

Independent Market Operator

Compliance of System Management with the
Market Rules and Market Procedures

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Executive summary

This report sets out the results of the market audit by PA Consulting Group assessing System Management's compliance with the Market Rules and Market Procedures.

This market audit has been carried out under Market Rule 2.14.6 (b) which requires that:

In accordance with the Monitoring Protocol, the IMO must at least annually, and may more frequently where it reasonably considers that System Management may not be complying with the Market Rules and Market Procedures:

(a) require System Management to demonstrate compliance with the Market Rules and Market Procedures by providing such records as are required to be kept under these Market Rules or any Market Procedure; or

(b) subject System Management to an audit by the Market Auditor to verify compliance with the Market Rules and Market Procedures.

On the basis of the evidence available to us, PA has found that, with some exceptions, System Management has complied with its obligations under the Market Rules. We have found 28 breaches of the Market Rules, of which 10 are material. We are satisfied that all material breaches have either been responded to in a way that makes their repetition unlikely, or will be addressed through the scheduled introduction of new systems later in the year. Two material breaches are carried over from the previous year, and System Management has made progress to resolve them.

While the number of material breaches has increased since last year, this is neither unexpected nor unreasonable:

- The introduction of competitive balancing and load following markets has resulted in significant changes to System Management's activities, and in particular, activities in the control room. Already, we are pleased to note a general mind-set of adherence to the intent of the market, over and above compliance with the Rules.
- System Management has taken significant steps to bolster internal compliance monitoring, with the introduction of new processes and tools to support self-identification of compliance issues, and a corresponding increase in the number of issues logged.

We are conscious that the Market Rules, Power System Operation Procedures, and System Management's internal procedures are continually changing, as Rule Changes are put in place or improved operating practices become codified. In particular, it typically takes some time for Rule Changes to be cascaded down through the Power System Operation Procedures and ultimately the internal procedures. This is particularly apparent with System Management's internal procedures related to the new balancing and load following markets.

Finally we note that a full audit of System Management's operations has not been carried out since market start, all subsequent annual audits being conducted on an incremental basis. While incremental audits provide a cost-effective means for providing assurance on compliance when changes to the market are incremental in nature, they become less meaningful as time goes on and/or if major changes are introduced to the market. Having regard to the time that has elapsed since the original full audit, and the recent introduction of the new balancing and load following ancillary service markets, we recommend that the IMO consider a full audit in the next three years.

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1 Introduction

This document sets out the results of the market audit by PA Consulting Group in carrying out its assessment of System Management's compliance with the Market Rules and Market Procedures.

1.1 Scope of the market audit

This market audit has been carried out under Market Rule 2.14.6, which requires that:

In accordance with the Monitoring Protocol, the IMO must at least annually, and may more frequently where it reasonably considers that System Management may not be complying with the Market Rules and Market Procedures:

- a. *require System Management to demonstrate compliance with the Market Rules and Market Procedures by providing such records as are required to be kept under these Market Rules or any Market Procedure; or*
- b. *subject System Management to an audit by the Market Auditor to verify compliance with the Market Rules and Market Procedures.*

1.2 Audit period

The period covered by the audit is 13 August 2011 to 10 August 2012.

1.3 Market audit process

This year's market audit of System Management (SM) has included three components.

1. An "incremental" audit;
2. An obligation mapping; and
3. More detailed focus in selected areas.

We have looked in detail at the clauses in the Market Rules, System Management's Power System Operation Procedures (PSOPs) and its internal procedures where:

- The clauses in the Market Rules are new or amended since last year's annual audit;
- The Power System Operation Procedures and internal procedures are new or updated since last year's annual audit;
- The internal procedures are related to areas of non-compliance identified in last year's annual audit; and
- The internal procedures are related to areas of alleged breaches of the Market Rules by System Management since last year's annual audit and 10 August 2012.

That is, we have looked at areas that have changed (or should have changed) since last year's annual audit.

The incremental analysis is supported by an updated clause-by-clause mapping of System Management's obligations in the Market Rules to both the Power System Operation Procedures and System Management's internal procedures.

1. Introduction. . .

In conducting the market audit on the compliance of System Management with the Market Rules, PA has:

1. Ensured that it is up to date with its understanding of the West Australia Electricity Market Rules;
2. Identified all obligations placed on System Management by the Market Rules, including all new or amended obligations arising from changes to the Market Rules that came into force before 10 August 2012;
3. Reviewed the Power System Operation Procedures, and identified which Market Rule obligations are addressed therein;
4. Reviewed System Management internal procedure documentation, and identified which Market Rule obligations are addressed therein;
5. Identified System Management business functions affected by Power System Operation Procedures and System Management internal procedures that are new or have been updated since the previous market audit;
6. Identified System Management business functions that relate to areas of non-compliance identified in the previous market audit;
7. Sought evidence that System Management is performing those business functions so as to comply with the Market Rules;
8. Had discussions with System Management managers and staff to clarify issues identified; and then
9. Prepared a draft report setting out our findings followed by a final report.

As in previous years, we note that there are limitations to any external audit. Audits are not an absolute guarantee of the truth or reliability of agency information or the effectiveness of internal controls. They may not identify all matters of significance. This is because external audit techniques involve:

- Professional judgement as to “good industry and market operational practice”;
- The use of sample testing;
- An assessment of the effectiveness of internal control structures; and
- An assessment of risk.

A market audit does not guarantee every procedure and action carried out in the operation of the electricity market in the audit report, nor does it examine all evidence and every transaction. However, our audit procedures should identify errors or omissions significant enough to adversely affect the decisions of market participants.

We also note that there is a high degree of compliance monitoring built into the market design. Should System Management not carry out a requirement of the Market Rules, those cases that are material will have affected Market Participants and are likely to have been raised.

Where non-compliant procedures or actions are identified, these are classified as being:

- Material, in that they may affect decisions made by Market Participants, affect the outcome of the market or otherwise affect the financial position of one or more Rule Participants; or
- Not material, in that

1. Introduction. . .

- they do not comply with the wording or the Market Rules but do comply with the intention of the Market Rules; or
- they do not comply with the Market Rules but they are not likely to affect decisions made by market participants or otherwise affect the outcome of the market.

1.4 Structure of this report

The report begins with an overview of recent developments made to the Power System Operation Procedures and the consequential actions taken with respect to System Management's internal procedures.

The remainder of the report is structured around the various chapters of the Market Rules. The chapters of this report summarise the incremental changes to the Market Rules that have occurred since the time of the last audit, the changes to System Management's internal and external procedures that are relevant to that chapter of the Market Rules, and any recorded instances of non-compliance.

Appendix A contains a table showing Market Rule clauses changed since last year's audit.

1.5 Acknowledgements

PA would like to thank the managers and staff of System Management who willingly provided information and shared in discussions while we carried out this market audit.

2 Status of the procedures

2.1 Power System Operation Procedure (PSOP)

The intent of the Market Rules is for the PSOP to set out processes, methodologies, algorithms and calculations for operational use by industry participants. A number of sections of the PSOP have been updated in preparation for the new Balancing and Load Following markets, and we are pleased to see substantial improvement to the contents of previous versions. These updated sections provide additional information over and above the Rule obligations, giving necessary information and insight into how critical market functions are performed. We look forward to the further development of these sections and the rest of the PSOP.

As in past years, we identify specific areas for improvement in later chapters, where the Rules mandate the setting out of a particular procedure for which detail is missing in the PSOP.

2.2 System Management internal procedures

This year we have again specifically reviewed SM's obligations with regard to its internal procedures.

As last year, we found that System Management's business processes fall into three categories:

1. Those documented in internal procedures clearly used in operational activities, which include detailed activity steps and process flow diagrams or worked examples for use by operational staff;
2. Those documented in internal procedures apparently created to capture Rule obligations, which largely restate the Market Rules without adding information, and without weaving the obligations into an operational process flow; and
3. Those not captured in documentation sighted by us as part of the audit.

Those in the second category are unlikely to be used operationally, and will create administrative overhead which could be put to more valuable use in the creation and maintenance of truly operational procedures.

While the absence of internal documentation of particular processes does not necessarily indicate non-compliance with Market Rule obligations, its existence is a strong signal that compliance is built into operational activities.

System Management has begun an initiative to improve and reorganise its internal procedures, but there has been limited progress to date. In fact, SM's internal procedures have changed very little during the year, with one major exception: the Internal Market Operations Procedure. This procedure has been significantly altered to reflect the operations of the new balancing and load following markets. While other formal internal procedure documentation has not been updated to reflect the new markets, SM has developed process maps of the new processes which will form the basis of new documentation to be created over the months to come.

We also note that the 'Control Room Market Procedures', which existed largely to support Rule obligations and were not used operationally have been deprecated, with a view to decommissioning.

2. Status of the procedures. . .

2.3 Recent developments

Key developments since the last audit are summarised in the table below. Some of the changes are marked for further amendment.

Table 1: Development of the Power System Operation Procedures

Name	Summary of change	Consequential changes to Internal Processes
Ancillary services	<ul style="list-style-type: none"> Updated for new Competitive Balancing and Load Following Markets 	<ul style="list-style-type: none"> Internal Market Operations Procedure
Cleansing of Generation Facility MWh Data	<ul style="list-style-type: none"> No changes 	<ul style="list-style-type: none"> No changes
Commissioning and Testing	<ul style="list-style-type: none"> Updated for new Competitive Balancing and Load Following Markets Updated to include conditions around when System Management may approve a Commissioning Test, and Communication Protocol 	<ul style="list-style-type: none"> No changes
Communication and Control Systems	<ul style="list-style-type: none"> Updated for new Competitive Balancing and Load Following Markets 	<ul style="list-style-type: none"> No changes
Dispatch	<ul style="list-style-type: none"> Updated to include System Management's monitoring obligations of Market Participant's resource plans, provision of daily dispatch profile, and the provision of daily algorithm 	<ul style="list-style-type: none"> Internal Market Operations Procedure
Facility Outages	<ul style="list-style-type: none"> Updated for new Competitive Balancing and Load Following Markets Updated to include the requirement for System Management's calculation of planned outage, forced outage and equipment test rates 	<ul style="list-style-type: none"> Internal Market Operations Procedure
Medium Term Projected Assessment of System Adequacy (MT PASA)	<ul style="list-style-type: none"> No changes 	<ul style="list-style-type: none"> No changes
Monitoring and Reporting Protocol	<ul style="list-style-type: none"> Updated to include the calculation of tolerance ranges Removal of sections that just restated Rule requirements 	<ul style="list-style-type: none"> No changes
Operational Data Points for Generation Plant	<ul style="list-style-type: none"> Updated to include renewable generation data points 	<ul style="list-style-type: none"> No changes
Operational Data Points for Non-Western Power Networks and Substations	<ul style="list-style-type: none"> No changes 	<ul style="list-style-type: none"> No changes

2. Status of the procedures. . .

Name	Summary of change	Consequential changes to Internal Processes
Power System Security	<ul style="list-style-type: none">• Updated for new Competitive Balancing and Load Following Markets	<ul style="list-style-type: none">• No changes
Short Term Projected Assessment of System Adequacy (ST PASA)	<ul style="list-style-type: none">• No changes	<ul style="list-style-type: none">• No changes
System Restart Overview	<ul style="list-style-type: none">• No changes	<ul style="list-style-type: none">• No changes

3 Market Rule Chapter 1 – Introduction

Market Rule Chapter 1 sets out the Introduction to the Market Rules and covers areas such as the objectives of the market, conventions and transitional arrangements.

