



Version	Description of Change
1.0	First published version

Explanatory Note on ‘New’ vs ‘Standard’ Credit Cover Calculations Spreadsheet

Introduction

This document provides explanatory notes for understanding the “New vs Standard Forecast Credit Cover” spreadsheet. The spreadsheet can be used to compare the calculation of credit cover using the ‘New’ Participant and ‘Standard’ Participant methodologies¹.

Under TSC Part C Section 11.1 and 11.2, all I-SEM Participants will be classed as ‘New’ Participants at the Cutover Time. As a consequence, credit cover calculations will be based on forecast volumes until sufficient historical information is available. 100 days after the start of the I-SEM the methodology used for most Participants² in calculating credit cover requirements will change from the ‘New’ Participant methodology to the ‘Standard’ Participant methodology.

Dependent on the trading behaviour, settlement amounts and the variability of these values, this may mean the credit cover requirement of a Participant changes.

In order to assist Participants in taking account of any possible changes in credit cover requirements after 100 days, SEMO have developed a model that allows comparison of the credit cover requirements under the ‘New’ and ‘Standard’ Participant calculation methods defined in the Trading and Settlement Code. The model can be found on the SEMO website [here](#).

SEMO would recommend Participants consider using this model to provide an indication of the likely magnitude of the credit cover requirements they may be required to have in place from the time the ‘Standard’ Participant credit cover calculations start.

Limitations of the Model

The New vs Standard Forecasts Credit Cover spreadsheet is prepared based on the calculation methodologies used for ‘New’ and ‘Standard’ Participants accordingly. However, there are a number of assumptions, simplifications and approximations that were needed in creating the model.

Participants should be aware of the limitations the model has when considering the comparisons provided. However, SEMO believe the values do provide an indicative of the order of magnitude of the likely credit cover requirements and hope that they will assist Participants in preparing for the change from the New to Standard calculations in January 2019.

The following key assumptions and simplifications have been made:

- Imbalance prices are not available, so the Credit Assessment Price (as calculated under TSC Part C Section 11) has been used as an approximation.
- Forecast actual settlement amounts have been calculated using forecast volumes provided by Participants, multiplied by the credit assessment price. In reality these settlement amounts would be based on the actual imbalance volumes multiplied by the relevant imbalance prices.

¹ More information on these calculations is provided in the Trading and Settlement Code section G.14 and Agreed Procedure 9 Section 2.11.

² The exception to this is those Participants who avail of the rules defined in MOD_09_18 that allow the classification of a Participant as a ‘New’ Participant beyond the 100 days.

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- Estimates of settlement amounts for Generator Units are based on the forecasts imbalance volumes provided by Participants multiplied by the Credit Assessment Price as no historical settlement amounts based on I-SEM conditions are available
 - The Billing Period Undefined Potential Exposure for trading exposures have been calculated for 8-11 days. Where the trading exposure period is longer than this, the 11 day figure has been used and multiplied by ratio of the no. of days in the exposure period relative to the reference 11 day figure. e.g. 14 days exposure calculated by multiplying the 11 day figure by 14/11.
 - Standard deviation calculations are all based on samples from the first 100 days of forecast volumes provided by Participants. This is a simplification of the actual standard calculations which would be based on actual metered demand or actual imbalance settlement amounts over the previous 100 days, with the 100 days being considered changing each day.
 - For simplification reasons, the exposure periods used do not take account of bank holidays.
 - For simplification the application of exposure periods payments-in and payments-out are modelled as occurring on the same day (this is a conservative approach).

New vs Standard Participant Credit Cover Calculations

The following section provides a narrative for each of the worksheet tabs in the New vs Standard Participant Credit Cover spreadsheet.

'1. Inputs' Tab

The '1. Inputs' tab provides a summary of the parameters used in the calculations.

The inputs are split into two groups:

- 1) "Participant Specific Inputs" that relate to the characteristics of the Participant
- 2) "Global Inputs" that relate to all Participants

Parameters in grey require input based on the characteristics of the Participant.

All other parameters are approved values or calculated using other inputs.

