



Alinta Cogeneration (Pinjarra) Pty Ltd
Electricity Generation Licence Performance Audit and Asset
Management Review Report

November 2013

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1. Executive Summary

1.1 Background

The regulation of the electricity industry in Western Australia is governed by the Electricity Industry Act 2004 (the Act) and the Energy Coordination Act 1994. The Act has established a regulatory framework surrounding the provision of electricity generation primarily by way of a licensing scheme administered by the Economic Regulation Authority (**the Authority**).

Under the Act, generation of electricity within controlled areas must be licensed. The licence sets a range of conditions, including minimum service standards and regular reporting.

The Authority has under the provisions of the Act, issued Alinta Cogeneration (Pinjarra) Pty Ltd (**Alinta**) an Electricity Generation Licence (EGL 10) (**the Licence**) commencing 10 April 2006. There have been changes to the licence since inception and this performance audit and asset management system review was carried out base on Version 5 dated 13th January 2011 of the Licence.

Sections 13 and 14 of the Act require Alinta to provide the Authority with a performance audit and an asset management system review (**the review**) report on the effectiveness of its asset management system not less than once in every 24 month period (or such longer period that the Authority allows).

The Pinjarra Cogeneration Plant includes the operation of an open cycle gas turbine plant and associated infrastructure to generate power.

The Licence relates to Alinta's operation of electricity generating works at its Pinjarra cogeneration facility. Alinta has an Operating and Maintenance Agreement (**O&M Agreement**) with Alcoa of Australia Ltd (**Alcoa**) where Alcoa has the responsibility for providing and operating an asset management system on Alinta's behalf.

The audit has been conducted in accordance with Audit Guidelines: Electricity, Gas and Water issued by the Authority (August 2010). The audit has been conducted in order to assess the licensee's level of compliance with the conditions of its licence and to assess the effectiveness of the asset management system.

The audit and review were conducted in July and August 2013 and they covered the period from 1st July 2010 to 30th June 2013 and were conducted in accordance with the detail set down in the approved audit plan.

Where issues of non-compliance were identified, recommendations and a suitable methodology to rectify the non-compliance have been provided. For relatively simple issues, the recommendations were addressed in the audit closure meeting. For more complex matters, the methodology and timeframe for compliance were to be decided by Alinta and an action register has been established and forms part of this report.

A full set of field notes, including audit and assessment findings along with individual recommendations are included in this report.

It is the responsibility of the Licensee to determine if the recommendations are appropriate and/or alternative means of addressing non-compliance are available. Ultimately the Licensee will be responsible for advising the Authority of actions taken in rectification of the non-compliance issues. Also the Licensee will be responsible for submitting a copy of the final report to the Authority.

Whilst tables 1 and 2 which include the Licensee's post-audit and post review implementation plans are contained in this report they do not formally form part of the audit and review. They are provided as demonstration of the Licensee's plans to close the gaps in compliance.

1.2 Performance Audit

1.2.1 Summary of Opinion on the Control Environment

The control environment to ensure compliance with licensing conditions is assessed to be satisfactory.

The outcome of the inspection of the generating assets and interviews with Alinta and Alcoa staff was that the systems are operated effectively, within the current standards and code requirements and present minimal risks to the station personnel.

1.2.2 Overall Assessment

In the auditor's professional view, the Licensee has maintained an acceptable level of compliance with the requirements of the Licence conditions. A number of areas for improvement were identified for the Licensee's consideration.

1.2.3 Previous Post-Audit Action Plan

This audit also reviewed how Alinta has progressed with the action plans generated from the audits taken previously in relation to the Licence.

Alinta has advanced its implementation of these action plans as listed below.

Table 1 Summary of Previous audit action plans

Rec. No.	Ref	Recommendation	Previous Audit Action Plan	Status	Revised action plan (if applicable)
3/08	350	<p>Alinta monitor Alcoa’s progress in implementing the following Post Audit Implementation Plans proposed by Alcoa</p> <p>(b) Metering Code clause 4.5(1): Alcoa will investigate and consider the benefits of putting a formal check in place e.g. the use of check meter data to compare against Western Power’s data</p>	<p>Alinta and Alcoa will continue to investigate options for implementing a check process to facilitate the identification of malfunctions and outages.</p> <p>Alinta and Alcoa will continue to progress with the implementation of formal meter checks at each of cogeneration units 1 and 2.</p> <p>Responsible Person Manager Operations</p> <p>Target Date 30 June 2012</p>	<p>Completed</p> <p>Alinta’s Wholesale Regulation Manager advised that Alinta formally checks the metering system through comparison of readings obtained from the generator end and the Western power meter.</p>	N/A

1.2.4 Summary of Issues and Recommendations

There are no issues and recommendations for this performance audit period.

1.3 Asset Management Review

1.3.1 Summary of Opinion on the Control Environment

The control environment for asset management is assessed to be satisfactory.

The outcome of the inspection of the generating assets and interviews with Alinta and Alcoa staff was that the assets are operated effectively as per the Asset Management System (**AMS**), within the current standards and code requirements.

There are no deficiencies in the AMS.

1.3.2 Overall assessment

In the auditor's professional view, Alinta has maintained an effective AMS in relation to the Electricity Generation License (EGL 10) for the review period based on AMS processes. A number of areas for improvement were identified and full details are incorporated later in this report.

1.3.3 Previous Post AMS Review Action Plan

This audit also reviewed how Alinta has progressed with the action plans generated from the AMS Reviews taken previously in relation to the Licence.

Alinta has advanced its implementation of these action plans as listed below.

Table 2 Summary of Previous AMS action plans

Rec. No.	Ref	Recommendation	Previous Audit Action Plan	Status	Revised action plan (if applicable)
1/10		<p>Asset Planning</p> <p><i>1 (h) Plans are regularly reviewed and updated</i></p> <p>Alinta finalise and formally approve the Pinjarra Power Station Asset Life Plan</p>	<p>Alinta finalise and formally approve the Pinjarra Cogeneration Plant Asset Life Plan</p> <p>Responsible Person Manager Operations</p> <p>Target Date March 2011</p>	<p>Completed</p> <p>Alinta has finalised the latest revision of the Pinjarra Power Station Asset Life Plan. This is now replaced by the SAMP.</p>	N/A
2/10		<p>Asset disposal</p> <p><i>3(c) Disposal alternatives are evaluated</i></p> <p>Alinta should:</p> <ul style="list-style-type: none"> Finalise the development of the closure plan and associated costs for Pinjarra generation facilities Develop and formally implement a Decommission Protocol specifically tailored to its generation assets 	<p>Alinta will:</p> <ul style="list-style-type: none"> Finalise the development of the closure plan and associated costs for Pinjarra generation facilities Develop and formally implement a Decommission Protocol specifically tailored to its generation assets <p>Responsible Person Manager Operations</p> <p>Target Date June 2011</p>	<p>Completed</p> <p>Alinta has completed the plant closure cost study with the closure plan developed and issued</p> <p>Alinta has developed and issued the Plant Decommissioning Policy.</p>	N/A

