



AUSTRALIAN ENERGY MARKET OPERATOR

Independent Assurance Report:
Compliance of AEMO's internal
procedures and business processes with
the Wholesale Electricity Market Rules and
AEMO's compliance with the Wholesale
Electricity Market Rules and Market
Procedures

FINAL REPORT

9 December 2016



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FOREWORD

PA Consulting Group undertakes the Western Australian (WA) operational market audits which include:

- An Electricity Compliance Audit of the market operator¹ (*Audit 1*)
- An Electricity Software Compliance Audit of the market operator (*Audit 2*)
- A Gas Compliance Audit of the market operator² (*Audit 3*)
- An Electricity Compliance Audit of the system operator³ (*Audit 4*).

This independent assurance report pertains to Audit 1 above and is part of a series of four audit reports. The reports in this series are:

- *Audit 1: Independent Assurance Report: Compliance of AEMO's internal procedures and business processes with the Wholesale Electricity Market Rules and AEMO's compliance with the Wholesale Electricity Market Rules and Market Procedures*
- *Audit 2: Independent Assurance Report: Compliance of AEMO's software systems and processes for software management*
- *Audit 3: Independent Assurance Report: AEMO's compliance with the Gas Services Information Rules*
- *Audit 4: Independent Assurance Report: System Management's compliance with the Wholesale Electricity Market Rules and Market Procedures*

¹ Australian Energy Market Operator (AEMO) from the AEMO Transition Date as defined in the Electricity Rules (8AM, November 30th 2015); Independent Market Operator (IMO) prior to the AEMO Transition Date.

² Australian Energy Market Operator (AEMO) from the AEMO Transition Date as defined in the Gas Rules (8AM, November 30th 2015); Independent Market Operator (IMO) prior to the AEMO Transition Date.

³ Australian Energy Market Operator (AEMO) from the System Management Transition Date as defined in the Electricity Rules (8AM, 1 July 2016); Western Power (System Management) (SM), prior to the System Management Transition Date.

EXECUTIVE SUMMARY

This independent assurance report sets out the results of the market audit by PA Consulting Group assessing the compliance of AEMO's internal procedures and business processes with the Wholesale Electricity Market Rules (Electricity Rules) and AEMO's compliance with the Electricity Rules and Market Procedures (Electricity Procedures).

Regulatory context and scope

The audit of AEMO's market operations compliance (referred to as Audit 1) is conducted under clause 2.14.3 of the Electricity Rules, supplemented by transitional clause 1.14.7 which requires AEMO to ensure that for the first Market Audit following the AEMO Transition Date⁴, the Market Auditor audits both AEMO (for activities on and from the transition date) and the IMO (in respect of its activities before the transition date).

See Section 1.1 for further details on regulatory context.

Audit Period

The Audit Year is 1 August 2015 to 30 June 2016, both dates inclusive.

Audited Entity

For avoidance of doubt, the Audited Entity for this audit is:

- The Independent Market Operator of Western Australia (IMO) prior to the AEMO Transition Date
- AEMO following the AEMO Transition Date.

Approach

Assurance

Our audit has been conducted in accordance with Australian Auditing and Assurance Standards Board's '*Framework for Assurance Engagements*', ASAE 3000 '*Assurance Engagements Other than Audits and Reviews of Financial Information*'.

- We provide reasonable assurance under this standard with respect to our review of the compliance of the Audited Entity's Internal Procedures with the Electricity Rules
- We provide limited assurance under this standard with respect to our review of the Audited Entity's compliance with the Electricity Rules and Electricity Procedures.

Risk ratings and materiality

Risk ratings

Audit findings are categorised as follows:

⁴ 30 November 2015

Table 1: Compliance Ratings for Audit Findings

Compliance rating	Description
1	Instances of non-compliance with Electricity Rules and Electricity Procedures noted in audit
2	Findings that are not an instance of non-compliance, but pose compliance risk
3	Findings related to minor housekeeping issues that do not affect compliance risk

Risk rating descriptors for audit findings were set in consultation with AEMO and are based on AEMO’s corporate risk matrix (including definitions of impact).

Table 2: Risk Ratings for Audit Findings





Risk rating	Description
Critical 	Potential for catastrophic impact on dispatch, settlement or other market outcomes if not addressed immediately. Requires executive actions and monitoring at board level.
Significant 	Potential for major impact on dispatch, settlement or other market outcomes if not addressed as a matter of priority. Requires senior management attention with regular monitoring at executive meetings.
Medium 	Potential for moderate impact on dispatch, settlement or other market outcomes if not addressed within a reasonable timeframe. Requires management attention with regular monitoring.
Low 	Potential for minor impact on dispatch, settlement or other market outcomes if not addressed in the future. Requires team level attention with regular monitoring.

Table 3: Risk rating matrix

		Consequence of risks associated with finding				
		Immaterial	Minor	Moderate	Major	Extreme
Likelihood of risk manifesting if finding not addressed	Almost Certain	Medium	Medium	Significant	Critical	Critical
	Likely	Low	Medium	Significant	Critical	Critical
	Possible	Low	Medium	Significant	Significant	Critical
	Unlikely	Low	Low	Medium	Medium	Significant
	Rare	Low	Low	Medium	Medium	Significant

Qualification of audit opinion

In determining whether to qualify our opinion on whether AEMO and IMO have complied “in all material respects”, we have taken the following factors into account:

- Purpose and objectives of the market audit
- AEMO’s overall objectives
- AEMO’s risk matrix definitions of impact
- Financial impacts on participants
- The number of participants or other stakeholders affected
- The impact of an issue on market objectives such as transparency, equity and efficiency
- Whether or not an issue is systemic
- Whether or not an issue is recurring (from previous audits).

Audit activities

We have undertaken a combination of reviews of self-reported incidents of non-compliance, compliance auditing and business process walkthroughs.

Our audit activities were focussed on subset of functional areas based on residual compliance risk, materiality and rule changes occurring in the audit period. These areas include:

- Capacity certification and bilateral capacity trades
- Settlements process (including meter data)
- Disputes and disagreements
- Handling of prudential security
- Relevant demand process (including assessment and approval of maintenance applications)
- Non-temperature dependent load assessment
- Monthly IRCR allocation, validation and monitoring
- Monitoring of market participants in support of IMO/ERA
- Constrained payment recovery
- Market fees (including payment to IMO/ERA).

While the transition of functions to AEMO affected a large number of obligations, and gave the AEMO a slightly reduced set of functions (as compared to the IMO prior to transition date), the only substantive change affecting the performance of market functions was the June 2016 amendments to the treatment of Demand Side Programmes in the reserve capacity mechanism.

We conducted one field-visit in September 2016 to interview AEMO staff and to conduct the business process walkthroughs.

Findings and recommendations

Summary of audit findings

Table 4 summarises audit findings by compliance and risk rating.

- 15 of the 18 Compliance Rating 1 findings for the audit period were self-reported.
- Nine of the Compliance Rating 1 findings related to errors or oversights in a manual process. In most cases these are not in the same areas as the past, and were followed up with changes to reduce the risk of recurrence.
- Three findings relate to technical breaches, where the most appropriate solution is a rule amendment.
- Three findings relate to software releases which introduced an error or an unanticipated business process change. All have been addressed, and process steps added to take a belt-and-braces approach in future.

Subsequent sections of this report provide a detailed explanation of each finding on rule chapter by chapter basis.

Table 4: Summary of audit findings classified by compliance and risk ratings




















Risk rating	Compliance rating		
	1	2	3
	No findings	No findings	No findings
	No findings	No findings	No findings
	1	4	No findings
	17	6	1

Table 5 breaks down the audit findings further by chapter of the Electricity Rules. Subsequent sections of this report provide a detailed explanation of each finding on rule chapter by chapter basis.

Table 5: Summary of audit findings broken by chapter of Electricity Rules

Chapter	Compliance rating		
	1	2	3
2: Administration	 5	 2  1	No findings

Chapter	Compliance rating		
	1	2	3
3: Power System Security and Reliability	 1	 2	No findings
4: Reserve Capacity Rules	 1  4	 2	No findings
6: The Energy Market	 3	No findings	 1
9: Settlement	 3	 1  1	No findings
10: Market Information	 1	 1	No findings

Key findings

AEMO (and the IMO before it) continues to take rule compliance seriously, and has a robust suite of controls in place to manage compliance risk. The organisation is proactive in reporting and addressing compliance issues, and we have noted improvements in several areas since our last audit, both in response to our findings and elsewhere. Most non-compliances are minor, one off, and have been followed up by improvements to controls. Nevertheless, there are still areas of compliance risk, as discussed below.

Quality of meter data provided by MDA poses settlement compliance risk

The quality of meter data provided to AEMO by the Meter Data Agent remains a challenge. There are issues with the quality and consistency of data provided for use in settlement system, both in terms of standing data (loss factors, participant allocation, and dates), and meter readings.

These issues make it more difficult for AEMO personnel to identify problems with settlement data, increasing the likelihood of non-compliance incidents in this area – three of our findings relate to meter data issues – with moderate impact on settlement outcomes, some of which cannot be corrected in settlement adjustments.

While much of the solution lies outside AEMO's direct control, the organisation is doing what it can to address the situation, including a special project team tasked with investigating and remediating systemic issues in the meter data process. We were pleased to note the effort and quality of AEMO's validation and verification efforts for meter data specifically, and for settlement processes more generally.

We recommend that AEMO and Meter Data Agents put in place a clear interface contract for meter data provision (including standing data), though we recognise that this may only be possible as part of the transition of retail market functions from Western Power to AEMO. In any case, it is important to maintain the level of effort and focus given to validating and loading this critical market data.

Incomplete audit trail for prudential security handling and lodgement

While AEMO remains vigilant in its monitoring and management of credit limits, prudential security, and participant trading exposure, AEMO processes for the handling of security instruments have not followed the documented procedures in all cases.