3.1 SM's processes and procedures

3.1.1 Rule amendments

The following clauses which relate to System Management's obligations have been amended since last year's annual audit:

- 1.10 (new).

3.1.2 Procedures

There are neither Power System Operation Procedures nor internal procedures relevant to Chapter 1.

3.2 Compliance with Chapter 1

The obligations placed on System Management under Chapter 1 relate to transitional matters or matters that expired at the Energy Market Commencement. The new Rule 1.10 relates to the timing of new obligations for balancing and load following markets prior to Balancing Market Commencement Day. These obligations are covered in other chapters.

3.3 Opinion

System Management has no current obligations under Chapter 1 of the Market Rules

4 Market Rule Chapter 2 – Administration

Chapter 2 of the Market Rules sets out the Functions and Governance Rules which affect both the Market Operations and System Operations Control functions of System Management.

4.1 SM's processes and procedures

4.1.1 Rule amendments

The following clauses in Chapter 2 were amended after last year's market audit and prior to Balancing Market commencement:

- 2.8.13;
- 2.27.1, 2.27.2, 2.27.4, 2.29.1, 2.29.1A (new), 2.29.5, 2.29.5A (new), 2.29.5B (new), 2.29.5C (new), 2.29.5D (new), 2.29.5E (new), 2.29.5F (new), 2.29.5G (new), 2.29.5H (new), 2.29.5I (new), 2.29.5J (new), 2.29.5K (new), 2.29.5L (new), 2.29.5M (new), 2.29.8A, 2.29.8B, 2.29.9A, 2.29.9B, 2.29.9C, 2.30.3, 2.30.5, 2.30B.2, 2.30B.5, 2.31.23A, 2.33.1, 2.33.4, 2.35.1;
- 2.17.1, 2.31.13, 2.32.7A (new), 2.32.7B (new), 2.32.7C (new), 2.32.7D (new), 2.32.7E (new), 2.32.7F (new);
- 2.38.7;
- 2.24.1, 2.24.2A, 2.34.12, 2.8.11;
- 2.37.4;
- 2.33.1, 2.33.2, 2.33.3, 2.33.4; and
- 2.10.17 (new), 2.10.18 (new), 2.10.19 (new).

The following clauses in Chapter 2 were amended on or subsequent to Balancing Market commencement:

- 2.1.2, 2.10.2A (new), 2.13.13A (new), 2.13.14, 2.13.6B, 2.13.6E, 2.13.6F, 2.13.6K, 2.13.9, 2.16.10, 2.16.12, 2.16.13, 2.16.2, 2.16.4, 2.16.7, 2.16.9, 2.16.9A, 2.16.9B, 2.16.9C, 2.16.9E, 2.16.9F, 2.16.9FB, 2.16.9G, 2.17.1, 2.2.1, 2.2.2, 2.23.10, 2.3.5, 2.34.1, 2.34.12, 2.34.14, 2.34.7, 2.34.7A (new), 2.34.7B (new), 2.34.7C (new), 2.36.1, 2.36.10 (new), 2.36.6, 2.36.7 (new), 2.36.8 (new), 2.36.9 (new), 2.37.4; and
- 2.17.1.

4.1.2 Procedures

The following Power System Operation Procedures relating to Chapter 2 of the Market Rules have been updated since last year's market audit:

- Power System Operation Procedure: Dispatch
- Power System Operation Procedure: Monitoring and Reporting Protocol
- Power System Operation Procedure: Operational Data Points For Generating Plant
- Power System Operation Procedure: Communications and control systems.

4. Market Rule Chapter 2 – Administration. . .

The following internal procedures relating to Chapter 2 of the Market Rules have been updated since last year's market audit:

- Internal Market Operations Procedure
- Internal Procedure 3.1.1 - Manage the Monitoring of Participant Compliance
- Internal Procedure - Changes to Market Rules.

4.1.3 Relationship between Rule updates and procedures

The extent to which the Rule changes have been reflected in updates to the SM's processes and procedures is set out in Table 2 below.

Not all Rule changes require a consequential amendment to written procedures.

4.1.4 Additional risk areas

In addition to the incremental review above, we also specifically reviewed SM's performance of its obligations to monitor participants under the PSOP: Reporting and Monitoring Protocol.

4.2 Compliance with Chapter 2

4.2.1 Incidents

We found 3 instances of non-material non-compliance with Chapter 2.

Incidents associated with SM's obligations under Chapter 2 are set out in Table 3 below.

4.2.2 Comment

None of the breaches to this section of the Rules are deemed to be material; that is the breaches do not compromise the intention of the Market Rules, and/or the decisions made by market participants or otherwise affect the outcome of the market.

4.3 Opinion

As far as we have been able to determine, there have been no material breaches of SM's obligations pursuant to Chapter 2 of the Market Rules.

4.4 Details of procedure changes and non-compliance

4.4.1 Rule changes and procedure updates

Table 2: Relationship between Rule changes to Chapter 2 and procedure updates

Amended clauses	Description	Procedure updated?
<ul style="list-style-type: none"> • 2.18.13 	<ul style="list-style-type: none"> • Changes to the clauses deemed protected provisions 	<ul style="list-style-type: none"> • Not applicable
<ul style="list-style-type: none"> • 2.27.1, 2.27.2, 2.27.4, 2.29.1, 2.29.1A (new), 2.29.5, 2.29.5A (new), 2.29.5B (new), 2.29.5C (new), 2.29.5D (new), 2.29.5E (new), 2.29.5F (new), 2.29.5G (new), 2.29.5H (new), 2.29.5I (new), 2.29.5J (new), 2.29.5K (new), 2.29.5L (new), 2.29.5M (new), 2.29.8A, 2.29.8B, 2.29.9A, 2.29.9B, 2.29.9C, 2.30.3, 2.30.5, 2.30B.2, 2.30B.5, 2.33.1, 2.33.4, 2.35.1 	<ul style="list-style-type: none"> • Changes for RC_2010_29, to replace curtailable loads with Demand Side Programmes 	<ul style="list-style-type: none"> • Not applicable
<ul style="list-style-type: none"> • 2.8.11, 2.24.1, 2.24.2A, 2.34.12 	<ul style="list-style-type: none"> • Minor corrections only 	<ul style="list-style-type: none"> • Not applicable
<ul style="list-style-type: none"> • 2.38.7 	<ul style="list-style-type: none"> • Introduces new obligations on the IMO with respect to the maintenance on the website of entities meeting acceptable credit criteria 	<ul style="list-style-type: none"> • Not applicable
<ul style="list-style-type: none"> • 2.31.23A 	<ul style="list-style-type: none"> • Changes to replace curtailable loads with Demand Side Programmes 	<ul style="list-style-type: none"> • Not applicable
<ul style="list-style-type: none"> • 2.10.17 (new), 2.10.18 (new), 2.10.19 (new). 	<ul style="list-style-type: none"> • Changes to timeframes for processing Procedure Change Proposals 	<ul style="list-style-type: none"> • Not applicable
<ul style="list-style-type: none"> • 2.17.1, 2.31.13, 2.32.7A (new), 2.32.7B (new), 2.32.7C (new), 2.32.7D (new), 2.32.7E (new), 2.32.7F (new) 	<ul style="list-style-type: none"> • Minor amendments • Obligations are introduced that provide for the IMO to deregister Rule Participants in certain 	<ul style="list-style-type: none"> • Not applicable

4. Market Rule Chapter 2 – Administration. . .

Amended clauses	Description	Procedure updated?
	circumstances	
<ul style="list-style-type: none"> • 2.33.1, 2.33.2, 2.33.3, 2.33.4 	<ul style="list-style-type: none"> • Minor amendments 	<ul style="list-style-type: none"> • Not applicable
<ul style="list-style-type: none"> • 2.37.4 	<ul style="list-style-type: none"> • Changes to credit limit calculations due to the new Balancing and Load Following markets 	<ul style="list-style-type: none"> • Not applicable
<ul style="list-style-type: none"> • 2.17.1 	<ul style="list-style-type: none"> • Adds to list of IMO decisions which are reviewable 	<ul style="list-style-type: none"> • Not applicable
<ul style="list-style-type: none"> • 2.1.2, 2.10.2A (new), 2.13.13A (new), 2.13.14, 2.13.6B, 2.13.6E, 2.13.6F, 2.13.6K, 2.13.9, 2.16.10, 2.16.12, 2.16.13, 2.16.2, 2.16.4, 2.16.7, 2.16.9, 2.16.9A, 2.16.9B, 2.16.9C, 2.16.9E, 2.16.9F, 2.16.9FB, 2.16.9G, 2.17.1, 2.2.1, 2.2.2, 2.23.10, 2.3.5, 2.34.1, 2.34.12, 2.34.14, 2.34.7, 2.34.7A (new), 2.34.7B (new), 2.34.7C (new), 2.36.1, 2.36.10 (new), 2.36.6, 2.36.7 (new), 2.36.8 (new), 2.36.9 (new), 2.37.4 	<ul style="list-style-type: none"> • Changes to implement the new balancing and load following markets: <ul style="list-style-type: none"> – The information collection and analysis requirements – Obligations for the Economic Regulatory Authority and the IMO to monitor the market. In particular prices offered by Generators in Balancing Submissions and LFAS Submissions. – Guidelines for the ERA to request the IMO apply to the Electricity Review Board under certain events. – New obligations for IMO and SM regarding LFAS Standing Data – New obligations for IMO and SM regarding provision of critical information to each other and processes to use in the absence of an IMS Interface Market Procedure. 	<ul style="list-style-type: none"> • Partially <ul style="list-style-type: none"> – PSOP: Monitoring and reporting protocol updated – Internal Market Operations procedure now includes the various transfers specified in the IMS Interface Market Procedure – Internal procedures not updated for LFAS standing data changes, as Verve are currently the only provider.
<ul style="list-style-type: none"> • 2.30B.1, 2.30B.2, 2.30B.5, 2.30B.6, 2.30B.6A, 2.30B.7, 2.30B.8 and 2.30B.11 	<ul style="list-style-type: none"> • Minor amendments relating to Intermittent Load eligibility. Sets out conditions for Intermittent Load that the IMO must be satisfied have been met. 	<ul style="list-style-type: none"> • Not applicable

4.4.2 Incidents of non-compliance

Table 3: Incidents of non-compliance with Chapter 2

Rule	The Issue	Material?	Comment
2.9.5(b)	<p>SM must follow the Administration Procedure when developing procedure change proposals, including notifying members of the MAC prior to submitting proposals.</p> <p>On 4 November 2011, SM submitted proposal PPCL0020 without notifying the MAC or working group.</p>	No	The lack of notification has not affected market outcomes.
2.13.9(i),(j)	<p>SM is obliged to monitor participant compliance with dispatch, including participant notification in situations where they are unable to comply with an instruction, either fully or partially.</p> <p>Where participants are unable to fully comply, but can partially comply, they must provide details of the extent to which they are able to comply (by a change to either ramp rate or quantity).</p> <p>At present, the audit trail for these occurrences is the manual operator log. In some cases, the audit trail is not sufficient to determine whether or not the participant has complied, and whether they have provided the required information. In some cases, information given does not appear to be sufficient, eg "Will try to return to dispatch by mid-afternoon".</p>	No	This situation is unlikely to affect market outcomes, as non-compliance occurs after gate closure, and actual generation amounts are accounted for in Settlement.