Rec. No.	Ref	Recommendation	Previous Audit Action Plan	Status	Revised action plan (if applicable)
3/10		<p>Review of the AMS</p> <p><i>12(b) Independent reviews (e.g. internal audit) are performed of the asset management system</i></p> <p>Alinta should:</p> <ul style="list-style-type: none"> Schedule an independent review of the asset management system Update the Pinjarra Cogeneration Asset Life Plan to reflect the requirement for an independent review to be conducted. 	<p>Alinta will:</p> <ul style="list-style-type: none"> Schedule an independent review of the asset management system Update the Pinjarra Power Station Asset Life Plan to reflect the requirement for an independent review to be conducted. <p>Responsible Person Manager Operations</p> <p>Target Date June 2011</p>	<p>In progress.</p> <p>Refer to issue 3/13 in this report.</p>	<p>Refer to issue 3/13 in this report.</p> <p>Responsible Person Alinta Energy Asset Engineering Manager</p> <p>Target Date November 2013</p>
1/08		<p>Asset Operations and Asset Maintenance – Pinjarra</p> <p>The 2008 review report detailed an action plan for Alinta to monitor Alcoa’s integration of the Pinjarra cogeneration units into Alcoa’s operations and maintenance systems.</p>	<p>Alinta will work with Alcoa to close out the remaining OEM drawings for Unit 2, which require incorporation into Alcoa’s maintenance drawing system.</p> <p>Responsible Person: Manager Operations</p> <p>Target Date: June 2011</p>	<p>In progress.</p>	<p>Alinta will continue to work with Alcoa to close out the remaining OEM drawings for Unit 2, which require incorporation into Alcoa’s maintenance drawing system.</p> <p>Responsible Person: Alinta Energy Asset Engineering Manager</p> <p>Target Date: December 2013</p>

Rec. No.	Ref	Recommendation	Previous Audit Action Plan	Status	Revised action plan (if applicable)
2/08		<p>Asset Operations and Asset Maintenance – Pinjarra</p> <p>The 2008 review report detailed an action plan for Alinta to prioritise and accordingly action outstanding punch list items identified in the Pinjarra Cogeneration July 2008 Monthly report (or the most current, equivalent report).</p>	<p>Alinta will work with Alcoa to action the remaining punch list items as part of the 2011 Unit 1 Major Outage.</p> <p>Responsible Person: Manager Operations</p> <p>Target Date: August 2011</p>	<p>Completed</p> <p>All punch list items have been cleared.</p>	N/A
4/08		<p>General Issue - Asset Management Strategies – Generation Assets</p> <p>The 2008 review report detailed an action plan for Alinta to work with Alcoa to update the Asset Strategy documents to incorporate the 12 asset management cycle processes.</p>	<p>Alinta will continue to liaise with Alcoa to finalise the Asset Life Cycle Management Plan.</p> <p>Responsible Person: Manager Operations</p> <p>Target Date: March 2011</p>	<p>Completed</p> <p>The Asset Life Cycle Management Plan was finalised and now replaced with the SAMP.</p>	N/A
6/08		<p>Asset creation/acquisition 2(e) Ongoing legal/ environmental/safety obligations of the asset owner are assigned and understood</p> <p>The 2008 review report detailed an action plan for Alinta to establish and maintain a full record and understanding of its legal requirements as an electricity generation and transmission asset owner.</p>	<p>Alinta is completing this action in the following phases:</p> <p>(i) Review of applicable legislation and identification of a list of key obligations. This phase is complete.</p> <p>(ii) Development of tools and completion of a gap analysis. A compliance manual for Pinjarra has been developed and is</p>	<p>(i) Completed</p> <p>They have completed the review.</p> <p>(ii) In progress - Compliance manual is drafted</p> <p>(iii) In progress</p>	<p>Alinta will convert the gap analysis into a scheduled action plan.</p> <p>Responsible Person: HSSE Manager</p> <p>Target Date: December 2013</p>

Rec. No.	Ref	Recommendation	Previous Audit Action Plan	Status	Revised action plan (if applicable)
			<p>currently in its third draft. The HSSE Manager is working with Alcoa to finalise the manual</p> <p>(iii) Complete necessary corrective actions.</p> <p>Alinta will convert the gap analysis into a scheduled action plan.</p> <p>Responsible Person: HSSE Manager</p> <p>Target Date: June 2011</p>		
7/08		<p>Environmental Analysis 4(c) Compliance with statutory and regulatory requirements</p> <p>The 2008 review report detailed an action plan for Alinta to investigate, understand and comply with the statutory and regulatory noise level requirements for the Pinjarra cogeneration plant.</p>	<p>Alinta will:</p> <p>(a) Install (with Alcoa's assistance) the analyser on unit 1 and perform appropriate testing. If successful, install on Unit 2</p> <p>(b) Undertake the Revised Action Plan for 6/08.</p> <p>Responsible Person: Manager Operations</p> <p>Target Date: June 2011</p>	<p>a) Completed</p> <p>Start-up vent silencer noise results analysis has been completed.</p> <p>b) Completed</p>	<p>Alinta will:</p> <p>a) Install (with Alcoa's assistance) the analyser on unit 2.</p> <p>Responsible Person: Alinta Energy Asset Engineering Manager</p> <p>Target Date: June 2014</p>

1.3.4 Summary of Issues and Recommendations

Table 3 AMS Summary of Issues and Recommendations

Ref	Key Processes	Issue	Recommendation	Post-Audit Action Plan	Person Responsible/ Date of Implementation
1/13	Asset Planning	Alinta has established a new plan called Pinjarra Power Station – Strategic Asset Management Plan (SAMP). This plan is still in draft and is replacing the previous Asset Life Plan. The SAMP has not been approved and presently is established as an uncontrolled copy without dissemination of information to the other personnel.	<i>The Pinjarra Power Station SAMP need to be approved and disseminated. A reporting system is to be established to measure and monitor actual against the plans.</i>	Alinta will complete the approval process of the Pinjarra Power Station SAMP and implement accordingly. <i>Auditor Comment: (Unverified confirmation of completion of this action was provided after the close of this audit. Outstanding ACTION is verification only)</i>	Alinta Energy Asset Engineering Manager / November 2013
2/13	Environmental Analysis	Alinta utilise a Compliance Manual that appears to have minor errors. The manual has been reviewed but does not appear to have been finalised for distribution and compliance.	<i>The compliance manual needs to be audited for accuracy, approved and issued for compliance and monitoring.</i>	Alinta to finalise and formally approve the Compliance Manual with monitoring facility in place.	Alinta Energy Manager Generation Operations WA / November 2013
3/13	Review of AMS	There is no independent review of the Asset Management System which Alinta referred to as <i>Pinjarra Power Station SAMP</i> . This was recommended in the previous audit issue 3/10.	<i>The Licensee should ensure that an independent review/audit is conducted of the Asset Management System. This should be reflected in the Pinjarra Power Station SAMP as a documented requirement.</i>	Alinta to schedule an independent review/audit of the AMS. Alinta to update audit/review process in the <i>Pinjarra Power Station SAMP</i> .	Alinta Energy Asset Engineering Manager / November 2013

Ref	Key Processes	Issue	<i>Recommendation</i>	Post-Audit Action Plan	Person Responsible/ Date of Implementation
				<p><i>Auditor comment:</i></p> <p><i>(Unverified confirmation that previous independent audit of the SAMP was carried out FY2012 and is rescheduled for FY2014 was provided after the close of this audit. Outstanding ACTION is verification only)</i></p>	

2. Audit / Review Scope

2.1 Objectives and Scope

2.1.1 Performance Audit

The objective of the performance audit is to evaluate the effectiveness of the measures taken by Alinta to meet the obligations of the performance and quality standards referred to in the Licence. The audit will focus on Alinta's systems and effectiveness of processes used to ensure compliance with the obligations, standards, outputs and outcomes as required by the Licence.

The audit has identified areas where improvement is required and has recommended corrective action as necessary.

The audit has applied a risk-based approach to focus on the systems and effectiveness of processes used to ensure compliance with the standards, outputs and outcomes required by the licence.

The scope of the audit covered the following areas;

- **Risk Assessment** – the risks imposed by non-compliance with the licence conditions and the development of a risk-based audit plan to focus on the higher risks areas, with less intense coverage of medium and low risk areas;
- **Process Compliance** – the effectiveness of systems and procedures in place throughout the audit period, including the adequacy of internal controls;
- **Outcome Compliance** – the actual performance against standards prescribed in the licence throughout the period of the licence;
- **Output Compliance** – the existence of output from systems and procedures throughout the audit period, i.e. proper records, written procedures and training to provide assurance that procedures are being consistently followed and controls are being maintained;
- **Integrity of Reporting** – the completeness and accuracy of the compliance and performance reports provided to the Authority; and+
- **Compliance with any individual licence conditions** – the requirements imposed on the specific licensee by the Authority or specific issues that are advised by the Authority.

