



Energy for
generations

Generation & Wholesale Markets

ESB GWM Response: I-SEM Operational Parameters

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1. INTRODUCTION

ESB Generation & Wholesale Markets (ESB GWM) welcomes the opportunity to respond to the SEM Committee's Consultation Paper (SEM-17-009) on the I-SEM Operational Parameters for Credit Cover and Imbalance Settlement.

2. CREDIT COVER PARAMETERS

Credit cover is a key element of the I-SEM design, underpinning market participants' confidence in the trading arrangements. SEMO has retained the core underlying elements of its existing credit cover process to carry forward to I-SEM. This appears reasonable given that those processes have worked well since 2007. The introduction of ex-ante markets in I-SEM does require additions to SEM processes, particularly in relation to generator imbalance cashflows. Generators can be assumed to be creditors in the SEM, but may have positive or negative exposures to the Market Operator under I-SEM.

The analysis underpinning SEMO's recommended parameter values is based on a "steady supplier" unit, reflecting current practice in the SEM. However, under I-SEM, as SEMO's paper acknowledges, "Credit Cover requirements will influence Generator Units more than it has in the past."

ESB GWM considers that the drivers of imbalance cashflows and credit cover for generators are likely to differ significantly from those for suppliers. For example, generator cashflows will be impacted by plant forced outages, RO difference charges, wind forecast errors and system balancing actions. Methodologies and parameters based solely upon the analysis of Supplier Units may therefore be inappropriate for Generator Units.

SEMO proposes to apply the "steady supplier" approach to parameter setting for the first year because, in its view, there is insufficient data to perform equivalent calculations of estimated exposure for Generator Units. It states that different methodologies could be applied in future years once sufficient historical I-SEM settlement is available for generators.

We understand that setting new parameters for I-SEM is difficult given the lack of historic data which includes new I-SEM behaviour. At the same time, the proposals must ensure that the market does not end up being greatly over collateralised. Access to collateral will likely be a key issue in I-SEM and therefore it is important to ensure that the credit cover calculations are as accurate as possible.

Many of the Credit Cover Parameters in the TSC use the same value for generators and for suppliers. The relevance and impact of this were not easily identifiable during drafting but are becoming much clearer in this round of proposals. Specifically, using the same parameter value for suppliers and generators likely does not reflect differences between the two constituents and could over quantify credit cover requirements for generators.

ESB GWM believes that analysis should be conducted before Go Live to validate the application of the recommended credit parameters to generators. This analysis could, for example, utilise historical data on unit trips, constrained running and wind forecast errors to project imbalance exposure for different classes of Generator Unit (e.g. thermal, wind). Although imperfect, such analysis would provide some reassurance that the proposed extension of credit cover methodologies and parameters to Generator Units under I-SEM is reasonably robust.

We comment below on the individual credit parameters in turn.

2.1 Fixed Credit Requirement

ESB GWM supports SEMO's recommendations on the Fixed Credit Requirements for the first year of operation.

2.2 Undefined Exposure Period

ESB GWM questions whether a single Undefined Exposure Period of 16 days for all units is appropriate for I-SEM. Although this approach is consistent with current SEM practice, the implications for generators of having a single Undefined Exposure Period are likely to be far more material in the I-SEM. It may therefore be appropriate to consider introducing separate Undefined Exposure Period parameters for Supplier Units and Generator Units in I-SEM.

The Undefined Exposure Period is intended to cover the period when a unit could incur further liabilities before being removed from the market. In this respect, ESB GWM considers there are two key differences between Generator and Supplier Units:

- Generators can be removed from the market relatively quickly, whereas the removal process is longer for suppliers due to the time lag in moving customers to a new supplier or Supplier of Last Resort (SOLR);
- If a Participant in financial difficulties is locked out of the ex-ante markets, demand associated with its Supplier Units will fall into the imbalance markets but Generator Units may not incur any further liabilities.