Processes for release of security (be it credit support or reserve capacity security) have been tightened up during the audit period following the inadvertent release of credit support to a participant to whom reserve capacity security was being returned (the credit support was not required, so there was no risk to the market). Nevertheless, there remains room for improvement in the controls for handling credit support and reserve capacity security lodgements and returns.

We noted several instances where safe deposit box access documentation did not provide a full record of access and lodgement/withdrawal. We also note that reviews comparing the prudential register with the contents of the safe deposit boxes are intermittent (four occurrences since April 2015).

AEMO regularly monitors participant exposures and trading limits, so there is low likelihood of the market being affected by a participant default. However, internal record keeping should be improved to ensure there is a clear audit trail of lodgements and returns, access to deposited security, and comparison of lodgements against records, and internal procedures updated accordingly.

Confidentiality

After several years with reducing numbers of confidentiality incidents, we notice a small increase this year. Contributing factors include personnel changes, as well as the increasing use of analytics by market participants and the ongoing market reforms, which both increase the level of interest in market data.

AEMO has worked to increase the amount of 'self-service' for information requests, with requestors directed to the public data available on the website or to participant specific data via the market participant interface, and reducing the need to extract data using ad-hoc manual queries. This is a good initiative which will reduce the likelihood of non-compliance. We also note AEMO-wide initiatives to raise awareness of potential confidentiality issues, update internal training modules, and investigate additional technical controls to decrease likelihood of recurrence..

Procedure documentation and Market Operator – System Operator – Network Operator interfaces

The transfer of System Management functions to AEMO on 1 July included rule changes which removed explicit obligations for market operator and system operator to consult on various events, and to provide each other with data (replacing them instead with obligations to 'maintain' data, 'determine' quantities and similar).

We consider this an important compliance risk. Because of the lack of System Management internal procedure documentation, these rule changes increase the risk of data exchanges being missed, or decisions requiring both market operator and system operator input missing one or other.

It is critical that these newly internalised relationships be captured in well-designed, well-documented processes and procedures. Similarly, it is critical that newly externalised relationships between System Operator and Network Operator staff be documented and agreed.

We recommend that AEMO regularly track and report on progress redeveloping affected processes and procedures.

Opinion

Qualifications

The following qualifications apply to our opinion with respect to whether AEMO's internal procedures and business processes comply with the Electricity Rules in all material respects:

- AEMO's internal procedure 5.2 Determination of AEMO Budget has not been updated to reflect the 30 November transfer of IMO functions to AEMO, and if followed as written, would lead to non-compliance with chapter 2 of the Electricity Rules

Opinion with respect to the Audited Entity's compliance of procedures and business processes with the Electricity Rules

Our opinion is as follows.

Subject to the inherent limitations set out in Section 1.3.4 and the qualifications set out above, it is our opinion that AEMO's internal procedures and business processes comply with the Electricity Rules in all material respects.

Opinion with respect to the Audited Entity's compliance with the Electricity Rules and Electricity Procedures

Our opinion is as follows.

Subject to the inherent limitations set out in Section 1.3.4, based on the audit procedures we have performed and the evidence we have examined nothing has come to our attention that causes us to believe that AEMO has not been compliant with the Electricity Rules and Market Procedures during the Audit Period, in all material respects.

Subject to the inherent limitations set out in Section 1.3.4, based on the audit procedures we have performed and the evidence we have examined nothing has come to our attention that causes us to believe that the IMO has not been compliant with the Electricity Rules and Market Procedures during the Audit Period prior to 30 November 2015, in all material respects.

PA Consulting Group



A handwritten signature in black ink, appearing to read 'SJT', written over a white rectangular background.

Stephen James Thornton

Member of PA's Management Group

9 December 2016

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1 INTRODUCTION

This chapter sets out the regulatory context for Audit 1 and our approach to performing the audit.

1.1 Regulatory context and scope

The requirement for the audit of the AEMO is set out in the Wholesale Electricity Market Rules (the Electricity Rules).

Table 6 provides further detail on the heads of power that mandate this audit.

Table 6: Electricity Market Rules references pertaining to Market Audits

Clause reference	Comment
2.14.1	Requirement for AEMO to appoint market auditor
2.14.2	Requirement for AEMO to ensure market audits are undertaken no less than annually
2.14.3	Defines the scope of the Audit to include: <ul style="list-style-type: none">• The compliance of AEMO's internal procedures and business processes with the Electricity Rules• AEMO's compliance with the Electricity Rules and Market Procedures⁵• AEMO's market software systems and processes for software management⁶.
1.14.7 (Transitional)	Requires AEMO to ensure that for the first Market Audit following the AEMO Transition Date, the Market Auditor audits both AEMO (for activities on and from the transition date) and the IMO (in respect of its activities before the transition date)

This report covers our audit of AEMO and the IMO under 2.14.3(a) and (b). We report separately on our audit under 2.14.3(c) and on our audit of System Management functions.

At the time of the previous audit there were no obligations on AEMO, nor did AEMO have any documented procedures relating to the Electricity Rules. On 30 November 2015, most IMO functions and rule obligations were transferred to AEMO. The personnel implementing the obligations largely remained the same, as did the IT systems, operational processes, procedure documentation, and other controls. This means that from an operational perspective, there is continuity between the two organisations, and for this reason, where we refer to amendments or changes to AEMO obligations or AEMO procedures, we mean the differences between AEMO obligations or procedures and the equivalent IMO obligations or procedures as at the time of the previous audit.

1.2 Audited Entity

For avoidance of doubt, the Audited Entity for this audit is:

- The Independent Market Operator (IMO) prior to the AEMO Transition Date

⁵ Market Procedures defined in the Electricity Rules will be referred to from here-on as Electricity Procedures.

⁶ i.e. the compliance of the software with the calculations set out in the Electricity Rules, and the compliance of the software management processes with Clause 2.36.1 of the Electricity Rules.

- AEMO following the AEMO Transition Date.

1.3 Approach

1.3.1 Assurance

Our audit has been conducted in accordance with Australian Auditing and Assurance Standards Board's 'Framework for Assurance Engagements', ASAE 3000 'Assurance Engagements Other than Audits and Reviews of Financial Information'.

- We provide reasonable assurance under this standard with respect to our review of the compliance of the Audited Entity's Internal Procedures with the Electricity Rules
- We provide limited assurance under this standard with respect to our review of the Audited Entity's compliance with the Electricity Rules and Market Procedures.

1.3.2 Risk ratings and materiality

Compliance and risk ratings




Audit findings are categorised as shown in Table 7.


Table 7: Compliance Ratings for Audit Findings

Compliance rating	Description
1	Instances of non-compliance with Electricity Rules and Electricity Procedures noted in audit.
2	Findings that are not an instance of non-compliance, but pose compliance risk
3	Findings related to minor housekeeping issues that do not affect compliance risk

Risk ratings for audit findings were set in consultation with AEMO and are set out in Table 8.

Table 8: Risk ratings for Audit Findings

Risk rating	Description
Critical 	Potential for catastrophic impact on dispatch, settlement or other market outcomes if not addressed immediately. Requires executive actions and monitoring at board level.
Significant 	Potential for major impact on dispatch, settlement or other market outcomes if not addressed as a matter of priority. Requires senior management attention with regular monitoring at executive meetings.
Medium 	Potential for moderate impact on dispatch, settlement or other market outcomes if not addressed within a reasonable timeframe. Requires management attention with regular monitoring.

Risk rating	Description
Low 	Potential for minor impact on dispatch, settlement or other market outcomes if not addressed in the future. Requires team level attention with regular monitoring.

Each finding has been categorised according to its impact and likelihood, using the matrix in Table 9, and AEMO's standard impact definitions shown in Table 10.

Table 9: Classification of Audit Findings

		Consequence of risks associated with finding				
		Immaterial	Minor	Moderate	Major	Extreme
Likelihood of risk manifesting if finding not addressed	Almost Certain	Medium	Medium	Significant	Critical	Critical
	Likely	Low	Medium	Significant	Critical	Critical
	Possible	Low	Medium	Significant	Significant	Critical
	Unlikely	Low	Low	Medium	Medium	Significant
	Rare	Low	Low	Medium	Medium	Significant

Table 10: AEMO impact ratings

Type of impact	EXTREME	MAJOR	MODERATE	MINOR	IMMATERIAL
Reputation & Stakeholders	Significant long-term damage to stakeholder confidence and relationships; total loss of public confidence; intensive adverse media exposure	Significant short term damage to stakeholder confidence and relationships; some loss of public confidence; adverse media exposure	Some damage to stakeholder confidence and relationships	Manageable reduction in stakeholder confidence	No lasting effects
AEMO Financial Impact	>\$25M	>\$5M-25M	>\$500K-\$5M	>\$100K-\$500K	<\$100K
Safety	Single fatality or permanent injury or widespread impact on public safety	Serious injury requiring hospitalisation >5 days or localised impact on public safety	Injury requiring <5 days hospitalisation or medical treatment	Medical treatment only	First aid
Infrastructure, Assets & Environment	Permanent long term effect and or rectification not possible	Significant effect, difficult rectification	Measurable effect, easy rectification	Measurable effect, no rectification required	No measurable damage or effect
Market	Loss of supply to >50% of customer demand in any one jurisdiction or >25% across multiple jurisdictions Market suspension in one jurisdiction or market	Loss of supply to >25% of customer demand in any one jurisdiction or >10% across multiple jurisdictions Market suspension in one jurisdiction or market	Loss of supply to >10% of customer demand in any one jurisdiction or >5% across multiple jurisdictions Market operating in an administered state for > 5 days for gas market or >1 day for electricity market	Loss of supply to >5% of customer demand in any one jurisdiction or >2% across multiple jurisdictions Market operating in an administered state for <5 days for gas market or <1 day for electricity market	No restriction of supply No disruption to markets
Legal & Regulatory	Imprisonment or fine >\$100 personal liability to officer or director of company Disqualification as officer/director Regulator or parliamentary inquiry with loss of market participants and public confidence	>\$100K personal liability to officer or director Disqualification as officer/director Regulator or parliamentary inquiry with substantial loss of reputation, financial cost, loss of stakeholder confidence, political impact	Fine of less than \$100K and no personal liability Regulator or government inquiry with loss of reputation or adverse government impact	Nominal fine Regulator or government inquiry resolved by routine management procedures	No fine No government or regulator inquiry

Qualification of audit opinion

In determining whether to qualify our opinion on whether AEMO and IMO have complied “in all material respects”, we have taken the following factors into account:

- Purpose and objectives of the market audit
- AEMO’s overall objectives
- AEMO’s risk matrix definitions of impact
- Financial impacts on participants
- The number of participants or other stakeholders affected
- The impact of an issue on market objectives such as transparency, equity and efficiency
- Whether or not an issue is systemic
- Whether or not an issue is recurring (from previous audits).

