

SEM Committee Paper

Trading and Settlement Code

Terms of Reference for the 2012 Market Audit

Decision Paper

21st August 2012

SEM-12-072

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 also 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 MSP.

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.

The SEM Committee published a 2012 Market Audit Terms of Reference Consultation Paper on 15th June 2012. The Consultation Paper set out three options for the 2011 Market Audit. The three 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

Option 3: Core SEMO Audit with an early examination of Intra-Day Trading

2. Comments on the Consultation Paper

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

- EirGrid and SONI
- Endesa Ireland
- Energia
- IWEA
- Power NI
- Power NI (PPB)

The comments received are summarised below. The SEM Committee's final decision on the terms of reference for the 2012 Market Audit is set out in Section 3 of the paper.

- EirGrid and SONI believe that options 1 and 3 are essentially the same. They also suggest that a cost benefit analysis of expanded scope may be a useful exercise for future audits.
- Endesa Ireland supports Option 3 and is of the view that while there are merits in pursuing Option 2 the additional costs are not warranted at this time.
- Energia supports a combination of Options 2 and 3.
- IWEA supports Option 3 given the importance of IDT and the changes it will bring to SEM.
- Power NI believes that the expansion of audit scope for the 2010 Market Audit was a useful exercise and they recommend Option 2 as an appropriate limited expansion of the terms of reference along with an increased examination of IDT (Option 3)
- Power NI (PPB) were in favour of Option 3.

3. Decision and Next Steps

Having considered matter further and the responses received the SEM Committee determines that the Terms of Reference for the Market Audit the 2011 shall be broadly in line with Option 3 put forward in the Consultation Paper (SEM-12-041). The SEM Committee believe that an early examination of the Intraday Trading solution will allow any issues to be highlighted now, thereby limiting, as far as possible, the impact on the market.

The SEM Committee has decided not to proceed with Agreed Upon Audit Procedures for non-interval metering (Option 2 from the Consultation Paper) and will instead consider this in future Audit Scope consultations. The Market Audit Plan for the 2012 Market Audit will be developed in the coming months with the auditors.

The Terms of Reference for the period 1 January 2012 to 31 December 2012 are set out in Appendix A of this paper.

Appendix A:

Proposed Terms of Reference for the 2012 Audit Scope

This section sets out an proposed terms of reference for the 2012 Market Audit for the period January to December 2012, 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 2012 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 2012, 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. In addition as per option 3 of the scope consultation the Market Auditor will perform testing of post-IDT go-live energy and capacity settlement as soon as practical once data is available from the settlement systems, expected to be mid-August 2012. 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 2011 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 2012 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.