4. Market Rule Chapter 2 – Administration. . .

Rule	The Issue	Material?	Comment
2.36.9	<p>SM must comply with the data transfer arrangements prescribed in the IMS Interface Market Procedure. This includes automatic acknowledgement of receipt of files from the IMO.</p> <p>At present, SM technical setup is such that some files are routed to the legacy SMMITS system, while others are routed to the new Operational Data Store (ODS). Currently, any files processed by the ODS do not generate an automatic acknowledgment.</p>	No	<p>A lack of automatic notification will not affect market outcomes. It requires additional overhead for both IMO and SM to ensure that files are actually being sent correctly, and increases the likelihood that a transfer failure will go unnoticed.</p>

5 Market Rule Chapter 3 – Power system security and reliability

Chapter 3 of the Market Rules sets out the Power System Security and Reliability Rules which affect the Market Strategic Development, Market Operations, System Operations Planning and System Operations Control functions of System Management.

5.1 SM's processes and procedures

5.1.1 Rule amendments

The following clauses in Chapter 3 were amended after last year's market audit and prior to Balancing Market commencement:

- 3.14.1, 3.17.5;
- 3.22.2, 3.22.3;
- 3.19.12, 3.21.9; and
- 3.11.8A, 3.11.8B, 3.13.1, 3.13.3B, 3.13.3C, 3.14.3, 3.2.1, 3.21B.7.
- The following clauses in Chapter 3 were amended on or subsequent to Balancing Market commencement:
 - 3.11.7, 3.11.7A, 3.11.8, 3.13.1, 3.13.3, 3.13.3A, 3.13.3AB (new), 3.14.1, 3.14.2, 3.2.5, 3.21.6, 3.21A.13, 3.21A.14, 3.21AA, 3.22.1, 3.22.2, 3.22.3, 3.4.4, 3.5.7, 3.9.1.

5.1.2 Procedures

The following Power System Operation Procedures relating to Chapter 3 have been updated since last year's market audit:

- Power System Operation Procedure: Monitoring and Reporting Protocol
- Power System Operation Procedure: Ancillary Services
- Power System Operation Procedure: Commissioning and Testing
- Power System Operation Procedure: Facility Outages
- Power System Operation Procedure: Dispatch
- Power System Operation Procedure: Power System Security.

The following internal procedures relating to Chapter 3 have been created or updated since last year's market audit:

- SOPI 01 01 Commissioning Tests.

5.1.3 Relationship between Rule updates and procedures

The extent to which the Rule changes have been reflected in updates to SM's processes and procedures is set out in Table 4.

Not all Rule changes require a consequential amendment to written procedures.

5.1.4 Additional risk areas

In addition to the incremental review above, we also specifically reviewed SM's performance of:

- Preparation of the ST and MT PASA under the relevant PSOPs; and
- Preparation and maintenance of the Technical Envelope.

5.2 Compliance with Chapter 3

5.2.1 Incidents

We found two material and five non-material instances of non-compliance with Chapter 3.

Incidents associated with SM's obligations under Chapter 3 are set out in Table 5.

5.2.2 Comment

We deem two of the breaches to this section of the Rules to be material; that is the breaches may compromise the intention of the Market Rules, and/or the decisions made by market participants, or otherwise may affect the outcome of the market.

These material breaches are carried over from the last audit. Some progress has been made to address them, but they have not been completely resolved. SM plan to have them fully addressed by July 2013.

5.3 Opinion

As far as we have been able to determine, other than the breaches described above SM has complied with its obligations under Chapter 3 of the Market Rules.

5.4 Details of procedure changes and non-compliance

5.4.1 Rule changes and procedure updates

Table 4: Relationship between Rule changes to Chapter 3 and procedure updates

Amended clauses	Description	Procedure updated?
<ul style="list-style-type: none"> • 3.14.1, 3.17.5 	<ul style="list-style-type: none"> • Minor amendments 	<ul style="list-style-type: none"> • Not applicable
<ul style="list-style-type: none"> • 3.22.2, 3.22.3 	<ul style="list-style-type: none"> • Introduces additional obligations on System Management with respect to the provision of information to the IMO for Ancillary Service Contracts. Additional information includes type of Ancillary Service (Spinning Reserve, Load Following, etc.) • Obligations for information provision to the IMO are also placed on SM for quantity (e.g. MWh) of Ancillary service contracted with Market Participants in each Trading Interval. 	<ul style="list-style-type: none"> • Yes <ul style="list-style-type: none"> – PSOP Ancillary services updated
<ul style="list-style-type: none"> • 3.19.12, 3.21.9 	<ul style="list-style-type: none"> • Minor corrections 	<ul style="list-style-type: none"> • Not applicable
<ul style="list-style-type: none"> • 3.2.1, 3.11.8A, 3.11.8B, 3.13.1, 3.13.3B, 3.13.3C, 3.14.3, 3.21B.7 	<ul style="list-style-type: none"> • Minor corrections 	<ul style="list-style-type: none"> • Not applicable
<ul style="list-style-type: none"> • 3.2.5, 3.4.4, 3.5.7, 3.9.1, 3.11.7, 3.11.7A, 3.11.8, 3.13.1, 3.13.3, 3.13.3A, 3.13.3AB (new), 3.14.1, 3.14.2, 3.21.6, 3.21A.13, 3.21A.14, 3.21AA, 3.22.1, 3.22.2, 3.22.3 	<ul style="list-style-type: none"> • Changes to implement the new balancing and load following markets: <ul style="list-style-type: none"> – Minor amendments to terms regarding Ancillary Services – Changes to guidelines for determining Margin_Peak and Margin_Off-Peak values – Minor amendments to terms regarding Commissioning Tests (obligations are on Market Participant to inform 	<ul style="list-style-type: none"> • Partially <ul style="list-style-type: none"> – PSOP: Dispatch includes new settlement data – Control room procedures not updated – Internal procedures covering High Risk and Emergency Operating States not updated – Internal procedures covering Commissioning Tests not updated for these changes

Amended clauses	Description	Procedure updated?
	SM). – Minor amends to SM's obligations under Emergency Operating State - SM should seek to return to issuing Dispatch Instructions. – Amends obligations for SM in determining the Technical Envelope (to ensure they are not inconsistent with the dispatch of Balancing Facilities). – Minor amendments to terms regarding Settlement Data.	– Internal procedure on technical envelope not updated.

5.4.2 Incidents of non-compliance

Table 5: Incidents of non-compliance with Chapter 3

Rule	The Issue	Material?	Comment
3.2.6	SM must establish and modify the Technical Envelope in accordance with clause 3.2.5 and the PSOP. Section 4.1 of the PSOP: Power System Security covers the definition and operation of the Technical Envelope. SM has defined the Technical Envelope, but the document still has draft status, and very few of the staff we interviewed knew of its existence. Until the document has official standing, SM is in breach of this Rule.	No	While the specifications that make up the Technical Envelope are spread across a number of repositories, in practice, SM staff understand what is meant by the technical envelope, and operate the power system in accordance with it.

Rule	The Issue	Material?	Comment
3.11.14	<p>SM is obliged to document the procedure for determining Ancillary service requirements in the PSOP. The PSOP: Ancillary Services includes information about things that SM may consider, but does not set out the actual process for determining the requirements.</p> <p>Since the last audit, SM has updated the PSOP: Ancillary Services to include more information about the general process of AS requirements determination, but there is still no methodology setting out how the final values are derived.</p>	No	<p>Since SM publishes the results of its determinations, and since they have a significant amount of discretion in operating the power system, it is unlikely that the market is currently affected by the absence of this methodology.</p> <p>With the introduction of competition in provision of Load Following Ancillary Service, the mechanism by which the LFAS requirement is set is likely to attract more attention.</p>
3.16	<p>In the last audit, we noted an issue with SM's preparation of the Medium Term Projected Assessment of System Adequacy (MT PASA), which compares available capacity to projected load.</p> <p>The issue was twofold:</p> <ol style="list-style-type: none"> 1. That SM's calculations of the reserve margin explicitly excluded intermittent generation, newly commissioned generators and curtailable load (now demand side programmes), which breaches the intent of 3.16, and specifically the information to be provided under 3.16.9. 2. That these calculations do not appear in the MT PASA PSOP, a breach of 3.16.10, which obligates SM to publish the method used to calculate the MT PASA in a PSOP. <p>Since the previous audit, SM has altered the</p>	Yes	<p>The inclusion of estimated likely intermittent generation output in the MT-PASA takes care of the largest part of the non-compliance, but there is still potential for the denial of outages which would be accepted were newly commissioned generation and Demand Side Programmes to be included in the PASA.</p> <p>SM is working to modify the MT-PASA to include an assessment of the contribution of these types of capacity by July 2013.</p>

Rule	The Issue	Material?	Comment
	<p>MT-PASA calculations to include an assessment of the likely available intermittent generation.</p> <p>The breach with respect to inclusion of capacity from newly commissioned generators and demand side programmes) remains, as does the breach with respect to including the information in the PSOP.</p>		
3.17	<p>SM's calculation and provision of the ST PASA has the same issues as those for the MT PASA described above.</p>	Yes	As above.
3.21.10	<p>SM is obliged to deem forced outages as not consequential unless in receipt of a formal notification from the affected market participant.</p> <p>From May to December 2011, SM deemed six forced outages as consequential without a formal notification.</p>	No	<p>Had SM been enforcing the requirement to lodge consequential outage notifications, it seems unlikely that any affected participant would not have lodged one.</p> <p>All consequential outages from January to August 2012 have been supported by a formal notification lodged by the affected participant.</p>
3.21A.15	<p>SM accepted an updated commissioning test plan for a facility the day before the updated plan was due to commence. This breached the PSOP: Commissioning and Testing which was in force at the time, which stated that SM could not approve plans within 2 days of commencement.</p>	No	<p>As the facility was scheduled for outage prior to the submission of the updated commissioning plan, there was no market impact of the alteration.</p> <p>SM has subsequently published an updated PSOP: Commissioning and Testing, which allows the acceptance of updated plans within</p>

Rule	The Issue	Material?	Comment
			2 days of commencement.
3.21B.8	SM must document in the PSOP the procedure to be followed in granting permission for a generator holding capacity credits to be placed in a state from which it would take more than four hours to resynchronise. The PSOP: Dispatch references notification of commitment decisions, but does not set out the procedure for dealing with such requests.	No	System Management deals with these situations as part of the general outage process, and their actions appear to be consistent with the Rules. Therefore, the absence of this information in the PSOP should not impact the market.

6 Market Rule Chapter 4 – Reserve capacity

Chapter 4 of the Market Rules sets out the Reserve Capacity Rules which affect the Market Strategic Development and System Operations Control functions of System Management.

