.6.3	Price Cap and Floor	89	Unclear why price cap and floor are being applied to bids and to price outcomes.	Application of price caps and floor to bids and offers and market prices must not prevent recovery of costs or restrict the proper function of the market – i.e. introduce missing money.	D.4.4.3
74	E.3.6.3	Market Price Cap and Floor	104	Viridian assume the Market Price Cap and Market Price Floor will be consulted upon as part of the parameter setting process for I-SEM. We would welcome confirmation of this.	Confirm that the Market Price Cap and Market Price Floor will be consulted upon.	
75	E.3.8.1	Manifest Error in Pricing	104	Cross reference our earlier comment on paragraph E.2.2.4	We would welcome confirmation that scenarios such as set out in our comment on paragraph E.2.2.4 are covered.	
76	E.4	Administered Scarcity Price	105	Viridian note that no provisions have been introduced to the market rules to prevent administered scarcity pricing being triggered due to scarcity in reserves caused by issues on the gas transmission system. Gas-fired participants should not be subject to substantial financial loss as a result of problems relating to the delivery of gas through the gas transmission system as such issues are outside of their control.	The market rules must be amended to remove this risk.	Chapter F
77	E.4.3.1	Reserve Scarcity Price Function	105	We would welcome confirmation that the role of the MO in this instance will be restricted to implementation of the RA defined curve. We would also welcome confirmation that determination of the Reserve Scarcity Price Curve will be subject to full industry consultation.	Role of MO should be clearly defined and be limited to implementation of RA decision.	

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
78	E.4.3.1	Reserve Scarcity Price Function	105	The policy decision regarding the basis for determining the reserve scarcity price curve has not been taken and one of the options presented was inconsistent with the description provided in this paragraph. This paragraph therefore either prejudges the outcome of the consultation or is inconsistent with it.	Align paragraph to policy decision if required.	
79	E.4.3.2	Reserve Scarcity Price Curve	106	Requirements for qRSC(N) have not been set – i.e. highest quantity under the curve.	Clarify any relevant criteria for this quantity.	
80	E.4.4.1	Determination of the Reserve Scarcity Price	106	We are concerned that the reference to the "most recent Indicative Operations Schedule" is not precise and could refer to one of the longer term dispatch runs when these are published. We would prefer the use of "Actuals" rather than a IOS that will have forecasting errors in it since the point of lockdown ofinputs is not specified – e.g. it could be using a wind forecast that is 8 hours old.	Please review and clarify that it is the short term run that is used assuming this is the intention, which it seems to be given wider context. Use of the Actual Dispatch would remove forecasting errors, errors caused by IOS run failures, etc.	
81	E.4.4.1	Determination of the reserve Scarcity Price	106	The term "based on" provides no precise definition	Detail the exact process for determining the Operating Reserve Requirement Quantity.	
82	E.4.4.2	Definition of qSTR	106	Definition increases scheduling and dispatch risk – see section 3 of response and Viridian response to recent escalation.	Definition should be changed to available installed capacity.	

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
83	E.4.4.3	Reserve Scarcity Price	106	Governance arrangements for operation reserves requirements are unclear and we are concerned that there may be a lack of transparency around System Operator reserve management policies (e.g. see comment 818). Under paragraphs E.4.4.1, E.4.4.3 and E.4.5.1 (a) the operational reserve requirement used by the System Operator within their real-time dispatch tool effects the trigger level for Reserve Scarcity Pricing. Therefore changes to operational reserve requirements will alter the likelihood of Administered Scarcity Pricing occurring, particularly at times of system stress; increasing scheduling and dispatch risk for participants (discussed later within this response). While we appreciate that reserve requirements need to be managed dynamically by the System Operator to ensure system security, given the potential financial implications for participants, it is essential there is a high-degree of transparency and appropriate governance arrangements put in place.	Ensure full transparency and appropriate governance for TSO reserve management.	E.4.4.1, E.4.4.3 and E.4.5.1 (a)
84	E.4.5.1 (a)	Determination of Demand Control	106	Viridian would welcome clarification that this provision results in demand control events only triggering ASP if Reserve Scarcity is also in effect – i.e. ASP cannot be trigger by local or jurisdictional demand control events.	Propose removal of co-triggers for an ASP event from the list (i) to (vi) under E.4.5.1 (b), that relate to jurisdictional voltage driven issues (i.e. removal of subsections E.4.5.1 (b) (i) and E.4.5.1 (b) (ii)	
85	E.4.5.2 to E.4.6.2	Determination of Demand Control Quantity and Bid Offer Price for Demand Control	106	We are not sure why these provisions are required – see our comments on paragraph E.3.1.2 above.	Confirm if provisions are required and if they are not then remove them.	E.3.1.2
86	E.4.5.2 (b)	Determination of Demand Control Quantities	107	The term "based on" provides no precise definition	Detail the exact process for determining the Operating Reserve Requirement Quantity.	
87	E.5	Market Back Up Price	108	This section should include algebraic formula to provide clarity on the intent of the drafting.	Set out methodology in algebraic terms.	

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
88	E.5	Market Back Up Price	108	Consideration should be given to using intra-day trades only for this calculation as in theory the price of such trades should be closer to the imbalance price. Inclusion of day-ahead trades may increase the error relative to imbalance pricing in previous periods when Market Back Up Price is used. We are concerned how frequently the Market Back Up Price may be used given the large number of constraints in the system.	Consider inclusion of only intra-day trades in the average.	
89	E.5.1.2	Market Backup Price	108	If intra-day products longer than the ISP are traded (e.g hourly products, or products such as EFA block, peak or baseload) use of the product price could skew average calculation.	If product durations of longer than ISP are likely to be frequent scale prices associated with products that have trade durations of longer than DISP by a recent historic typical day type price profile.	
90	E.5.1.3	Market Backup Price	108	This clause specifies that if data isn't available then the most recent available data should be used. However, this may not be appropriate if the data was more than a few hours old.	In such instances consider using prices from the previous day (or some combination thereof) to give a more realistic price.	
91	E.6	Curtailment Price	108	This section should include algebraic formula to provide clarity on the intent of the drafting.	Set out methodology in algebraic terms.	
92	E.6	Curtailment Price	108	Same potential issues as identified for E.5.1.2 and E.5.1.3 exist as identified for the methodology used in E.5. See above.	Suggested solutions are the same.	
93	E6	Curtailment Price	108	Should this price not just be calculated for wind units. Reference through section is to Generator Unit, which is nebulously defined.	Clarify the units that the price will be calculated for in the code drafting.	
94	E.6.1.2	Curtailment Price	108	We are concerned that using the absolute trade volume will result in the incorrect calculation of the average trade price achieved by a Generator Unit in the ex-ante spot markets creating exposures for wind units.	Review calculation and if incorrect do not use the absolute volume.	
95	E.6.1.3	Curtailment Price	108	Use of incorrect data opens up a financial exposure for wind units. We would welcome reassurance that resettlement will occurs when the required information becomes available.	Ensure resettlement of the position occurs when required information becomes available.	

SEM-16-075 Draft TSC Part B: Chapter F – Calculation of Payments and Charges

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
96	Chapter F	General Comment	109- 217	It is a concern that the settlement algebra for suppliers is largely marked as dependent upon the Supplier Charging Decision. This contributes to the points made about process. The SEM Committee should return to Eirgrid's original drafting of net demand capped at zero.	Eirgird's drafting of net demand capped at zero should be reinstated.	
97	F Calculation of Payments and Charges	General Comment	109-217	Viridian have significant concerns about the excessive complexity of the settlement algebra which will reduce transparency make it extremely challenging for participants to shadow settle the ISEM market which ultimately creates unnecessary commercial & resettlement risks to be managed/recovered and furthermore this complexity requires participants to develop and maintain complex and expensive systems.	Viridian would emphasise the pressing need to carry out extensive, industry inclusive, testing of the settlement algebra to ensure it generates settlement as intended by the algebra outlined in the T&SC (also noted in the ESP stocktake report) and furthermore that such testing is fully transparent and inclusive of industry.	
98	F Calculation of Payments and Charges	General Comment	109-217	The use of open instructions, which facilitated minimal change to System Operator dispatch systems, has created extensive and unnecessary complexity in the settlement algebra. This complexity will make shadow settlement of balancing market actions significantly more challenging under the I-SEM arrangements and could lead to a significant decrease in market transparency (e.g. see previous comment 821).	Closed instructions should be used to simplify settlement processes.	
99	F Calculation of Payments and Charges	General Comment	109-217	The use of two types of order format (complex and simple orders) in the balancing market further complicates the settlement algebra including a requirement for a make whole payment mechanism.	A single order type should be used to simplify settlement processes.	

