Single Electricity Market Committee

Trading & Settlement Code

Annual Operational Parameters for 2018

Decision Paper

SEM-17-092

05 December 2017

1. INTRODUCTION

The SEM Trading and Settlement Code (the Code) specifies that the Market Operator (SEMO) and the System Operators (TSOs) shall make reports to the Regulatory Authorities (RAs) proposing values for four groups of parameters used in the settlement systems for each Year at least four months before the start of that Year. The groups of parameters concerned are:

1. Parameters for the determination of Required Credit Cover[1] (SEMO);
2. MSP Software Penalty Cost Parameters[2] (SEMO);
3. Parameters used in the calculation of Uninstructed Imbalances[3] (TSOs); and
4. Flattening Power Factor[4] (TSOs).

Following the receipt of reports from SEMO and the TSOs, the RAs published a consultation paper on these parameters in September 2017.

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[1] See paragraph 6.174 of the Code
[2] See paragraph N.25 of the Code
[3] See paragraph 4.142 of the Code
[4] See paragraph M.30 of the Code

2. PARAMETERS FOR THE DETERMINATION OF REQUIRED CREDIT COVER

These are parameters which must be proposed by SEMO. SEMO's report addressed the values that should apply for the following parameters in 2018:

- the Fixed Credit Requirement – this sets the value of Required Credit Cover that must be in place for each registered Supplier Unit or Generator Unit in the SEM in order to meet resettlement charges that may arise up to 13 months after the initial settlement.

- the Historical Assessment Period for the Billing Period – this sets the number of historical days over which the analysis of Trading Payments and Trading Charges will be carried out for credit purposes.

- the Historical Assessment Period for the Capacity Period – this sets the number of historical days over which the analysis of Capacity Payments and Capacity Charges will be carried out for credit purposes.

- the Analysis Percentile Parameter – this sets the percentile confidence value in the statistical analysis used for New, Adjusted and Standard Participants.

- the Credit Cover Adjustment Trigger – a Participant will be classed as an Adjusted Participant under the Code if the Participant's trade volumes increase or decrease by a percentage greater than this value.

Consultation Proposals

The values of these parameters in 2017 and those proposed by SEMO for 2018 are shown in the table below:

Credit Cover Parameter	2017 Approved Value	2018 Proposed Values
Historical Assessment Period for Billing Period	100 days	100 days
Historical Assessment Period for Capacity Period	90 days	90 days
Analysis Percentile Parameter	1.96	1.96
Credit Cover Adjustment Trigger	30%	30%
Fixed Credit Requirement for Supplier Units based on rate of 8.77€/MWh of average daily demand subject to a minimum value of €1,000 and a maximum of €15,000	Min. of €1,000 with max. of €15,000	Min. of €1,000 with max. of €15,000
Fixed Credit Requirement for all Generator Units including Interconnector Units	€5,000	€5,000
Fixed Credit Requirement for Netting Generator Units	€1,000	€1,000

Comments Received

No comments were received on this area.

SEM Committee Decision

The SEM Committee have decided to set the parameters for the determination of Required Credit Cover for 2018 at the same values as those proposed by SEMO in their report, as described above.

3. MSP SOFTWARE PENALTY COST PARAMETERS

These are parameters which must be proposed by SEMO.

The core algorithm of the MSP Software attempts to optimise for a non-linear mixed integer constrained objective with non-linear constraints. On occasions the mathematical problem posed may be infeasible (i.e. there will be no solution which will satisfy every constraint). In these cases, rather than return no answer, it is customary in numerical solutions to produce an answer where one or more of the constraints has been breached slightly. To enable this "slack variables" are introduced with suitably chosen coefficients to ensure that these constraints are only breached in the case of infeasibility. The MSP Penalty Cost Parameters relate to:

- the Over-Generation MSP Constraint Cost – this is the parameter that sets the cost used by the MSP Software for reducing the generation to the level of demand;
- the Under-Generation MSP Constraint Cost – this is the parameter that sets the cost used by the MSP Software for increasing the generation to meet the demand;
- the Aggregate Interconnector Ramp rate MSP Constraint Cost – this is the parameter that sets the cost used by the MSP Software for breaching the Interconnector Ramp Rate;
- the Energy Limit MSP Constraint Cost – this is the parameter that sets the cost used by the MSP Software for breaching the Energy Limit constraints; and
- the Tie-Breaking Adder – this is the value used by the MSP Software for determining which of two tied Price/Volume pairs to use in the case of a tie.

Consultation Proposals

The values of these parameters in 2017 and those proposed by SEMO for 2018 are shown in the table below:

MSP Software Penalty Cost Parameters	2017 value	2018 proposed
Over Generation MSP Constraint Cost	73	73
Under Generation MSP Constraint Cost	73	73
Aggregate Interconnector Ramp Rate Constraint Cost	292	292
Energy Limit MSP Constraint Cost	38	38
Tie-Breaking Adder	0.001	0.001
Maximum Export Available Transfer Capacity MSP Constraint Cost	100	100
Maximum Import Available Transfer Capacity MSP Constraint Cost	100	100

Comments Received

No comments were received on this area.

SEM Committee Decision

The SEM Committee have decided to set the MSP Software Penalty Cost parameters for 2018 at the same values as those proposed by SEMO in their report, as described above.

4. PARAMETERS USED IN THE CALCULATION OF UNINSTRUCTED IMBALANCES

These are parameters which must be proposed by the TSOs.

The TSOs' report addressed the values that should apply for the following parameters in 2018:

- Tolerance band around the Dispatch Quantity – These tolerances are designed to provide a band around the Dispatch Quantity to which a Generator Unit is dispatched. The tolerance band is the maximum of the MW tolerance and the Engineering Tolerance multiplied by the Dispatch Quantity
  - the Engineering Tolerance, ENGTOL (where $0 \leq ENGTOL \leq 1$)
  - the MW Tolerance for each Trading Day t, MWTOLt (where $0 \leq MWTOLt$);

- the System per Unit Regulation, UREG – this is the factor that reflects the automatic response of a generating unit to variations in the system frequency (the governor "droop" setting, which is normally 4%);

- the Discount for Over Generation – this is the element of the costs incurred by the generator when generating outside the tolerance band which it is not permitted to recover; and

- the Premium for Under Generation – this is the element of the saving incurred by the generator when generating below the tolerance band which it is required to repay.

Consultation Proposals

The values of these parameters proposed by the TSOs for 2018 are shown in the table below and are identical to those for 2017.

Uninstructed Imbalance Parameters	2017 value	2018 proposed
Engineering Tolerance	0.01	0.01
MW Tolerance	1	1
System per Unit Regulation	0.04	0.04
Discount for Over Generation	0.20	0.20
Premium for Under Generation	0.20	0.20
Discount for Over Generation for Interconnectors Under Test	0	0
Premium for Under Generation for Interconnectors Under Test	0	0

Comments Received

No comments were received on this area.

SEM Committee Decision

The SEM Committee have decided to set the parameters used in the calculation of Uninstructed Imbalances for 2018 at the same values as those proposed by the TSOs in their report, as described above.

5. Flattening Power Factor

Consultation Proposals

This is a parameter which must be proposed by the TSOs.

The TSOs proposed a value of 0.35 for the Flattening Power Factor for 2018.

Comments Received

No comments were received on this area.

SEM Committee Decision

The SEM Committee have decided to set the Flattening Power Factor for 2018 to 0.35.