

SEM Committee Paper

Trading and Settlement Code

Terms of Reference for the 2013 Market Audit

Decision Paper

22nd July 2013

SEM-13-046

1. Background

The Trading and Settlement Code (“TSC” or the “Code”), requires an audit of the Code, its operation and implementation, and the operations, trading arrangements, procedures and processes under the Code to be performed on an annual basis. The Code also requires the Regulatory Authorities (“RAs”) to consult with Parties on the terms of reference for the audit and to specify annually the precise terms of reference.

In 2007/08 and 2009 the Market Audit represented an audit of compliance by the Single Electricity Market Operator (“SEMO”) and, in so far as it related to the calculation of Modified Interconnector Unit Nominations (“MIUNs”), the Interconnector Administrator with their requirements under the Code. The scope of this Market Audit excluded discrete components of the MSP Pricing Engine (unit commitment, economic dispatch and the calculation of Shadow Prices) as it was considered that the benefits of performing audit work over these components were outweighed by the costs and disruption in the initial period of market operation.

For the second Market Audit relating to year 2009, the scope was extended to include a review of the decision process and approvals for using the Mixed Integer Programming (MIP) solver instead of Lagrangian Relaxation (LR) in the MSP. The RAs took the view that the resulting opinion provided the Market with a report that was both comprehensive and of value to participants, given the constraints of what is practically feasible at a reasonable cost and without undermining the ongoing operation of the Market. Subsequently, the Market Operator raised a Modification Proposal on the Solver Policy (Mod_27_11) which was approved by the SEM Committee on 7th March 2012.

In both these Market Audits, the scope excluded activities undertaken by the System Operators (“SOs”), Meter Data Providers (“MDPs”) and other participants as set out in the Code and Agreed Procedures.

However for the 2010 Market Audit, options were put forward setting out potential extensions that would involve the Market Auditor assessing compliance of the MDPs and SOs with their obligations under the Code or conducting a limited examination of the accuracy of source data provided by the MDPs and SOs. Following consultation, the scope for the 2010 Market Audit was extended to include a limited examination of certain activities of the MDPs and SOs including generation metering and dispatch instructions performed on an Agreed upon Procedures basis, with factual findings and any exceptions being reported to the RAs and Parties separately. The 2011 Market Audit included Agreed-upon Procedures which examined key interval meter demand side feeds. In 2012 the Market Audit consisted of a Core SEMO Audit with an early examination of Intra-Day Trading.

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practically feasible at a reasonable cost and without undermining the ongoing operation of the Market.

The SEM Committee published a 2013 Market Audit Terms of Reference Consultation Paper on 23rd May 2013. The Consultation Paper set out two options for the 2013 Market Audit. The two options proposed were as follows;

Option 1: Core SEMO Audit

Option 2: Core SEMO Audit with limited expansion to cover key MDP non-interval Demand Side Data Feeds

2. Comments on the Consultation Paper

The SEM Committee received comments from three interested parties on the Consultation Paper. The respondents were:

- Northern Ireland Electricity Plc
- Power NI
- Power NI (PPB)

The comments received are summarised below. The SEM Committee's final decision on the terms of reference for the 2013 Market Audit is set out in Section 3 of the paper.

- Power NI favours Option 2. Although it is mindful of the cost implications, Power NI considers that it would provide the Market with a high level view of the important data processing activities. Given that erroneous data can have a significant final impact and considering that both jurisdictions have implemented global aggregation, Power NI considers it prudent to continue to review the data processing aspects of the Market. As the 2011 Market Audit reviewed interval data processing, it is of the opinion that a review of non-interval meter data processing is appropriate.
- Power NI (PPB) believes that, in line with the 2010 and 2011 Market Audit, the Terms of Reference of the 2013 Market Audit should be expanded from the core SEMO Audit to cover a subsection of the activities of the Meter Data Providers (MDPs) and the System Operators to include their respective obligations under the Code. Furthermore as the non-interval meter demand data has not been covered in any previous Market Audits, PPB is in favour of Option 2.
- Northern Ireland Electricity Plc is of the view that a Core SEMO Audit is limited and falls short of what is necessary to assure Market integrity. It questions whether an expansion of this option to cover system changes, event or significant issues that have been noted or recorded in relation to any Market contributor during the year, would be a valuable alternative. Northern Ireland Electricity Plc is of the view that Option 2 as outlined in the Consultation Paper and in particular the addition of non-interval data processing in the audit adds significant complexity and effort to the audit. It also questions how the Code obligation to conduct and audit the Code, its operation and implementation and the operations, trading arrangements procedures and processes under the Code became translated into an audit of the Retail Market rules and processes.