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
100	F Calculation of Payments and Charges	General Comment	109-217	Parallel opening of the intra-day market and the balancing market has required excessively complex concepts to be introduced within the settlement algebra, including but not limited to the requirement to manage: • Multiple actions for any given settlement period priced on different orders submitted by the generator at different times during the trading day (multiple acceptances); • Substitutive PNs whereby the volume of bid offer acceptances in the balancing market are adjusted relative to any subsequent changes in a units ex-ante contract position; and • The introduction of complex mechanisms to manage the payment of premiums and discount based upon the trading behaviours of balancing market participants in the intra-day market relative to bid or offer acceptances by the System Operators in the balancing market.	Reconsider the parallel opening of both the intra-day and balancing markets.	
101	F Calculation of Payments and Charges	General Comment	109-217	Given the lack of fully functioning prototype modelling of the settlement algebra it is unclear how SEMO will test the central systems. The complexity of the algebra leads to a high risk of unintended consequences, as well as errors in both its design and implementation in central market systems. It also makes proto-typing and testing the algebra extremely difficult (e.g. we note the substantial difficulty SEMO has had in providing participants with spreadsheets that model the algebra).	Viridian would emphasise the pressing need to carry out extensive, industry inclusive, testing of the settlement algebra to ensure it generates settlement as intended by the algorithm outlined in the T&SC (also noted in the ESP stocktake report) and furthermore that such testing is fully transparent and inclusive of industry.	
102	F.2.1.3	Interpretation	110	There is no reason why a mix of pumping and generating should not be reflected in an Imbalance Settlement Period	Delete the clause	N/A
103	F2.2.1	Ex-Ante Market Data	111	The words "for a participant" imply some participant responsibility. This is not the case	Remove the words	
104	F2.2.1	Ex-Ante Market Data	111	How are Scheduling Agents linked to NEMOs?	Clarify how scheduling agents are linked to NEMOs.	B.8.1 & B.8.2

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
105	F.2.2.3	Contract Refusal	112	The implications of contract refusal are unclear. Does NEMO stand over the trade with the participant? If so would the refusal end up in a participant being paid twice? Eg A generator who sold in the DAM has contract refused by SEMO creating an imbalance for the participant but then the participant is dispatched in the BM and receives payment in the BM?	The implications that proposals in the T&SC have on the NEMO rules, Grid code and CMC (and vice versa) must be considered holistically to ensure the effective operation of I-SEM. This should be considered in general but particularly in respect to credit requirements, trading incentives, barriers to entry and the overall commercial opportunity of I-SEM.	
106	F.2.2.4	Contract Refusal	112	Paragraph states the contract refusal does affect any submitted Physical Notification. Does this not expose participants to imbalances?	See previous comment. Implications of contract refusal need to further assessment.	
107	F.2.2.5	Ex-Ante Market Data	112	The failure of the Scheduling Agent to provide data from the DAM and IDM is not within the control of participants and it is unreasonable that participants bear the risk which affects its settlement costs, collateral calculations etc.	Clarify impact on settlement and collateral requirements including resettlement	
108	F.2.2.6	Ex-Ante Market Data	112	Linked to F.2.2.3 comment	Clarify impact on settlement and collateral requirements.	
109	F.2.4.8	Dispatch Data	114	SO Trade pricing concern – where are these rules set out and how is it ensured that SO Trades do not occur at more favourable terms than participants can access.	Clarify where the rules on SO trade will be set out.	
110	F.2.6.5	Timings Conventions	115	Does the aggregated settlement cater for Intraday products longer than 1 hour. Eg a 4 hour block.	Clarify the use of aggregated settlement period.	F.5.1.4 E.5.1.2
111	F.3.3.1(a)	COD to be used	117	Prices are not for a Trading Day" which is 24 hours but could be for the remaining 2 ½ hours only	Define as "… Trading Day or remaining part thereof …."	
112	F.3.3.2(a)	COD to be used	118	Prices are not for a Trading Day" which is 24 hours but could be for the remaining 2 ½ hours only	Define as "… Trading Day or remaining part thereof …."	
113	F.4.2	Setting of Loss Adjustment Factors	119	Governance & Structure – the TSC should just lift the TLAFS that are set and agreed outside the TSC and are an input to it	Delete clauses F.4.2.1 through F.4.2.4	
114	F.5.1	Setting of Imbalance Payment or Charge Parameters	123	The obligations here are not appropriate for the TSC and should be obligations in the MO's Licence	Delete clauses F.5.1.1 through F.5.1.2	

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
115	Section F.5.1.1	Imbalance Weighting Factor	123	Why is the Market Operator proposing the Imbalance Weighting Factor to the RAs. Participants carry the risk associated with the Imbalance Weighting Factor chosen and therefore it should be set only after full consultation with industry.	The consultation should be RA led with views sought from independent experts.	
116	F.5.2.5	Calculation of Ex-ante Quantities	125	This is an example of unnecessary complexity brought about by the decision to have half hourly imbalance pricing. The algebra weighting methodologies will result in participants being exposed to imbalances with potentially no ability to trade the imbalance. In some instances it may incentivise participants to trade in one market over the other. Eg a supplier with an ability to forecast accurate HH profile may decide to ignore the hourly DAM and instead enter in the HH IDM1.	Change the RA decision to be that the imbalance price period will be set to lowest granularity that be traded in Ex-ante markets. So in the case of I-SEM if a half hourly solution to the IDM cannot be implemented the imbalance settlement period should be an hour. The imbalance settlement price would be the average of the 12 5min imbalance prices.	
117	F5.2.6	Calculation of Ex-ante Quantities	125	This algebra may result in both wind participants and suppliers who can accurately forecast from ignoring the DAM as trading in the DAM will create imbalances that need to be traded in the IDM. Eg. A wind unit knows its output will be 100MWh in HH1 but 0MWh in HH2. By trading in the DAM the 100MWh will be split into 50MWh in each HH period creating an imbalance in both.	Comment is highlighting that by having markets with different granularity may create trading incentives in one market over the other. Ideally all markets DAM, IDM and BM should have the same trade/settlement durations.	
118	F.6.1.1	Premium and Discount component quantities and payments	134	It doesn't seem to be good practice to swap subscripts rather than setting the rules out precisely.	The settlement algebra is difficult to interpret. It should be simplified as discussed in previous comments.	
119	F.6.7.5	Ranked Price Sets	147	The assumption employed in the ranking mechanism employed for bids and offers in the mechanisms to deal with biased PNs and uninstructed imbalances is false within the context of I-SEM and does not work in the case of multiple acceptances across time (e.g. see previous comment 201). The extent of this issue will depend upon volume of early acceptances made on a unit by the System Operator and their timing – i.e. if they are before or after gate closure.	Reconsider the parallel opening of both the intra-day and balancing markets.	