1.3.3 Audit activities

We have undertaken a combination of:

- Reviewing self-reported incidents of AEMO non-compliance with the Electricity Rules and Electricity Procedures
- Business process walkthroughs and interviews with staff to audit the application of operating controls and to determine the level of compliance risk associated with selected business processes.
- Compliance testing to audit AEMO’s operational compliance with the Electricity Rules and Electricity Procedures and to determine the effectiveness of operating controls. In doing so, we have sourced information from all the AEMO (WA) teams, with a particular emphasis on the market operations team.

The first two activities were conducted as part of a field-visit in September 2016. Remaining activities have been undertaken remotely.

Compliance testing and business process walkthroughs were focussed on subset of functional areas based on residual compliance risk, materiality, and rule changes occurring in the audit period. These areas include:

- Capacity certification and bilateral capacity trades
- Settlements process
- Disputes and disagreements
- Handling of prudential security
- Relevant demand process (including assessment and approval of maintenance applications)
- Non-temperature dependent load assessment
- Monthly IRCR allocation, validation and monitoring
- Monitoring of market participants in support of IMO/ERA
- Constrained payment recovery
- Market fees (including payment to IMO/ERA)

While the transition of functions to AEMO affected a large number of obligations, and gave the AEMO a slightly reduced set of functions (as compared to the IMO prior to transition date), the only substantive change affecting the performance of market functions was the June 2016 amendments to the treatment of Demand Side Programmes in the reserve capacity mechanism.

1.3.4 Inherent limitations and qualifications

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 market outcomes.

Our opinion with respect to AEMO’s compliance with the Electricity Rules and Market Procedures are therefore subject to the following caveats:

1. Our audit procedures did not include assessing irregularities such as fraudulent or illegal activities. As such, our audit should not be relied upon to disclose such irregularities. However, in the event that we were to detect any fraudulent or illegal activity, we would report this to AEMO. No such findings have been made during this audit.
2. Our audit is not designed to detect all weaknesses in control procedures as it is not performed continuously throughout the audit period and is performed on a sample basis. Specifically, our business process reviews assessing the use of controls were undertaken after the end of the audit period. As such:
 - a. Although our findings are indicative of AEMO’s practices during the audit period, they do not constitute definitive evidence that AEMO applied those controls during the audit period.
 - b. Projections of our findings to future periods carry the risk that:
 - i. Controls may become inadequate over time due to changes in the Electricity Rules or AEMO’s business processes, procedures and systems
 - ii. The degree of compliance with the control procedures we have reviewed deteriorates over time.
3. We have reviewed the governance of AEMO’s internal procedures, and are satisfied that the change management process described is robust. However, we have not tested the AEMO’s operational compliance against its procedure change management policies and have relied on the AEMO’s list of documented changes to internal procedures, including some which are still in draft status. Further, we have focused on changes relating to rule changes in the audit period, and sample checks of obligations that have not changed, and have not exhaustively reviewed all procedures against all rule obligations. Therefore, there is a minor risk that unauthorised changes may have been made to internal procedures that we have not reviewed.

1.4 Structure of this report

The remainder of this report is structured based on the chapters of the Electricity Rules and includes:

- A brief summary of rule chapter contents.
- Commentary on whether AEMO’s procedures (Electricity Procedures and Internal Procedures) have been updated to reflected amendments to the Electricity Rules during the Audit Year, and whether they comply with the Rules. Rule changes beyond the end of the Audit Year are not included.
- Commentary on AEMO’s operational compliance and areas of compliance risk (where relevant).

Unless otherwise specified, all references to the Electricity Rules refer to the most recently applicable rules as at the end of the Audit Year (i.e. the Electricity Rules as at 1 June 2016).

2 ELECTRICITY RULES CHAPTER 1 – INTRODUCTION

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

2.1 AEMO processes and procedures

2.1.1 Rule amendments

Most (but not all) of the obligations previously placed on the IMO under Chapter 1 have been transferred to AEMO. A new set of transitional obligations has also been introduced in relation to this transfer of functions.

2.1.2 Procedures

The following Market Procedures relating to Chapter 1 of the Electricity Rules were updated in the audit period.

ID	Title	Updated
MP 14	Notices and Communications	November 2015
MP 25	Web Site Changes	November 2015

The following Internal Procedures relating to Chapter 1 were updated in the audit period:

ID	Title	Updated
4.4.3	Publish to Web	December 2015

2.1.3 Compliance of AEMO's Procedures with Chapter 1 of the Electricity Rules

We have not noted any instances in which AEMO's Internal Procedures, if followed, would result in non-compliance with Chapter 1.

2.2 Compliance with Chapter 1

We have not conducted any audit procedures to assess AEMO's compliance with Chapter 1 of the Electricity Rules, except where the transitional provisions affect obligations elsewhere in the Rules.

There have been no self-reported instances of non-compliance with Chapter 1.

3 ELECTRICITY RULES CHAPTER 2 – ADMINISTRATION

Chapter 2 of the Electricity Rules sets out obligations relating to Functions and Governance; Market Documents; Monitoring, Enforcement and Audit; Reviewable Decisions and Disputes; Market Consultation; Budgets and Fees; Maximum and Minimum Prices and Loss Factors; Participation and Registration; Communications and Systems Requirements; Prudential Requirements and Emergency Powers.

3.1 AEMO processes and procedures

3.1.1 Rule amendments

Many of the obligations previously placed on the IMO under Chapter 2 have been transferred to AEMO. Obligations not transferred to AEMO relate to:

- Operation of the Market Advisory Committee
- Rule making
- Monitoring and enforcement (AEMO retain an obligation to support IMO and ERA in their monitoring)

3.1.2 Procedures

The following Market Procedures relating to Chapter 2 of the Electricity Rules were updated in the audit period.

ID	Title	Updated
MP 3	Data and IT Interface Requirements	November 2015
MP 6	Determining Loss Factors	November 2015
MP 7	Facility Registration , De-Registration and Transfer Procedure	November 2015
MP 15	Procedure Administration	November 2015
MP 17	Prudential Requirements	November 2015
MP 18	Rule Participant Registration and De-Registration	November 2015

The following Internal Procedures relating to Chapter 2 have been updated since the last audit:

ID	Title	Updated
1.2	Compliance Monitoring and Enforcement	July 2016
1.4	Market Audits	June 2016
1.5	Disputes	June 2016
1.6	ERA Surveillance Meetings	July 2016
1.9	Synergy Daily Monitoring	July 2016
1.10	Compliance Weekly Reports	July 2016
2.1.1	Registration	August 2016

2.3.2	Prudential Requirements	September 2016
2.3.3	Settlement	August 2016
2.3.4	WEM Settlement Contingency	August 2016
2.4.1	Market Surveillance.doc	August 2016
4.2.2	Market Procedure Change	July 2016
5.1	Handling Guarantees and Bank Undertakings, and Security Deposits	August 2016
5.2	Determination of IMO Budget	August 2016
5.3	Fees	August 2016
IT3	Software Configuration Management Plan	September 2016

3.1.3 Compliance of AEMO's Procedures with Chapter 2 of the Electricity Rules

We have noted two instances in which AEMO's internal procedures, if followed, would result in non-compliance with Chapter 2:

- AEMO's internal procedure 5.2 Determination of AEMO Budget has not been updated to reflect the 30 November transfer of IMO functions to AEMO
- AEMO's internal procedure 5.3 Fees has not been updated to reflect the 1 July 2016 transfer of System Management Functions to AEMO

3.2 Compliance with Chapter 2

3.2.1 Audit Activities

We have undertaken compliance testing and business process walkthroughs in the following functional areas relating to Chapter 2 of the Electricity Rules:

- Processing of changes to Standing Data
- Settlements process
- Disputes and disagreements
- Handling of prudential security
- Monitoring of market participants in support of IMO and ERA
- Market fees

3.2.2 Audit Findings

Table 11 summarises audit findings by compliance rating and risk rating.

Table 12 provides details of audit findings that were classified as Compliance Rating 1 (i.e. incidents of non-compliance with Chapter 2 of the Electricity Rules).

Table 13 provides details of audit findings that were classified as Compliance Rating 2 and 3.

Table 11: Summary of audit findings classified by compliance and risk ratings






Risk rating	Compliance rating		
	1	2	3
		2	
	5	1	

Table 12: Summary of Compliance Rating 1 Audit Findings (i.e. incidents of non-compliance with Chapter 2 of the Electricity Rules).