6.1 SM's processes and procedures

6.1.1 Rule amendments

The following clauses in Chapter 4 were amended after last year's market audit and prior to Balancing Market commencement:

- 4.13.10A, 4.13.10C (new), 4.13.3, 4.1.21, 4.1.27, 4.10.3, 4.11.2A (new), 4.11.3B (new), 4.13.1, 4.13.10, 4.13.10B (new), 4.13.11, 4.13.11A (new), 4.13.11B, 4.13.12, 4.13.13 (new), 4.13.14 (new), 4.13.1A (new), 4.13.1B (new), 4.13.1C (new), 4.13.2, 4.13.2A (new), 4.13.2B (new), 4.13.2C (new), 4.13.5, 4.13.8, 4.20.1, 4.25.1, 4.25.2, 4.25.3B, 4.25.4B, 4.26.1, 4.26.1A, 4.28.4, 4.28C.12, 4.28C.12A (new), 4.28C.8, 4.28C.8A (new), 4.9.9;
- 4.1.11;
- 4.26.1, 4.26.1A;
- 4.10.1, 4.10.3, 4.10.3A (new), 4.11.2, 4.11.2A (new), 4.11.3A, 4.11.3B (new), 4.11.3C (new), 4.11.3D (new), 4.11.3E (new);
- 4.10.1, 4.11.1, 4.11.4, 4.11.4A, 4.12.1, 4.12.4, 4.12.8, 4.14.1, 4.18.1, 4.18.2, 4.25.1, 4.25.10, 4.25.2, 4.25.3B, 4.25.4, 4.25.4E, 4.25.4F, 4.25.9, 4.25A, 4.25A.1, 4.25A.2, 4.25A.3, 4.25A.4, 4.25A.5, 4.26.1, 4.26.1A, 4.26.1B, 4.26.1C, 4.26.2, 4.26.2C, 4.26.2CA (new), 4.26.2D, 4.26.2E, 4.26.2F, 4.26.3, 4.26.3A, 4.26.4, 4.8.3;
- 4.1.13, 4.1.18, 4.10.1, 4.25.4F, 4.5.9;
- 4.26.2, 4.26.2B, 4.26.5;
- 4.12.4, 4.12.8, 4.26.2D;
- 4.25.2, 4.28.5;
- 4.16.3; and
- 4.5.12.
- The following clauses in Chapter 4 were amended on or subsequent to Balancing Market commencement:
 - 4.10.1, 4.11.1, 4.11.10 (new), 4.11.11, 4.11.12, 4.11.2, 4.11.3B (new), 4.11.4, 4.11.7, 4.12.1, 4.12.4, 4.12.8, 4.14.4, 4.14.5, 4.23A.1, 4.23A.2, 4.25.10, 4.25.11, 4.25.12, 4.25.14, 4.25.3, 4.25.3A, 4.25.3B, 4.25.4, 4.25.7, 4.25.8, 4.25.9, 4.26.2, 4.26.2D; and
 - 4.1.21B (new), 4.12.6, 4.13.1B (new), 4.20.10 (new), 4.20.11 (new), 4.20.12 (new), 4.20.13 (new), 4.20.14 (new), 4.20.8 (new), 4.20.9 (new).

6. Market Rule Chapter 4 – Reserve capacity. . .

6.1.2 Procedures

The following Power System Operation Procedures relating to Chapter 4 have been updated since last year's market audit:

- Power System Operation Procedure: Facility Outages.

The following internal procedures relating to Chapter 4 have been created or updated since last year's market audit:

- CRMI 40 45 Dispatch of Curtailable Loads.

6.1.3 Relationship between Rule updates and procedures

The extent to which the Rule changes have been reflected in updates to SM's processes and procedures is set out in Table 6.

Not all Rule changes require a consequential amendment to written procedures.

6.1.4 Additional risk areas

We did not review any additional risk areas related to SM's obligations under Chapter 4.

6.2 Compliance with Chapter 4

We have not noted any non-compliance on the part of SM respect to its obligations under Chapter 4.

6.3 Opinion

As far as we have been able to determine, SM has complied with its obligations under Chapter 4 of the Market Rules.

6.4 Details of procedure changes

6.4.1 Rule changes and procedure updates

Table 6: Relationship between Rule changes to Chapter 4 and procedure updates

Amended clauses	Description	Procedure updated?
<ul style="list-style-type: none"> 4.1.21, 4.1.27, 4.9.9, 4.10.3, 4.11.2A (new), 4.11.3B (new), 4.13.1, 4.13.1A (new), 4.13.1B (new), 4.13.1C (new), 4.13.2, 4.13.2A (new), 4.13.2B (new), 4.13.2C (new), 4.13.3, 4.13.5, 4.13.8, 4.13.10, 4.13.10A, 4.13.10B (new), 4.13.10C (new), 4.13.11, 4.13.11A, 4.13.11B, 4.13.12, 4.13.13 (new), 4.13.14 (new), 4.20.1, 4.25.1, 4.25.2, 4.25.3B, 4.25.4B, 4.26.1, 4.26.1A, 4.28.4, 4.28C.8, 4.28C.8A (new), 4.28C.12, 4.28C.12A (new) 	<ul style="list-style-type: none"> Alterations to the reserve capacity Rules 	<ul style="list-style-type: none"> Not applicable
<ul style="list-style-type: none"> 4.26.1, 4.26.1A 	<ul style="list-style-type: none"> Amendments for partial commissioning of intermittent generators 	<ul style="list-style-type: none"> Not applicable
<ul style="list-style-type: none"> 4.8.3, 4.10.1, 4.11.1, 4.11.4, 4.11.4A, 4.12.1, 4.12.4, 4.12.8, 4.14.1, 4.18.1, 4.18.2, 4.25.1, 4.25.2, 4.25.3B, 4.25.4, 4.25.4E, 4.25.4F, 4.25.9, 4.25.10, 4.25A, 4.25A.1, 4.25A.2, 4.25A.3, 4.25A.4, 4.25A.5, 4.26.1, 4.26.1A, 4.26.1B, 4.26.1C, 4.26.2, 4.26.2C, 4.26.2CA (new), 4.26.2D, 4.26.2E, 4.26.2F, 4.26.3, 4.26.3A, 4.26.4 	<ul style="list-style-type: none"> Amendments for replacement of Curtailable Loads with Demand Side Programmes, including <ul style="list-style-type: none"> Assignment of Certified Reserve Capacity Reserve Capacity Testing Verification Tests for Demand Side Programmes calculation of the Reserve Capacity Deficit calculation of Net Stem Shortfall, Relevant Demand and the Capacity Cost Refund calculation of the Required Level in setting Certified Reserve Capacity and the Relevant Level Methodology. 	<ul style="list-style-type: none"> No <ul style="list-style-type: none"> Minor updates required to RC testing internal procedures
<ul style="list-style-type: none"> 4.1.13, 4.1.18, 4.5.9, 4.10.1, 4.25.4F 	<ul style="list-style-type: none"> Minor amendments 	<ul style="list-style-type: none"> Not applicable

6. Market Rule Chapter 4 – Reserve capacity. . .

Amended clauses	Description	Procedure updated?
<ul style="list-style-type: none"> • 4.26.2, 4.26.2B, 4.26.5 	<ul style="list-style-type: none"> • Amendments made to the calculation of the Net Stem Shortfall 	<ul style="list-style-type: none"> • Not applicable
<ul style="list-style-type: none"> • 4.12.4, 4.12.8, 4.26.2D 	<ul style="list-style-type: none"> • Amendments are made to the IMO's obligation to calculate the Reserve Capacity Obligation Quantity • Changes to facilitate DSP dispatch under an NCS contract 	<ul style="list-style-type: none"> • Yes <ul style="list-style-type: none"> – Internal procedure 'Dispatch of Curtailable Loads' updated.
<ul style="list-style-type: none"> • 4.1.11 	<ul style="list-style-type: none"> • Changes to Reserve Capacity application lodgement dates 	<ul style="list-style-type: none"> • Not applicable
<ul style="list-style-type: none"> • 4.10.1, 4.10.3, 4.10.3A (new), 4.11.2, 4.11.2A, 4.11.3A, 4.11.3B, 4.11.3C (new), 4.11.3D (new), 4.11.3E (new) 	<ul style="list-style-type: none"> • Changes to capacity calculations for intermittent generators 	<ul style="list-style-type: none"> • Not applicable
<ul style="list-style-type: none"> • 4.16.3 	<ul style="list-style-type: none"> • Amendment to expand Heads of Power for MRCP market procedure to obligate Rule participants to adhere to the procedure, not just Market participants 	<ul style="list-style-type: none"> • Not applicable - no obligations on System Management in the procedure
<ul style="list-style-type: none"> • 4.25.2, 4.28.5 	<ul style="list-style-type: none"> • Amendments made to the verification of generation systems by the IMO. 	<ul style="list-style-type: none"> • Not applicable
<ul style="list-style-type: none"> • 4.5.12 	<ul style="list-style-type: none"> • Minor amendments to terms relating to the Availability Curve and the required length of forecast capacity 	<ul style="list-style-type: none"> • Not applicable
<ul style="list-style-type: none"> • 4.12.6, 4.13.1B, 4.20.8 (new), 4.20.9 (new), 4.20.10 (new), 4.20.11 (new), 4.20.12 (new), 4.20.13 (new), 4.20.14 	<ul style="list-style-type: none"> • Capacity credit cancellation 	<ul style="list-style-type: none"> • Not applicable
<ul style="list-style-type: none"> • 4.10.1, 4.11.1, 4.11.2, 4.11.3B, 4.11.4, 4.11.7, 4.11.10, 4.11.11, 4.11.12, 4.12.1, 4.12.4, 4.12.8, 4.14.4, 4.14.5, 4.23A.1, 4.23A.2, 4.25.3, 4.25.3A, 4.25.3B, 4.25.4, 4.25.7, 4.25.8, 4.25.9, 4.25.10, 4.25.11, 4.25.12, 4.25.14, 4.26.2, 4.26.2D 	<ul style="list-style-type: none"> • Minor amendments including implementation of new Balancing and Load Following markets 	<ul style="list-style-type: none"> • No <ul style="list-style-type: none"> – Updates required to RC testing internal procedures to include issuing of operating instructions.

7 Market Rule Chapter 5 – Network control service procurement

Chapter 5 of the Market Rules sets out the Network Control Service Procurement Rules, which affect the System Operations Control function of System Management.

7.1 SM's processes and procedures

7.1.1 Rule amendments

The following clauses in Chapter 5 were amended after last year's market audit and prior to Balancing Market commencement:

- 5.1.1.

The following clauses in Chapter 5 were amended on or subsequent to Balancing Market commencement:

- 5.7.4, 5.9.3.

7.1.2 Procedures

The following Power System Operation Procedures relating to Chapter 5 have been updated since last year's market audit:

- PSOP: Dispatch.

No internal procedures relating to Chapter 5 have been updated since last year's market audit.

7.1.3 Relationship between Rule updates and procedures

The extent to which the Rule changes have been reflected in updates to SM's processes and procedures is set out in Table 7.

Not all Rule changes require a consequential amendment to written procedures.

7.1.4 Additional risk areas

We did not review any additional risk areas related to SM's obligations under Chapter 5.

7.2 Compliance with Chapter 5

We have not noted any non-compliance on the part of SM with respect to its obligations under Chapter 5 of the Market Rules.

7.3 Opinion

As far as we have been able to determine, SM has complied with its obligations under Chapter 5 of the Market Rules.