2.1.2 Asset Management Review

The objective of the AMS review is to assess the measures taken by Alinta for the proper management of assets used in the provision and operation of services and, where appropriate, the construction or alteration of relevant assets. The review focuses on the AMS and asset management plans that measure the proper operation and maintenance of assets at Alinta's Pinjarra Plant including its Operation and Maintenance (O&M) provider.

More intense scrutiny was applied to the Environmental Analysis, Asset Operations, Asset Maintenance, Asset Management Information System, Risk Management, Contingency and Financial sections of the AMS review than the other lower risk areas.

The scope of the AMS review covered the following key processes:

- Asset Planning;
- Asset Creation and Acquisition;
- Asset Disposal;

- Environmental Analysis;
- Asset Operations;
- Asset Maintenance;
- Asset Management Information System;
- Risk Management;
- Contingency Planning;
- Financial Planning;
- Capital Expenditure Planning; and
- Review of AMS.

2.2 Methodology

2.2.1 Field work – Performance Audit

- An initial meeting was conducted with relevant staff through telephone conferencing and presence at Alinta's offices in Melbourne and Perth. The review process was discussed to obtain an understanding of the procedures, systems and controls in place to ensure compliance with licence conditions;
- The adequacy of the controls to cover identified risks were evaluated, the outcome of which determined where more extensive audit testing of the higher risk areas was required so as to provide sufficient assurance and confirm lower risk areas by discussion and observation;
- A site visit was conducted to interview relevant site staff, to review records maintained at the site and to investigate the implementations of work systems;
- Compliance with the licensing conditions was assessed over the audit period as well as at the time of the audit;
- A further follow up discussion was held with staff at Alinta's Perth office to review documents and hold discussion with the maintenance provider;
- Improvement options for issues and weaknesses were researched and appropriate and potential improvements were developed. Some less complex issues were dealt with and remedies were recommended during the audit.

2.2.2 Fieldwork – Asset Management Review

- An initial meeting was conducted with relevant staff through telephone conferencing and presence at Alinta's offices in Melbourne and Perth. The Review process was discussed to obtain an understanding of the procedures, systems and controls in place to ensure effective asset management;
- A site inspection of the asset was carried out;
- The Licensee's documented procedures and processes were analysed for planning, O&M of assets to assess whether they are consistent with the regulatory arrangements under the Licence and the ERA's Audit Guidelines Electricity, Gas and Water;
- The review focussed on the higher risk areas that were determined through a risk management approach. The lesser risk areas were reviewed but not with as much vigour as the higher risk areas;

- The effectiveness of the asset management approach was evaluated and weaknesses and issues were identified and with recommendations being formulated with Alinta management to create a more robust system;

2.2.3 Audit Reporting

- Prior to the conclusion of the audit visits, the auditor discussed any observations and recommendations with the Licensee's representative to confirm understanding of the issue and to agree upon actions to be taken.
- A draft report was provided to the Licensee for review and response to the post audit recommendations in a post audit implementation plan, including any proposed corrective action, responsible person and timeframe.
- A final draft report, including the agreed post audit implementation plan is provided to the Authority for final acceptance.
- Upon acceptance by the Authority, a copy of the final report is provided to the Licensee who will provide an electronic copy and three printed copies to the Authority.
- The Authority may make and publically distribute copies of the final report and publish results in their entirety or in a comparative report. The Authority will make the report publically available on the ERA website after the Authority has fulfilled its statutory functions.

2.3 Time Period Covered in Audit/Review

The Audit covered the period from 1st July 2010 to 30th June 2013

2.4 Time Period of Audit/Review

The Audit was conducted from July 2013 to August 2013.

2.5 Licensee's Representatives

Alinta Energy primary contacts are as follows:

Staff	Position
Frank Murphy	Alinta Energy Asset Engineering Manager
Fiona Edmonds	Alinta Wholesale Regulation Manager
Cliff Merwood	WA Operations CoGen Supervisor
Shane Weekes	Cogen Coordinator, Alcoa Pinjarra Refinery
Catherine Travers	Alinta Financial Controller – West
Michael Firth	Alinta Accountant
Angela Garwood	Project Controller, Alcoa Pinjarra Refinery
Matt Adamczyk	GI Trades Coordinator, Alcoa Pinjarra Refinery
Richard LeTessier	WAO Sr. Mech. Engineer, Alcoa Pinjarra Refinery
Steve Hopkinson	WAO Sr. Elec. Engineer, Alcoa Pinjarra Refinery

Staff	Position
Frank Brunner	MMD Support, Alcoa Pinjarra Refinery
Keith Bowren	Ops Controller, Alcoa Pinjarra Refinery

2.6 Key Documents and Other Information Sources

2.6.1 Performance Audit

- Audit Guidelines: Electricity, Gas and Water Licences, August 2010
- Alinta Cogeneration (Pinjarra) Pty Ltd Electricity Generating Licence (EGL 10), Version 5, issued 13th day of January 2011
- Approved, Alinta Cogeneration (Pinjarra) Pty Ltd Electricity Generation Licence Audit and Asset Management Review Audit Plan (61/29527-July 2013)
- Electricity Generation Licences – Update on 2010 Post – Audit Implementation Plans and Asset Management System Review Actions Plans
- Pinjarra Power Station Compliance Manual
- Western Power Sept 2006 Approved Metering Management Plan, 3274025

2.6.2 Asset Management Review

Alinta documents reference

- Audit Guidelines: Electricity, Gas and Water Licences, August 2010
- Alinta Cogeneration (Pinjarra) Pty Ltd Electricity Generating Licence (EGL 10), Version 5, issued 13th day of January 2011
- Approved, Alinta Cogeneration (Pinjarra) Pty Ltd Electricity Generation Licence Audit and Asset Management Review Audit Plan (61/29527-July 2013)
- Alinta Energy Pinjarra Power Station – Strategic Asset Management Plan FY2014 – FY2019
- Pinjarra Power Station Compliance Manual
- Management report
- Capital expenditure plan
- Capital expenditure report with responsibility and expenditure monitoring.
- Revenue cash flow forecast and monitoring
- Pinjarra Disaster Recovery system
- Operation and maintenance agreement between Alinta and Alcoa
- Yearly budget plan
- Life cycle plan costs
- Business case sample
- Project Management System (methodology)
- Maintenance report
- Weekly and monthly reports

- Plant decommissioning policy
- Closure plan
- Gas turbine generator – gas turbine strategy

Alcoa documents reference

- Pinjarra Disaster Recovery system
- Expenditure approval process policy and procedures(5832)
- Evaluation of compliance with Environmental Legislations and Regulations (WAO) (35251)
- Powerlog – Pinjarra screen capture which include date, time description as part of the operational handover log
- Risk management process including policy, process overview and classifications
- Planning and Scheduling Tool – REX for a forward 6 weeks plan
- Identification and evaluation of environmental aspect and impact (41716)
- Environment aspect and impact register
- Alcoa's EHS information system
- Environmental Management manual – Pinjarra (5212)
- Protocol for speaking with System Management
- Process Maintenance Risk assessment (57688)
- Gathering data for Cogen licence (81411)
- Manage Classified Plant (55229)
- Process for managing loss prevention inspection (30076)
- EHS legal and other requirements (85870)
- Maintenance work pack
- Alcoa Oracle Maintenance System
- Training manual developed
- EHS incident applications system screenshots
- Pinjarra powerhouse incidents sighted
- Site access permission procedure (5548)
- Safe access procedure and matrix (36892)
- Registered equipment inspection checklist
- Day/Night Shift Cogen Rounds (On-Line)
- EHS Policy

2.7 Audit/Review Team Members and Hours Utilised

Staff	Hours
Robert Ceic – Project Director	7
Alan Meagher – Lead Auditor	25
Pius Tang – Auditor	38
Nello Nigro – Audit Reviewer	10
Total	80

3. Performance Summary

3.1 Performance Audit

3.1.1 Compliance Rating Scale

Compliance Status	Rating	Description of compliance
COMPLIANT	5	Compliant with no further action required to maintain compliance.
COMPLIANT	4	Compliant apart from minor or immaterial recommendations to improve the strength of internal controls to maintain compliance
COMPLIANT	3	Compliant with major or material recommendations to improve the strength of internal controls to maintain compliance.
NON-COMPLIANT	2	Does not meet minimum requirements.
SIGNIFICANTLY NON-COMPLIANT	1	Significant weaknesses and/or serious action required.
NOT APPLICABLE	N/A	Determined that the compliance obligation does not apply to the licensee's business operations.
NOT RATED	N/R	No relevant activity took place during the audit period; therefore it is not possible to assess compliance.

