



TSC Market Audit
Presentation to MODs
Committee

17 June 2021

Agenda

- Market Audit Scope
- Material Issues
- Market Audit Conclusion
- Report of Significant Issues
- Other Matters Arising
- Questions

Market Audit Scope

Market Audit Scope

- Requirements of the Code relating to the Market Audit are set out in the Trading & Settlement Code paragraphs B.16.1.
- Terms of reference of the Market Audit
 - RAs undertook consultation with Parties upon completion of the 2019 Market Audit, which had been conducted on an 'Agreed Upon Procedures' basis.
 - Final scope of the Market Audit was set out in the RAs' decision paper "Terms of Reference for the Market Audit 2020" (SEM-20-060) published on 10 September 2020.
 - Market Audit reporting basis reverted to ISAE3000 Reasonable Assurance Opinion.
 - Scope of Market Audit continues to focus on compliance with relevant aspects of the Code and Agreed Procedures by the Single Electricity Market Operator ("SEMO").
 - Audit period from 1 January 2020 to 31 December 2020, including resettlement during that period.
- Audit materiality
 - Set at 0.25% of estimated annual market value. Market Value taken to be value of Balancing and Capacity Markets and Imperfections Cost, as agreed with the RAs.
 - Materiality set at €2.2m, used in planning audit work and in reporting to evaluate impact of issues (including quantitative and qualitative aspects).
 - Threshold for significant issues set at 10% of materiality, i.e. €0.22m

Market Audit Scope

SEMO Activities in Scope



Scope Exclusions:

- The Market Audit will only cover the actions taken by SEMO in regard to delivering their obligations in compliance with that specified in the TSC. It will not cover any contractual or commercial arrangements between SEMO and other bodies, or if the method used to achieve the requirement was optimal, as this is considered out of scope.
- Any decision processes upon derogations or amendments to the TSC are out of scope for the audit. The audit will only look at SEMO's operation of any such derogations or amendments (if they have been implemented over the audit period).
- The Market Audit will not be expanded to include the TSO's compliance with its Scheduling and Dispatch Process

Material Issues

Material Issues

Incorrect application of Combined Loss Adjustment Factor (FCLAF) to Interconnector Units

Non-compliance with paragraphs F.4.3.3 and F.4.3.4 in relation to application of combined loss adjustment factors in respect of interconnector units, specifically the requirement to divide the non-adjusted variable by the loss factor when the variable was negative was not applied.

- The issue was previously identified by SEMO and communicated to the Market in the Known Issue Report.
- The issue was resolved in Release F of the Central system in relation to metered quantities on 4 November 2020, the issue has not yet been resolved in respect of the calculation of the accepted bid and offer quantities.
- These errors resulted in incorrect calculation of imbalance, premium component and discount component payments/charges with a total impact during the audit period of €4.4m.
- As at 31 December 2020 the uncorrected error arising from these issues (i.e. the error that had not been corrected though resettlement conducted after 4 November 2020) was €3.7m, which is above the defined level of materiality.
- The remaining error is expected to be corrected through scheduled resettlement over the course of 2021.

Material Issues

Incorrect calculation of Biased Accepted Bid Quantity (QABBIAS) for Interconnector Residual Capacity Units (IRCUs)

Non-compliance with paragraphs F.6.7.3 in relation to the calculation of the Biased Accepted Bid Quantity for Interconnector residual capacity units, due to defects causing a mismatch in data mapping in the underlying calculations.

- This issue was previously identified by SEMO and communicated to the Market in the Known Issue Report.
- The issue was resolved through a hot fix on 2 September 2020.
- This resulted in errors in the calculation of premium component, discount component and curtailment payments/charges with a total impact during the audit period of €4.3m.
- As at 31 December 2020 the uncorrected error arising from these issues (i.e. the error that had not been corrected though resettlement conducted after 2 September 2020) was €2.6m, which is above the defined level of materiality .
- The remaining error is expected to be corrected through scheduled resettlement over the course of 2021.