7.4 Details of procedure changes

7.4.1 Rule change and procedure updates

Table 7: Relationship between Rule changes to Chapter 5 and procedure updates

Amended clauses	Description	Procedure updated?
<ul style="list-style-type: none">• 5.1.1	<ul style="list-style-type: none">• Minor amendment	<ul style="list-style-type: none">• Not applicable
<ul style="list-style-type: none">• 5.7.4, 5.9.3	<ul style="list-style-type: none">• NCS dispatch is now covered by Operating Instruction	<ul style="list-style-type: none">• Partially:<ul style="list-style-type: none">– PSOP: Dispatch has been updated– Internal procedures have not been updated.

8 Market Rule Chapter 6 – Energy market

Market Rule Chapter 6 sets out the Energy Market Rules which affect the Market Strategic Development, Market Operations, System Operations Planning and System Operations Control functions of System Management.

8.1 SM's processes and procedures

8.1.1 Rule amendments

The following clauses in Chapter 6 were amended after last year's market audit and prior to Balancing Market commencement:

- 6.17.6;
- 6.11.1;
- 6.11.2, 6.11A.1, 6.12.1, 6.15.2, 6.16.1, 6.16.2 (new), 6.17.6, 6.3A.2, 6.5A.1;
- 6.14.4, 6.3B.1B, 6.6.3A; and
- 6.18.2, 6.5C.6.

The following clauses in Chapter 6 were amended on or subsequent to Balancing Market commencement:

- 6.12, 6.14, 6.15, 6.17, 6.18, 6.5C, 6.2.4C, 6.3A.1, 6.3A.2, 6.4.6, 6.5.1, 6.5.1A, 6.5.1C, 6.5.4, 6.5A, 6.5C.1 (new), 6.5C.1A, 6.5C.2, 6.5C.7, 6.9.4, 6.11.1, 6.11.2, 6.11.3 (new), 6.11A, 6.16.1A, 6.16.2, 6.16A, 6.16B (new), 6.19.1, 6.20.4, 6.20.6, 6.21.2.

8.1.2 Procedures

SM has only limited obligations under Chapter 6. There are no Power System Operation Procedures or internal procedures relating to Chapter 6.

8.1.3 Relationship between Rule updates and procedures

Changes to 6.17.6A alter SM's obligations to provide data related to the dispatch of dispatchable loads, but this does not require a change to PSOP or internal procedures.

8.1.4 Additional risk areas

We did not review any additional risk areas related to SM's obligations under Chapter 6.

8.2 Compliance with Chapter 6

We have not noted any non-compliance on the part of SM with respect to its obligations under Chapter 6 of the Market Rules.

8.3 Opinion

As far as we have been able to determine, SM has complied with its obligations under Chapter 6 of the Market Rules.

9 Market Rule Chapter 7 – Dispatch

Market Rule Chapter 7 of the Market Rules sets out the Dispatch Rules which affect the Market Operations, System Operations Planning and System Operations Control functions of System Management.

9.1 SM's processes and procedures

9.1.1 Rule amendments

The following clauses in Chapter 7 were amended after last year's market audit and prior to Balancing Market commencement:

- 7.7.5D;
- 7.13.1, 7.13.1C, 7.7.5A, 7.7.5B, 7.7.5C, 7.7.5D, 7.7.5E, 7.7.9;
- 7.1.1, 7.10.4, 7.13.1, 7.2.2, 7.6.10, 7.7.10, 7.7.3, 7.7.4, 7.7.4A;
- 7.6.3;
- 7.6A.5;
- 7.6.10;
- 7.2.3B, 7.6.2, 7.6A.5.

The following clauses in Chapter 7 were amended on or subsequent to Balancing Market commencement:

- 7.1.1, 7.10.1, 7.10.2, 7.10.3, 7.10.3A, 7.10.5, 7.10.5A, 7.10.5B, 7.10.6A, 7.10.7, 7.11.1, 7.11.5, 7.11.6, 7.11.6A (new), 7.11.6B, 7.11.7, 7.12.1, 7.13.1, 7.13.1A, 7.13.1B, 7.13.1C, 7.13.4 (new), 7.2.1, 7.2.3, 7.2.3A, 7.2.3B, 7.2.3C, 7.2.3D, 7.3.1, 7.3.2, 7.3.4, 7.5.1, 7.5.2, 7.5.3, 7.5.4, 7.5.7, 7.6.1, 7.6.10, 7.6.11, 7.6.12, 7.6.13, 7.6.1A, 7.6.1B (new), 7.6.1C (new), 7.6.1D (new), 7.6.2, 7.6.2A, 7.6.2B (new), 7.6.3, 7.6.4, 7.6.5, 7.6.5A, 7.6.6, 7.6.7, 7.6.8, 7.6.9, 7.6A.1, 7.6A.2, 7.6A.3, 7.6A.4, 7.6A.5, 7.6A.6, 7.6A.7, 7.6A.8, 7.7.1, 7.7.10, 7.7.2, 7.7.3, 7.7.3A, 7.7.4, 7.7.4A, 7.7.5, 7.7.5A, 7.7.5B, 7.7.5C (new), 7.7.5D (new), 7.7.6, 7.7.6A (new), 7.7.6B (new), 7.7.7, 7.7.7A, 7.7.8, 7.7.9, 7.8.1, 7.8.2, 7.9.1, 7.9.1A, 7.9.2, 7.9.4, 7.9.5, 7.9.6, 7.9.6A, 7.9.8.

9.1.2 Procedures

The following Power System Operation Procedures relating to Chapter 7 of the Market Rules have been updated since last year's market audit:

- Power System Operation Procedure: Dispatch
- Power System Operation Procedure: Monitoring and Reporting Protocol
- Power System Operation Procedure: Ancillary Services
- Power System Operation Procedure: Facility Outages.

The following internal procedures relating to Chapter 7 of the Market Rules have been updated since last year's market audit:

- CRMI 40 45 Dispatch of Curtailable Loads

9. Market Rule Chapter 7 – Dispatch. . .

- Internal Process Verve SM Monthly Meetings.

9.1.3 Relationship between Rule updates and procedures

The extent to which the Rule changes have been reflected in updates to SM's processes and procedures is set out in Table 8.

Not all Rule changes require a consequential amendment to written procedures.

9.1.4 Additional risk areas

In addition to the incremental review above, we also specifically reviewed SM's manual and automatic monitoring of participant compliance with dispatch.

9.2 Compliance with Chapter 7

9.2.1 Incidents

We found 6 material and 9 non-material incidents of non-compliance with Chapter 7.

Incidents associated with SM's obligations under Chapter 7 are set out in Table 9 below.

9.2.2 Comment

We deem 6 of the breaches to this section of the Rules to be material; that is the breach may compromise the intention of the Market Rules, and/or the decisions made by market participants, or otherwise may affect the outcome of the market.

9.3 Opinion

As far as we have been able to determine, other than the breaches described above, SM has complied with its obligations under Chapter 7 of the Market Rules.

9.4 Details of procedure changes and non-compliance

9.4.1 Rule changes and procedure updates

Table 8: Relationship between Rule changes to Chapter 7 and procedure updates

Amended clauses	Description	Procedure updated?
<ul style="list-style-type: none"> 7.7.5D 	<ul style="list-style-type: none"> Minor amendments to calculation of curtailable load curtailment quantities 	<ul style="list-style-type: none"> Not applicable
<ul style="list-style-type: none"> 7.1.1, 7.2.2, 7.6.10, 7.7.3, 7.7.4, 7.7.4A, 7.7.10, 7.10.4, 7.13.1 	<ul style="list-style-type: none"> Amendments for replacement of Curtailable Loads with Demand Side Programmes 	<ul style="list-style-type: none"> Partially <ul style="list-style-type: none"> PSOP: Dispatch has been updated to include new obligations around DSP dispatch Most internal procedures still refer to Curtailable Loads.
<ul style="list-style-type: none"> 7.6A.5 	<ul style="list-style-type: none"> Typographical corrections only 	<ul style="list-style-type: none"> Not applicable
<ul style="list-style-type: none"> 7.6.3 	<ul style="list-style-type: none"> Clarification of DSP dispatch in certain situations 	<ul style="list-style-type: none"> Yes <ul style="list-style-type: none"> Internal procedure Dispatch of Demand Side Programmes notes that DSPs are dispatched after liquid fuelled facilities.
<ul style="list-style-type: none"> 7.6.10 	<ul style="list-style-type: none"> Minor amendment 	<ul style="list-style-type: none"> Not applicable
<ul style="list-style-type: none"> 7.7.5A, 7.7.5B, 7.7.5C, 7.7.5D, 7.7.5E, 7.7.9, 7.13.1, 7.13.1C 	<ul style="list-style-type: none"> Changes to capacity calculations for intermittent generators including: <ul style="list-style-type: none"> Amends obligations on System Management to supply 	<ul style="list-style-type: none"> Yes <ul style="list-style-type: none"> PSOP: Dispatch includes a section on how SM will

9. Market Rule Chapter 7 – Dispatch. . .

Amended clauses	Description	Procedure updated?
	<p>information to the IMO</p> <ul style="list-style-type: none"> – Amends obligations on System Management to develop a Power System Operation Procedure for information to be submitted by Market Participants for Dispatch Instructions. 	<p>estimate the counterfactual MWh, including the potential for data provision by participants.</p>
<ul style="list-style-type: none"> • 7.2.3B, 7.6.2, 7.6A.5 	<ul style="list-style-type: none"> • Minor corrections 	<ul style="list-style-type: none"> • Not applicable
<ul style="list-style-type: none"> • 7.1.1, 7.2.1, 7.2.3, 7.2.3A, 7.2.3B, 7.2.3C, 7.2.3D, 7.3.1, 7.3.2, 7.3.4, 7.5.1, 7.5.2, 7.5.3, 7.5.4, 7.5.7, 7.6.1, 7.6.1A, 7.6.1B (new), 7.6.1C (new), 7.6.1D (new), 7.6.2, 7.6.2A, 7.6.2B (new), 7.6.3, 7.6.4, 7.6.5, 7.6.5A, 7.6.6, 7.6.7, 7.6.8, 7.6.9, 7.6.10, 7.6.11, 7.6.12, 7.6.13, 7.6A.1, 7.6A.2, 7.6A.3, 7.6A.4, 7.6A.5, 7.6A.6, 7.6A.7, 7.6A.8, 7.7.1, 7.7.2, 7.7.3, 7.7.3A, 7.7.4, 7.7.4A, 7.7.5, 7.7.5A, 7.7.5B, 7.7.5C (new), 7.7.5D (new), 7.7.6, 7.7.6A (new), 7.7.6B (new), 7.7.7, 7.7.7A, 7.7.8, 7.7.9, 7.7.10, 7.8.1, 7.8.2, 7.9.1, 7.9.1A, 7.9.2, 7.9.4, 7.9.5, 7.9.6, 7.9.6A, 7.9.8, 7.10.1, 7.10.2, 7.10.3, 7.10.3A, 7.10.5, 7.10.5A, 7.10.5B, 7.10.6A, 7.10.7, 7.11.1, 7.11.5, 7.11.6, 7.11.6A (new), 7.11.6B, 7.11.7, 7.12.1, 7.13.1, 7.13.1A, 7.13.1B, 7.13.1C, 7.13.4 (new) 	<ul style="list-style-type: none"> • Minor amendments • Amendments to the obligations of SM around Dispatch Criteria, and issuing Dispatch Instructions, alter Dispatch Plans • Obligations are introduced for SM to select Non-Balancing Facilities in accordance with the Power System Operation Procedure • Obligations are amended for SM's issue of Dispatch and Operating Instructions • Obligations are amended for SM's issue of Dispatch Instructions when it believes a Market Participant cannot comply with a Dispatch Instruction • Obligations are amended for SM's issue of Dispatch Advisory and release of associated information • SM's status report obligations to the IMO have been updated to include Dispatch Instructions and Load Following Services • Obligations for SM's provision of information to the IMO regarding have been updated to include Dispatch information and Operating Instructions, and Load Following Services 	<ul style="list-style-type: none"> • Partially <ul style="list-style-type: none"> – PSOPs have been updated to account for new and changed obligations – Most internal procedures have not been updated, eg Dispatch of Curtailable Loads has not been updated for the new construction of the merit order to include only loads.