Electricity Rules clause	Risk Rating	Description
2.22.10		<p>Clause 2.22.10 requires AEMO to continue to apply the previous year’s market fees if the minister has not approved the IMO budget before the start of the Financial Year.</p> <p>AEMO has instead calculated market fees based on the proposed budget. This has been done in line with Clause 9.13.1, which requires AEMO to apply a market fee rate determined in accordance with 2.24.2, which states that if the Minister has not approved the IMO’s budget proposal, AEMO is to determine and publish the expected level of Market Fee rate for the IMO based on the most recent budget proposal.</p> <p>These clauses require AEMO to carry out two mutually exclusive actions, meaning there was no rule compliant action that AEMO could have taken in this case.</p> <p>In any case, once the budget is approved, any over- or under-recovery will flow through to the market fee calculation, so that over time, the right amount will be recovered.</p> <p>We recommend that AEMO propose a rule change to remove this contradiction.</p>
2.31.1(b)		<p>Clause 2.31.1 requires AEMO (and previously the IMO) to maintain various forms on the market web site, including a participant de-registration form under 2.31.1(b).</p> <p>From 1 July to 7 November 2015, the participant de-registration form was not available from the market web site.</p> <p>No participant sought de-registration in this period, and there is no evidence that any participant even looked for the form, as the one known deregistration enquiry in the period went directly to the IMO operations team.</p>
2.34.1(b)		<p>Until 30 June 2016, clause 2.34.1(b) required AEMO to provide revised Standing Data to System Management as soon as practicable.</p> <p>On one occasion during the audit period, AEMO did not notify System Management of updated standing data.</p> <p>AEMO generally consults with System Management on each standing data change before approving it. However, in the subset of change requests we reviewed, we found one occasion where AEMO had not provided explicit confirmation to System Management that the changed standing data had been approved.</p> <p>AEMO does provide updated standing data to System Management via an automated daily transfer, but this transfer does not include attachments provided by the market participant.</p> <p>In the specific case identified, there was no market impact. The update related to the availability period of a Demand Side Programme. This data was also available to System Management by another route, and in any case, no DSPs were dispatched in the audit period.</p> <p>We note that following our recommendation last year, the IMO undertook a process to ensure that the standing data records held by the market operator and system management matched each other, and has introduced a new process step to give approval confirmation to System Management, though this does not appear to have been executed in all cases.</p>






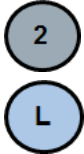
Electricity Rules clause	Risk Rating	Description
		This obligation was removed on 1 July 2016, as part of the transition of System Management functions to AEMO. In light of this change, we recommend that AEMO review and update internal procedures to ensure that AEMO uses consistent standing data for both market operations and for system management.
2.34.8		<p>Clause 2.34.8 requires AEMO to notify the Rule Participant of its acceptance or rejection of a requested change in Standing Data as soon as practicable, and no later than three Business Days after the request.</p> <p>On 6 August 2015, the IMO received a standing data change request, and did not approve until 12 August, 4 business days later. The issue was one of human error – dismissing an automated notification without taking the required action.</p> <p>The approval still came before the date at which the data was requested to take effect, and the request was subsequently withdrawn and resubmitted for other reasons.</p>
2.43.1		<p>Clause 2.43.1 requires AEMO to make and comply with a Market Procedure dealing with credit support processes. Clause 3.5.2 of the Prudential Requirements market procedure states that a participant must request any return of credit support in writing, and implicitly that AEMO must not release credit support without a written request from the participant.</p> <p>On 16 February 2016, AEMO returned credit support to a participant without being requested to do so. The credit support returned was in excess of the participant's credit limit, so there was no market impact, and at all times AEMO held sufficient credit support.</p> <p>AEMO has now introduced additional controls around return of security, and we recommend that internal procedures are updated to reflect these new practices.</p>

Table 13: Summary of Compliance Rating 2 & 3 Audit Findings

Finding	Compliance & Risk Rating	Description
Process around handling of prudential security and reserve capacity security instruments allows room for human error	 	<p>While AEMO remains vigilant in its monitoring and management of credit limits, prudential security, and participant trading exposure, AEMO processes around the management and handling of prudential security have not followed the documented procedures in all cases.</p> <p>In the case of the unrequested return of credit support discussed in Table 12, the participant's credit limit happened to be zero, so there was no additional risk to the market. If the issue were to recur, it could potentially cause a prudential obligation breach relating to the provision or holding of credit support. Processes for release of security have been tightened up considerably since, but there remains room for improvement in the controls for handling credit support and reserve capacity security.</p> <p>We noted several instances where safe deposit boxes had been accessed, but no completed access approval form could be sourced, or where instruments were both removed and deposited for the same participant, but only the deposits were noted on the form. We also note that new reserve capacity security provided by participants for the 2017/18 cycle in early September had not yet been lodged in the bank in mid-October – in part due to the time required for execution of security deeds – or shown on the prudential register. Finally, we note that reviews comparing the prudential register with the</p>

Finding	Compliance & Risk Rating	Description
		<p>contents of the safe deposit boxes were intermittent in 2015 (once in April and once in November), and the internal procedure on management of prudential security has not been updated to reflect the policy change from monthly to quarterly reviews of the boxes' contents.</p> <p>AEMO regularly monitors prudential exposures and trading limits, so there is low likelihood of the market being affected by a participant default. However, internal record keeping should be improved to ensure there is a clear audit trail of lodgements and returns, access to deposited security, and comparison of lodgements against records, and internal procedures updated accordingly.</p>
<p>Internal procedure 5.2 Determination of AEMO Budget has not been updated to reflect rule changes in the period</p>		<p>This internal procedure has not been updated to reflect the new rules around AEMO budgeting.</p> <p>The full set of new obligations has not yet been triggered, and we have not observed anything that suggests there has actually been an issue in this area, but correct procedure documentation is an important control for compliance risk. If the procedure were followed as written, AEMO would not comply with the rules.</p>
<p>Internal procedure 5.3 Fees has not been updated to reflect 1 July rule changes</p>		<p>This internal procedure has not been updated to reflect the new rules around setting and paying market fees, and in particular, still refers to a separate System Management budget that is to be approved by the Minister, and makes no mention of Market Fee payments to the IMO.</p> <p>The full set of new obligations has not yet been triggered, and we have not observed anything that suggests there has actually been an issue in this area, but correct procedure documentation is an important control for compliance risk. If the procedure were followed as written, AEMO would not comply with the rules.</p> <p>We understand that AEMO has drafted, but not yet approved, updates to this procedure.</p>

4 ELECTRICITY RULES CHAPTER 3 – POWER SYSTEM SECURITY AND RELIABILITY

Chapter 3 of the Electricity Rules sets out obligations relating to Power System Security and Reliability; Ancillary Services; Medium and Short Term Planning; Commissioning Tests; Decommithment and Reserve Capacity Obligations; and Settlement Data relating to power system operation.

4.1 AEMO processes and procedures

4.1.1 Rule amendments

AEMO only has a small number of obligations under chapter 3. Almost all of the obligations previously placed on the IMO under Chapter 2 have been transferred to AEMO. The only obligations not transferred to AEMO relate to carrying out the 5 yearly ancillary services review.

There have also been minor cosmetic amendments to Chapter 3 since last year's market audit, e.g. changes to clause wording to enhance clarity.

4.1.2 Procedures

There are no Market Procedures relating to Chapter 3 of the Electricity Rules.

The following Internal Procedures relating to Chapter 3 have been updated since the last audit:

ID	Title	Updated
1.12	Investigation of Incidents in the SWIS	June 2016
2.2.3	Daily Operations Procedure	August 2016
2.3.3	Settlement	August 2016
4.4.2	Processing System Management Reports	August 2016

4.1.3 Compliance of AEMO's Procedures with Chapter 3 of the Electricity Rules

We have noted two instances in which AEMO's Internal Procedures, if followed, would result in non-compliance with chapter 3:

- AEMO's internal procedure 4.1.5 Market Development Reviews has not been updated to reflect transfer of functions from IMO to AEMO
- AEMO's internal procedure 4.4.2 Processing System Management Reports has not been updated to reflect transfer of functions from SM to AEMO

4.2 Compliance with Chapter 3

4.2.1 Audit activities

We have not conducted any audit procedures to assess AEMO's compliance with Chapter 3 of the Electricity Rules.

There was one self-reported instance of non-compliance with Chapter 3.

4.2.2 Audit Findings

Table 14 summarises audit findings by compliance rating and risk rating.

Table 15 provides details of audit findings that were classified as Compliance Rating 1 (i.e. incidents of non-compliance with Chapter 3 of the Electricity Rules).

Table 16 provides details of audit findings that were classified as Compliance Rating 2 and 3.

Table 14: Summary of audit findings classified by compliance and risk ratings


Risk rating	Compliance rating		
	1	2	3
	1	2	

Table 15: Summary of Compliance Rating 1 Audit Findings (i.e. incidents of non-compliance with Chapter 3 of the Electricity Rules).






Electricity Rules clause	Risk Rating	Description
3.17.1		<p>Clause 3.17.2 of the Market Rules requires AEMO to publish the ST PASA on the market web site as soon as practicable after receiving it from System Management. The ST PASA Report for 28 January 2016 was not published until 4 February 2016.</p> <p>The report was received from System Management on 28 January, and AEMO attempted to publish it upon receipt. A technical issue with the website management software meant that the publication did not succeed, and the issue was not observed until 4 February. AEMO has now migrated to a new website management platform, and the publication process now includes a check that published material appears on the website.</p> <p>The issue was not material, as while there is excess capacity in the SWIS, the ST PASA reports are of limited interest to market participants, and are not critical in making market decisions.</p>

Table 16: Summary of Compliance Rating 2 & 3 Audit Findings

Finding	Compliance & Risk Rating	Description
AEMO's internal procedure 4.1.5 Market Development Reviews has not been updated to reflect transfer of functions from IMO to AEMO	 	<p>This internal procedure deals with AEMO obligations around a variety of market reviews required under the rules. It still references obligations that are now placed with IMO or ERA. It also does not reference AEMO's explicit obligations to assist with the ERA's review of Ancillary Service Standards and the basis for setting Ancillary Service Requirements.</p> <p>These reviews have been on hold with the EMR changes, and are not likely to run in the immediate future. Most of the procedure content is still valid for AEMO's role in supporting such reviews, but must be updated to reflect that AEMO does not take the lead role. The procedure as written does not reflect compliance with the Electricity Rules.</p>
AEMO's internal procedure 4.4.2 Processing System Management Reports has not been updated to reflect transfer of functions from SM to AEMO	 	<p>This internal procedure deals with AEMO obligations to publish information coming from System Management. With the 1 July 2016 transfer of System Management functions to AEMO, many of these obligations have been deleted, or altered to simply require AEMO (or AEMO in its role as SM) to publish the report or do something else with the data, such as the requirement to keep records of outage evaluations under 3.18.17 and 3.19.13.</p> <p>Although much of the process will remain relevant for this data, the procedure must be updated to reflect the new rules, or some of these obligations are likely to be missed.</p>

5 ELECTRICITY RULES CHAPTER 4 – RESERVE CAPACITY

Chapter 4 of the Electricity Rules sets out the Reserve Capacity Rules, including: Expressions of Interest; LT PASA; Certification of Capacity; Auctions and Bilateral Trades; Capacity Credits; Special Price Arrangements; Shortages of Reserve Capacity; Testing, Monitoring and Compliance; Funding; Capacity Refunds; Early Certification; and Settlement Data.

