



Trading and Settlement Code

Terms of Reference for the Market Audit 2021

Decision Paper

4 November 2021

SEM-21-082

1 EXECUTIVE SUMMARY

The Trading and Settlement Code (“TSC” or “the Code”) provides the rules by which the market and its participants may operate, setting out the detailed rules and procedures concerning the sale and purchase of wholesale electricity in the market. The Single Electricity Market Operator (SEMO) is responsible for the administration and operation of the TSC.

Under Section B.16 of the Code the Regulatory Authorities (RAs) are required to appoint a person or firm to be the Market Auditor and ‘conduct an audit of the Code, its operation and implementation and the operations, trading arrangements, procedures and processes under the Code at least once a year’. The RAs ‘shall specify annually the precise terms of reference for the audit following the consultation process under paragraph B.16.1.5 and in sufficient time to enable the Market Auditor to complete the work in a timely manner and shall publish the terms of reference before the commencement of the audit activities’.

This paper sets out the Terms of Reference (TOR) that the SEM Committee has determined for the 2021 Market Audit, following the publication of the Consultation Paper on the proposed TOR for the 2021 Trading and Settlement Code Market Audit ([SEM-21-064](#)), and subsequent review of responses received.

The Consultation paper received two responses. Based upon these responses the SEM Committee has decided to implement the following structure and approach for the 2021 Market Audit:

1. Core Audit

The SEM Committee has decided to implement a core SEMO audit. The core audit will cover, inter alia, the following areas:

- Accession & Registration
- Imbalance Settlement Price calculation and recalculation
- Settlement Production and Reruns (to include all of the Market Operator Charges)
- Currency and balancing charges
- Invoices, payments and credit cover
- Queries and disputes
- Code development
- Information publication
- Communication channels, systems and operation

Greater detail on the specifics of each area will be determined in the risk assessment and planning stage of the audit.

2. Limited Expansion

The SEM Committee has decided to include additional limited expansion to the core SEMO audit. The limited expansion will be into the calculation, application and reporting of the Market Operator charges (Fixed and Variable) and Imperfection charges within the TSC. This falls under Section G.7, Section F.12 and Section B.16.2¹ of the TSC Part B and will also include relevant Agreed Procedures such as Agreed Procedure 15 'Settlement & Billing'. The specifics of this expansion will be developed by the Auditors and SEMO and will be approved by the RAs.

3. Materiality Level

The SEM Committee has decided to continue with the materiality threshold being set at 0.25% of estimated annual market value, with a threshold of 10% of the materiality level set for the reporting of Significant Issues. The definition of market value will be calculated to incorporate the Balancing Market, Capacity Market, and Imperfections.

4. Scheduling

The SEM Committee will continue engagement with SEMO in relation to the scheduling of the 2021 TSC Market Audit.

Following publication of this paper the RAs will engage with SEMO upon the scheduling of the 2021 Market Audit. Whilst the scheduling of the timing of the audit is to be finalised, the 2021 audit will follow the same format as previous audits. The Auditor will provide the RAs with an interim audit report in advance of the final report. The interim audit results will not be published, but if major issues arise the RAs will articulate these to market participants. The final audit report will be presented to industry at the SEM TSC Modifications Committee and published following this.

2 BACKGROUND

Paragraph B.16.1.3 of the Trading and Settlement Code ("TSC" or "the Code"), requires the Market Auditor to conduct an audit of the Code, its operation and implementation of the operations, trading arrangements, procedures and processes under the Code at least once a Year.

Paragraph B.16.1.5 of the Code requires the RAs to consult with Parties on the terms of reference for the audit. Paragraph B.16.1.6 requires the RAs to specify annually the precise terms of reference for the audit following this consultation process.

The purpose of this paper is to set out the RAs' TOR for the scope of the 2021 audit.

A Market Audit has been conducted on an annual basis since 2007. Over the years the scope has extended and changed to account for specific developments in the market and requests from market participants.

¹ SEMO report on these charges within the 'Market Operator's Performance Report' published monthly and in the Market Operator's Annual Performance Report.

The 2020 Market Audit has now been completed and was the first ISEA 3000 Assurance Opinion TSC Market Audit of the new SEM which went live on 1 October 2018. The 2020 Market Audit was a Core SEMO Audit, without expansion.² The 2020 audit resulted in a qualified opinion due to two material non-compliances. Except for the two qualified material non-compliances, the Single Electricity Market Operator (SEMO) was found in all material respects compliant with the Code and relevant Agreed Procedures as set out in the “Terms of Reference for the Market Audit 2020” for the period 01 January 2020 – 31 December 2020.