9.4.2 Incidents of non-compliance

Table 9: Incidents of non-compliance with Chapter 7

Rule	The Issue	Material?	Comment
7.2.1	SM is obliged to provide a load forecast to the IMO by 7.30am on the scheduling day. On 11 July 2012, the file was provided 7 minutes late.	No	
7.2.2	Prior to 1 July 2012, SM provided a load forecast to IMO twice a day, the first of which the IMO then published to participants to support the Bilateral Submission process. MR 7.2.2(a) requires the forecast to be net of forecast Non-Scheduled generation, that is, wind farms, which cannot be scheduled in advance. From 15 to 21 November 2012, SM provided the forecast without subtracting this generation.	Yes	While not used directly in any market calculations, the incorrect calculation of this load forecast has potential to affect the commercial decisions of market participants.
7.2.3A, 7.3.4	SM is obliged to provide daily Ancillary Service requirements, Ancillary Service facilities, and outage schedules to the IMO by 8.30am on the scheduling day. On 24 May 2012, the files were provided 22 minutes late	No	STEM processes would have been affected had the files been received any later, but the IMO was able to use them and publish by 9am.
7.6.1C, 7.6.1D	SM is obliged to issue dispatch instructions in a particular priority order, and may only depart from that priority order in order to avoid or return from a High Risk or Emergency Operating State. Once each on 3 and 14 July, SM accidentally issued a dispatch instruction to a facility that was not the next unit in the	Yes	Had the 3 July dispatch instruction been issued to the correct unit, payment flows in the market would have been different. The breach is therefore material. No further occurrence of dispatch out of merit has been recorded since this one, in the first week of the new market. However, we note that SM's current tools are such that it is not possible to automatically identify that the wrong

Rule	The Issue	Material?	Comment
	<p>balancing merit order. On 14 July, the controller noticed the error in time to cancel and reissue the correct DI, but on 3 July he did not.</p>		<p>unit has been dispatched, as there is no audit trail available showing the relationship of dispatch instructions to the merit order.</p>
<p>7.6.1C, 7B.3.6</p>	<p>3.3.2(c) When the SWIS is in a Normal Operating State, SM must schedule and dispatch Ancillary Services in accordance with the Ancillary Service Requirements.</p> <p>3.9.1 Load Following Service is the service of frequently adjusting generator output within a trading interval so as to match total system generation to total system load in real time in order to correct any SWIS frequency variations.</p> <p>3.10.1 The standard for Load Following Service is a level which is sufficient to provide Minimum Frequency Keeping Capacity which is the greater of 30 MW and the capacity sufficient to cover 99.9% of the short term fluctuations in load and output of Non-Scheduled Generators and uninstructed output fluctuations from Scheduled Generators, measured as the variance of 1 minute average readings around a thirty minute rolling average.</p> <p>7.6.1C SM is obliged to issue dispatch instructions in a particular priority order, and may only depart from that priority order in order to avoid or return from a High Risk or Emergency Operating State. SM is to take into account Ramp Rate Limits, but not minimum stable running levels, as commitment decisions are held to be the responsibility of participants. This is explicitly restated in the PSOP: Dispatch.</p> <p>In practice, the offer profile for some facilities has been such</p>	<p>Yes</p>	<p>If SM were to issue a dispatch instruction, and the facility indicate inability to comply, SM would issue an instruction to the next facility in the merit order, and the balancing price would be affected accordingly. Therefore, this practice has a material impact on market outcomes.</p> <p>The ultimate problem is that participants are not offering their capacity in such a way as to make their own commitment decisions. Participants have sufficient information to structure their offers to ensure that each facility will be either clearly on or clearly off, but are not structuring their offers appropriately.</p> <p>We would expect this situation to resolve itself as participants get more comfortable with offer strategies, and particularly as gate closure moves to 2 hours before real time, allowing participants to respond to forecast changes much closer to real time.</p> <p>Until that happens, it is important for market transparency that participants are held accountable for their commercial decisions. SM should issue dispatch instructions, note any non-compliance, and let the impact on market outcomes flow through accordingly.</p>

Rule	The Issue	Material?	Comment
	<p>that the calculated dispatch instruction to the marginal unit can be for less than minimum stable running.</p> <p>In most cases, SM issues the dispatch instruction, the participant refuses to comply, citing potential for damage to equipment (7.10.2(a)), and SM dispatches the next unit in the BMO. This is the correct approach.</p> <p>In some cases, SM chooses not to issue a dispatch instruction, instead allowing the load following units to provide the energy that otherwise would have been dispatched from the marginal unit.</p> <p>This appears out of line with the definition of Load Following Service, with regard to the time period (within a trading interval) and the scope of the services (load and generation fluctuations), and therefore breaches the obligations to use Load Following facilities to meet the LF requirements, and issue dispatch instructions for balancing.</p>		
7.6A.2	<p>SM is obliged to provide certain information to IMO and Verve according to the schedule set out in this Rule.</p> <p>7.6A.2(b) obliges SM to provide a demand forecast to Verve by 8.30am on the scheduling day. SM has breached this time requirement twice.</p> <p>7.6A.2(c) obliges SM to provide Verve with a forecast and dispatch plan for the generation and ancillary services required from Verve facilities. Prior to 1 July 2012, this information was required by 12.30pm on the scheduling day, and after 1 July, it is required by 4pm. SM breached these time requirements on 7 occasions.</p> <p>Prior to 1 July 2012, 7.6A.2(e) obliged SM to confirm of the Verve dispatch plan information by 2.30pm on the scheduling</p>	No	<p>Because of the discretion available to SM in the dispatch of Verve facilities, it is unlikely that earlier provision of the data would have affected Verve's market behaviour.</p> <p>Four breaches have occurred since 1 July 2012.</p>

9. Market Rule Chapter 7 – Dispatch. . .

Rule	The Issue	Material?	Comment
	<p>day. SM breached this time requirement on 29 occasions. Since 1 July 2012, 7.6A.2(e) has obligated SM to provide the IMO with a forecast of aggregate Non-Scheduled Generator output by 4pm on the scheduling day. SM has breached this time requirement twice.</p>		
7.7.6(a)	<p>SM is obliged to allow sufficient time for a participant to confirm and respond to a dispatch instruction.</p> <p>On 1 July 2012, due to incorrect system configuration a participant received a dispatch instruction for the 0800-0830 trading period at 8.17am.</p>	No	<p>This was the first trading period of the new Balancing Market. The participant is a fast ramping unit which could still achieve the dispatch within the period, so late delivery of the instruction is unlikely to have significantly affected market outcomes.</p>
7.7.6B	<p>Where participants are unable to fully comply with a dispatch instruction, but can partially comply, they must provide details of the extent to which they are able to comply (by a change to either ramp rate or quantity), and SM must issue a new dispatch instruction in accordance with the advice received.</p> <p>At present, the audit trail for these occurrences is the manual operator log. In some cases, the audit trail is not sufficient to determine whether or not the participant has complied, and whether they have provided the required information. In some cases, information given does not appear to be sufficient to issue a new instruction, e.g. "Will try to return to dispatch by mid-afternoon".</p>	No	<p>This situation is unlikely to affect market outcomes, as non-compliance occurs after gate closure, and actual generation amounts are accounted for in Settlement.</p>

9. Market Rule Chapter 7 – Dispatch. . .

Rule	The Issue	Material?	Comment
7.10.4, 7.10.5, 7.10.7	<p>SM must monitor participant compliance with dispatch, and where the output of a facility is outside the defined tolerance level, must ask the facility to return to dispatch.</p> <p>Where a participant fails to comply with this request to return to dispatch, where, SM must report the failure to the IMO.</p> <p>Until recently, SM performed this activity ex-post, except where the non-compliance affected system security. We have commented previously that this appears to not meet the intent of the Rules that non-compliance be addressed in real time.</p> <p>As part of preparing for the introduction of the new balancing and load following markets, SM has developed an automatic dispatch compliance monitor, which notifies participants every minute when they are outside tolerance. This system was placed into service on 6 August 2012. As a result, SM was in breach of these obligations until that date.</p>	Yes	<p>In the new balancing market, participant non-compliance with dispatch will directly affect market outcomes. Similarly, the failure of SM to monitor and notify non-compliance will affect participant behaviour, and hence affect market outcomes.</p> <p>The automatic dispatch compliance monitor tool is now in place, as is the automatic delivery of compliance data to the IMO.</p> <p>The tool does not currently monitor Verve compliance with the Verve Dispatch Plan and subsequent Dispatch Orders.</p>
7.11.2, 7.11.5, 7.11.6, 7.11.6A	<p>SM must issue a Dispatch Advisory in certain circumstances and must include certain information in the advisory.</p> <p>At present, SM's process for issuing dispatch advisories is entirely manual. Dispatch advisories have not been issued in all situations described by 7.11.5, and have generally been high level, without including the information specified in 7.11.6. In particular, SM has not provided details of which facilities have caused an advisory, even though that information is required under 7.11.6A(b)(i).</p>	Yes	<p>In a day ahead market such as existed prior to 1 July, the lack of specific information would have been unlikely to affect market participants behaviour.</p> <p>In the new in-day market, market participants have the opportunity to change their offers much closer to real time, so this lack of information does have potential to affect market outcomes.</p> <p>This non-compliance is expected, as SM signalled some months prior to balancing market commencement that it would not be compliant with the dispatch advisory provisions.</p> <p>We understand that the new dispatch support tool will reduce the manual overhead required to issue dispatch advisories, allowing SM to comply with these Rules.</p>