As a start point Participants could populate the required Participant specific inputs with the values provided in the "Initial and Forecast Credit Cover Requirement Calculations" spreadsheet they would have received with their Initial Credit Cover Requirement email in June/July 2018.

Please note: Based on the model, any deviations between the credit cover requirement for New and Standard Participants are related primarily to the variability of the Supplier Unit metered demand and Generator Units settlement amounts. Therefore, if forecast volumes are input with limited variability in values from day to day then there is likely to be less deviation between the New and Standard Participant calculations.

Further details on the key parameters can be found in the ["Explanatory Note for Initial and Forecast CCR Calculations Spreadsheet"](#)

'2. Exposure Periods' Tab

The '2. Exposures Period' tab identifies the relevant Exposure Periods used for the calculation of credit cover requirements.

Further details on the exposure periods can be found in the ["Explanatory Note for Initial and Forecast CCR Calculations Spreadsheet"](#)

'3. NEW Calculations' Tab

The '3. NEW Calculations' tab provides the main calculations of the "New" Participant.

Further details on the calculations can be found in the ["Explanatory Note for Initial and Forecast CCR Calculations Spreadsheet"](#).

Please note that the limitations on the model in relation to Traded Not Delivered Exposure for Demand Side Units and Assetless Units, as outlined in the ["Explanatory Note for Initial and Forecast CCR Calculations Spreadsheet"](#), apply to this model as well.

'4. NEW Results' Tab

The '4. NEW Results' tab provides a summary of the estimated forecast credit cover requirements for each day over the first ~3 months from commencement in the I-SEM, based on the forecast volumes.

Further details on interpreting the results can be found in the ["Explanatory Note for Initial and Forecast CCR Calculations Spreadsheet"](#)

'5. STD Inputs' Tab

The '5. STD Inputs' tab calculates approximations of the Billing Period Undefined Exposure values that would be calculated for Standard Participants.

For Generator Units, given the absences of historical settlement amounts the forecast volumes provided by Participants have been used as approximations for the metered demand or historical settlement amounts. The settlement amounts being calculated by multiplying the forecast volumes by the Credit Assessment Price. This Credit Assessment Price in turn being an approximation for imbalance prices that would normally apply in settlement.

For Supplier Units the worksheet calculates the mean and standard deviation of the metered demand over exposure periods of 8-11 days. Based on these inputs it then calculates the Billing Period Undefined Potential Exposure (EUPESpg) which is the value used for the Undefined Exposure in the Standard Participant calculations of credit cover requirements.

A similar calculation is done on the same worksheet for Generator Units to determine the mean and standard deviation of the imbalance settlement amounts for Generator Units over exposure periods of 8-11 days. This provides Billing Period Potential Undefined Exposure for Trading Periods (EUPEGpg)

'6. STD Calculations' Tab

The '6. STD Calculations' tab provides the main calculations of the "Standard" Participant credit cover requirement.

These calculations are similar in nature to those performed in '3. NEW Calculations', with the exception that Trading Undefined Exposure amounts for Supplier and Generator Units are based on the calculations performed in the '5. STD Inputs' tab.

In addition, the Capacity Charges are approximated using a simplified formula, as capacity charge standard deviations for exposure periods of 8-50 days exposure are not available. The approximation uses (capacity payment per day x number of days in Capacity exposure period) x (ratio of metered demand per day divided by total forecast demand).

'7. STD Results' Tab

The '7. STD Results' tab provides a summary of the credit cover requirement for each day based on the approximation of the standard participant credit cover calculation methodology.

'8. Summary Results' Tab

The '8. Summary Results' tab provides a summary of the estimated forecast credit cover requirements for both New and Standard Participant calculations.

This information is used in the subsequent charts used for comparison.

'9. Compare New vs Standard' Tab

The '9. Compare New vs Standard' tab provides a graphical representation of the comparison of the New and Standard Participant credit cover requirements for the Participant as calculated using the model.

Values are in the currency of the jurisdiction the Participant is registered in. i.e. NI = £, ROI = €