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
120	F.8	Curtailment Quantities, Prices, Payments and Charges	155	This section of the code will need to be amended in the event a solution to wind aggregation can be delivered.	Review the aggregation rules for I-SEM.	
121	F.10	Information Imbalance Quantities and Charges	165	There is a risk that implementing information imbalance charges will raise barriers to trading in ex-ante markets (increase costs of trading) without guaranteeing any benefit to the TSO in relation to more accurate information, unless the point of the charge is to disincentivise trade to make system management easier.	Remove charge as it acts as a levy on ex-ante trading. There does not seem to be any reason to ever move the charge from zero which it will initially be set in I-SEM.	
122	F.10.1.2 F.10.1.3	Setting of Information Imbalance Parameters	165	Viridian is concerned by the reliance upon Eirgrid, acting as System Operator, to provide recommendations on the parameters used in the Information Imbalance Charging methodology. These parameters have material commercial impacts upon participants and directly impact upon Eirgrid acting as System Operator.	Information charges should be removed completely from the code. However, in the event the charges remains the parameters used should be on the basis of analysis carried out by independent experts.	
123	F.10.1.2, F.10.2.1	Setting of Information Imbalance Parameters	165	PN Submission Period is not defined and as there can be an infinite number of submissions, how are these used?	Define PN submission period.	
124	F.11	Fixed Cost Payments and Charges	167	This section of the code has not had any prototype modelling to ensure it works appropriately. Generators should have a level playing field in cost recovery and Viridian believes there are instances the algebra for fixed cost payments and charges does not provide that.	The functionality should be rigorously tested across a large number of different scenarios to ensure that generators are not subject to under-recovery of submitted costs under the BM design. Under recovery of costs would contravene the principle of revenue adequacy and therefore undermine security of supply.	

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
125	F.11.2.2	Fixed Cost Payments and Charges	168	There is no compensation for a generator whose start is delayed by the TSO such that the generator moves beyond its heat state boundary - e.g. moves from hot to warm, or from warm to cold. For example, a generator may have priced a hot start into its ex-ante market trade but in dispatch its start is delayed by the TSO such that it is actually on a warm start. In such a scenario the generator has incurred additional costs (the delta between its hot and warm start costs) which are not paid to it under the mechanism. This has already been confirmed from Project team response to comment 1562 submitted during the rules process.	The functionality should be rigorously tested across a large number of different scenarios to ensure that generators are not subject to under-recovery of submitted costs under the BM design. Under recovery of costs would contravene the principle of revenue adequacy and therefore undermine security of supply.	
126	F.16.1.1 F.16.1.2	Setting of Information Imbalance Parameters	165	Viridian is concerned by the reliance upon Eirgrid, acting as System Operator, to provide recommendations on the parameters used in the setting of the strike price. These parameters have material commercial impacts upon participants and directly impact upon Eirgrid acting as System Operator.	The parameters used should be on the basis of analysis carried out by independent experts. Relying upon recommendations from an independent expert in the setting of these parameters would therefore avoid any potential perception of a conflict of interest in these areas.	
127	F.16.1.1	Setting of Strike Price Parameters	177	It is inappropriate to use monthly fuel indices for the strike price calculation. This could result in difference charges being triggered as a result of volatility in spot commodity markets rather than reserve scarcity. Viridian note that setting the strike price on monthly fuel indices does not improve incentives on generators to maintain capacity and make it available to the System Operator but instead transfers financial risk and potential financial loss from suppliers onto generators. In effect the market rules provide suppliers with an ex-gratia cap on their exposure to commodity price movements.	Daily fuel indices should be used in the strike price calculation.	

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
128	F.16.1.5	Setting of Strike Price Parameters	178	The determination of the values is vague. They should be inputs with Governance relating to their determination specified outside the TSC	These parameters should be provided 4 months prior to the commencement of the CRM Auction and must then be applied in the relevant capacity year. Query can there is different strike prices and indexation arising from different auctions e.g. Y-4 vs Y-1 and also from contracts awarded for more than one year.	
129	F.18 F.20	Difference Charges and Difference Payments	180 & 208	The decision to proceed with mixed reference pricing for reliability options has added further significant complexity to the settlement algebra. There is also the risk that the settlement algebra required to facilitate mixed reference pricing could result in unanticipated trading incentives, given the lack of modelling that has been carried out on the market rules.	Extensive prototype modelling of the Capacity settlement algebra is required.	
130	F.18.1	Setting of Difference Charge Parameters	180	Same as for F.16.1.5 – also should these not be fixed when bidding in to a T-4 auction and applied in the capacity year otherwise regulatory risk	These parameters should be provided 4 months prior to the commencement of the CRM Auction and must then be applied in the relevant capacity year	

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
131	F.18.2	Capacity Quantity Scaling Factor	180	Viridian observe that the application of load following adjustments does not provide adequate protection to CRM participants from the financial exposures associated with scheduling and dispatch risk within the context of the capacity market design because the reduction in capacity market obligations under the load following adjustment is implemented pro-rata across all capacity market units relative to market demand consumption, not proportional to the ex-ante contract or dispatch levels of capacity market participants. The load following adjustment consequently does not remove exposure to difference payments for CRM participants, who through no fault of their own, may receive a contract position, or be dispatched to a level that is below their capacity obligation, due to scheduling and dispatch risk. A proper solution to this issue is therefore required (e.g. see comment 535).	Viridian has made a number of reasonable and constructive suggestions below. • Restrict the obligation on CRM participants to make difference payments under the CRM by making it contingent upon ex-ante scarcity warnings being issued by the System Operators (e.g. see comment 698). • Change the definition of scarcity so it is based upon the available capacity margin rather than operational reserve (e.g. see Viridian escalation response). • Utilise the concept of a "valid offer" to determine the liability of capacity market participants to make difference payments under the CRM (e.g. see comment 535 and Viridian escalation response). • Implement an ex-post appeals mechanism to allow CRM participants to appeal difference charges if certain criteria are met (e.g. see Viridian escalation response).	
132	F.18.2.3		181	qCDERATEGLF is not defined	Define the term	
133	F.18.3.1	Calculation of Stop Loss Limits	185	By setting stop loss limits on the maximum of the secondary trade price or primary trade price means that trading in the secondary market at a price below the primary auction price will increase stop loss limits more than the value of the trade warrants. We are concerned this could act as a barrier to secondary trade and further exacerbate liquidity issues.	Extensive prototype modelling of the Capacity settlement algebra is required.	

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
134	F.18.3.1(c)	Calculation of Stop Loss Limits	183	There could be up to 20 different PCPIPAs for year Y given there will be Y-4, Y-1 auctions and the potential for units with 10 year contracts.	Extensive prototype modelling of the Capacity settlement algebra is required.	F.18.3.2
135	F.18.6	Calculation of Non-Performance Difference Charges	200	There is no provision in the current algebra to account for the inability of capacity providers being unable to meet their obligations due issues outside of their control. Reasons a capacity participant may not be able to deliver on its capacity obligation include gas transmission outage, electric transmission network outage, firm access and being held back for operating reserve.	Rules must be changed to not impose financial risks to capacity participants who cannot deliver for reasons outside of their control.	
136	F.20.3.1	Calculation of Imbalance Difference Payments	212	Imbalance Difference Payments are calculated using QMLF which can change significantly between initial and M+ 13 settlement. That M+13 resettlement of volume should be allowed to filter through to the tracked difference shortfall amount. This will not be possible	Remove F.20.5.3 and F.20.5.5 from the code. Viridian does not believe there is any scenario where it is acceptable to either reduce the tracked difference shortfall amount or set it to zero. The inclusion of these measures within the code suggests there may be some more fundamental flaws with the design of the I-SEM CRM.	
137	F.20.5.3	Tracked Difference Shortfall Amount	215	The inclusion of SEMO having the capability to propose changes to the tracked difference shortfall amount removes the supplier hedge against the RO strike price. SEMO indicate (see previous comment 1584) that the inclusion is consistent with the RA CRM decision. It can also be argued that the RA decisions were not consistent from one consultation to the next.	Remove paragraph from the code. Viridian does not believe this is consistent with the RA decision to provide suppliers a perfect hedge against the RO strike price. It is also unclear how SEMO could propose changes to individual supplier units in an equitable manner. Viridian does not believe there are any circumstances where the reduction in this amount would be acceptable. The fact that measures like this have been included in the code suggests some fundamental flaws with the market design.	
138	F.20.5.5	Tracked Difference Shortfall Amount	215	Like F.20.5.3 this measure removes the hedge against the RO strike price for suppliers.	Remove from code. It is not appropriate to set the tracked difference payment shortfall amount to zero at the start of each capacity year.	