The Supplier Suspension Delay Period (SSDP) is currently 14 days while the Generator Suspension Delay Period (GSDP) is much shorter at 7 days. Imposing a single Undefined Exposure Period of 16 days implies that collateral requirements for Generator Units will be intentionally overestimated in I-SEM. As stated in SEMO's paper, this "may result in overcollateralisation of Participants who can be removed from the market quicker than the maximum amount of time required".

Assuming that imbalance prices are generally positive, it is questionable what further liabilities Generator Units would incur during the Undefined Exposure Period, particularly if they had been suspended from trading in the ex-ante markets. Generators without an ex-ante position should not be liable for imbalance charges (unless spilling power at negative imbalance prices).

Given the above, ESB GWM suggests that consideration is given to amending the TSC to allow a different Undefined Exposure Period for Suppliers and Generators with the period for generators set to 7 days or less.

2.3 Historical Assessment Period

SEMO recommends a Historical Assessment Period of 30 days, compared to the current SEM value of 100 days (for Billing Periods). This will significantly reduce the number of Undefined Exposure Period samples considered in the credit calculations (from 85 to 15), thereby making Required Credit Cover levels more volatile but also more responsive to recent market trends.

As stated above, ESB GWM's primary concern is that the recommended value for this parameter is only based upon analysis of a generic supplier. The applicability of the methodology to Generator Units has not been tested. No analysis has been presented of the impact of alternative parameter values for generators.

2.4 Analysis Percentile Parameter

In responding to the TSC consultation, ESB GWM questioned whether it was necessarily appropriate to apply the current Analysis Percentile Parameter (AnPP) methodology to Generator Units without further

analysis or modification. As stated in SEMO's paper, the statistical calculations for Standard Participants assume a normal distribution over the Historical Assessment Period. This may well be a reasonable approximation for the price and demand components of the Supplier Undefined Potential Exposure calculations. However, it may be less appropriate for Generator Unit cashflows, which might be expected to show significant variation depending on the incidence of plant forced outages, RO difference charges and system balancing actions, for example.

SEMO recommends increasing the AnPP to 2.33 from the current SEM value of 1.96. SEMO claims that the higher AnPP will not create "a burdensome increase in the credit cover required by a Participant". It is difficult to comment on this claim as no specific analysis of credit requirements has been presented for Generator Units. However, in light of the many uncertainties driving I-SEM credit exposures and the risk to the market of undercollateralisation, ESB GWM considers it prudent to set a reasonably high AnPP value for go-live.

2.5 Credit Cover Adjustment Trigger

SEMO recommends reducing the Credit Cover Adjustment Trigger (CCAT) to 10%, compared to the current SEM value of 30%.

SEMO acknowledges that lowering the value of this trigger is likely to increase the burden upon participants required to submit forecast changes under the alternative credit cover processes.

As stated above, ESB GWM notes that SEMO's recommendation is based solely upon historical analysis of a supplier, and hence may be inappropriate for generators. Although ESB GWM has not conducted its own detailed analysis, the recommended CCAT value of 10% is too low in our view.

The actual credit exposure of Generator Units is likely to move by more than 10% for various reasons under I-SEM, including unplanned outages, RO difference payments, imbalance price volatility, and changes in TSO constrained running. However, very few of these drivers of future imbalance cashflows are predictable with any accuracy for the participant.

Under such circumstances, it appears counter-productive to require generators to move from the standard credit processes to the alternative processes for Adjusted Participants. Estimating the generator's undefined exposure based on participant forecasts is unlikely to be any more accurate than the standard process. ESB GWM is concerned that setting the CCAT as low as 10% may result in generators becoming Adjusted Participants on a regular basis, but without upside benefits from improved credit cover accuracy.