While welcoming audits of its retail processes, NIE stated that these should be completed independently of any Market Audit (under the Code), adding that the Market Audit in its present form can only provide limited assurance to the Wholesale Market and at the same time has insufficient depth to be considered as a satisfactory retail audit, despite the effort required during the Market Audit process.

The comments received from all three parties are published together with this decision paper.

3. Decision and Next Steps

Having considered the responses received, the SEM Committee is of the view that there is merit in proceeding with Option 2. This was supported by two of the three respondents.

The question of *vires*, raised by NIE, was raised previously when the scope of the market audit was extended to AUP of generation data in 2010. Paragraph 3.71 and 3.72 of the TSC require Meter Data Providers to comply with the relevant provision of the Metering Code or Grid Code as applicable and this allows the particular activities and processes to be drawn into the remit of the Market Audit.

It should also be noted that these AUPs will be the third time that data from MDPs has been examined. In 2010 the Market Auditors carried out AUPs in relation to generation data feeds and in 2011 AUPs were carried out in relation to interval demand feeds. Therefore the SEM Committee believes that these non-interval demand feed AUPs are the completion of a process that has already commenced in 2010.

It should be noted that the AUP would be restricted to those activities/ processes required for the production of the profiled demand data file (having the correct population of MPRNs, meter technical details, reads/ advances/ EACs). It would exclude retail billing, pricing and other customer facing activities. This would be entirely consistent with Paragraph 3.71 and 3.72 of the Trading and Settlement Code. Intrusion into the retail area would be also minimised by consulting with the Meter Data Providers in advance, discussing and agreeing data and information requirements, sharing the detailed AUPs in advance as well as agreeing a clear timetable for work.

The issue of proportionality and resources required by the MDPs is noted by the SEM Committee. The Market Auditor will look to develop AUPs which are balanced and proportionate, focusing on the main areas of risk/ error. Therefore his should not present an excessive burden to the affected MDPs. These focused AUPs will be developed by the Market Auditor in consultation with the affected MDPs and will be for agreement by the RAs. Any remaining issues relating to NIEs concerns can be addressed at that juncture.

The SEM Committee accepts that the Market Audit cannot be, and should not attempt to be, a full and proper audit of the retail market. This is not the intent. The Agreed Upon Procedure processes are intended only to provide a degree of assurance that processes which feed into the Wholesale Market comply with the requirements of the Code (including Appendices and Agreed Procedures).

The SEM Committee determines that the Terms of Reference for the Market Audit the 2013 shall be in line with Option 2 put forward in the Consultation Paper (SEM-13-033).

The Market Audit Plan for the 2013 Market Audit will be developed in the coming months with the Market Auditors.

The Terms of Reference for the period 1 January 2013 to 31 December 2013 are set out in Appendix A of this paper.

Appendix A:

Proposed Terms of Reference for the 2013 Audit Scope

This section sets out an proposed terms of reference for the 2013 Market Audit for the period January to December 2013, based on the matters discussed above.

Contractual and Governance Arrangements

In accordance with paragraph 2.136 of the SEM Trading and Settlement Code (TSC), the RAs hereby specify the terms of reference for the 2011 Market Audit for the period from 1 January to 31 December 2013 as set out below.

Based on the terms of reference, the Market Auditor will prepare an Audit Plan setting out the detailed audit approach which will be presented to and agreed with the RAs. In preparing the Market Audit Plan, the Market Auditor may consult with the RAs, Market Operator and other participants as required.

A tri-party engagement letter is in place between the RAs, SEMO and the Market Auditor acknowledging the terms of engagement of the Market Auditor and their respective responsibilities. The Market Auditor will also enter into a letter of release with Parties to the TSC who receive a copy of its report.

Period of Audit Report

The Market Audit will cover the 12 month period from 1 January to 31 December 2013, including Resettlement of previous Settlement Dates performed within this period.

In a similar manner to the previous Market Audits, it is intended that the Market Auditor should perform interim audit procedures to cover the first six months of the audit period. This would involve approximately 50% of the audit work that would be required for a full year. The Market Auditor will flag to the RAs any issues identified from its audit procedures which it considers may have a material impact on the audit opinion for the year, although a formal Interim Review Report and Report of Significant Issues would not be required.

Materiality

As with the 2012 Market Audit, the materiality for the audit shall be set at 0.25% of estimated annual market value.