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
139	F.21	Socialisation Fund	216	Eirgrid, acting as SEMO, have extensive provisions to manage shortfalls in the CRM Socialisation Fund (e.g. see comments 1584, 1585 and Viridian's response to the recent escalation "Exposure to the CRM Difference Payment due to Operational Constraints"). These include the ability for SEMO, with approval from the Regulatory Authorities, to change the capacity charge within year (paragraph F.19.1.6), reduce payments owed to suppliers by changing their Tracked Difference Payment Shortfall Amount (paragraph F.20.5.3) and the standing provision that a supplier's Tracked Difference Payment Shortfall Amount is set to zero at the start of each capacity year (paragraph F.20.5.5). It is unclear how these provisions will be used by Eirgrid, or the cash flow risk Eirgrid will manage, but these measures facilitate the wholesale transfer of risk from Eirgrid onto suppliers undermining incentives to prudently manage the level of the socialisation fund. One of the stated benefits of the RO scheme is that it provides suppliers with a perfect hedge at times when the market price is above the RO strike price. The inclusion of these measures within the T&SC however means that suppliers are no longer guaranteed to be held whole against the strike price, but rather could be subject to large financial exposures, and be forced to manage substantial cash flow issues.	Remove F.20.5.3 and F.20.5.5 from the code. Viridian does not believe there is any scenario where it is acceptable to either reduce the tracked difference shortfall amount or set it to zero.	

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
140	F.12.1.4 F.13.1.4 F15.2.4 F.19.1.6 F.20.5.3	Within year changes to tariffs	109-217	Eirgrid, acting as SEMO, have extensive mechanisms under the T&SC to manage cash flow issues. These include a number of provisions for managing shortfalls in the CRM Socialisation Fund (discussed in detail in the next bullet point) and provisions to facilitate potential changes to the Imperfections Charge and Currency Cost Charge within year. Use of these provisions can be prompted by Eirgrid and implemented with the approval of the Regulatory Authorities (e.g. see paragraph F.12.1.4 and F.15.2.4). This translates a cash flow issue for Eirgrid into a potential financial exposure for suppliers (e.g. see previous comment 1568)	Ability for mid-year reviews of tariffs should be removed.	
141	F.12.1.4 F.13.1.4 F15.2.4 F.19.1.6 F.20.5.3	Within year changes to tariffs	109-217	In all cases where the code facilitates changes to a market charge within year a minimum lead time between the decision to change the charge and its effective date should be set out in the code to provide suppliers with an opportunity to make required changes.	Ability for mid-year reviews of tariffs should be removed.	
142	F.21	Socialisation Fund	216	Due to the design of the CRM the socialisation fund has significant importance to suppliers as it acts to fill the "hole in the hedge". The fund must be able to ensure that suppliers are not exposed to the full ASP price. Shortfalls in the fund represent a major risk and financial burden which endangers asset light suppliers.	In order to alleviate the cash flow burden the socialisation could be prefunded by suppliers before the start of I-SEM.	
143	F.21	Socialisation Fund	216	The provisions included for management of the socialisation fund allow wholesale transference of cash flow risk from Eirgrid to suppliers. Under provisions this risk could result in substantial financial loss for suppliers. It is unclear how these provisions will be used while no analysis has been presented to the working group in relation to the potential financial (e.g. see previous comments 1584 and 1585).	Extensive modelling on issues affecting the socialisation fund and its size should be carried out ahead of the first CRM auction.	
144	F.21.1.2	Socialisation Fund	216	Paragraph F.21.1.1 provides the detail for calculating the socialisation fund balance. Paragraph F.21.1.2 then allows the MO to apply adjustments.	Clarify what these adjustments are?	

SEM-16-075 Draft TSC Part B: Chapter G – Financial and Settlement

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
145	Chapter G	General Credit Parameters	218-278	Viridian has long advocated or a reduction in the undefined exposure period for Suppliers. Currently this is set at 16 days. As illustrated by the recent SoLR event in Northern Ireland an event can happen in as little as 2/3 days.	Reduce the undefined exposure period.	
146	Chapter G	General Over Collateralisation	218-278	Viridian recognise that credit & collateral provisions in relation to Exante and Capacity markets are outside the scope of this consultation but consider that given the significant impact to participants a combined review of the credit & collateral provisions across all markets is necessary to ascertain a complete impact assessment and to make a proper informed evaluation of the appropriateness of the current design and provisions.	Viridian believe that prototype modelling and stress testing of the market rules on bad debt and credit requirements is required to ensure participants are not exposed to excessive financial exposures and costs of participation are not excessive. Eg.Default of a significant participant, sustained periods of high prices and administered scarcity pricing.	
147	Chapter G	General Credit Cover Parameters	218-278	Viridian acknowledge that there will be a parameter consultation phase and strongly recommend that credit parameters are appropriately reviewed to ensure that credit requirements are not excessive and also validate the assumptions used in the proposed parameters, for example the UDE makes assumptions on SOLR timelines which have a significant impact on credit.	See previous	
148	G.2.4	Settlement Calendar	226	Calendar should also be republished in a timely manner should errors be discovered or ad hoc settlement be required. This should be included in the T&SC drafting. Within 1WD would be our preference.	Clarify that the calendar will be updated as and when required.	
149	G2.7.5	Bad Debt	230	Viridian has concerns about the potential domino effect when a participant defaults during sustained periods of high prices and administered scarcity pricing.	Viridian believe that prototype modelling and stress testing of the market rules on bad debt and credit requirements is required to ensure participants are not exposed to excessive financial exposures and costs of participation are not excessive	

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
150	G.14.7	Undefined Exposure for Supplier Units	260	Viridian believes the use of 100% gross demand for the undefined exposure calculation will result in a significant over collateralisation of I-SEM. Some suppliers will likely purchase much of their demand requirements in the ex-ante markets.	Supplier historic ex-ante positions should be taken into account when determining the credit requirement that participant will have in the balancing market.	
151	G.14.8.1	Calculations in respect to capacity charges	263	If participants are replicating the calculation, (CCP for all units for the full undefined exposure period) results of the capacity auction will be only available from the MO website.	This should be a published annual value.	
152	G.14.8.1	Calculations in respect to capacity charges	263	The QUPEB for all Supplier units is not available to participants.	This should be a published annual value.	
153	G.14.9	Undefined Exposure for Generator Units	263	Maintaining the use of historic outcomes to determine collateral requirements will result in generators that are consistently constrained down from their ex-ante position having to post credit. The cost of posting this credit will make that generator less competitive as it will be an additional cost the generator has to recover.	Review I-SEM credit requirements across all market timeframes.	
154	G.14.15.3	Calculation of Forecast Amounts of Settlement Reallocation Amounts	270	Formula requires (DEDARA) which equals the end date of Reallocation Agreement however in workshops it was agreed that Agreement could be evergreen.	Redraft of formula or ensure system meets principle	
155	G.14.15.4.5	Calculation of Forecast Amounts of Settlement Reallocation Amounts	270	Formula makes primary and secondary reallocation equal. Unsure if this is correct in feeding into future calculations	Requires validation and signage. Believe primary should not equal secondary.	