Market Audit Conclusion

Market Audit Opinion

- International Standard on Assurance Engagements (ISAE) 3000 (Revised) – “reasonable assurance”
- “Audit” and “Market Audit” mean a reasonable assurance engagement performed in accordance with (ISAE) 3000
- Reliance on the report
 - Report addressed to RAs
 - Letters of Release / Click-through
 - Notice re: distribution and publication
- Non-compliances reported in Market Operator Monthly Reporting not repeated unless material to audit
- Period covered – 1 January 2020 to 31 December 2020, including resettlement performed within this period
- Responsibilities of the Single Electricity Market Operator, Regulatory Authorities, Market Auditor and Parties to the Code
- Audit scope – set out in Terms of Reference for the Market Audit SEM-20-060
- Basis of assurance opinion
- Basis of Qualified Conclusion
- Conclusion

Report of Significant Issues

Report of Significant Issues

Capacity Settlement FX Rate

Issue

- Capacity Payment (CCP), Capacity Charge (CCC) and Difference Payment Socialisation Charges (CSOCDIFFP) for NI Units calculated using balancing market (daily) FX Rate rather than the Annual Capacity Exchange rate as per G.1.3.5 and G.1.3.6 of the TSC.
- This affected settlement calculations from 1 January 2020 to 28 April 2020.
- Error of €3.4m during affected period, subsequently corrected via resettlement.
- Issue identified by SEMO and resolved in Release E on 28 April 2020.

SEMO Response

- Accepted. This issue was identified by SEMO as part of our controls / reviews. It was fixed and fully resolved/resettled during the audit period as noted.

Report of Significant Issues

Incorrect determination of No Load Cost (CNL)

Issue

- Differences identified in CNL for four testing dates selected. Differences arise due to SEMO systems incorrectly applying CNL in settlement periods where the final physical notification quantity was non-zero.
- This represents non-compliance with TSC Part B F.11.2.
- Estimated impact over the audit period of circa €300k.
- This issue was previously unknown and is under investigation by SEMO and their system vendor.

SEMO Response

- Accepted. Issue (KIR #208126) under analysis with the vendor and will be prioritised for future market systems release.

Other Matters Arising

Other Matters Arising

Accession and Registration

- 5.1 Party and Unit Registration – Publications
- 5.2 Party Registration – Executed Accession Deed not submitted to Applicant
- 5.3 Unit Registration – Deviations from timelines and meeting Code Requirements
- 5.4 Unit Deregistration – Delay in submission of Deregistration Consent Order

Imbalance Settlement Price Calculation and Recalculation

- 5.5 Uninstructed Imbalance Charge (CUNIMB) Mod 5_19

Settlements Production and Reruns

- 5.6 Incorrect order of ranked set in Biased Accepted Bid Quantity (QABBIAS), Undelivered Accepted Bid Quantity (QABUNDEL) and Outside Tolerance Undelivered Accepted Bid Quantity (QABUNDELOTOL)
- 5.7 Dispatch Quantity set equal to Metered Quantity for PSUs in pumping mode

Settlements Production and Reruns (continued)

- 5.8 SEMO systems unable to correctly profile Dispatch Quantity (QD) when a unit is instructed below its Minimum Stable Generation
- 5.9 Incorrect profiling of ROI wind units
- 5.10 Incorrect determination Bid Offer Acceptance Quantity (QBOA) and Offer Price Only Accepted Bid Quantity (QAOOPO) due to errors in the profiling of pseudo dispatch instructions
- 5.11 Error in slope within Bid Offer Acceptance Quantity (QBOA) profiling
- 5.12 Incorrect determination of Non-Firm Accepted Bid Quantity (QABNF)
- 5.13 Incorrect determination of Bid Offer Acceptance Price (PBOA)
- 5.14 Currency inconsistency in the Settlement Reports and Make Whole Payment Reports
- 5.15 Incorrect determination of Recoverable Start Up Cost (CSUR)
- 5.16 Incorrect Combined Loss Adjustment Factor (FCLAF)

Other Matters Arising

Queries and Disputes

5.17 Settlement Queries

Communication Channels, Systems and Operations

5.18 Communication Channels - Communication Channels Qualification Testing (CCQT)

5.19 Communication Channels - Digital Certificate Cancellation

5.20 Data Storage and IT Security - User Access Management

5.21 Emergency Communications

5.22 Data Storage and IT Security - Security of Data against Loss, Modification or Misuse



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