

SEM Committee Paper

Trading and Settlement Code

Terms of Reference for the Market Audit 2013

Consultation Paper

23 May 2013

SEM-13-033

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 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.

2. Proposed 2013 Audit Scope

Two options are being proposed for the 2013 Market Audit, as follows:

Option 1 Core SEMO Audit

As in previous years, this audit will 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 audit work will focus on the activities and processing performed by 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.

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.

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

The scope of the Market Audit for 2009 focused on the activities of SEMO under the TSC and Agreed Procedures and covered the systems and processes within the control of SEMO.

The 2010 and 2011 Market Audit were extended to include a limited examination of certain activities of the MDPs and SOs, including assessment of the relevant findings of the internal audits performed by those organisations, supplemented by certain defined audit procedures. The 2010 assessment covered generation metering and dispatch and the 2011 assessment covered interval meter demand data only.

With this Option 2, it is proposed that the 2013 Market Audit would cover non-interval meter demand data, but not interval meter demand data which was subject to the audit in 2011. Such procedures would focus on the key controls and process for producing the relevant data rather than direct testing of detailed data items themselves.

This limited examination of certain of MDP activities in 2013 will be undertaken on an Agreed upon Procedures (AuP) basis¹.

Settlement output is dependent on the completeness, accuracy and validity of energy consumption data. Moreover, errors in data for one supplier may have an impact on another supplier, e.g. through the Error Supply Unit process. Also errors and exceptions

¹ See Appendix A

may arise in metered volumes from a variety of sources. Suppliers are dependent on data processed and provided by MDPs not only for settlement volume allocation but also for billing of customers, so would benefit from an examination of the reliability and integrity of the underlying processes. The RAs therefore suggest that Agreed Upon Procedures may be of value in some of the following areas of activity performed by the Meter Data Providers during 2013.

- 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

As with previous Market Audits, the RAs are mindful of the overall cost of audit work and not duplicating relevant audit work which is already carried out within the MDPs. Before making a final decision on this the RAs will consider whether the ongoing audit work with the MDP organisations could be used by the SEM auditors or whether additional work would be required by the SEM auditors themselves.

3. Consultation and Next Steps

In presenting this paper for consultation, the SEM Committee seeks views on the merits of the above options for the Market Audit Scope for 2013.

Responses to this consultation are requested by the close of business on 24th June 2013 and should be in writing and submitted, preferably via email, to:

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The Exchange
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The RAs intend and prefer to publish all comments received, but are prepared to facilitate those respondents who wish for certain sections of their submission to remain confidential. Accordingly, respondents that so wish should submit these sections in an appendix that is clearly marked “confidential”.

Further to their consideration of the comments received, the RAs will publish their decision on the terms of reference for the SEM Market Audit for the period January to December 2013.

Appendix A Agreed Upon Procedures (AuPs)

An Agreed upon Procedure engagement involves the following steps:

- Identify the key requirements under the Code, Agreed Procedures and any other applicable rules to be tested. This enables testing to be concentrated on those areas which impact on the data being provided into the settlement process.
- Define and agree test procedures, setting out the detailed testing steps and test volumes, to address the key requirements. These represent the AuP
- Execute the AuP at each of the applicable SOs and MDPs, recording the factual results of testing
- Report the factual findings arising from the AuP to the RAs and Parties. As is normal practice for this type of engagement, it would not lead to an audit or assurance opinion. To avoid any confusion with the compliance audit opinion covering SEMO, the AuP results will be reported separately within the Market Audit report.

The specific AuP to be performed will be shared with the relevant parties in advance to provide for clarity and transparency, and facilitate smooth running of the work. In a well-controlled operation with adequate documentation of processes and controls, it is not anticipated that the AuP will present a significant time or resources burden on any of the relevant parties.