5.1 AEMO processes and procedures

5.1.1 Rule amendments

Most of the obligations previously placed on the IMO have been transferred to AEMO. Obligations not transferred to AEMO relate to:

- Reviewing the relevant planning criterion
- Reviewing the relevant level methodology
- Setting Benchmark Reserve Capacity Price methodology
- Reviewing the Benchmark Reserve Capacity Price methodology
- Managing Short Term Special Price arrangements

Substantive amendments to chapter 4 have changed the rules relating to allocation of reserve capacity to Demand Side Programmes, including AEMO's obligations in that area.

5.1.2 Procedures

The following Market Procedures relating to Chapter 4 of the Electricity Rules were updated in the audit period:

ID	Title	Updated
MP 1	Capacity Credit Allocation	November 2015
MP 2	Certification of Reserve Capacity	November 2015
MP 4	Declaration of Bilateral Trades and the Reserve Capacity Auction	November 2015
MP 8	Individual Reserve Capacity Requirements	November 2015
MP 10	Intermittent Load Refunds	November 2015
MP 19	Reserve Capacity Performance Monitoring	November 2015
MP 20	Reserve Capacity Security	November 2015
MP 21	Reserve Capacity Testing	November 2015
MP 24	Treatment of New Small Generators	November 2015
MP 27	Undertaking the LT PASA and undertaking a review of the Planning Criterion	November 2015
MP 29	Supplementary Reserve Capacity	November 2015

The following Internal Procedures relating to Chapter 4 have been updated since the last audit:

ID	Title	Updated
2.1.1	Registration	August 2016
2.2.5	IRCR & Reserve Capacity Allocation Monitoring	August 2016
2.3.3	Settlement	August 2016
3.1.1	Determination of the Benchmark Reserve Capacity Price	August 2016
3.1.2	LT PASA	August 2016
3.1.3	Preparation of the Statement of Opportunities Report	July 2016
3.1.4	Reserve Capacity Information Pack	August 2016
3.2.1	Calling and Processing EOIs for New Capacity	August 2016
3.2.2	Supplementary Reserve Capacity	August 2016
3.3.1	Certification of Facilities	September 2016
3.3.2	Applications for Accreditation for the Purposes of Certification of Reserve Capacity for Intermittent Generators	August 2016
3.4.1	Bilateral Trade Declarations	August 2016
3.4.2	Assignment of Capacity Credits	August 2016
3.4.4	Capacity Credits and Obligations	August 2016
3.4.5	Reserve Capacity Security	August 2016
3.6.1	Performance Monitoring	August 2016
3.6.2	Reserve Capacity Testing	August 2016
3.6.3	Progress Reports for construction of New Facilities	August 2016
3.6.4	Reduction of Capacity Credits Assigned to a Facility	August 2016
3.6.5	Relevant Demand Interval Determination and Maintenance Consumption Deviation Assessment	August 2016
3.8.1	Extension to Reserve Capacity Timetable	August 2016
5.1	Handling Guarantees and Bank Undertakings, and Security Deposits	August 2016
5.3	Fees	August 2016

5.1.3 Compliance of AEMO's Procedures with Chapter 4 of the Electricity Rules

We have noted two instances in which AEMO's Internal Procedures, if followed, would result in non-compliance with chapter 4:

- AEMO's internal procedure 3.3.1 *Certification of Facilities* does not implement decision and publication obligations relating to new rules for reducing capacity allocation for facilities exceeding permitted outage thresholds
- AEMO's internal procedure 4.1.5 *Market Development Reviews* has not been updated to reflect transfer of functions from IMO to AEMO

5.2 Compliance with Chapter 4

5.2.1 Audit Activities

We have undertaken compliance testing and business process walkthroughs in the following functional areas relating to Chapter 4 of the Electricity Rules:

- Capacity certification
- Handling of reserve capacity security
- Assessment of Non Temperature-Dependent Loads
- IRCR allocation, validation and monitoring

5.2.2 Audit Findings

Table 17 summarises audit findings by compliance rating and risk rating.

Table 18 provides details of audit findings that were classified as Compliance Rating 1 (i.e. incidents of non-compliance with Chapter 4 of the Electricity Rules).

Table 19 provides details of audit findings that were classified as Compliance Rating 2 and 3.

Table 17: Summary of audit findings classified by compliance and risk ratings








Risk rating	Compliance rating		
	1	2	3
	1		
	4	2	





Table 18: Summary of Compliance Rating 1 Audit Findings (i.e. incidents of non-compliance with Chapter 4 of the Electricity Rules).

Electricity Rules clause	Risk Rating	Description
4.5.3		<p>Clause 4.5.3 requires AEMO to notify Rule Participants of the information it requires from them in order to carry out the LT PASA, no later than 1 April.</p> <p>In past years, AEMO has sent notifications to all participants, even where information is not required. In 2016, due to an administrative oversight, AEMO did not send notifications to two participants.</p> <p>Both affected participants are very small, and neither have a registered scheduled generator. No information was required from these participants, so the oversight had no impact, other than potential confusion for the two participants.</p> <p>AEMO has updated internal procedures to clarify steps required to ensure all participants are contacted.</p>
4.27.1 (Multiple technical breaches)		<p>Clause 4.27.1 of the Electricity Rules requires AEMO to monitor the total availability of the SWIS on a daily basis. AEMO implements this rule on a monthly basis and is therefore in technical breach of this rule.</p> <p>This is a non-material technical breach identified in 2014.</p> <p>Clause 4.27.1 requires AEMO to monitor SWIS capacity on a daily basis so that they can implement clause 4.27.2 which requires AEMO to assess, on a monthly basis, the number of days in the preceding 12 months that SWIS capacity fell below particular thresholds as defined by this rule.</p> <p>AEMO implements both clauses 4.27.1 and 4.27.2 through a monthly system event. Hence, AEMO is in technical breach of clause 4.27.1 which requires them to implement the rule on a daily basis. We note this as a technical non-material breach as clause 4.27.1 is redundant; since AEMO only needs to monitor the available capacity on a monthly basis.</p>
4.28.7, 4.28.11 (Multiple breaches)		<p>Clause 9.3.2 requires Meter Data Agents (MDAs) to provide “settlement ready” metering data to the settlement system in accordance with Chapter 8. There is no definition of the term “settlement ready”.</p> <p>Clauses 4.28.7 and 4.28.11 require AEMO (and previously IMO) to determine Individual Reserve Capacity Requirements using the methodology in Appendix 5.</p> <p>Appendix 5, bullet 5 states that the meter registration data to be used in calculating Individual Reserve Capacity Requirements is to be the most current complete set of meter registration data as at the time of commencing the calculations.</p> <p>Two incidents led to IMO and AEMO not using the most current complete set of meter registration data when calculating Individual Reserve Capacity Requirements. Both issues were due to automatic validations on incoming meter standing data files, where AEMO’s (and previously the IMO’s) metering system rejected files where any single entry had inconsistencies:</p> <ol style="list-style-type: none"> 1. In the first case (from January to October 2015), the IMO did not load a standing data change which added a new channel for one meter, with the result that Meter Data Submissions for that channel were not used to determine Metered Schedules or IRCR calculations. The change was rejected as the file included a Distribution Loss Factor change where the effective date was prior to the effective date of the NMI.