The two material non compliances (which were the basis for the qualified conclusion) were both in relation to the calculation of certain quantities related to interconnector units, namely:

1. 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;
2. 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.

The issues had been identified by SEMO and communicated to the market in the Known Issues Report. Both issues were resolved in late 2020.

3 PROPOSED 2021 AUDIT SCOPE

On 13 August 2021, the SEM Committee published a Consultation Paper on the proposed terms of reference for the 2021 Trading and Settlement Code Market Audit ([SEM-21-064](#)). The key proposals for scope are outlined below.

The 2021 Market Audit will cover the 12-month period of 1 January 2021 – 31 December 2021 under an ISAE 3000 Assurance Opinion Audit.

The RAs proposed that the 2021 Market Audit is a Core SEMO Audit, with limited expansion into the calculation, application and reporting of Market Operator charges and Imperfection charges within the TSC. The 2020 Market Audit resulted in a qualified opinion as a result of two known issues which are now resolved. The RAs therefore consider that the scope of the audit can be expanded upon for the 2021 Market Audit.

3.1 Core Audit

The core SEMO Market Audit aims to provide a reasonable level of assurance to the RAs and market participants that market pricing and settlement activities are being carried out by SEMO in accordance with the TSC and its Agreed Procedures. The Core Audit will cover, inter alia, the following areas:

- Accession & Registration
- Imbalance Settlement Price calculation and recalculation

² In the past, some SEM markets Audits have included the core audit with some additional areas of interest

- Settlement Production and Reruns (to include all of the Market Operator Charges)
- Currency and balancing charges
- Invoices, payments and credit cover
- Queries and disputes
- Code development
- Information publication
- Communication channels, systems and operation

3.2 Limited Expansion

This option would include a core SEMO audit, with an additional expansion to the scope. The RAs propose a limited expansion into the calculation, application and reporting of the Market Operator charges (Fixed and Variable) and Imperfection charges within the TSC.

How these charges are calculated, applied and reported is significant for market participants. Therefore, the RAs consider the findings of such an extension of the scope of the audit would be of value and provide a level of assurance to the RAs and market participants.

3.3 Materiality Level

The Market Audit has historically used a materiality level of 0.25% of estimated annual market value, with a threshold of 10% of the materiality level set for the reporting of Significant Issues.

The definition of market value has been calculated for past Market Audits to incorporate the Balancing Market, Capacity Market and Imperfections. For 2020 this came to a materiality level of €2.2m. In the old SEM the market value was higher at a materiality level of €3.6m for 2016 and €6.4m for 2017/18 (however it should be noted that the 2017/18 audit covered the period 01 January 2017 – 30 September 2018, so it would be expected that the market value would be higher, as it is over a longer timeframe).

The RAs note the new SEM is an inherently different landscape than the old SEM. Given that the 0.25% multiplier was the number used for the gross pool model whereas it is now being applied to a balancing market which is an inherently different base, it may be warranted to change the materiality level for the 2021 Market Audit. Therefore, the RAs sought views from the market on whether the same measure of materiality and definition of market value should be used as was in the old SEM.

3.4 COVID-19 pandemic

The RAs are cognisant of the extraordinary environment of 2021 due to the COVID-19 pandemic, resulting in new protocols and working arrangements. This, however, did not impede the ability to complete the 2020 Market Audit. The RAs therefore do not foresee the COVID-19 pandemic having any implications for the 2021 Market Audit.

The consultation welcomed views on the proposal, as well as any alternative approaches for the 2021 Market Audit.

4 RESPONSES RECEIVED

Two responses were received:

- Single Electricity Market Operator (SEMO)
- Bord Gáis Energy (BGE)

4.1 Core Audit

SEMO acknowledged the Core Audit the RAs proposed and have no further comments on it. BGE welcomed the Core SEMO Audit designation that the RAs provided and further iterated the importance of the core audit to verify that the core activities by SEMO are being correctly operated in compliance with the TSC.

4.2 Limited Expansion

BGE supported the limited expansion proposed by the RAs into the calculation, application and reporting of Market Operator charges and Imperfection charges with the TSC. Stating it should help inform suppliers and consumers on efficiency and effectiveness of the market operations that directly impact operation costs for which they pay.