3.1.2 Performance Audit Compliance Summary

Table 4 Performance Audit Compliance Summary

Performance Operating Area	Operating Licence Reference	Consequence (1=minor, 2=moderate, 3=major)	Likelihood (A=likely, B=probable, C=unlikely)	Inherent Risk	Adequacy of existing controls (S=strong, M=moderate, W=weak)	1	2	3	4	5	N/A	N/R
Operating Areas						1	2	3	4	5	N/A	N/R
Services in designated areas	Schedule 1 Clause 2.1	1	C	Low	S					✓		
Term						1	2	3	4	5	N/A	N/R
Term	Clause 3.1	1	C	Low	M					✓		
Fees						1	2	3	4	5	N/A	N/R
Fees	Clause 4.1	1	C	Low	M					✓		
Compliance						1	2	3	4	5	N/A	N/R
Compliance to applicable legislation	Clause 5.1	2	C	Medium	M				✓			

Performance Operating Area		Operating Licence Reference	Consequence (1=minor, 2=moderate, 3=major)	Likelihood (A=likely, B=probable, C=unlikely)	Inherent Risk	Adequacy of existing controls (S=strong, M=moderate, W=weak)	Compliance Rating (1=Highest, 5= lowest, N/A = Not Applicable, N/R = Not Rated)						
							1	2	3	4	5	N/A	N/R
Transfer of licence												N/A	N/R
Transfer of licence	Clause 6.1											✓	
Cancellation of licence							1	2	3	4	5	N/A	N/R
Cancellation of licence	Clause 7.1											✓	
Surrender of licence							1	2	3	4	5	N/A	N/R
Surrender of licence	Clause 8.1											✓	
Licensee submission to authority actions if surrender of licence	Clause 8.2											✓	
Authority to publish if surrender of licence notice received	Clause 8.2											✓	
Effective date of licence surrender	Clause 8.2											✓	

Performance Operating Area		Operating Licence Reference	Consequence (1=minor, 2=moderate, 3=major)	Likelihood (A=likely, B=probable, C=unlikely)	Inherent Risk	Adequacy of existing controls (S=strong, M=moderate, W=weak)	1	2	3	4	5	Compliance Rating (1=Highest, 5= lowest, N/A = Not Applicable, N/R = Not Rated)	N/A	N/R
Renewal of licence							1	2	3	4	5	N/A	N/R	
Renewal of licence	Clause 9.1											✓		
Amendment of licence on Application of the Licensee							1	2	3	4	5	N/A	N/R	
Amendment of licence (Licensee)	Clause 10.1	1	C	Low	M						✓			
Amendment of licence by the Authority							1	2	3	4	5	N/A	N/R	
Amendment of licence (Authority)	Clause 11.1	1	C	Low	M						✓			
Written notice from Authority for any amendment of licence	Clause 11.2	1	C	Low	M						✓			
Substitution of existing licence	Clause 11.3	1	C	Low	M						✓			
Compliance of fees for amendments to licence.	Clause 11.4	1	C	Low	M						✓			
Accounting records							1	2	3	4	5	N/A	N/R	

Performance Operating Area		Operating Licence Reference	Consequence (1=minor, 2=moderate, 3=major)	Likelihood (A=likely, B=probable, C=unlikely)	Inherent Risk	Adequacy of existing controls (S=strong, M=moderate, W=weak)						Compliance Rating (1=Highest, 5= lowest, N/A = Not Applicable, N/R = Not Rated)		
Accounting records to comply with Australian Accounting Standards	Clause 12.1	1	C	Low	M						✓			
Individual performance standards						1	2	3	4	5	N/A	N/R		
Individual performance standards in applicable legislation	Clause 13.1	1	C	Low	M						✓			
Authority prescribe individual performance standard	Clause 13.2	1	C	Low	M						✓			
Licensee submissions considerations in relation to prescribed individual performance standards imposed	Clause 13.3	1	C	Low	M						✓			
Approved performance standards set out in terms and conditions of licence	Clause 13.4	1	C	Low	M						✓			
Performance Audits						1	2	3	4	5	N/A	N/R		

Performance Operating Area	Operating Licence Reference	Consequence (1=minor, 2=moderate, 3=major)	Likelihood (A=likely, B=probable, C= unlikely)	Inherent Risk	Adequacy of existing controls (S=strong, M=moderate, W=weak)								
						Compliance Rating (1=Highest, 5= lowest, N/A = Not Applicable, N/R = Not Rated)							
Performance audit to be undertaken within 24 months and every 24 months thereafter	Clause 14.1	1	C	Low	M						✓		
Audit must comply with the Authority's standard audit guidelines	Clause 14.2	1	C	Low	M						✓		
Licensee may seek review of Authority's standard audit guidelines	Clause 14.3	1	C	Low	M						✓		
Independent auditor must be approved by the Authority	Clause 14.4	1	C	Low	M						✓		
Reporting a change in circumstances						1	2	3	4	5	N/A	N/R	
Report to Authority if under external administration or significant change in Licensee's circumstances	Clause 15.1	1	C	Low	M						✓		
Provision of information						1	2	3	4	5	N/A	N/R	

Performance Operating Area		Operating Licence Reference	Consequence (1=minor, 2=moderate, 3=major)	Likelihood (A=likely, B=probable, C=unlikely)	Inherent Risk	Adequacy of existing controls (S=strong, M=moderate, W=weak)	Compliance Rating (1=Highest, 5= lowest, N/A = Not Applicable, N/R = Not Rated)						
Provision of information	Clause 16.1	1	C	Low	M				✓				
Publishing information							1	2	3	4	5	N/A	N/R
The Authority may direct licensee to publish information	Clause 17.1	1	C	Low	M					✓			
Subject to clauses 17.3, licensee must publish information referred to in clause 17.1	Clause 17.2	1	C	Low	M					✓			
Licensee must conduct an asset management system review and provide the Authority a subsequent report every 24 months	Clause 17.3	1	C	Low	M					✓			
Review must comply with the Authority's standard guidelines dealing with the asset management review	Clause 17.4	1	C	Low	M					✓			
Notices							1	2	3	4	5	N/A	N/R

Performance Operating Area		Operating Licence Reference	Consequence (1=minor, 2=moderate, 3=major)	Likelihood (A=likely, B=probable, C=unlikely)	Inherent Risk	Adequacy of existing controls (S=strong, M=moderate, W=weak)				Compliance Rating (1=Highest, 5= lowest, N/A = Not Applicable, N/R = Not Rated)		
Notices in writing	Clause 18.1	1	C	Low	M				✓			
Evidence of receipt of notices	Clause 18.2	1	C	Low	M				✓			
Review of authority's decisions						1	2	3	4	5	N/A	N/R
Review of authority's decisions	Clause 19.1	1	C	Low	M					✓		
Review of authority's decisions	Clause 19.2										✓	
Asset management system						1	2	3	4	5	N/A	N/R
The licensee must provide an asset management system	Clause 20.1	1	C	Low	M					✓		
The Authority must be notified of the asset management system	Clause 20.2	1	C	Low	M					✓		
Any material change to asset management system must be reported to the Authority	Clause 20.3	1	C	Low	M				✓			

Performance Operating Area													
Operating Licence Reference	Consequence (1=minor, 2=moderate, 3=major)	Likelihood (A=likely, B=probable, C=unlikely)	Inherent Risk	Adequacy of existing controls (S=strong, M=moderate, W=weak)	Compliance Rating (1=Highest, 5= lowest, N/A = Not Applicable, N/R = Not Rated)								
Licensee must conduct an asset management system review and provide the Authority a subsequent report every 24 months	Clause 20.4	1	C	Low	M						✓		
Review must comply with the Authority's standard audit guidelines dealing with the asset management review	Clause 20.5	1	C	Low	M						✓		
Licensee may seek review of Authority's standard guidelines dealing with the review	Clause 20.6	1	C	Low	M						✓		
Independent expert must be approved by the Authority	Clause 20.7	1	C	Low	M						✓		

3.1.1 Observations and Recommendations

These field notes were compiled by Alan Meagher.