Electricity Rules clause	Risk Rating	Description
		<p>2. In the second case (from April 2015 to February 2016), IMO and AEMO did not load a series of standing data changes relating to which participant was responsible for the consumption at a given meter. As a result, the metered volumes associated with 61 meters were allocated to the wrong participants in settlement and IRCR calculations.</p> <p>Prior to April 2015, IMO conducted a monthly reconciliation to resolve standing data differences between their metering system and the data provided by the MDA, but this process was discontinued for a period while the two parties worked to improve the underlying issues with the data provided for the monthly reconciliation. As a result, some standing meter data changes were not loaded into IMO's and AEMO's metering system.</p> <p>We therefore note that there are issues with the quality of standing data provided by the Meter Data Agent, with some updates having inconsistent data (such as the loss factor applying from a date earlier than the meter activation date, which may actually represent the date of latest change of owner rather than initial activation). In our view, this makes it considerably more difficult for AEMO to be sure it is using the latest meter data, but does not remove the obligation to do so.</p> <p>It is not clear that this is non-compliance by AEMO. If it is considered that the MDA has provided "settlement ready" metering data, then AEMO is directly non-compliant. If it is considered that the Meter Data Agent has failed to provide "settlement ready" metering data, then AEMO is either compliant, or any non-compliance is a consequence of the Meter Data Agent's non-compliance.</p> <p>AEMO and the MDA have now resolved the underlying issues with the data provided for the monthly reconciliation. From February 2016, AEMO has implemented a comprehensive daily manual cross-checking process, ensuring that all data changes are picked up promptly, and any changes to meter data will be addressed in settlement adjustments. We have reviewed this process, and are comfortable that AEMO's controls are as good as can be expected in the circumstances.</p> <p>IRCRs cannot be recalculated. Together, the two incidents resulted in around \$150,000 in IRCR overpayment to some participants, and a corresponding amount of underpayment to others.</p> <p>See related finding related to Clauses 9.3.3 arising from the same incidents.</p>
4.28.11, 4.1.28(b)		<p>Clause 4.28.11 requires AEMO to determine and publish an updated Individual Reserve Capacity Requirement for each Market Customer by the date and time specified in clause 4.1.28(b) (by 5:00 PM on the Business Day being five Business Days prior to the start of the relevant trading month).</p> <p>AEMO published the April 2016 IRCRs on 29 March 2016, instead of 23 March as required. AEMO published supporting material on 23 March (the IRCR Metering Report was published in WEMS and the IRCR Peak Intervals and Ratios on the market website), but human error led to the main Participant Information Report files not being published, and the issue was not observed until noted by a participant on 29 March. AEMO's publication process now includes a check that all files are visible to participants, supported by an automated notification.</p> <p>The issue was not material, as the information was published within hours of the participant inquiring.</p>
4.29.3(a)		<p>Clause 4.29.3 requires AEMO (and previously IMO) to provide data to the settlement system, including the applicable Monthly Reserve Capacity Price under 4.29.3(a).</p> <p>In November 2015, when carrying out the initial settlement run for October 2015 (the first month in the 2015-16 capacity year), the IMO provided the wrong Monthly Reserve Capacity Price to the settlement system for the first 30 days of the month.</p>

Electricity Rules clause	Risk Rating	Description
		<p>Monthly Reserve Capacity Price entry is a manual task, and in this case, the price was entered to take effect from 31 October instead of 1 October. As a result, the previous year's monthly price was applied for the first 30 days.</p> <p>The IMO subsequently updated internal procedures to clarify that the price should be entered to apply from the 1st of the month, and instituted a MOSMI alert to ensure the entry is carried out in the correct timeframe in future.</p> <p>Although the issue affected participant settlement amounts for that month by around \$10,000 in total, the error was corrected in the settlement adjustment carried out in April 2016.</p>

Table 19: Summary of Compliance Rating 2 & 3 Audit Findings

Finding	Compliance & Risk Rating	Description
AEMO's internal procedure 3.3.1 Certification of Facilities does not implement some of the 1 June 2016 rule changes	 	<p>This internal procedure has been updated to reflect the new reserve capacity rules, but does not implement decision and publication obligations relating to new rules for reducing capacity allocation for facilities exceeding permitted outage thresholds.</p> <p>We have not observed anything that suggests there has actually been an issue in this area, but correct procedure documentation is an important control for compliance risk. If the procedure were followed as written, AEMO would miss important publication requirements, and criteria for making the decision.</p> <p>We understand that AEMO will include these additions in the next version of the procedure.</p>
AEMO's internal procedure 4.1.5 Market Development Reviews has not been updated to reflect transfer of functions from IMO to AEMO	 	<p>This internal procedure deals with AEMO obligations around a variety of market reviews required under the rules. It still references obligations that are now placed with IMO or ERA. In particular, reviews of the Planning Criterion, the Relevant Level Methodology, and the Maximum Reserve Capacity Price.</p> <p>These reviews have been on hold with the EMR changes, and are not likely to run in the immediate future. Most of the procedure content is still valid for AEMO's role in supporting such reviews, but must be updated to reflect that AEMO does not take the lead role. The procedure as written does not reflect compliance with the Electricity Rules.</p>

6 ELECTRICITY RULES CHAPTER 5 – NETWORK CONTROL SERVICES

Chapter 5 of the Electricity Rules sets out obligations relating to Network Control Services, including the process, and settlement data requirements.

6.1 AEMO processes and procedures

6.1.1 Rule amendments

AEMO has only a handful of obligations under chapter 5. All obligations previously placed on the IMO under Chapter 5 have been transferred to AEMO.

6.1.2 Procedures

There are no Electricity Procedures associated with AEMO’s obligations under Chapter 5 of the Electricity Rules.

The following Internal Procedures relating to Chapter 4 have been updated since the last audit:

ID	Title	Updated
2.3.3	Settlement	August 2016

6.1.3 Compliance of AEMO’s Procedures with Chapter 5 of the Electricity Rules

We have not noted any instances in which AEMO’s Internal Procedures, if followed, would result in non-compliance with Chapter 5.

6.2 Compliance with Chapter 5

The AEMO has not used the provisions of chapter 5.

We have not conducted any audit procedures to assess AEMO’s compliance with Chapter 5.

There have been no self-reported instances of non-compliance with Chapter 5.

7 ELECTRICITY RULES CHAPTER 6 – THE ENERGY MARKET

Chapter 6 of the Electricity Rules sets out obligations relating to the Energy Scheduling Timetable and Process; the Short Term Energy Market; Non-Balancing Dispatch Merit Orders; Balancing Prices and Quantities; Market Advisories and Energy Price Limits; and Settlement Data.

7.1 AEMO processes and procedures

7.1.1 Rule amendments

All the obligations previously placed on the IMO under Chapter 6 have been transferred to AEMO.

7.1.2 Procedures

There are no Market Procedures relating to Chapter 6 of the Electricity Rules.

The following Internal Procedures relating to Chapter 6 have been updated since the last audit:

ID	Title	Updated
1.2	Compliance Monitoring and Enforcement	July 2016
2.2.3	Daily Operations Procedure	August 2016
2.2.4	Operations Contingency Procedure	August 2016
2.2.6	STEM & Balancing Price Limits	July 2016
4.1.3	Energy Price Limits Review	December 2015

7.1.3 Compliance of AEMO's Procedures with Chapter 6 of the Electricity Rules

We have not noted any instances in which AEMO's Internal Procedures, if followed, would result in non-compliance with Chapter 6.

7.2 Compliance with Chapter 6

7.2.1 Audit Activities

We have undertaken compliance testing and business process walkthroughs in the following functional areas relating to Chapter 6 of the Electricity Rules:

- Daily operations processes
- Settlements process
- Market fees

7.2.2 Audit Findings

Table 20 summarises audit findings by compliance rating and risk rating.

Table 21 provides details of audit findings that were classified as Compliance Rating 1 (i.e. incidents of non-compliance with Chapter 6 of the Electricity Rules).

Table 22 provides details of audit findings that were classified as Compliance Rating 2 and 3.

Table 20: Summary of audit findings classified by compliance and risk ratings


Risk rating	Compliance rating		
	1	2	3
	3		1

Table 21: Summary of Compliance Rating 1 Audit Findings (i.e. incidents of non-compliance with Chapter 6 of the Electricity Rules).




Electricity Rules clause	Risk Rating	Description
6.3A.2(a)		<p>6.3A.2(a) requires AEMO to calculate the Maximum Supply Capability of each participant as specified.</p> <p>On 24 May 2016, AEMO used incorrect loss factors in calculating the Maximum Supply Capability for two participants. The issue was caused by a bug introduced in a metering software release, and affected two facilities with particular characteristics. The software was fixed and updated by 27 May 2016.</p> <p>The incorrect calculation meant that the participants were unable to submit STEM offers for their full capacity, but as neither participant had an offer cleared in the STEM, there was no market impact.</p>
6.20.3(b)		<p>6.20.3(b) requires AEMO (and previously IMO) to calculate the Alternative Maximum STEM Price (the offer cap for liquid fuelled facilities) as specified.</p> <p>From October 2014 to June 2016, the IMO did not calculate the Alternative Maximum STEM Price correctly. In particular, it did not incorporate the effect of CPI indexation of the fuel excise amount.</p> <p>In 6 of the 21 months, the resulting price was still correct, and the maximum error in any one month was \$4/MWh.</p> <p>While some facilities did offer into the market at the AMSP, no participant was ever cleared at this price, so the incorrect price never affected the market price. In the single instance where a participant was paid constrained payments based on the AMSP, and the total amount incorrectly paid was less than \$200.</p> <p>AEMO has since updated the calculation tool and associated documentation, including seeking and gaining independent certification that the calculations are correct.</p>
6.21.2(b)(i) 6.21.2(b)(ii)		<p>6.21.2(b)(i) and (ii) require AEMO (and previously IMO) to provide loss factor adjusted prices to the settlement system for use in calculating constrained on and off payments.</p> <p>For NSTEM settlement runs between 25 September 2015 and 31 January 2016, IMO and AEMO supplied non-loss adjusted prices to the settlement system for some facility offers.</p> <p>The issue was caused by a bug in a change to the WEMS-Settlement interface released in September 2015. It was fixed in February 2016.</p> <p>The only facilities impacted were those who submitted at the price cap or floor, and were issued constrained on or off payments. The issue affected only a small number of constrained payment calculations, with a total impact of approximately \$2,500, which will be adjusted in a later settlement adjustment, using the later version of the software in which the bug was corrected.</p> <p>AEMO has reviewed the potential for other errors of this sort to be introduced to the software, and has extended the automatic testing suite to include aspects of the WEMS-Settlement interface.</p>

Table 22: Summary of Compliance Rating 2 & 3 Audit Findings

Finding	Compliance & Risk Rating	Description
<p>Rule inconsistency in relation to settlement tolerances raises a risk of incorrect tolerances being used</p>	<p>3 L</p>	<p>System Management (now AEMO) can determine Facility Tolerance ranges for all facilities, but the rules only specify that settlement shall use those for Scheduled Generators, with others calculated according to a specific formula.</p> <p>System Management has determined a tolerance range for one of the wind farms (at the participant's request), but there is no provision in the rules to use this in determining the settlement tolerance. As it happens, the determined range is the same as would be calculated in its absence, so there is no effect. However, if in future a different tolerance range is determined for any non-scheduled generator, the correct treatment would be unclear.</p> <p>We recommend AEMO propose a rule change to address this issue.</p>

8 ELECTRICITY RULES CHAPTER 7 – DISPATCH

Chapter 7 of the Electricity Rules sets out obligations relating to the dispatch process, including: non-balancing dispatch; dispatch compliance; advisories, balancing suspension and reporting; and settlement and monitoring data relating to dispatch.