Rule	The Issue	Material?	Comment
7.13.1(a), 7.13.1(cA)	<p>Prior to 1 July 2012, SM was obliged to provide the IMO with: the Operational System Load Estimate in each Trading Interval in the Trading Day</p> <p>a schedule of MWh output of each generating system monitored by SCADA.</p> <p>From 27 Dec 2011 to 14 Feb 2012, data provided was inaccurate due to issues with the recording, processing and storage of the data.</p> <p>The biggest difference between original and corrected operational load was -119.3MWh, and about 55% of the periods were out by more than 10MW</p> <p>For facilities where the IMO uses resource SCADA data in place of metered values, the biggest difference between original and corrected SCADA data was -68.6MWh. Most of the errors were very small: only around 2% of records were out by more than 10MW.</p>	Yes	<p>The incorrect data directly affected the calculation of market prices, which cannot be republished. The prices would have been different had the correct data been provided in the first place. This issue therefore had material impact on market outcomes.</p> <p>SM provided corrected data to IMO for use in those calculations which either had not yet occurred, or had occurred but could be republished.</p> <p>We note that SM's SCADA system was not designed to provide data for pricing and settlement, and that it is used for these purposes due to:</p> <ol style="list-style-type: none"> 1. The absence of revenue meters at some generation facilities; and 2. The month long time lag before all meter data is available. <p>We would expect issues such as this to crop up from time to time as long as the SCADA system is being used for a purpose for which it was not designed.</p>
7.13.1(a)	<p>7.6.2 "... the dispatch of any Facility within the Verve Energy Balancing Portfolio is to be under the Dispatch Plan or a Dispatch Order in accordance with clause 7.6A ..."</p> <p>System Management are obliged to provide the IMO with a schedule of all Dispatch Orders (DOs) issued to Verve, including the information specified in the IMS interface procedure.</p> <p>While the Rules are not entirely clear about what should be communicated by Dispatch Order vs an update to the Verve Dispatch Plan (VDP), the intent appears to be to provide a record of Verve dispatch - by either VDP or DO - in the same way as IPP dispatch is captured in a Dispatch Instruction.</p>	No	<p>The records of Verve dispatch are sufficient to support post-event investigations of specific incidents, but the significant manual effort involved in reconstructing events means that phone records cannot provide a complete automated history of dispatch decisions.</p> <p>The lack of a complete history for Verve dispatch increases the likelihood of breaching other obligations, such as Verve non-compliance with dispatch, and the recording of Verve forced outages, but cannot be said, prima facie, to have affected the outcomes of the market.</p> <p>SM will deploy a new dispatch tool in December 2012. This tool should have capability to automatically record dispatch of Verve facilities, by capturing the original Verve Dispatch Plan (VDP), changes to the VDP, and any subsequent Dispatch Orders.</p>

Rule	The Issue	Material?	Comment
	At present, SM still dispatch Verve Facilities by phone, and there is no manual or automatic record of the instructions given to Verve facilities, other than the recording of the telephone conversation.		
7.13.1(eD)	SM is obliged to provide Ancillary Service response quantities to the IMO by noon on the first business day following the trading day. On 2 July 2012, the file was provided 1 minute late.	No	
7.13.1(eE)	SM is obliged to provide Fuel change notifications to the IMO by noon on the first business day following the trading day. SM had issues with the process for sending these files from 1 July, with the result that some files were sent up to 25 days late.	No	This information is used for post-event analysis only.
7.13.4	SM must provide the IMO with the operational system load estimate by 10am after the trading day, according to the IMS interface procedure. On 4 July 2012, the file was 32 minutes late.	No	

10 Market Rule Chapter 7A - Balancing Market

Market Rule Chapter 7A of the Market Rules sets out the Dispatch Rules which affect the Market Operations, System Operations Planning and System Operations Control functions of System Management.

10.1 SM's processes and procedures

10.1.1 Rule amendments

Chapter 7A was introduced to implement the new Balancing Market. The whole chapter is new since the last audit.

10.1.2 Procedures

The following Power System Operation Procedures relating to Chapter 7A of the Market Rules have been updated since last year's market audit:

- Power System Operation Procedure: Ancillary Services
- Power System Operation Procedure: Dispatch
- Power System Operation Procedure: Communications and control systems.

The following internal procedures relating to Chapter 7A of the Market Rules have been updated since last year's market audit:

- CRMI 40 45 Dispatch of Curtailable Loads.

10.1.3 Relationship between Rule updates and procedures

The new chapter has been reflected in PSOP updates. Most internal procedures have not been updated.

10.1.4 Additional risk areas

We reviewed all of SM's obligations under this new Chapter 7A.

10.2 Compliance with Chapter 7A

10.2.1 Incidents

We found 2 material and 1 non-material incidents of non-compliance with Chapter 7A.

Incidents associated with SM's obligations under Chapter 7A are set out in Table 10.

10.2.2 Comment

We deem two of the breaches to this section of the Rules to be material; that is the breach may compromise the intention of the Market Rules, and/or the decisions made by market participants, or otherwise may affect the outcome of the market. We note that it has since been remedied.

10.3 Opinion

As far as we have been able to determine, other than the breaches described above, SM has complied with its obligations under Chapter 7A of the Market Rules.

10.4 Details of non-compliance

10.4.1 Incidents of non-compliance

Table 10: Incidents of non-compliance with Chapter 7A

Rule	The Issue	Material?	Comment
7A.3.7	SM must provide the IMO with estimated SOI, EOI and relevant dispatch quantities within 2 hours after the end of the trading day. SM has breached this timeframe on three occasions, by between 1 and 14 minutes.	No	
7A.3.15	System Management must provide the IMO with a forecast of the Relevant Dispatch Quantity, and must update the forecast each time it has new information which affects it. For the first 2 1/2 weeks of the new market, the forecast provided was out by 30 minutes.	Yes	The incorrect forecast could have influenced participant decisions and therefore market outcomes. The forecast was corrected on 19 July 2012.
7A.3.15	SM control room staff have a range of information available to assess the likely load, including the output of two load forecasting tools, the ability to plot similar past days against the current load, and the ability to take a combination of the various inputs to arrive at the load forecast they think is most likely to eventuate. One of the available load forecasts is produced by SM's Metrix load forecasting tool, and it is this forecast which is provided to the IMO for use in its Balancing Forecast. In reality, the Metrix load forecast does not always represent	Yes	Given that the purpose of the IMO's Balancing Forecast is "to provide Market Generators with information upon which to make an assessment regarding whether to make [or update] a Balancing Submission" (7A.3.20), it follows that a more accurate forecast could influence participants to make different decisions in the market, and the breach is therefore material. We understand that a later version of SM's dispatch support tool will allow the control room load forecasts to be used as the basis of the RDQ data sent to the IMO.

Rule	The Issue	Material?	Comment
	<p>SM's best estimate of future RDQ, which is actually arrived at by some combination of load forecast tool outputs with similar past day profiles.</p> <p>This appears to be a breach of the obligation to provide the IMO with SM's forecast of the RDQ. A forecast is provided, but it does not represent SM's best estimate of the expected load.</p>		

11 Market Rule Chapter 7B - LFAS Market

Market Rule Chapter 7B of the Market Rules sets out the Load Following Ancillary Service Market Rules which affect the Market Operations, System Operations Planning and System Operations Control functions of System Management.

11.1 SM's processes and procedures

11.1.1 Rule amendments

Chapter 7B was introduced to implement the new Load Following Ancillary Service Market. The whole chapter is new since the last audit.

11.1.2 Procedures

The following Power System Operation Procedures relating to Chapter 7B of the Market Rules have been updated since last year's market audit:

- Power System Operation Procedure: Ancillary Services
- Power System Operation Procedure: Dispatch
- Power System Operation Procedure: Communications and control systems

The following internal procedures relating to Chapter 7B of the Market Rules have been updated since last year's market audit:

- CRMI 40 45 Dispatch of Curtailable Loads

11.1.3 Relationship between Rule updates and procedures

The new chapter has been reflected in PSOP updates. Most internal procedures have not been updated. Currently, all LFAS is provided by the Verve Portfolio.

11.1.4 Additional risk areas

We reviewed all of SM's obligations under this new Chapter 7B.

11.2 Compliance with Chapter 7B

11.2.1 Incidents

The only incident we found was related to the use of LFAS to provide energy rather than issuing a dispatch instruction to a marginal unit for less than its minimum stable running. This incident is covered in discussion of Market Rule Chapter 7 - Dispatch.

11.3 Opinion

As far as we have been able to determine, other than the breach described above, SM has complied with its obligations under Chapter 7B of the Market Rules

12 Market Rule Chapter 8 – Wholesale market metering

Market Rule Chapter 8 sets out the Wholesale Market Metering Rules. These Rules do not apply to System Management.

12.1 Opinion

System Management has no obligations under Chapter 8 of the Market Rules.

13 Market Rule Chapter 9 – Settlement

Chapter 9 of the Market Rules sets out the Settlement Rules which affect the Market Strategic Development, Market Operations, System Operations Planning and System Operations Control functions of System Management.

13.1 SM's processes and procedures

13.1.1 Rule amendments

The following clauses in Chapter 9 were amended after last year's market audit and prior to Balancing Market commencement:

- 9.13.1, 9.3.3, 9.3.4, 9.3.7;
- 9.10A.1, 9.11.1, 9.9.1, 9.9.1A, 9.9.2, 9.9.3, 9.9.3A (new), 9.9.3B (new), 9.9.4; and
- 9.20.5, 9.24.5.

The following clauses in Chapter 9 were amended on or subsequent to Balancing Market commencement:

- 9.9.2; and
- 9.10.1, 9.10A.1, 9.10A.2, 9.11.1, 9.18.3, 9.19.2, 9.22.6, 9.22.8, 9.3.3, 9.3.4A, 9.7.1, 9.8.1, 9.9.1, 9.9.2, 9.9.3, 9.9.3A (new), 9.9.3B (new), 9.9.4.

13.1.2 Procedures

SM has only limited obligations under Chapter 9. There are no Power System Operation Procedures relating to Chapter 9, and only a small number of internal procedures.

13.1.3 Relationship between Rule updates and procedures

The only change to SM's Chapter 9 obligations is to no longer require payment of invoices less than \$1. This does not require updates to any procedures.

13.1.4 Additional risk areas

We did not review any additional risk areas related to SM's obligations under Chapter 9.

13.2 Compliance with Chapter 9

We have not noted any non-compliance on the part of SM respect to its obligations under Chapter 9.

13.3 Opinion

As far as we have been able to determine, SM has complied with its obligations under Chapter 9 of the Market Rules.

14 Market Rule Chapter 10 – Market information

Market Rule Chapter 10 sets out the Market Information Rules that affect the Market Strategic Development, Market Operations, System Operations Planning and System Operations Control functions of System Management.

14.1 SM's processes and procedures

14.1.1 Rule amendments

The following clauses in Chapter 10 were amended after last year's market audit and prior to Balancing Market commencement:

- 10.5.1.

The following clauses in Chapter 10 were amended on or subsequent to Balancing Market commencement:

- 10.2.2, 10.2.3, 10.2.5, 10.2.6, 10.5.1, 10.5.2 (new), 10.6.1, 10.7.1, 10.8.1, 10.8.2; and
- 10.5.1.

14.1.2 Procedures

SM has only limited obligations under Chapter 10. There are no Power System Operation Procedures relating to Chapter 10, and only a small number of internal procedures.

14.1.3 Relationship between Rule updates and procedures

None of the changes alter SM's obligations under Chapter 10, other than small changes to the scope of the various confidentiality classes. No procedure updates are required.

14.1.4 Additional risk areas

We did not review any additional risk areas related to SM's obligations under Chapter 10.

14.2 Compliance with Chapter 10

14.2.1 Incidents

We have not noted any non-compliance on the part of SM respect to its obligations under Chapter 10.

14.3 Opinion

As far as we have been able to determine, SM has complied with its obligations under Chapter 10 of the Market Rules.