- Metering Code refers to the 2012 version unless specified.

Table 5 Operating Licence Performance Audit Checklist

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
			Operating Area Clause 2.1 Schedule 1	<i>Is it in the correct operating area</i>	Review drawing (ERA-EL-078)	Drawing sighted	5	NIL
			Term Clause 3.1	<i>This licence commences on the commencement date and continues until the earlier of: a) the cancellation of the licence pursuant to clause 7 of the licence b) the surrender of the licence pursuant to clause 8 of the licence; or c) the expiry date</i>	Review Licence issue date and expiry date	Issued 10th April 06, version 5 issued 13 Jan 2011 Expiry date 9/4/2036	5	NIL

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
105	Electricity Industry Act section 17(1)	2	Fees Clause 4.1	<i>The licensee must pay the applicable fees in accordance with the Regulations</i>	Observe receipt of payment	Receipts noted: ERA fees Pinjarra 5/4/12 and 10/4/13 Dangerous Goods Licensing fees covering Audit Period and beyond to 2016	5	NIL
105	Electricity Industry Act section 17(1)	2	Fees Clause 4.1	<i>The licensee must pay the applicable fees in accordance with the Regulations</i>	Review internal systems for generating reminders to pay fees.	Alinta debtors system tracks invoices payable. Evidence of accounts payable and bank statements sighted	5	
106	Electricity Industry Act section 31(3)	NR	Compliance Clause 5.1	<i>A licensee must take reasonable steps to minimise the extent or duration of any interruption, suspension or restriction of the supply of electricity due to an accident, emergency, potential danger or other unavoidable cause.</i>	Check for compliance	Sighted extensive prescribed maintenance plan with past, current entries and future requirements indicated. The facility operates under robust and mature Alcoa procedures. Records show improved reliability over	5	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
						<p>the last 7 years.</p> <p>Records indicated the last 36 months the facility has operated without disruption except for planned maintenance outages. The last noted "trip" and "black out" was in 2001.</p> <p>A mitsubishi recommended combustion test regime is in place.</p> <p>A quality determination of parts to be used has been developed.</p> <p>An agreement is in place whereby an application for an outage must be approved by the market owner (No evidence sighted, relied on testimonial)</p>		