ESB GWM would welcome greater clarity from the RAs and SEMO on the intent and implementation of the Adjusted Participant process for Generator Units. There appear to be some inconsistencies in the draft market rules. Draft Agreed Procedure 9 (SEM-16-075k) states in 2.11.2 that the CCAT for both Supplier and Generator Units is based on forecasted metered quantities. However, the draft TSC (SEM-16-075a) refers in G.12.1.6 to "forecasted total Daily Amounts with respect to its Generator Units and Capacity Market Units" rather than metered quantities as the basis for the trigger. Nevertheless, the draft TSC also implies that, having becoming an Adjusted Participant, the required submissions to the Market Operator "shall represent the forecasted percentage change of its average metered quantities" (G.12.1.7).

We seek clarification on these apparent inconsistencies, particularly if a low trigger for becoming an Adjusted Participant is under consideration.

2.6 Warning Limit

SEMO's proposed Warning Limit of 77.95% appears to imply a spurious degree of accuracy in the methodology behind the recommendation, given that the analysis was based on a limited sample set for a single "steady state" supplier.

ESB GWM considers that using a rounded value for the Warning Limit would provide greater clarity to participants. We note the current SEM value is 75%, while in GB, Elexon's equivalent parameter is 80% (for Level 1 Credit Default).

On balance, ESB GWM suggests rounding up the Warning Limit to 80% for two reasons. Firstly, we would challenge SEMO's rationale of choosing a value which nominally provides participants with ten days' notice of the potential for being deemed in default. Under I-SEM, we expect the majority of participants will be trading dynamically in multiple sub-markets, and settling their NEMO positions daily.

Secondly, setting the Warning Limit too low risks regular triggers due to the saw tooth pattern of the weekly settlement cycle. It does not seem helpful to issue warnings which will be cleared simply when weekly invoices are paid. SEMO's own analysis indicates that for the recommended value of 77.95%, "there are a number of days at the start of the sample period where a warning notice would be generated, only to be resolved the next day by payment of an account."

2.7 Breach Limit

SEMO's proposed Breach Limit of 92.59% appears to imply a spurious degree of accuracy in the analysis behind the recommendation. As with the Warning Limit, ESB GWM considers that using rounded values would provide greater clarity to participants.

ESB GWM seeks clarity on the consequences of triggering the Breach Limit, such as restrictions on a Participant's ex-ante trading. SEMO's paper states: "this approach is not set out in any design at this point but it may be included in the rules at a later point should there be a view that an approach similar to the GB market (with level 1 and level 2 Credit Default) could be applied."

Our understanding has been that a process for rejecting ex-ante contract notifications has already been set out in draft Agreed Procedure 9 (SEM-16-075k) and that contracts will be rejected once the Breach Limit is reached. AP9 implies the Market Operator will refuse the notification of ex-ante contracts which would result in a Credit Cover Increase Notice being issued. Moreover, the draft TSC (SEM-16-075a) links the Credit Cover Increase Notice to the Breach Limit, stating in G.12.1.2 that "a Credit Cover Increase Notice is in effect when the ratio of the Participant's Required Credit Cover to Posted Credit exceeds the Breach Limit". However, SEMO's presentation at a recent BLG meeting (9th March) described a revised process involving a Breach Remedy Period and a Trading Halt, but did not reference the Breach Limit¹. We would welcome greater clarity from the RAs and SEMO on this aspect of the arrangements, including the timeline for the Market Operator's credit checks (as set out in our TSC response of 24th January).

3. IMBALANCE SETTLEMENT PARAMETERS

ESB GWM supports SEMO's recommendations on the Imbalance Settlement parameters for the first year of operation.

In relation to Uninstructed Imbalances, ESB GWM urges the RAs to consider the combined implications of imbalance charges, UIs, RO difference charges and GPIs in I-SEM. It will be important to ensure that the overall balance of risks and incentives for generators is appropriate. ESB GWM therefore requests the RAs conduct a consultation on GPIs before go-live.

¹ SEMO's BLG presentation states that a Breach Remedy Period would apply when Required Credit Cover exceeds Posted Credit Cover, effectively implying a Breach limit of 100%