Appendix A: Rule changes since the last Market Audit

Table 11: Market Rule changes

Date	Amendment	Reference
1 October 2011	IMO amended clauses 6.17.6 and 7.7.5D	RC_2008_20
	IMO amended clauses 2.8.13, 4.1.21, 4.1.27, 4.9.9, 4.10.3, 4.11.2A (new), 4.11.3B (new), 4.13.1, 4.13.1A (new), 4.13.1B (new), 4.13.1C (new), 4.13.2, 4.13.2A (new), 4.13.2B (new), 4.13.2C (new), 4.13.3, 4.13.5, 4.13.8, 4.13.10, 4.13.10A, 4.13.10B (new), 4.13.10C (new), 4.13.11, 4.13.11A, 4.13.11B, 4.13.12, 4.13.13 (new), 4.13.14 (new), 4.20.1, 4.25.1, 4.25.2, 4.25.3B, 4.25.4B, 4.26.1, 4.26.1A, 4.28.4, 4.28C.8, 4.28C.8A (new), 4.28C.12, 4.28C.12A (new) and the Glossary	RC_2010_12
	IMO amended clause 4.26.1 and 4.26.1A	RC_2010_22
	IMO amended clauses 2.27.1, 2.27.2, 2.27.4, 2.29.1, 2.29.1A (new), 2.29.5, 2.29.5A (new), 2.29.5B (new), 2.29.5C (new), 2.29.5D (new), 2.29.5E (new), 2.29.5F (new), 2.29.5G (new), 2.29.5H (new), 2.29.5I (new), 2.29.5J (new), 2.29.5K (new), 2.29.5L (new), 2.29.5M (new), 2.29.8A, 2.29.8B, 2.29.9A, 2.29.9B, 2.29.9C, 2.30.3, 2.30.5, 2.30B.2, 2.30B.5, 2.33.1, 2.33.4, 2.35.1, 3.14.1, 3.17.5, 4.8.3, 4.10.1, 4.11.1, 4.11.4, 4.11.4A, 4.12.1, 4.12.4, 4.12.8, 4.14.1, 4.18.1, 4.18.2, 4.25.1, 4.25.2, 4.25.3B, 4.25.4, 4.25.4E, 4.25.4F, 4.25.9, 4.25.10, 4.25A, 4.25A.1, 4.25A.2, 4.25A.3, 4.25A.4, 4.25A.5, 4.26.1, 4.26.1A, 4.26.1B, 4.26.1C, 4.26.2, 4.26.2C, 4.26.2CA (new), 4.26.2D, 4.26.2E, 4.26.2F, 4.26.3, 4.26.3A, 4.26.4, 6.3A.2, 6.5A.1, 6.11.1, 6.11.2, 6.11A.1, 6.12.1, 6.15.2, 6.16.1, 6.16.2 (new), 6.17.6, 7.1.1, 7.2.2, 7.6.10, 7.7.3, 7.7.4, 7.7.4A, 7.7.10, 7.10.4, 7.13.1, 9.3.3, 9.3.4, 9.3.7, 9.13.1, 10.5.1, the Glossary, Appendix 1 and Appendix 3	RC_2010_29
1 November 2011	IMO amended clauses 3.22.2, 3.22.3, 9.9.1, 9.9.1A, 9.9.2, 9.9.3, 9.9.3A (new), 9.9.3B (new), 9.9.4, 9.10A.1, 9.11.1 and the Glossary	RC_2010_33
	IMO amended clauses 2.8.11, 2.24.1, 2.24.2A, 2.34.12, 3.19.12, 3.21.9, 4.1.13, 4.1.18, 4.5.9, 4.10.1, 4.25.4F, 5.1.1, 6.3B.1B, 6.6.3A, 6.14.4, 7.6A.5, 9.20.5, 9.24.5, the Glossary, Appendix 1 and Appendix 3	RC_2011_06

Date	Amendment	Reference
	IMO amended clause 2.38.7.	RC_2011_04
	IMO amended clause 7.6.3	RC_2011_05
1 December 2011	IMO amended clause 2.31.23A	RC_2010_29
	IMO amended clauses 4.26.2, 4.26.2B and 4.26.5.	RC_2011_07
	IMO amended clauses 4.12.4, 4.12.8, 4.26.2D and 7.6.10	RC_2011_08
1 January 2012	IMO amended clause 4.1.11	RC_2010_14
	IMO amended clauses 4.10.1, 4.10.3, 4.10.3A (new), 4.11.2, 4.11.2A, 4.11.3A, 4.11.3B, 4.11.3C (new), 4.11.3D (new), 4.11.3E (new), 6.17.6, 7.7.5A, 7.7.5B, 7.7.5C, 7.7.5D, 7.7.5E, 7.7.9, 7.13.1, 7.13.1C, 10.5.1 ,the Glossary and Appendix 9 (new)	RC_2010_25
	IMO amended clauses 2.10.17 (new), 2.10.18 (new) and 2.10.19 (new)	RC_2011_12
	IMO amended clause 4.16.3	RC_2011_13
1 March 2012	IMO amended clauses 2.17.1, 2.31.13, 2.32.7A (new), 2.32.7B (new), 2.32.7C (new), 2.32.7D (new), 2.32.7E (new), 2.32.7F (new) and the Glossary.	RC_2010_31
	IMO amended clauses 2.33.1, 2.33.2, 2.33.3, 2.33.4, 3.2.1, 3.11.8A, 3.11.8B, 3.13.1, 3.13.3B, 3.13.3C, 3.14.3, 3.21B.7, 4.25.2, 4.28.5, 6.5C.6, 6.18.2, 7.2.3B, 7.6.2, 7.6A.5, 10.5.1, Appendix 1 and the Glossary.	RC_2011_11
1 June 2012	IMO amended clauses 1.10, 2.37.4, 7A.1.2 and 7A.1.16.	RC_2011_10
6 June 2012	IMO amended clause 4.5.12 and Appendix 3.	RC_2011_14
1 July 2012	IMO amended clauses 2.17.1, 4.1.21B (new), 4.12.6, 4.13.1B, 4.20.8 (new), 4.20.9 (new), 4.20.10 (new), 4.20.11 (new), 4.20.12 (new), 4.20.13 (new), 4.20.14 (new), 10.5.1 and the Glossary.	RC_2010_28
	IMO amended clauses 1.10 (new), 2.1.2, 2.2.1, 2.2.2, 2.3.5, 2.10.2A (new), 2.13.6B, 2.13.6E, 2.13.6F, 2.13.6K, 2.13.9, 2.13.13A (new), 2.13.14, 2.16.2, 2.16.4, 2.16.7, 2.16.9, 2.16.9A, 2.16.9B, 2.16.9C, 2.16.9E, 2.16.9F, 2.16.9FB, 2.16.9G, 2.16.10, 2.16.12, 2.16.13, 2.17.1, 2.23.10, 2.34.1, 2.34.7, 2.34.7A (new), 2.34.7B (new), 2.34.7C (new), 2.34.12, 2.34.14, 2.36.1, 2.36.6, 2.36.7 (new), 2.36.8 (new), 2.36.9 (new), 2.36.10 (new), 2.37.4, 3.2.5, 3.4.4, 3.5.7, 3.9.1, 3.11.7, 3.11.7A, 3.11.8, 3.13.1, 3.13.3, 3.13.3A, 3.13.3AB (new), 3.14.1, 3.14.2,	RC_2011_10

Date	Amendment	Reference
	<p>3.21.6, 3.21A.13, 3.21A.14, 3.21AA, 3.22.1, 3.22.2, 3.22.3, 4.10.1, 4.11.1, 4.11.2, 4.11.3B, 4.11.4, 4.11.7, 4.11.10, 4.11.11, 4.11.12, 4.12.1, 4.12.4, 4.12.8, 4.14.4, 4.14.5, 4.23A.1, 4.23A.2, 4.25.3, 4.25.3A, 4.25.3B, 4.25.4, 4.25.7, 4.25.8, 4.25.9, 4.25.10, 4.25.11, 4.25.12, 4.25.14, 4.26.2, 4.26.2D, 5.7.4, 5.9.3, 6.2.4C, 6.3A.1, 6.3A.2, 6.4.6, 6.5.1, 6.5.1A, 6.5.1C, 6.5.4, 6.5A, 6.5C.1 (new), 6.5C.1A, 6.5C.2, 6.5C.7, 6.9.4, 6.11.1, 6.11.2, 6.11.3 (new), 6.11A, 6.12, 6.14, 6.15, 6.16.1A, 6.16.2, 6.16A (new), 6.16B (new), 6.17, 6.18, 6.19.1, 6.20.4, 6.20.6, 6.21.2, 7.1.1, 7.2.1, 7.2.3, 7.2.3A, 7.2.3B, 7.2.3C, 7.2.3D, 7.3.1, 7.3.2, 7.3.4, 7.5.1, 7.5.2, 7.5.3, 7.5.4, 7.5.7, 7.6.1, 7.6.1A, 7.6.1B (new), 7.6.1C (new), 7.6.1D (new), 7.6.2, 7.6.2A, 7.6.2B (new), 7.6.3, 7.6.4, 7.6.5, 7.6.5A, 7.6.6, 7.6.7, 7.6.8, 7.6.9, 7.6.10, 7.6.11, 7.6.12, 7.6.13, 7.6A.1, 7.6A.2, 7.6A.3, 7.6A.4, 7.6A.5, 7.6A.6, 7.6A.7, 7.6A.8, 7.7.1, 7.7.2, 7.7.3, 7.7.3A, 7.7.4, 7.7.4A, 7.7.5, 7.7.5A, 7.7.5B, 7.7.5C (new), 7.7.5D (new), 7.7.6, 7.7.6A (new), 7.7.6B (new), 7.7.7, 7.7.7A, 7.7.8, 7.7.9, 7.7.10, 7.8.1, 7.8.2, 7.9.1, 7.9.1A, 7.9.2, 7.9.4, 7.9.5, 7.9.6, 7.9.6A, 7.9.8, 7.10.1, 7.10.2, 7.10.3, 7.10.3A, 7.10.5, 7.10.5A, 7.10.5B, 7.10.6A, 7.10.7, 7.11.1, 7.11.5, 7.11.6, 7.11.6A (new), 7.11.6B, 7.11.7,</p> <p>7.12.1, 7.13.1, 7.13.1A, 7.13.1B, 7.13.1C, 7.13.4 (new), 7A (new), 7B (new), 9.3.3, 9.3.4A, 9.7.1, 9.8.1, 9.9.1, 9.9.2, 9.9.3, 9.9.3A, 9.9.3B, 9.9.4, 9.10.1, 9.10A.1, 9.10A.2, 9.11.1, 9.18.3, 9.19.2, 9.22.6, 9.22.8, 10.2.2, 10.2.3, 10.2.5, 10.2.6, 10.5.1, 10.5.2 (new), 10.6.1, 10.7.1, 10.8.1, 10.8.2, Appendices and the Glossary.</p>	
	IMO amended clause 9.9.2.	RC_2012_05
	IMO amended clauses 6.17.3A and 6.17.4A.	RC_2012_08
1 August 2012	IMO amended clauses 2.30B.1, 2.30B.2, 2.30B.5, 2.30B.6, 2.30B.6A, 2.30B.7, 2.30B.8 and 2.30B.11.	RC_2012_01

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