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
107	Electricity Industry Act section 41(6)	2	Clause 5.1	<i>A licensee must pay the costs of taking an interest in land or an easement over land.</i>	Check compliance	Lease/sale document sighted	5	
345	Electricity Industry Metering Code clause 3.3B	2	Clause 5.1	<i>A user who is aware of bi-directional flows at a metering point which was not previously subject to a bi-directional electricity flows or any changes in a customer's or user's circumstances in a metering point which will result in bi-directional electricity flows must notify the network operator within 2 business days.</i>	Check whether applicable and if applicable, check for compliance.	Fuel gas in, electricity out, no bi-direction electricity flows. Metering is provided outside the plant footprint by Western Power. i.e. metering at termination point	NR	
360	Electricity Industry Metering Code clause 3.11(3)	2	Clause 5.1	<i>A Code participant who becomes aware of an outage or malfunction of a metering installation must advise the network operator as soon as practicable.</i>	Check whether applicable and if applicable, check for compliance.	Meter belongs to Western Power, no Alinta access	NR	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
385	Electricity Industry Metering Code clause 3.27	2	Clause 5.1	<i>A person must not install a metering installation on a network unless the person is the network operator or a registered metering installation provider for the network operator doing the type of work authorised by its registration.</i>	Check whether applicable and if applicable, check for compliance.	No meter installed on Alinta footprint. New controller system does not provide metering data to Alinta.	NR	
392	Electricity Industry Metering Code clause 4.4(1)	NR	Clause 5.1	<i>If there is a discrepancy between energy data held in a metering installation and data held in the metering database, the affected Code participants and the network operator must liaise together to determine the most appropriate way to resolve a discrepancy.</i>	Check whether applicable and if applicable, check for compliance.	No evidence of disputes during the audit period. Testimonial evidence suggests that Alinta will work with the network operator should suspicion of metering issues become apparent.	NR	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
393	Electricity Industry Metering Code clause 4.5(1)	NR	Clause 5.1	<i>A Code participant must not knowingly permit the registry to be materially inaccurate.</i>	Check whether applicable and if applicable, check for compliance.	No evidence of material inaccuracy during the audit period.	NR	
394	Electricity Industry Metering Code clause 4.5(2)	2	Clause 5.1	<i>Subject to subclause 5.19(6), if a Code participant, other than a network operator, becomes aware of a change to, or an inaccuracy in, an item of standing data in the registry, then it must notify the network operator and provide details of the change or inaccuracy within the timeframes prescribed.</i>	Check whether applicable and if applicable, check for compliance.	The network operator monitors and prescribes output demands with an auto balancing control system in place.	5	
409	Electricity Industry Metering Code clause 5.4(2)	2	Clause 5.1	<i>A user must, when reasonably requested by a network operator, assist the network operator to comply with the network operator's obligation under</i>	Check whether applicable and if applicable, check for compliance.	By testimony: A prescriptive model operates within a 2 hour gate which is managed remotely by the ABC computer commands. A manual	5	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
				<i>subclause 5.4(1).</i>		command maybe issued by request over the telephone with the call recorded as evidence of that command. All commands are logged either electronically or operator's log. Log sighted. Commands can be manually overridden in the case of an emergency at the site.		
409	Electricity Industry Metering Code 2005 clause 5.4(2)	2	Clause 5.1	<i>A user must, when reasonably requested by a network operator, use reasonable endeavours to assist the network operator to comply with the network operator's obligation under clause 5.4(1).</i>	Check whether applicable and if applicable, check for compliance.	As above	5	
422	Electricity Industry Metering Code clause	2	Clause 5.1	<i>If a user collects or receives energy data from a metering installation then the</i>	Check whether applicable and if applicable, check	All metering by external party (network operator)	NR	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
	5.16			<i>user must provide the network operator with the energy data (in accordance with the communication rules) within the timeframes prescribed</i>	for compliance.			
423	Electricity Industry Metering Code clause 5.17(1)	2	Clause 5.1	<i>A user must provide standing data and validated, and where necessary substituted or estimated, energy data to the user's customer to which that information relates where the user is required by an enactment or an agreement to do so for billing purposes or for the purpose of providing metering services to the customer</i>	Check whether applicable and if applicable, check for compliance.	Sighted Western Power (Network Owner and meter Controller) document number 3274025, approved by ERA/ES Metering Management Plan which stated meter calibrations are undertaken regularly to ensure accuracy.	5	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
426	Electricity Industry Metering Code clause 5.18	2	Clause 5.1	<i>If a user collects or receives information regarding a change in the energisation status of a metering point then the user must provide the network operator with the prescribed information, including the stated attributes, within the timeframes prescribed.</i>	Check whether applicable and if applicable, check for compliance.	No evidence found for Audit period	NR	
427	Electricity Industry Metering Code clause 5.19(1)	NR	Clause 5.1	<i>A user must, to the extent that it is able, collect and maintain a record of the prescribed information in relation to the site of each connection point with which the user is associated.</i>	Check whether applicable and if applicable, check for compliance.	Only 2 points apply, 132 kV and 330 KV to networks. A manual is associated with each switch yard which is owned and controlled by Western Power. Testimonial only, manual not sighted.	5	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
428	Electricity Industry Metering Code clause 5.19(2)	NR	Clause 5.1	<i>A user must, to the extent that it is able, collect and maintain a record of the prescribed information in relation to the site of each connection point with which the user is associated.</i>	Check whether applicable and if applicable, check for compliance.		NR	
429	Electricity Industry Metering Code clause 5.19(3)	2	Clause 5.1	<i>Subject to subclauses 5.19(3A) and 5.19(6), the user must, within 1 business day after becoming aware of any change in an attribute described in subclause 5.19(2), notify the network operator of the change.</i>	Check whether applicable and if applicable, check for compliance.	Not evidenced during the Audit Period	NR	
429	Electricity Industry Metering Code 2005 clause 5.19(3)	2	Clause 5.1	<i>Subject to clause 5.19(4) and 5.19(6), the user must, within 1 business day after becoming aware of any change in an attribute described in clause</i>	Check whether applicable and if applicable, check for compliance.	Not evidenced during the Audit Period	NR	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
				<i>5.19(2) (or such other time as is specified in the applicable service level agreement), notify the network operator of the change.</i>				
431	Electricity Industry Metering Code clause 5.19(6)	NR	Clause 5.1	<i>The user must use reasonable endeavours to ensure that it does not notify the network operator of a change in an attribute described in subclause 5.19(2) that results from the provision of standing data by the network operator to the user.</i>	Check whether applicable and if applicable, check for compliance.		NR	
431	Electricity Industry Metering Code 2005 clause 5.19(6)	NR	Clause 5.1	<i>The user must use reasonable endeavours to ensure that it does not notify the network operator of a change in an attribute described in clause 5.19(2) that results from the provision of standing data by the network</i>	Check whether applicable and if applicable, check for compliance.		NR	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
				<i>operator to the user.</i>				
437	Electricity Industry Metering Code clause 5.21(5)	2	Clause 5.1	<i>A Code participant must not request a test or audit under subclause 5.21(1) unless the Code participant is a user and the test or audit relates to a time or times at which the user was the current user or the Code participant is the IMO.</i>	Check whether applicable and if applicable, check for compliance.		NR	
437	Electricity Industry Metering Code 2005 clause 5.21(5)	2	Clause 5.1	<i>A Code participant must not request a test or audit under clause 5.21(1) unless: (a) if the Code participant is a user — the test or audit relates to a time or times at which the user was the current user; or (b) it is the IMO.</i>	Check whether applicable and if applicable, check for compliance.		NR	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
438	Electricity Industry Metering Code clause 5.21(6)	2	Clause 5.1	<i>A Code participant must not make a request under subclause 5.21(1) that is inconsistent with any access arrangement or agreement.</i>	Check whether applicable and if applicable, check for compliance.	No formal requests were sighted	NR	
438	Electricity Industry Metering Code 2005 clause 5.21(6)	2	Clause 5.1	<i>A Code participant must not make a request under clause 5.21(1) that is inconsistent with any access arrangement or agreement.</i>	Check whether applicable and if applicable, check for compliance.	No formal requests were sighted	NR	
456	Electricity Industry Metering Code clause 5.27	2	Clause 5.1	<i>Upon request from a network operator, the current user for a connection point must provide the network operator with customer attribute information that it reasonably believes are missing or incorrect within the timeframes prescribed</i>	Check whether applicable and if applicable, check for compliance.	2 connection points only to network owner	NR	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
456	Electricity Industry Metering Code 2005 clause 5.27	2	Clause 5.1	<p><i>Without limiting clauses 4.5 or 4.6, a network operator may, if it reasonably believes that one or more components of the customer attributes (but not the site attributes or address attributes) for a connection point:</i></p> <p><i>(a) are missing; or</i></p> <p><i>(b) are incorrect,</i></p> <p><i>request those current values from the current user, and the current user must provide the information requested in accordance with the communication rules within 2 business days after receiving the request (or such other time as is specified in the applicable service level agreement).</i></p>	Check whether applicable and if applicable, check for compliance.		NR	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
469	Electricity Industry Metering Code clause 6.1(2)	2	Clause 5.1	<i>A user must, in relation to a network on which it has an access contract, comply with the rules, procedures, agreements and criteria prescribed.</i>	Check whether applicable and if applicable, check for compliance.	No evidence of non-compliances sighted for Audit Period	NR	