SEM-16-075 Draft TSC Part B: Chapter H- Interim Arrangements

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
156	General	Supplier Charging		We would welcome clarification as to whether one of the Suppler Charging options would require Interim Arrangements drafting. This has not been included in the draft.		
157	Section H	Credit Requirements	279	There is no information in the interim arrangements for the management of credit and collateral postings.	Clarity is required on the transitional credit cover arrangements and how this can be managed effectively minimising additional credit and collateral (and resultant cost) during the transition from SEM to ISEM whilst making sure that the operational management of this for participants is streamlined.	
158	H.2.1.1	Start of New Trading Arrangements: Modifications	279	Incorrect referencing?	Change "B.17.22" to "B.17.16"	
159	H.2.1.3	Fast Track Modifications	279	Viridian is generally uncomfortable with the concept of fast track modifications. See individual business response for details.		
160	H.2.1.2 to H.2.1.6	Start of New Trading Arrangements: Modifications	279	If this section is retained rather than using the existing Urgent Modification process then a number of revisions would be required including more precise criteria to ensure only exceptional modifications are progressed through this arrangement. Communications should also be to all market participants and not just the Modifications Committee since all participants will be affected by the modification and members of the modifications Committee will not be able to take representation from the other participants who belong to the type of party they represent.	See comments	B.17.3.2

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
161	H.4	Curtailment Price	280	We do not believe these interim arrangements are required given the delay in I-SEM go live.	Delete H.4	

SEM-16-075 Draft TSC Part B – Appendix D: List of Agreed Procedures

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
162	Appendix D	Description of APs	N/A	We would welcome confirmation that this appendix provides a full list of APs. We note discussion at the RLG regarding numbering and whether or not it should be changed so we are unsure if any have actually been omitted.	Please review appendix and include any omitted APs. Confirm that the APs listed and the description provided are accurate and consistent with what will be published as part of the TSC.	TSC and APs

SEM-16-075 Draft TSC Part B – Appendix E: Data Publication

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
163	Appendix E	Data Publication Table 7	A23	We would welcome confirmation that all QBOA and PBOA will be published by unit for each imbalance pricing period?	Ensure all QBOA and PBOA are published at the same time as the imbalance price.	

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
164	Appendix E	Operating Reserve	N/A	We do not see any publications relating to operating reserve. Given operational definition of reserves used in RSP there needs to be full transparency around management of operating reserves including requirements (policy in dispatch systems) and information on forecast and real time provision.	Implement a reporting solution that provides the required information.	
165	Appendix E	Transmission Outage Schedule	A22	The transmission outage schedule is only published daily (prior to 17.00). This will not cover within day changes to that published.	Implement a reporting solution that provides the required information.	

SEM-16-075 Draft Appendix I – Offer Data

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
166	Appendix I	General	N/A	There are a lot of references to paragraph 1 of appendix but should these not be to AP4 directly.	Please review referencing to ensure it is appropriate.	
167	Appendix I	Paragraph 2	A42	Forecast profiles and energy limit are missing from the COD data elements but are included in chapter D of code.	Add in Forecast Availability Profile, Forecast Minimum Output Profile, Forecast MSG Profile and Energy Limit	
168	Appendix I	Table 2 – Commercial Offer Data Elements	A43	Title of last column is confusing, should this not be "Other Generator Units not explicitly referenced in table"? Definition of Generator Unit used in paragraph 1 is very open.	Change title on 3rd column of table as suggested.	
169	Appendix I	Paragraphs 6 to 12	A43 and A44	Incorrect internal referencing throughout these paragraphs	Please correct these references	

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
170	Appendix I	Paragraphs 16	A54	Incorrect internal paragraph references.	Please correct these references	
171	Appendix I	Paragraph 16 (d) (ii) and d (iii)	A54	Is the same caveat regarding first MW level and time not required in 16 (d) (ii) and (iii)	Confirm if caveat is required and if so include.	

SEM-16-075 Draft TSC Part B – Appendix K: Other Market Data Transactions

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
172	Appendix K			The data transactions required to support the role of the MO in relation to the imbalance pricing methodology do not seem to be included in this appendix – e.g. SO and Non-Marginal flags.	Include these data transactions.	Chapter E

SEM-16-075 Draft TSC Part B – Appendix N: Flagging and Tagging

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
173	Appendix N	Flagging and Tagging	A86	There is a lack of transparency in relation to the F&TRs meaning it is unclear whether actions taken on non-priority dispatch units to accommodate the dispatch of priority dispatch units (e.g. dec actions taken on thermal units) will be flagged under the imbalance pricing methodology (e.g. see comment 472).	The treatment of such actions could have a significant impact on the imbalance price at times of high wind penetration and therefore how they are classified under the F&TRs should be clearly set out.	
174	Appendix N	Flagging and Tagging	A86	The current obligation imposed upon the Market Operator under paragraph 3 of Appendix N is extremely vague and is insufficient to address the concerns raised in our comments (e.g. see comments 1065, 1532, 1533 and 1544).	We note the high degree of transparency and robust governance arrangements implemented for the scheduling and pricing algorithm used in the current SEM. This engenders a high degree of confidence in SEM market outcomes. We therefore recommend a similar approach is adopted for dispatch and pricing processes under the I-SEM trading arrangements.	

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
175	Appendix N	Flagging and Tagging	A86	There is a lack of transparency regarding how SO-SO trading activities will be conducted under the I-SEM trading arrangements and how they will impact upon the imbalance price (e.g. see comments 308, 474, 518, 1064, 1486, 1544).	Full transparency around SO-SO trading activities under I-SEM trading arrangements is required regardless of the introduction of European balancing arrangements because of the significant impact they could have on balancing market outcomes.	

SEM-16-075 Draft TSC Part B – Appendix O: Instruction Profiling Calculations

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
176	Appendix O	Instruction Profile	A90-A109	We are concerned system vendors are experiencing difficulty in implementing the complex functionality required to facilitate the use of open instructions in the central systems. We are concerned at the overall level of complexity in the market design and, in particular, the settlement algebra. This complexity is likely to cause significant problems for shadow settlement of market outcomes (resulting in reduced transparency around market processes) and increased central system costs and participant operating costs. This could act as a barrier to entry to the market.	Closed instructions should be use to simplify settlement processes.	

SEM-16-075 Draft TSC Part B – Glossary

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
177	Definitions	General	1 to 50	There are extensive issues with the accuracy of the completeness and accuracy of the 'Definitions', including referencing errors and omissions, as well as other inaccuracies. The examples captured throughout this response template and in the rows immediately below may not be exhaustive.	Carry out an extensive review of the glossary and address errors and omissions.	All of the TSC
178	Definitions	"Acting as Intermediary Flag"	1	Term does not appear to be used in Part B	Check where this term is used/ if it is used	
179	Definitions	"Administered Imbalance Settlement"	2	This does not appear to be referencing the correct section G.9 deals with credit cover- should this be referring to G.18-Implementation of Administered Imbalance Settlement?	Change reference to "G.9" to "G.18"	
180	Definitions	"Annual Capacity Charge Exchange Rate"	3	Should the reference to "year" be Capacity Year? (i.e. 1 Oct to 30 Sept?) F.19 requires MO to propose Annual Capacity Charge Exchange rate for each "Capacity Year"	Change reference to "year" to "Capacity Year"	
181	Definitions	AoLR Active	4	The term "AoLR Active" does not appear to be used in Part B, the Term "Agent of Last Resort" does not appear to be defined. What is this definition intended to do? (Agent of Last Resort is referenced in B.7.2.1 (f)- but there is no definition of what it actually is. It is also used briefly in AP1-page 36 as a reference to a "AoLR Trading Contract"	A Definition of what a "Agent of Last Resort" is required to understand what is intended.	