8.1 AEMO processes and procedures

8.1.1 Rule amendments

Almost all the obligations previously placed on the IMO under Chapter 7 have been transferred to AEMO. Obligations not transferred to AEMO relate to oversight of meetings between Synergy and System Management.

8.1.2 Procedures

There are no Market Procedures relating to Chapter 7 of the Electricity Rules.

The following Internal Procedures relating to Chapter 7 have been updated since the last audit:

ID	Title	Updated
2.2.3	Daily Operations Procedure	August 2016
2.2.4	Operations Contingency Procedure	August 2016
3.2.2	Supplementary Reserve Capacity	August 2016
4.4.2	Processing System Management Reports	August 2016

8.1.3 Compliance of AEMO's Procedures with Chapter 7 of the Electricity Rules

We have not noted any instances in which AEMO's Internal Procedures, if followed, would result in non-compliance with Chapter 7.

8.2 Compliance with Chapter 7

We have not conducted any audit procedures to assess AEMO's compliance with Chapter 7 of the Electricity Rules.

There have been no self-reported instances of non-compliance with Chapter 7.

9 ELECTRICITY RULES CHAPTER 7A – BALANCING MARKET

Chapter 7A of the Electricity Rules sets out obligations relating to the balancing market.

9.1 AEMO processes and procedures

9.1.1 Rule amendments

Almost all the obligations previously placed on the IMO under Chapter 2 have been transferred to AEMO. The only obligations not transferred to AEMO relates to the original setting of balancing market commencement day.

9.1.2 Procedures

The following Market Procedures relating to Chapter 7A of the Electricity Rules were updated in the audit period:

ID	Title	Updated
MP 30	Balancing Facility Requirements	November 2015
MP 31	Balancing Market Forecast	November 2015

The following Internal Procedures relating to Chapter 7A have been updated since the last audit:

ID	Title	Updated
1.2	Compliance Monitoring and Enforcement	July 2016
2.1.1	Registration	August 2016
2.2.3	Daily Operations Procedure	August 2016

9.1.3 Compliance of AEMO's Procedures with Chapter 7A of the Electricity Rules

We have not noted any instances in which AEMO's Internal Procedures, if followed, would result in non-compliance with Chapter 7A.

9.2 Compliance with Chapter 7A

9.2.1 Audit Activities

We have undertaken compliance testing and business process walkthroughs in the following functional areas relating to Chapter 7A of the Electricity Rules:

- Monitoring of market participants in support of IMO and ERA

9.2.2 Audit Findings

There are no findings relating to Chapter 7A.

There have been no self-reported instances of non-compliance with Chapter 7A.

10 ELECTRICITY RULES CHAPTER 7B – LOAD FOLLOWING SERVICE MARKET

Chapter 7B of the Electricity Rules sets out obligations relating to the load following service market.

10.1 AEMO processes and procedures

10.1.1 Rule amendments

All the obligations previously placed on the IMO under Chapter 7B have been transferred to AEMO.

10.1.2 Procedures

The following Market Procedures relating to Chapter 7B of the Electricity Rules were updated in the audit period:

ID	Title	Updated
MP 31	Balancing Market Forecast	November 2015

The following Internal Procedures relating to Chapter 7B have been updated since the last audit:

ID	Title	Updated
1.2	Compliance Monitoring and Enforcement	July 2016

10.1.3 Compliance of AEMO's Procedures with Chapter 7B of the Electricity Rules

We have not noted any instances in which AEMO's Internal Procedures, if followed, would result in non-compliance with Chapter 7B.

10.2 Compliance with Chapter 7B

10.2.1 Audit Activities

We have undertaken compliance testing and business process walkthroughs in the following functional areas relating to Chapter 7B of the Electricity Rules:

- Monitoring of market participants in support of IMO and ERA

10.2.2 Audit Findings

There are no findings relating to Chapter 7B.

There have been no self-reported instances of non-compliance with Chapter 7B.

11 ELECTRICITY RULES CHAPTER 8 – WHOLESALE MARKET METERING

Chapter 8 of the Electricity Rules sets out obligations relating to metering, including: Metering Data Agents; Meter Registry; Meter Data Submissions; Metering Protocol Requirements; and Support of Calculations.

11.1 AEMO processes and procedures

11.1.1 Rule amendments

AEMO has only a small number of obligations under Chapter 8. All the obligations previously placed on the IMO under Chapter 8 have been transferred to AEMO.

11.1.2 Procedures

The following Market Procedures relating to Chapter 8 of the Electricity Rules were updated in the audit period:

ID	Title	Updated
MP 12	Meter Data Submissions	November 2015

The following Internal Procedures relating to Chapter 8 have been updated since the last audit:

ID	Title	Updated
2.1.1	Registration	August 2016
2.3.3	Settlement	August 2016

11.1.3 Compliance of AEMO's Procedures with Chapter 8 of the Electricity Rules

We have not noted any instances in which AEMO's Internal Procedures, if followed, would result in non-compliance with Chapter 8.

11.2 Compliance with Chapter 8

11.2.1 Audit Activities

We have undertaken compliance testing and business process walkthroughs in the following functional areas relating to Chapter 8 of the Electricity Rules:

- Meter data validation
- Disputes and disagreements

11.2.2 Audit Findings

There are no findings relating to Chapter 8.

There have been no self-reported instances of non-compliance with Chapter 8.

12 ELECTRICITY RULES CHAPTER 9 – SETTLEMENT

Chapter 9 of the Electricity Rules sets out obligations relating to Settlement Data; Settlement Calculations; Settlement Statements; Invoicing and Payment; and Default and Settlement in Default Situations.

12.1 AEMO processes and procedures

12.1.1 Rule amendments

All the obligations previously placed on the IMO under Chapter 9 have been transferred to AEMO.

12.1.2 Procedures

The following Market Procedures relating to Chapter 9 of the Electricity Rules were updated in the audit period.

ID	Title	Updated
MP 1	Capacity Credit Allocation	November 2015
MP 17	Prudential Requirements	November 2015
MP 23	Settlement	November 2015

The following Internal Procedures relating to Chapter 9 have been updated since the last audit:

ID	Title	Updated
2.1.1	Registration	August 2016
2.2.5	IRCR & Reserve Capacity Allocation Monitoring	August 2016
2.3.1	WEM Meter Data Management	August 2016
2.3.3	Settlement	August 2016
2.3.4	WEM Settlement Contingency	August 2016
5.1	Handling Guarantees and Bank Undertakings, and Security Deposits	August 2016

12.1.3 Compliance of AEMO's Procedures with Chapter 9 of the Electricity Rules

We have noted one instance in which AEMO's internal procedures, if followed, would result in non-compliance with Chapter 9:

- AEMO's internal procedure 2.3.3 Settlement has not been updated to reflect the 1 July transfer of SM functions to AEMO in all cases

12.2 Compliance with Chapter 9

12.2.1 Audit Activities

We have undertaken compliance testing and business process walkthroughs in the following functional areas relating to Chapter 9 of the Electricity Rules:

- Meter data validation
- Disputes and disagreements
- Constrained payment recovery
- Settlements process
- Market fees

12.2.2 Audit Findings

Table 23 summarises audit findings by compliance rating and risk rating.

Table 24 provides details of audit findings that were classified as Compliance Rating 1 (i.e. incidents of non-compliance with Chapter 9 of the Electricity Rules).

Table 25 provides details of audit findings that were classified as Compliance Rating 2 and 3.

Table 23: Summary of audit findings classified by compliance and risk ratings




Risk rating	Compliance rating		
	1	2	3
		1	
	3	1	

Table 24: Summary of Compliance Rating 1 Audit Findings (i.e. incidents of non-compliance with Chapter 9 of the Electricity Rules).

Electricity Rules clause	Risk Rating	Description
<p>9.3.3 (Multiple breaches)</p>		<p>Clause 9.3.2 requires Meter Data Agents (MDAs) to provide “settlement ready” metering data to the settlement system in accordance with Chapter 8. There is no definition of the term “settlement ready”.</p> <p>Clause 9.3.3 requires AEMO to determine the Metered Schedule for various facilities in accordance with 9.3.4.</p> <p>Clause 9.3.4 states that where interval meter data is available, the Metered Schedule is to be determined from Meter Data Submissions received by AEMO.</p> <p>Two incidents led to IMO and AEMO not using the most current complete set of meter registration data when calculating Metered Schedules. Both issues were due to automatic validations on incoming meter standing data files, where AEMO’s (and previously the IMO’s) metering system rejected files where any single entry had inconsistencies:</p> <ol style="list-style-type: none"> 1. In the first case (from January to October 2015), the IMO did not load a standing data change which added a new channel for one meter, with the result that Meter Data Submissions for that channel were not used to determine Metered Schedules or IRCR calculations. The change was rejected as the file included a Distribution Loss Factor change where the effective date was prior to the effective date of the NMI. 2. In the second case (from April 2015 to February 2016), IMO and AEMO did not load a series of standing data changes relating to which participant was responsible for the consumption at a given meter. As a result, the metered volumes associated with 61 meters were allocated to the wrong participants in settlement and IRCR calculations. <p>Prior to April 2015, IMO conducted a monthly reconciliation to resolve standing data differences between their metering system and the data provided by the MDA, but this process was discontinued for a period while the two parties worked to improve the underlying issues. As a result, some valid data was not loaded into IMO’s and AEMO’s metering system.</p> <p>We therefore note that there are issues with the quality of standing data provided by the Meter Data Agent, with some updates having inconsistent data (such as the loss factor applying from a date earlier than the meter activation date, which may actually represent the date of latest change of owner rather than initial activation). In our view, this makes it considerably more difficult for AEMO to be sure it is using the latest meter data, but does not remove the obligation to do so.</p> <p>It is not clear that this is non-compliance by AEMO. If it is considered that the MDA has provided “settlement ready” metering data, then AEMO is directly non-compliant. If it is considered that the Meter Data Agent has failed to provide “settlement ready” metering data, then AEMO is either compliant, or any non-compliance is a consequence of the Meter Data Agent’s non-compliance.</p> <p>AEMO and the MDA have now resolved the underlying issues with the data provided for the monthly reconciliation. From February 2016, AEMO has implemented a comprehensive daily manual cross-checking process, ensuring that all data changes are picked up promptly, and any changes to meter data will be addressed in settlement adjustments. We have reviewed this process, and are comfortable that AEMO’s controls are as good as can be expected in the circumstances.</p> <p>Settlement errors, though significant, will be or will have been corrected in later settlement adjustments, so the risk rating is low.</p> <p>See related finding related to Clause 4.28.7 and 4.28.11 arising from the same incidents.</p>