SEMO acknowledged the scope expansion proposed by the RAs, noting they understand the Limited Expansion would fall within the relevant sections of the TSC, being:

- Market Operator Charges (Fixed and Variable) – Section G.7 of Trading and Settlement Code Part B
- Imperfections Charges – Section F.12 of Trading and Settlement Code Part B

4.3 Materiality Level

SEMO stated that they believe the 0.25% materiality threshold is too low for a large market in its early phase of operation and would propose the threshold is increased to 1%. The rationale they provided for this is as follows. SEMO stated that as the market is still in its early years of operation, SEMO (as market operator) is addressing a number of queries and rules changes as well as system and settlement defects and implementing numerous modifications. SEMO stated they are resettling and repricing in accordance with the trading and settlement code and amounts in excess of the 0.25% have been and are likely to continue to need to be re-settled over time. As such, SEMO stated the current materiality threshold will be breached, as demonstrated in the 2020 Market Audit. SEMO noted that in the 2020 Audit, the materiality threshold applied to the two items that formed the basis for the audit conclusion, these items had been identified prior to the audit and were in the process of being resettled by SEMO at the time of the audit.

SEMO proposed the threshold should be increased to a minimum of 1%, which they consider would avoid breaching the threshold because it is too low, which could damage confidence in the market and divert resources away from the areas of highest priority. SEMO stated they do not believe the

increase in materiality level threshold would affect the value and transparency of reporting in the Market Audit, as all substantive matters are reported regardless.

SEMO further stated that in the current SEM arrangements, the majority of the market value is traded day ahead and the value of the balancing market and capacity market is typically less than 30%. For the SEM arrangements 2007-2018, when the materiality threshold was 0.25%, the market was a gross mandatory pool market for all electricity generated/imported on the island of Ireland, the volumes were significantly greater than in the current market arrangement and as such the materiality threshold in monetary terms was significantly higher than the current Market Audit materiality threshold. SEMO noted that in Great Britain the materiality threshold for the Balancing and Settlement Code Audit typically equates to approximately 0.5% of the total annual electricity supplied across Great Britain during the audit period.

BGE proposed that a lower level of audit materiality threshold should be used for the 2021 Market Audit. BGE stated that a lower percentage value would reduce the materiality threshold for the audit to capture lower value non-compliances. BGE stated that such lower value non-compliances have the scope to be of significant interest to the customer-base that is market participants and consumers. BGE are of the view a lower materiality threshold is justified, in that the 2020 Market Audit identified just two material non-compliances which had already been flagged by SEMO. BGE believe that market participants and consumers would wish to see identified non-compliances at a lower level of materiality to increase the transparency of SEMO's core operations and charging calculations. They also stated that they believe implementing a lower percentage level will incentivise SEMO to deliver continuous improvement in operations under the TSC and would account for the potential increase in values of the markets in which the materiality level is applied.

BGE further proposed that as a lower materiality threshold approach can increase the number of material non-compliances being identified, the non-compliances should be ranked in order of magnitude of impact respectively on the customer groups.

BGE did not propose to change the threshold of 10% of the materiality level set for the reporting of Significant Issues, but they stated they would expect that the implemented value would reflect lower level of audit materiality threshold.

4.4 COVID-19

SEMO welcomed engagement with the RAs regarding the scheduling of the Market Audit, as there are other mandated pre-planned audits and major market release during Q1 and Q2 of 2022. SEMO further stated that there are new protocols and working arrangements that need to be considered in relation to COVID-19. It is SEMO's view that particular consideration of the new protocols and work arrangements need to be factored in as the SEM Market Audits planning and implementation will require greater forward planning and co-ordination as a result. SEMO would welcome continued engagement with the RAs in relation to the scheduling.

5 DECISION

5.1 Core Audit

The SEM Committee has decided to implement a core SEMO audit. The core audit will cover, inter alia, the following areas:

- Accession & Registration
- Imbalance Settlement Price calculation and recalculation
- Settlement Production and Reruns (to include all of the Market Operator Charges)
- Currency and balancing charges
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- Queries and disputes
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Greater detail on the specifics of each area will be determined in the risk assessment and planning stage of the audit.

5.2 Limited Expansion

The SEM Committee has decided to include additional limited expansion to the core SEMO audit. The limited expansion will be into the calculation, application and reporting of the Market Operator charges (Fixed and Variable) and Imperfection charges within the TSC. This falls under Section G.7, Section F.12 and Section B.16.2³ of the TSC Part B and will also include relevant Agreed Procedures such as Agreed Procedure 15 'Settlement & Billing'. The specifics of this expansion will be developed by the Auditors and Market Operator and will be approved by the RAs.