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
182	Definitions	Assetless Participant	4	Reference to "NEMO"- NEMO does not appear to be a defined term- "SEM NEMO" is a defined term. Should all references to "NEMO" be change to "SEM NEMO"?	See comments	
183	Definitions	Availability Profile Quantity	4	D 6.3.3 relates to the "Availability Profile Quantity" a typo?	Insert the words "Availability Profile" before the word "Quantity"	
184	Definitions	Available Credit Cover	5	The term "Interconnector Unit Traded Exposure" is not defined	Define "Interconnector Unit Traded Exposure"	
185	Definitions	Average System Frequency	5	Incorrect clause reference	Reference to "F.9.2.1" should be to "F.9.2.2"	
186	Definitions	Battery Storage Unit	6	"generating mode" is probably intended to refer to the defined term "Generating Mode"`	Change reference to "generating mode" to "Generating Mode"	
187	Definitions	Billing Period Stop-Loss Limit Factor	6	The term "Non-Performance Difference Charges" does not appear to be defined.	Define "Non-Performance Difference Charges"	
188	Definitions	Breach Limit	6	Incorrect clause reference- G.10.1 should be "section G.10". Under section G.10 there is provision for the RA's to make a determination but not actually approve- there should be provision in G.10 for the RAs to approve the various parameters within a discrete time scale	Incorrect clause reference- G.10.1 should be "section G.10". Under section G.10 there is provision for the RA's to make a determination but not actually approve- there should be provision in G.10 for the RAs to approve the various parameters within a discrete time scale	Part B. G.10
189	Definitions	Capacity Payments	7	The term "Awarded Capacity" is not defined, presumably this is done by reference to the Capacity Market Code	Define what is meant by "Awarded Capacity"	
190	Definitions	Combined Cycle Unit Flag	8	The term "Combined Cycle Unit" is not defined	Define a "Combine Cycle Unit"	
191	Definitions	Credit Cover Adjustment Trigger	10	Incorrect reference?	Change "G.10.1" to "G.10"	
192	Definitions	Difference Payment	14	Is the reference to lower case "suppliers" correct? Should it be "Suppliers" or perhaps Supplier Units?	See comments	
193	Definitions	EU Guideline on Electricity Transmission System Operation	17	It is noted this is still to be drafted, what is the effect if this is not in place/ how will it be dealt with?	It is noted this is still be drafted, , what is the effect if this is not in place/ how will it be dealt with??	

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
194	Definitions	Emergency Meeting	17	Incorrect clause reference, should refer to paragraph B.17.16.4	Change reference to "B.17.6.4" to "B.17.16.4"	
195	Definitions	Fixed Credit Requirement	18	Incorrect reference?	Change "G.10.1" to "G.10"	
196	Definitions	Flags	19	Incorrect reference?	Change "E.3.4" to "E.3.3"	
197	Definitions	Historical Assessment Period	21	Incorrect reference?	Change "G.10.1" to "G.10"	
198	Definitions	Imbalance Price Flag	22	Incorrect reference?	Change "E.3.4.4" to "E.3.3.4"	
199	Definitions	Imperfections Charge	22	The term "Dispatch Balancing Costs" does not appear to be defined	Define "Dispatch Balancing Costs"	
200	Definitions	Initial Imbalance Price	23	Incorrect reference?	Change "E.3.7.2" to "E.3.6.2"	
201	Definitions	Intermediary	24	Incorrect reference?	Change "B.10" to "B.11"	
203	Definitions	Licence	25	Typo	Change "Section 10" to "Article 10"	
204	Definitions	Licence Reference Number	26	Query whether Licence Reference Numbers have ever been issued by all RAs in relation to licences, and the term does not appear to be used- therefore suggest that it is deleted	Delete the definition "Licence Reference Number"	
205	Definitions	Net Imbalance Volume	31	Incorrect reference?	Change "E.3.5.1" to "E.3.4.1"	
206	Definitions	Net Imbalance Volume Tag	31	Incorrect reference?	Change "E.3.6." to "E.3.5"	
207	Definitions	Net Output Function	31	Incorrect reference?	Change "D.2." to "D.6.2."	
208	Definitions	Nominal System Frequency	31	Incorrect reference?	Change "F9.2.1" to "F.9.2.2"	
209	Definitions	Nominating Participant Election	32	Incorrect references?	Change "B.17.5 to B.17.7" to "B.17.4.4 to B.17.7.10"	
210	Definitions	Panel	34	Incorrect references?	Change "paragraphs B.19.6.5, B.19.6.6, B.19.6.7 and B.19.6.9." to "paragraphs B.19.6.6, B.19.6.7, B.19.6.8 and B.19.6.9"	
211	Definitions	Peaking Unit Theoretical Efficiency	35	Term "Higher Heating Value" does not appear to be defined	Define "Higher Heating Value"	
212	Definitions	Period of Market Operation	35	Incorrect reference?	Change "F.11.1.2." to "F.11.1.3"	
213	Definitions	Period of Physical Operation	35	Incorrect reference?	Change "F.11.1.3" to "F.11.1.2"	

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
214	Definitions	Premium Component Payments and Charges	35	Incorrect referencing? "Premium Component Payments" seem to be calculated under Para G.4.3.	See comments	F.1.2.1 (b)
215	Definitions	Price Average Reference Tag (TPAR)	36	Incorrect referencing?	Change "E3.6" to "E.3.5"	
216	Definitions	Ramp Rate	38	What is the position in relation to the square brackets?	See comments	
217	Definitions	REMIT Reporting Flag	39	The term does not appear to be used in Part B- does it need to be catered for?	See comments	
218	Definitions	Replaced Bid Offer	39	Incorrect clause reference?	Change "E.3.5.3" to "E.3.4.3"	
219	Definitions	Scheduling Agent	40	How will this be dealt with in the absence of the EU Guideline on Electricity Transmission System Operation?	See comments	
220	Definitions	Short Notice Unit Flag	42	Definition does not appear to be used in Part B	See comments	
221	Definitions	Short Term Maximisation Capability	42	Definition does not appear to be used in Part B Term "Maximisation Instruction" does not appear to be defined	See comments	
222	Definitions	Short Term Maximisation Time	42	Definition does not appear to be used in Part B Term "Maximisation Instruction" does not appear to be defined	See comments	
223	Definitions	Supplier	43	Typo	Change "Section 10" to "Article 10"	
224	Definitions	Warm Start	50	What is the status of the square brackets?	See comments	
225	List of Subscripts	General	51 to 54	As a result of the excessive complexity of the settlement algebra there are a large number of subscripts used within the code. We note however that subscripts that are not used within the code are also listed in this section. We suggest these are removed and that only subscripts actually used within the TSC are included. This will make it easier to reference.	Remove unused subscripts and carry out an extensive review of the table. If there are any errors or omissions address them.	All of the TSC
226	List of Variables	General	55	Table includes parameters.	Suggest changing name to "List of Variables and Parameters"	

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
227	List of Variables	General	51 to 54	It has been difficult to confirm whether the list of variables provided in the table is complete and therefore whether the units for all data items can be determined. The fact that it has been ordered alphabetically by the 'Element' column has made reviewing the section extremely difficult.	Switch positioning of the 'Long Name' and 'Element' columns and order alphabetically by 'Long Name'. Carry out an extensive review of the table. If there are any errors or omissions address them.	All of the TSC
228	List of Variables	General	55 to 103	It is unclear what the purpose of the 'Plain Text' column is as it is the same as the 'Element' column except for the font.	Consider removing the 'Plain Text' column.	
229	List of Variables	Technical Offer Data	55 to 103	Data items relating to technical offer data submissions do not seem to have been included in the list of variables but are essential to the proper functioning of the TSC – e.g. profiling of dispatch instructions to allow determination of the price and volume of bid offer acceptances in the balancing market. We could not find a direct reference to grid code to source this data but even if included in grid code it should be contained somewhere in the TSC (e.g. as part of the table in Appendix I) given its central importance to the proper functioning of the BM. We note incorrect technical offer data submissions caused issues during SEM market trials.	Provide units for technical data submissions.	Section D and Appendix O
230	List of Variables	Adjusted Dispatch Quantity	90	It is not clear what the adjustment does or how it is effected		
231	List of Variables	Day-Ahead Trade Quantity	98	"h" is not a sub-script for this variable	Delete the words "in Day Ahead Trading period h"	
232	List of Variables	Intraday Trade Quantity	98	"h" is not a sub-script for this variable	Delete the words "in Day Ahead Trading period h"	
233	List of Variables	Intraday Trade Quantity	98	First part of definition is a repeat of the qTDA definition which should be deleted	Delete the text	