472	Electricity Industry Metering Code clause 7.2(1)	NR	Clause 5.1	<i>Code participants must use reasonable endeavours to ensure that they can send and receive a notice by post, facsimile and electronic communication and must notify the network operator of a telephone number for voice communication in connection with the Code</i>	Check whether applicable and if applicable, check for compliance.	A dedicated monitor is manned 24/7 in the control room. There is a mail service, landline connected phone, fax and email connection.	5	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
474	Electricity Industry Metering Code clause 7.2(4)	2	Clause 5.1	<i>If requested by a network operator with whom it has entered into an access contract, the Code participant must notify its contact details to a network operator within 3 business days after the request.</i>	Check whether applicable and if applicable, check for compliance.	Executed prior to the Audit Period and is currently active and therefore not rated	NR	
475	Electricity Industry Metering Code clause 7.2(5)	2	Clause 5.1	<i>A Code participant must notify any affected network operator of any change to the contact details it notified to the network operator under subclause 7.2(4) at least 3 business days before the change takes effect.</i>	Check whether applicable and if applicable, check for compliance.	Alcoa manages the communication of any changes between the plant and the network operator.	5	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
475	Electricity Industry Metering Code 2005 clause 7.2(5)	2	Clause 5.1	<i>A Code participant must notify any affected network operator of any change to the contact details it notified to the network operator under clause 7.2(4) at least 3 business days before the change takes effect.</i>	Check whether applicable and if applicable, check for compliance.	As Above	5	
476	Electricity Industry Metering Code clause 7.5	2	Clause 5.1	<i>A Code participant must subject to subclauses 5.17A and 7.6 not disclose, or permit the disclosure of, confidential information provided to it under or in connection with the Code and may only use or reproduce confidential information for the purpose for which it was disclosed or another purpose contemplated by the Code.</i>	Check whether applicable and if applicable, check for compliance.	Confidential information is managed by Alcoa. Both Alcoa and Alinta have strong and well-advertised confidentiality policies. No evidence of breach of policy was noted during the Audit period	5	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
476	Electricity Industry Metering Code 2005 clause 7.5	2	Clause 5.1	<i>A Code participant must, subject to clause 7.6:</i> <i>(a) not disclose, or permit the disclosure of, confidential information provided to it under or in connection with this Code; and</i>	Check whether applicable and if applicable, check for compliance.	Confidential information is managed by Alcoa. Both Alcoa and Alinta have strong and well-advertised confidentiality policies. No evidence of breach of policy was noted during the Audit period	5	
				<i>(b) only use or reproduce confidential information for the purpose for which it was disclosed or another purpose contemplated by this Code.</i>	Check whether applicable and if applicable, check for compliance.	Disclaimers on emails, site induction training and all confidential accesses are accompanied under a personally signed acknowledgement of confidentiality requirements	5	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
477	Electricity Industry Metering Code clause 7.6(1)	2	Clause 5.1	<i>A Code participant must disclose or permit the disclosure of confidential information that is required to be disclosed by the Code.</i>	Check whether applicable and if applicable, check for compliance.	None evidenced during the Audit period however confidentiality policy is well communicated and observed	5	
478	Electricity Industry Metering Code clause 8.1(1)	NR	Clause 5.1	<i>If any dispute arises between any Code participants then (subject to subclause 8.2(3)) representatives of disputing parties must meet within 5 business days after a notice given by a disputing party to the other disputing parties and attempt to resolve the dispute by negotiations in good faith.</i>	Check whether applicable and if applicable, check for compliance.	Any disputes between Alinta and Alcoa are managed under their contractual arrangements which require immediate notification and settlement by arbitrator if immediate satisfactory settlement is not reached. Power generation must continue throughout settlement	NR	
478	Electricity Industry Metering Code 2005 clause 8.1(1)	NR	Clause 5.1	<i>If any dispute arises between any Code participants other than the Authority (“disputing parties”),</i>	Check whether applicable and if applicable, check for compliance.	As above	NR	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
				<i>then (subject to clause 8.2(3)) representatives of the disputing parties must meet within 5 business days after a notice given by a disputing party to the other disputing parties and attempt to resolve the dispute by negotiations in good faith (“representative negotiations”)</i>				
479	Electricity Industry Metering Code clause 8.1(2)	NR	Clause 5.1	<i>If a dispute is not resolved within 10 business days after the dispute is referred to representative negotiations, the disputing parties must refer the dispute to a senior management officer of each disputing party who must meet and attempt to resolve the dispute by negotiations in good</i>	Check whether applicable and if applicable, check for compliance.	No issues have arisen during the Audit Period	NR	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
				<i>faith.</i>				
480	Electricity Industry Metering Code clause 8.1(3)	NR	Clause 5.1	<i>If the dispute is not resolved within 10 business days after the dispute is referred to senior management negotiations, the disputing parties must refer the dispute to the senior executive officer of each disputing party who must meet and attempt to resolve the dispute by negotiations in good faith.</i>	Check whether applicable and if applicable, check for compliance.		NR	
481	Electricity Industry Metering Code clause 8.1(4)	2	Clause 5.1	<i>If the dispute is resolved by representative negotiations, senior management negotiations or CEO negotiations, the disputing parties must prepare a written and signed record of the resolution and adhere</i>	Check whether applicable and if applicable, check for compliance.		NR	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
				<i>to the resolution.</i>				
482	Electricity Industry Metering Code clause 8.3(2)	NR	Clause 5.1	<i>The disputing parties must at all times conduct themselves in a manner which is directed towards achieving the objective in subclause 8.3(1).</i>	Check whether applicable and if applicable, check for compliance.	No disputes in Audit Period	NR	
			Transfer of Licence Clause 6.1	<i>This licence may be transferred only in accordance with the Act.</i>	Compare Licence issued to names between last audit and now through interview.	No transfer of Licence in Audit Period.	NR	
			Cancellation of Licence Clause 7.1	<i>This licence may be cancelled only in accordance with the Act.</i>	Check evidence of validity of Licence. Enquire through interview.	Licence was not cancelled during Audit Period.	NR	
			Surrender of Licence Clause 8.1	<i>This licence may be surrendered pursuant to this clause 8.</i>	Check evidence of validity of Licence. Enquire through interview.	Licence was not surrendered during Audit Period. Transmission Licence was surrendered during the previous Audit Period	NR	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
			Clause 8.2	<i>(a) set out the date that the licensee wishes the surrender of the licence to be effective; and</i>	Check evidence of validity of Licence. Enquire through interview.		NR	
				<i>(b) set out the reasons why the licensee wishes to surrender the licence, including the reasons why it would not be contrary to the public interest for the surrender of the licence to be effective on the date set out in the notice.</i>			NR	
			Clause 8.3	<i>Upon receipt of the notice from the licensee pursuant to clause 8.2, the Authority will publish the notice.</i>	No action required		NR	
			Clause 8.4	<i>Notwithstanding clause 8.2, the surrender of the licence will only take effect on the later of the day that: (a) the Authority publishes a</i>	Check evidence of validity of Licence. Enquire through interview.		NR	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
				<i>notice of the surrender in the Western Australian Government Gazette, such date to be at the discretion of the Authority; and</i>				
				<i>(b) the licensee hands back the licence to the Authority.</i>			NR	
			Clause 8.5	<i>The licensee will not be entitled to a refund of any fees by the Authority.</i>	Check evidence of validity of Licence. Enquire through interview.		NR	
			Renewal of Licence Clause 9.1	<i>This licence may be reviewed only in accordance with the act.</i>	Check evidence of validity of Licence. Enquire through interview.		NR	
			Amendment of Licence on Application of the Licence Clause 10.1	<i>The Licensee may apply to the Authority to amend the licence in accordance with the Act.</i>	Check for any Licence amendment request through interview. Sight current licence for	No amendments applied for during the Audit Period	NR	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
					amendments.			
			Amendment of Licence by the Authority Clause 11.1	<i>Subject to any applicable legislation, the Authority may amend the licence at any time in accordance with this clause.</i>	Check for evidence of any amendment to the License since the last audit. List out all amendments if any.	None in Audit Period	NR	
			Clause 11.2	<i>Before amending the licence under clause 11.1, the Authority must:</i> <i>(a) provide the licensee with written notice of the proposed amendments under consideration by the Authority;</i>	If amendments happen during this audit period, check for the written notice from Authority and correspondence from Alinta.		NR	
				<i>(b) allow 15 business days for the licensee to make submissions on the proposed amendments; and</i>	If amendments happen during this audit period, check for the written notice from Authority and correspondence from Alinta.		NR	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
				<i>(c) take into consideration those submissions.</i>	If amendments happen during this audit period, check for the written notice from Authority and correspondence from Alinta.		NR	
			Clause 11.3	<i>This clause also applies to the substitution of the existing licence.</i>	Check for any substitution to the existing License.		NR	
			Clause 11.4	<i>For avoidance of doubt, the licensee will not have to pay a fee for amendments under clause 11.</i>	Interview the Licence holder.		NR	
119	Electricity Industry Act section 11	2	Accounting Records Clause 12.1	<i>The licensee and any related body corporate must maintain accounting records that comply with standards issued by the Australian Accounting Standards Board or equivalent International Accounting</i>	Check accounting records and whether audited by a qualified accountant to an approved standard. Inspect a sample of accounts.	Interview with Alinta's chartered accountants and sighting of documents such as Budget, Forecasts and reviews. It was stated that no contingency is provided for in the budget for the impact of	5	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