5.3 Materiality Level

The SEM Committee has decided to continue to set the materiality threshold at 0.25% of estimated annual market value, with a threshold of 10% of the materiality level set for the reporting of Significant Issues. The definition of market value will be calculated to incorporate the Balancing Market, Capacity Market and Imperfections.

The SEM Committee notes that the purpose of the materiality threshold setting is not to set it at a level that will avoid the threshold being breached, but rather to set it at a level that it will provide value and a level of assurance to the RAs and market participants upon SEMOs operation of the TSC. The SEM

³ SEMO report on these charges within the 'Market Operator's Performance Report' published monthly and in the Market Operator's Annual Performance Report.

Committee is therefore cognisant that the materiality threshold setting should be at a value that is low enough to capture all material breaches, but also high enough that does not result in becoming a list of minor issues which could mask the identification of more serious breaches.

The SEM Committee notes that in the 2020 Audit, the materiality threshold applied to the two items that formed the basis for the audit conclusion. These items had been identified prior to the audit and were in the process of being resettled by SEMO at the time of the audit. The SEM Committee does not see this as a reason to increase the materiality threshold as the details of the issues were clearly stated in the conclusion. For transparency all material issues, at the time of the audit, should be reported upon, even if they are in the process of being resettled. Additionally, the SEM Committee does not consider the identification of two breaches to represent breaching the threshold because it is too low. As the audit report clearly set out the details of each breach, what the breach was a result of and the actions SEMO had and/or were taking to address the issue, the SEM Committee is not of the opinion that it could risk damaging confidence in the market.

The SEM Committee acknowledges the value of capturing lower value non-compliances to market participants and consumers. However, the SEM Committee notes that these lower value non-compliances, whilst not captured in the materiality threshold, are still captured, and reported in the audit report, through the sections, 'Report of Significant Issues' and 'Other Matters Arising'. The SEM Committee considers the inclusion of issues in these sections maintains transparency of SEMOs core operations and charging calculations. The SEM Committee further notes, that it monitors SEMO actions on any lower value non-compliances identified in the 'Report of Significant Issues' and 'Other Matters Arising' to ensure they are addressed and rectified, so that SEMO is incentivised to deliver continuous improvement in operations under the TSC. Therefore, the SEM Committee does not consider that the materiality threshold needs to be reduced to capture these lower value non-compliances.

The SEM Committee notes that the reporting structure of the audit does not support any non-compliances to be ranked in order of magnitude of impact respectively on the customer groups. It will be for Parties to the Code themselves to evaluate the financial impact of any errors or matters arising on their own businesses.

The SEM Committee notes that due to the new SEM arrangements the market is different to the old SEM. The annual market value for 2020 was lower than it had been in previous audits for the old SEM, when the 0.25% materiality threshold applied. Therefore, in 2020 audit the materiality threshold in monetary terms was lower than it had been in previous market audits.

Period Covered	2014	2015	2016	2017/18	2018/19	2020
0.25% materiality threshold value	€4.83m	€4.44m	€3.6m	€6.4m ⁴	N/A as was an AUP ⁵ audit	€2.2m

However, the SEM Committee does not, at this time, consider that the new SEM will result in continued lower annual market values. Therefore, the SEM Committee does not consider that a change in the materiality threshold is required for this reason.

The SEM Committee has therefore decided that the materiality threshold value will remain at 0.25% for the 2021 Market Audit. This is because no substantive reason has been provided by any party to warrant changing the materiality threshold of the 2021 Market Audit and that both responses had opposing views on the materiality threshold. In 2022, the SEM Committee will review and consult on the materiality threshold as part of the Terms of Reference for the 2022 Market Audit.

5.4 COVID-19

The SEM Committee do not foresee the COVID-19 pandemic having any implications upon the 2021 Market Audit. However, the SEM Committee acknowledges there are a number of other mandated pre-planned audits on SEMO, as such the RAs will continue engagement with SEMO in relation to the scheduling of the 2021 TSC Market Audit.

6 NEXT STEPS

Following publication of this paper the RAs will engage with SEMO upon the scheduling of the 2021 Market Audit. Whilst the scheduling of the timing of the audit is to be finalised, the 2021 audit will follow the same format as previous audits. The Auditor will provide the RAs with an interim audit report in advance of the final report. The interim audit results will not be published, but if major issues arise the RAs will articulate these to market participants. The final audit report will be presented to industry at the SEM TSC Modifications Committee and published following this.

⁴ Note this was for a 21-month period, which equates to €3.6m over 12 months

⁵ Agreed Upon Procedures