SEM-16-075 Draft TSC Part C - Transitional Arrangements

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
234	General	Transitional Credit Cover		We would welcome the inclusion of drafting which would facilitate the existing SEM posted collateral transitioning through into the ISEM calculations. Separate calculations and requirements increases the burden on suppliers as unnecessary headroom and cost will be incurred in managing two distinct positions with the same counterparty (SEMO).		
235	C.6 Modifications	'in flight' modifications		The processing of modifications to the current version of the T&SC which have been approved but have not been considered in the new T&SC ISEM version should be addressed by the SEM Committee. The current Modifications Committee has no jurisdiction is this area therefore the SEM Committee is the only party which can make such amendments. The SEM Committee should also provide clarity on its intentions in relation to Modifications which have been recommended for approval under the current T&SC at the time of transition.		
236	C.6.1.1	Modifications Committee Membership	4	The current drafting requires all Modifications Committee members to resign after one year. We would suggest that removing the full committee membership in one go would create an unhelpful transitional and future consequence. Currently 50% of the Committee seats are re-elected annually. We would recommend the SEM Committee retaining the current schedule. Considering current timelines this would mean that 50% of the Committee seats are open for election in June 2018, one month after go-live. We considers this to be acceptable as it gives an early opportunity for new participants to take up roles on the Committee while retaining at least 50% of the membership, aiding continuity.		

SEM-16-075 Draft Agreed Procedure 1 – Registration

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
237	AP1 Section 3.3	Registration of Supplier of Last Resort	AP1-24	All steps require review and redraft. A SoLR Unit should be already registered in systems with a future start date which can be amended at short notice to facilitate an event. SEMO will not receive 5 days notice, it may be the case that SEMO will only receive a number of hours notice.	Redraft of all SoLR Steps required	

SEM-16-075 Draft Agreed Procedure 4 – Transaction Submission and Validation

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
238	2.3.2 Table 1	Class	AP4 – 7&8	Reference to "MI" in the class column is I assume the "BMI" as listed in the abbreviations?	Amend either MI to read BMI or include appropriate abbreviation	
239	2.3.3(b)	2.3.3(b) Query of System Data	AP4-8	Typo – "associate0d"	Correct typo to "associated"	
240	2.3.4(c)	2.3.4(c) Data transaction Validation	AP 4-8	Reference to section 2.3.4 incorrect – should be 2.3.5?	Correct reference	
241	2.6.5	2.6.5 Standing Offer Data	AP14-14	Open brackets in first line – not closed	Insert close bracket as appropriate	
242	Table 6	GC1 Gate Closure Data	AP4-16	It is not clear from this table that the terms in 2.6.5 "Each generator unit must have a standing offer data set of type "All"".	Confirm this requirement is covered	2.6.5
243	2.7.2	Validation	AP4-16	Viridian believe that participants should be able to update TOD within day to allow for multi-mode operation. This will facilitate more flexible operation of the system consistent with the DS3 programme.	Multi-mode operation should be facilitated in central systems.	

SEM-16-075 Draft Agreed Procedure 6 – Data Publication and Data Reporting

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
244	General	Timings	All	A number of timings are not specific – e.g. Page AP6-32 "Physical Notifications – Member Private" is published "After each Balancing Market Gate Closure", however there is no specific time line for this.		

SEM-16-075 Draft Agreed Procedure 9 – Management of Credit Cover and Credit Default

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
245	AP9 Section 2.3	Inputs to the Calculation of Required Credit Cover	AP9-6	Drafting of required data appears to require metered demand. Viridian believes that should be loss adjusted net demand.		
246	AP9 Section 2.10.4	Depositing Cash in a SEM Collateral Account	AP9-10	Typo in paragraph. Erroneous "=" sign to be removed.		
247	AP9 – General	SoLR Event		Viridian would welcome the inclusion of some drafting which allows for special dispensation in relation to the 2 day response to an increase notice to be given to the supplier acting as a SoLR in a SoLR event .		
248	AP9 Appendix 2 Part B	Calculation of VAT for required credit cover	AP9-37	Part (a) and (b) of Appendix 2 includes reference to Variable Market Operator charges being included in the credit cover. Variable Market Operator charges are not included in the credit cover calculation.	Remove reference	

SEM-16-075 Draft Agreed Procedure 14 - Disputes

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
249	Appendix 2	Forms	AP14-22	Typo – text box reminder to insert forms however forms are included.		

SEM-16-075 Draft Agreed Procedure 15 – Settlement and Billing

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
250	2.4	Market Operator Charges	AP15-6	Drafting error. Refers to a monthly invoice containing both the Variable Market Operator Charge and the Fixed Market Operator Charge however the Variable Market Operator Charge is to be levied weekly.		

SEM-16-075 Draft Agreed Procedure 18 - Suspension and Termination

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
251	Entire Procedure		All pages	Presumably the page numbering should be adjusted from "AP13-[X]" to "AP18-[X]	See comments	
252	2 Overview	2.1 Deregistration	AP 13-5	The Code does not make provision for the review of the Deregistration Form by either the MDP or the SO- the decision is the MO's so second paragraph should be adjusted	The Market Operator shall review the Deregistration Form, in conjunction with the appropriate Meter Data Provider and / or System Operator and shall make a decision to approve or reject the Deregistration request in respect of the Unit(s).	
253	2 Overview	2.2 Voluntary Termination	AP 13-5	A Party can apply to cease to be a party at any time- but in order to cease it needs to go through the steps of the code- i.e. it can't just cease to be a party at any time. There are also some minor typos- reword as suggested	In accordance with the Code, a Party may apply to cease to be a Party at any time. The procedure in relation to Voluntary Termination is set out at section 3.1 below. In order to voluntarily Terminate a Party must provide 90 Working Days notice of its intention to the Termination to the Market Operator, obtain the consent of the Regulatory Authorities and comply with the Deregistration procedure set out at section 3.5 below. The Market Operator issues a Voluntary Termination Consent Order specifying an effective date of termination once all relevant criteria under the Code are met.	

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
254	2.3	2.3.2	AP 13-6	As highlighted through the rules process the suspension process does not align with the regulators statutory and licence requirements in relation to the SoLR process. In effect there is no such thing as a suspension of a supplier it is either licence revocation or not. Further work is required in relation to the SoLR process.		
255	2 Overview	2.3.2 Issuing of a Suspension Order	AP13-6	Limbs a to c do not appear to line up with what the Code says is required – under B.18.5.1, delete limbs a) to c) and replace with suggested drafting	Delete limbs a) to c) and replace with:- (a) Specify the Units to which the Suspension Order shall apply; (b) The data and time from which the Suspension Order will take effect; and (c) the terms of the suspension	