A lower threshold, 10% of materiality, will be adopted for the reporting of significant issues identified during the course of the Market Audit, although it is recognised there may be qualitative aspects in determining the significance of any issue. That is, the Market Auditor shall report on issues which come to its attention which exceed this significant issues threshold or which it believes to be significant for other reasons.

Reporting

In the preparation of the Market Audit Report, the Market Auditor will discuss individual draft issues with SEMO and other Parties insofar as they relate to them in order to confirm factual accuracy of the issues and their estimated quantification, and that all pertinent information and clarifications have reasonably been included.

The Market Auditor will subsequently discuss a full draft of the Market Audit Report with the RAs who may, at their discretion, invite or include named participants in the discussion of the draft report. The RAs believe that it may be necessary for them to discuss with SEMO and the Market Auditor any relevant Significant Issues included in the draft report.

The final version of the Market Audit Report will be addressed to the RAs. The final version of the Market Audit Report will be provided to Parties to the TSC most likely at a meeting of the Modifications Committee, in line with the provisions of the TSC, and subject to any confidentiality provisions required by the Market Auditor.

Boundary of Audit

The Trading and Settlement Code Section 2.133 sets out that “the Market Auditor shall conduct an audit of the Code, its operation and implementation and the operations, trading arrangements, procedures and processes under the Code”. The remit of this proposed scope for the market audit period has been set on the basis of this, and the RAs consider that the systems, activities and processes under the aegis of SEMO (and other parties where stipulated) fulfill the requirements of the Market Audit provisions in the Code.

The scope of the Market Audit for 2013 will focus on the activities of SEMO under the TSC and Agreed Procedures and cover the systems and processes within the control of SEMO.

This contained scope excludes activities undertaken by the TSOs, Meter Data Providers and other participants as set out in the TSC and Agreed Procedures. .

The relevant Market Operator activities, to the extent covered by specific requirements in the TSC, Rules and Agreed Procedures, will include:

- Accession and Registration
- Settlement production, including operation of the MSP Software (subject to the limitation set out in the paragraph below), Instruction Profiling, calculation of Energy Payments and Charges, and calculation of Capacity Payments and Charges, etc.
- Market Operator, Currency, Balancing and other Charges
- Invoicing and Payment
- Credit Cover management, including Settlement Reallocation
- Disputes

- Code development

As with previous Market Audits, it is intended to exclude the operation of certain components of the MSP Pricing Engine from the scope of the Market Audit. The excluded components are the operation of Unit Commitment, Economic Dispatch and calculation of Shadow Prices. The reduced scope for the MSP Pricing Engine would therefore include:

- Performing testing over change control, IS operations and access security to verify that only thoroughly tested and properly authorised changes are made to the MSP Pricing Engine;
- Performing a set of test procedures limited to the application of Uplift to Shadow Prices to determine System Marginal Prices and areas of manual intervention and controls exercised by SEMO over the operation of the MSP software, including controls over receipt and upload of data inputs, including system static data, Generator Unit standing data and Offer Data; controls over the modification of data provided to SEMO, e.g. conflicting input data, replacement of zero single ramp up/down rates; and adherence to timetables for gate closure and settlement runs; and
- Performing audit procedures on the processes and approvals under which SEMO re-run the MSP Software using the Mixed Integer Programming solver.

In addition for 2013, the Market Audit will also include Agreed Upon Procedures (AUPs) over the provision of non interval demand data to SEMO by MDPs. The AUPs which will be developed by the Market Auditor, with input from the two affected MDPs, for agreement by the RAs, are expected to cover:

- Registration and Change of Supplier – maintenance of the meter point registration database, connections/disconnections, processing change of supplier
- Maintenance of meter technical details, including changes to energisation status, profile class
- Profile production – determining daily/period profile coefficients
- Collection, validation and processing of reads – validity of reads, completeness of meters being read
- Calculation and validation of meter advances
- (Re)calculation of Estimated Annual Consumption (EAC) / Estimated Usage Factor (EUF) and Actual Usage Factor (AUF)
- Use of defaults/averages
- Aggregation of EACs/EUFs and AUFs and breaking down into interval values
- Submission of data to SEMO and suppliers
- Meter read performance standards
- Meter inspections and dealing with meter failures, theft/losses
- Disputes
- Exception reporting and error resolution

In relation to the Agreed Upon Procedures, the Market Auditor will endeavour to minimise the intrusion into activities outside (but feeding into) the SEM Trading and Settlement Code while achieving the required assurance in line with paragraphs 3.71 and 3.72 of the Code.