Electricity Rules clause	Risk Rating	Description
9.4.7 (Multiple technical breaches)		<p>Clause 9.4.7 of the Electricity Rules requires AEMO to confirm receipt of a Capacity Credit Allocation Submission from a Market Participant (made under clause 9.4.6) by telephone within 30 minutes of receiving the submission. AEMO has automated the receipt of Capacity Credit Allocation Submissions in WEMS, and is therefore in technical breach of clause 9.4.7 (as it does not confirm receipt via telephone).</p> <p>This is a non-material technical breach identified in 2014. The IMO is complying with the intent of the rule (by automating confirmation receipts), and confirmation by telephone is unnecessary.</p>
9.19.1(b) (Two breaches)		<p>Clause 9.19.1(b) requires AEMO to provide adjusted STEM Settlement Statements and adjusted Non-STEM Settlement Statements to Rule Participants in accordance with the settlement timeline.</p> <ol style="list-style-type: none"> 1. The 2015-16 Settlement Cycle Timeline provides for adjusted Non-STEM Settlement Statements for March, June and September 2015 to be published by 15 March 2016. AEMO did not provide these statements until 19 March 2016. <p>The late publication was due to a software change that had the effect of requiring an additional manual action to publish the statements.</p> <p>The late statements did not affect the publication of settlement invoices, which were published on time two days later.</p> <p>AEMO has since updated the software to remove the additional manual step.</p> <ol style="list-style-type: none"> 2. The 2015-16 Settlement Cycle Timeline provides for adjusted Non-STEM Settlement Statements for June, September and December 2015 to be published by 15 June 2016. AEMO did not provide these statements until 16 June 2016. <p>The late publication was due to human error, with the responsible settlement analyst dismissing an automated notification to publish the statements without taking the required action.</p> <p>Invoices were published on time on 17 June, and settlement occurred according to the timetable.</p> <p>In both cases, the impact was that market participants had less time to carry out their own settlement analysis, but there was no financial impact on the market.</p>

Table 25: Summary of Compliance Rating 2 & 3 Audit Findings

Finding	Compliance & Risk Rating	Description
<p>Poor meter data quality increases risk of incorrect settlement outcomes</p>	 	<p>In addition to the specific non-compliance noted above, we note that:</p> <ul style="list-style-type: none"> Initial meter data often has missing values, and can undergo significant adjustment over subsequent months, including sometimes after the final settlement adjustment has been carried out, more than a year after the initial period. AEMO’s metering system has different requirements for consistency of dates and statuses to meter data provider systems. <p>These issues make it more difficult for AEMO personnel to identify problems with settlement data, increasing the risk of non-compliance incidents in this area.</p> <p>We noted this risk last year, and have reviewed AEMOs meter data processing and validation processes in some detail this year. As a result we are confident that AEMO’s current process is as good as can be expected, given the shortcomings of the provided data.</p> <p>The processes are necessarily manual and time consuming, and significant potential for error remains. At root, the issue is with the format and content of what the Meter Data Agent provides, and with the interaction between the two software systems. While data is provided in a set format, there is no interface contract setting out agreed requirements for consistency or quality of the provided data.</p> <p>We recommend that (either now or as part of the transition of retail market functions to AEMO) AEMO and Meter Data Agents put in place a clear interface contract for meter data provision (including standing data), and maintain the level of effort and focus given to validating and loading meter data.</p>
<p>Internal procedure 2.3.3 Settlement has not been fully updated to reflect 1 July rule changes</p>	 	<p>This internal procedure has not been updated to reflect the new rules around notices of disagreement, and still references notification of System Management (as a provider of SCADA data for metering) rather than a Network Operator.</p> <p>At present, AEMO contracts System Operation services from Western Power, and current processes for settlement disagreements relating to SCADA data still liaise via System Management. We have not observed anything that suggests there has actually been an issue in this area, but correct procedure documentation is an important control for compliance risk. If the procedure were followed as written (not contacting the Network Operator in relation to SCADA data used for settlement), AEMO would not comply with the rules.</p>

13 ELECTRICITY RULES CHAPTER 10 – MARKET INFORMATION

Chapter 10 of the Electricity Rules sets out obligations relating to Market Information, including: confidentiality; and publication on the Market Web Site.

13.1 AEMO processes and procedures

13.1.1 Rule amendments

All the obligations previously placed on the IMO under Chapter 10 have been transferred to AEMO.

13.1.2 Procedures

The following Market Procedures relating to Chapter 10 of the Electricity Rules were updated in the audit period.

ID	Title	Updated
MP 9	Information Confidentiality	November 2015
MP 25	Web Site Changes	November 2015

The following Internal Procedures relating to Chapter 10 were updated in the audit period:

ID	Title	Updated
4.4.3	Publish to Web	December 2015

13.1.3 Compliance of AEMO's Procedures with Chapter 10 of the Electricity Rules

We have not noted any instances in which AEMO's Internal Procedures, if followed, would result in non-compliance with Chapter 10.

13.2 Compliance with Chapter 10

13.2.1 Audit Activities

We have undertaken compliance testing in the following functional area relating to Chapter 10 of the Electricity Rules:

- Email communications of AEMO personnel who have previously worked for a market participant

13.2.2 Audit Findings

Table 26 summarises audit findings by compliance rating and risk rating.

Table 27 provides details of audit findings that were classified as Compliance Rating 1 (i.e. incidents of non-compliance with Chapter 10 of the Electricity Rules).

Table 28 provides details of audit findings that were classified as Compliance Rating 2 and 3.

Table 26: Summary of audit findings classified by compliance and risk ratings



Risk rating	Compliance rating		
	1	2	3
		1	
	1		

Table 27: Summary of Compliance Rating 1 Audit Findings (i.e. incidents of non-compliance with Chapter 10 of the Electricity Rules).



Electricity Rules clause	Risk Rating	Description
<p>10.2.4 (Three breaches)</p>		<p>Clause 10.2.4 of the Electricity Rules states that (subject to limited exceptions) AEMO must not provide information or documents of a given confidentiality status to any person.</p> <ol style="list-style-type: none"> 1. On 22 October 2015, the IMO mistakenly emailed notification of standing data change receipt to a market participant. The email was intended for an internal AEMO staff member, but the sender did not notice that the autocomplete function had populated a participant email address instead. The impact was not material, as the information would not have provided any market advantage. 2. On 2 November 2015, the IMO mistakenly emailed a participant’s loss factor data to another participant. The data had been extracted using a manual query, which had been incorrectly specified. The impact was not material, as the information would not have provided any market advantage. 3. As part of the ongoing Electricity Market Reform to the WEM, IMO and AEMO have received a number of requests for confidential market information to support ongoing policy work from AEMO staff who have been seconded to the Public Utilities Office. IMO and AEMO have provided this information to seconded IMO/AEMO staff via their IMO/AEMO email addresses, intending it to be used in their capacity as IMO/AEMO staff, not as PUO staff. <p>Nevertheless, in at least one case, information was sent to a PUO email address, and has thus been received by the PUO email systems. The PUO is not included on any list of organisations permitted to access information in the various confidentiality classes. While there is a blanket provision for data to be provided to ‘other Regulatory or Government Agencies in accord with applicable laws’, these data requests were not made under a particular law.</p> <p>Nevertheless, the release of information to the PUO aligns with the market objectives, and we cannot see any potential for detrimental impact to the market in sharing it, and likely benefits in sharing it.</p> <p>We recommend that AEMO seek to formalise the permission for otherwise confidential market data to be provided to PUO.</p>

Table 28: Summary of Compliance Rating 2 & 3 Audit Findings

Finding	Compliance & Risk Rating	Description
<p>Increased interest in market data, and staff changes pose risks of confidential information being released</p>		<p>After several years with reducing numbers of confidentiality incidents, we notice an increase this year. Contributing factors include personnel changes in the market operations team, as well as the increasing use of analytics by market participants and the ongoing market reforms, which both increase the level of interest in market data.</p> <p>AEMO has worked to increase the amount of 'self-service' for information requests, with requestors directed to the public data available on the website or to participant specific data via the market participant interface, and reducing the need to extract data using ad-hoc manual queries. This is a good initiative which will reduce the likelihood of non-compliance. We also note planned AEMO-wide initiatives to:</p> <ul style="list-style-type: none"> • provide additional training and support to teams that process high volumes of information or frequently manage sensitive data • update internal training modules for Privacy Awareness and Confidential Information • explore additional technical controls to reduce the likelihood of email being sent to unintended addressees • review organizational confidentiality processes, practices and culture



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