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
256	2 Overview	2.5 Removal of Intermediary	AP13-6	Limbs (d) to (f) do not seem to line up with B.11.1. There does not seem to be provision within the Code for RA's to withdraw consent. Are there 4 grounds under which an Intermediary can be removed? 1. Expiration of Form of Authority 2. Voluntary deregistration 3. Unit Owner revoking authority/ or revoked in accordance with Legal Requirements and 4. Suspension Order?	Delete the following:- ~~The procedural steps for the removal of an Intermediary are set out at section 3 below. Three are three circumstances in which an Intermediary may be removed:~~ ~~(d) an Intermediary's consent is revoked by the Regulatory Authorities, or the expiration of Form of Authority;~~ ~~(e) an Intermediary wishes to voluntarily deregister any or all of the Units; or~~ ~~(f) an Intermediary ceases participating in respect of any Units without first voluntarily deregistering the Units or the Unit Owner wishing to revoke the Intermediary.~~ Replace it with the following:- The procedural steps for the removal of an Intermediary are set out at section 3.6 below. There are four circumstances in which an Intermediary may be removed: (a) the expiration of a Form of Authority; (b) an Intermediary wishes to voluntarily deregister any or all of the Units; (c) the Unit Owner or Legal Requirements revoking the authority of the Intermediary; and (d) a Suspension Order having effect.	
257	3 Procedural Steps	3.1 Voluntary Termination	AP13-7	Steps 1 & 2. Notice provisions under the code require confirmatory registered post to follow where notice given by email/ e-fax- so suggest the Method is adjusted.	Method in Steps 1 & 2- change from "Registered post/ e-fax" to "email/ e-fax with confirmatory copy by registered post"	

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
258	3 Procedural Steps	3.2 Issuing a Suspension Order- 3.2.1 {in respect of B.18.3.1}	AP13-8, Steps 1 to 3	It is not a requirement under B.18.2.1 of the code for a Default Notice to have issued in order for a Suspension Notice to issue. Defaults are just 2 of the 15 grounds under which a Suspension Order may issue. So Steps 1 to 3 should be deleted (and the "swim lanes" in 4.2 adjusted	Delete Steps 1 to 3, and insert as first step carried out by Market Operator:- Assess whether if any of the events listed in B.18.3.1 (a) to (o) inclusive have occurred Renumber subsequent steps accordingly	Swim Lanes in 4.2 need to be adjusted to take into account the procedure
259	3 Procedural Steps	3.2 Issuing a Suspension Order- 3.2.1 {in respect of B.18.3.1}		Generally	Method - change from "Registered post/ e-fax" to "email/ e-fax with confirmatory copy by registered post"	
260	3 Procedural Steps	3.2 Issuing a Suspension Order- 3.2.1 {in respect of B.18.3.1}	AP 13-9	At the end of the steps there should be additional steps to cater for a) the Suspension Order being amended or lifted- with notice by MO going the Defaulting Party b) the Suspension Order being amended or lifted- with notice going by MO to the Regulatory Authorities, System Operators, Relevant Distribution System Operators; and c) the Suspension Order being amended or lifted- with the listing or amendment of Suspension Order being published by the MO on the Market Operator website	See comments	Swim Lanes in 4.2 need to be adjusted to take into account steps

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
261	3 Procedural Steps	3.2 Issuing a Suspension Order- 3.2.2 {in respect of B.18.3.2}	AP13-9 Steps 1-6	The Step Description and the timing is wrong- and do not line up with B.18.3.2. under which there are two grounds for immediate suspension- a Credit Call which is not met by the Credit Cover Provider OR failure to provide Required Credit Cover- subject to the grace periods to replenish- these are the "triggers". Default or limb (ii) are not "triggers". Having said that if the triggers apply then a Default Notice must issue at the same time as a Suspension Order. So would suggest Step 1 deleted and redrafted in line with the following:- Step Description- "(i) a Credit Call is made and the Participant's Credit Provider fails to meet the demand within the timeframe provided under the Code (subject to the replenishment provisions in the Code) OR (ii) a Participant fails to provide the Required Credit Cover as required under the Code" Timing:- "Immediate" From/ By:- "Market Operator" Step 2 should then cater for issue of Default Notice and Suspension Order At the same time as Suspension Order and Default Notice being issued there should be a step to cater for the issue of a Statutory Demand under B.18.3.4		Swim Lanes in 4.3 need to be adjusted to take into account steps

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
262	3 Procedural Steps	3.2 Issuing a Suspension Order- 3.2.2 {in respect of B.18.3.2}	AP13-9 Steps 1-6 (continued)	At the end of the steps there should be additional steps to cater for a) the Suspension Order being amended or lifted- with notice by MO going the Defaulting Party b) the Suspension Order being amended or lifted- with notice going by MO to the Regulatory Authorities, System Operators, Relevant Distribution System Operators; and c) the Suspension Order being amended or lifted- with the listing or amendment of Suspension Order being published by the MO on the Market Operator website	See comments	Swim Lanes in 4.3 need to be adjusted to take into account steps
263	3 Procedural Steps	3.2 Issuing a Suspension Order- 3.2.2 {in respect of B.18.3.2}	AP13-9 Steps 1-6 (continued)	Generally	Method - change from "Registered post/ e-fax" to "email/ e-fax with confirmatory copy by registered post	
264	3 Procedural Steps	3.3 Suspension	AP13-11	This procedure needs to be completely redrafted to take into account B18.4 properly- it appears to be currently drafted on the basis of a Supplier Unit (to which Supplier of Last Resort would apply) and does not seem to take into account Generator Units or other Units which may be Suspended and needs to take into account A) amendment steps described in 12 above and B) comments in relation to Method- described in 13 above.	See comments, this step needs to be completely redrafted.	Swim Lanes in 4.4 need to be adjusted to take into account revised drafted procedure
265	3 Procedural Steps	3.4 Issuing of a Termination Order	AP13-12	Step 5. The Deregistration Procedure may not be applicable – under the Termination Order it may specify when Deregistration takes effect	Step 5- redraft as: "Where applicable commence Deregistration"	Swim lines under 4.5 to be adjusted in line with procedures
266	3 Procedural Steps	3.4 Issuing of a Termination Order	AP13-12	Step 6 seems to be referring to Voluntary Termination- which has a separate process, and the Termination Order Specifies the time and date on which Termination or Deregistration takes effect	Delete Step Description and replace with: "Termination takes effect (Party must comply with B.18.6.3)" Delete Timing and replace with:- "time and date of Termination and Deregistration as specified in the Termination Order"	Swim lines under 4.5 be adjusted in line with procedures

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
267	3 Procedural Steps	3.4 Issuing of a Termination Order	AP13-12	Generally	Method - change from "Registered post/ e-fax" to "email/ e-fax with confirmatory copy by registered post"	
268	3 Procedural Steps	3.5 Deregistration	AP13-13	Step 1- B12.1.1 requires MO and RAs to be notified	Change Method to "email/ e-fax with confirmatory copy by registered post" Add "Regulatory Authorities" to the "To" column.	Swim lines under 4.6 adjusted in line with revised procedures
269	Procedural Steps	3.5 Deregistration	AP13-13 to 14	The Steps also need to cover the specific circumstances applicable to Deregistration in respect of:- a) Interconnector, Interconnector Administrator, and Interconnector Error Unit under B.10.1 b) Intermediary, under B.11.1.9; and c) Deregistration under Voluntary Termination under B.18.8	See comments	Swim lines under 4.6 adjusted in line with revised procedures
270	Procedural Steps	3.5 Deregistration	AP13-13 to 14	Steps needed to cover:- A) Any amounts due under SEM Code; B) Any continuing obligations under Capacity Market Code C) Metering Code appears only to be relevant in relation to Supplier Unit(s) D) Grid Code in relation to Generator Units (s) needs to be catered for E) Automatic Deregistration of Aggregated Generator Units (under B.12.1.5) needs to be catered for	See comments	Swim lines under 4.6 adjusted in line with revised procedures

ID	I-SEM TSC Reference	Short Title	Page	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-Reference for any impacted section
271	Procedural Steps	3.6 Intermediary Removal	AP13-15 All Steps	Does not seem to follow code- as per comments at 5 above should the initial step not be on any of the below events?: 1. Expiration of Form of Authority 2. Voluntary deregistration 3. Unit Owner revoking authority/ or revoked in accordance with Legal Requirements and 4. Suspension Order?	See comments	Swim lines adjusted under 4.7 adjusted in line with revised procedure
272	Procedural Steps	3.6 Intermediary Removal	AP13-15 Step 3	This should refer to B.7 of the Code, as opposed to the Agreed Procedure 1.	See comments.	