				<i>Standards.</i>		outages. Standard Australian Accounting practices were noted. Profit and loss statements were available to the auditor but were not viewed.		
			Individual Performance Standards Clause 13.1	<i>Performance standards are contained in applicable legislation</i>	Check any individual performance standards specified	No individual performance standards imposed	NR	
			Clause 13.2	<i>The Authority may prescribe individual performance standards in relation to the licensee of its obligations under this licence or the applicable legislation.</i>	Check Licence schedules for individual performance standard		NR	
			Clause 13.3	<i>Before approving any individual performance standards under this clause, the Authority will:</i>	Check for any submissions		NR	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
				<i>a) provide the licensee with a copy of the proposed individual performance standards;</i>				
				<i>b) allow 15 business days for the licensee to make submissions on the proposed individual performance standards; and</i>			NR	
				<i>c) take into consideration those submissions.</i>			NR	
120	Electricity Industry Act section 11	2	Clause 13.4	<i>Once approved by the Authority, the individual performance standards are included as additional terms and conditions to this licence. A licensee must comply with any individual performance standards prescribed by the Authority.</i>	Check that performance standards are complied with.		NR	
101	Electricity	NR	Performance	<i>The licensee must,</i>	Check for	Previous audit Deloitte	5	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
	Industry Act section 13(1)		Audit Clause 14.1	<i>unless otherwise notified in writing by the Authority, provide the Authority with a performance audit within 24 months after the commencement date, and every 24 months thereafter.</i>	compliance to this clause on audits carried out.	in Dec 2010		
121	Electricity Industry Act section 11	2	Clause 14.2	<i>The licensee must comply, and must require the licensee's auditor to comply, with the Authority's standard audit guidelines.</i>	Audit compliance to the audit guidelines	This Audit Plan is approved by ERA by way of email sighted	5	
			Clause 14.3	<i>The licensee may seek a review of any of the requirements of the Authority's standard audit guidelines in accordance with clause 19.1.</i>	Check for any review to the standard audit guidelines.	No reviews have been sought	NR	
			Clause 14.4	<i>The performance audit must be conducted by an independent auditor approved by the</i>	Check for approval of auditor appointment by the authority.	Auditor approved by ERA evidenced by way of previous ERA audits and email	5	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
				<i>Authority. If the licensee fails to nominate an auditor within one month of the date that the performance audit was due, or the auditor nominated by the licensee is rejected on two successive occasions by the Authority, the Authority may choose an independent auditor to conduct the performance audit.</i>				
123	Electricity Industry Act section 11	2	Reporting a Change in Circumstances Clause 15.1	<i>The licensee must report to the Authority: (a) if the licensee is under external administration as defined by the Corporations Act 2001 (Cwlth), within 2 business days of such external administration occurring; or</i>		The licensee was not under external administration during the audit period.	NR	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
				<p><i>(b) if the licensee:</i></p> <p><i>(i) experiences a change in the licensee's corporate, financial or technical circumstances upon which this licence was granted; and</i></p>	<p>(i) Check for whether any external administration occurring.</p>	<p>Alinta's Wholesale Regulation Manager confirmed that TPG purchased Alinta Holdings which owns 100% of Alinta Energy Finance Pty Ltd (an Australian registered entity), which in turn owns all the trading entities of the Alinta energy group.</p> <p>The purchase of Alinta by TPG (in the Audit Period) didn't present a change in corporate financial or technical circumstances compared to those that were in place when the Licence was first granted as there was no change in the asset base of Alinta's business; it was simply a refinancing exercise.</p>	NR	
				<p><i>(ii) the change may materially affect the licensee's ability to</i></p>	<p>(ii) Check for any change in the corporate, financial</p>	<p>No changes that would affect the licensee's ability to perform</p>	NR	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
				<i>perform its obligations under this licence, within 10 business days of the change occurring; or</i>	or technical circumstances. If any, check for compliance of informing within 10 days.	occurred during the Audit period.		
				<i>(c) if the: (i) licensee's name; (ii) licensee's ABN; (iii) licensee's address; (iv) description of the generating works; or (v) nameplate capacity of the generating works, change, within 10 business days of the change occurring.</i>	(iii) Check for change in licensee's name, ABN, address, generating works description and nameplate capacity. If any, check for compliance of informing within 10 days.	No changes	NR	
124	Electricity Industry Act section 11	2	Provision of Information Clause 16.1	<i>The licensee must provide to the Authority any information that the Authority may require in connection with its functions under the Act in the time, manner and form specified by the</i>	Check through interview any request from Authority for information and response.	No changes to report	NR	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
				<i>Authority.</i>				
125	Electricity Industry Act section 11	2	Publishing Information Clause 17.1	<i>The Authority may direct the licensee to publish any information within a specified timeframe it considers relevant in connection with the licensee or the performance by the licensee of its obligations under this licence.</i>	Check that information has been published if and as required	No directions from the Authority to publish information during the Audit period	NR	
125	Electricity Industry Act section 11	2	Clause 17.2	<i>Subject to clause 17.3, the licensee must publish the information referred to in clause 17.1</i>	Check that publications contain the information required in Clause 17.1	No directions from the Authority to publish information during the Audit period	NR	
			Clause 17.3	<i>If the licensee considers that the information is confidential it must;</i> <i>a) immediately notify the Authority; and</i> <i>b) seek a review of the Authority's decision in</i>	Check nature of publications		NR	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
				<i>accordance with clause 19.1.</i>				
			Clause 17.4	<p><i>Once it has reviewed the decision, the Authority will direct the licensee in accordance with the review to;</i></p> <p><i>a) publish the information;</i></p> <p><i>b) publish the information with the confidential information removed or modified; or</i></p> <p><i>c) not publish the information.</i></p>	Check for Authority direction and that the licensee has complied with that direction		NR	
126	Electricity Industry Act section 11	2	Notices Clause 18.1	<i>Unless otherwise specified, all notices must be in writing.</i>	Test for evidence of notices being in written form		NR	
			Clause 18.2	<i>A notice will be regarded as having been sent and received:</i>	Review a sample of notices for compliance with requirements		NR	
				<i>a) when delivered in person to the</i>			NR	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
				<i>addressee; or</i>				
				<i>b) 3 business days after the date of posting if the notice is posted in Western Australia; or</i>			NR	
				<i>c) 5 business days after the date of posting if the notice is posted outside Western Australia; or</i>			NR	
				<i>d) if sent by facsimile when, according to the sender's transmission report, the notice has been successfully received by the addressee; or</i>			NR	
				<i>e) if sent by electronic means when, according to the sender's electronic record, the notice has been successfully sent to the addressee's.</i>			NR	
			Review of the Authority's	<i>The licensee may seek a review of a reviewable</i>	Check if any reviews have been	No reviews have been sought during the Audit	NR	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
			Decisions Clause 19.1	<i>decision by the Authority pursuant to this licence in accordance with the following procedure:</i>	sought.	Period		
				<i>a) the licensee must make a submission on the subject of the reviewable decision within 10 business days (or other period as approved by the Authority) of the decision; and</i>	If so have they met requirements		NR	
				<i>b) the Authority will consider the submission and provide the licensee with a written response within 20 business days.</i>			NR	
			Clause 19.2	<i>For the avoidance of doubt, this clause does not apply to a decision of the Authority pursuant to the Act, nor does it restrict the</i>			NR	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
				<i>licensee's right to have a decision of the Authority reviewed in accordance with the Act.</i>				
102	Electricity Industry Act section 14(1)(a)	NR	Asset Management System Clause 20.1	<i>The licensee must provide for, an asset management system in respect of the licensee's assets.</i>	Check the existence of asset management system.	Asset Management Review is conducted simultaneously with this Licence conditions audit. Previous asset management reviews carried out in 2011 with a new Strategic Asset Management Strategy being developed for 2013-14.	5	
103	Electricity Industry Act section 14(1)(b)	2	Clause 20.2	<i>The licensee must notify the Authority of the details of the asset management system within 5 business days from the later of:</i> <i>(a) The commencement date; and</i>	Check for compliance.		NR	
				<i>(b) The completion of construction of the</i>		Construction completed	NR	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
				<i>generating works.</i>		prior to the Audit Period		
103	Electricity Industry Act section 14(1)(b)	2	Clause 20.3	<i>The licensee must notify the Authority of any substantial change to the asset management system within 10 business days of such change.</i>	Check for compliance on the asset management system version submitted to date. Note if any changes have occurred and if subsequence notice of change has been forwarded to authority in a timely manner.	A number of improved asset management activities have occurred with the Authority not being notified however they are minor in nature.	4	
104	Electricity Industry Act section 14(1)c	NR	Clause 20.4	<i>The licensee must provide the Authority with a report by an Independent expert, acceptable to the Authority, as to the effectiveness of the asset management system not less than once in every period of 24 months calculated from the</i>	Check for compliance for the last report	Last Licence conditions audit conducted by Deloitte and its subsequent report is a matter of public record on the ERA site.	5	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
				<i>commencement date (or any longer period that the Authority allows by notice in writing).</i>				
122	Electricity Industry Act section 11	2	Clause 20.5	<i>The licensee must comply, and must require the licensee's expert to comply, with the Authority's standard audit guidelines.</i>	Confirm that the audit -guidelines have been met for this audit.	An Authority approved audit plan has been developed for this audit with the auditors also approved by the Authority	5	
			Clause 20.6	<i>The licensee may seek a review of any of the requirements of the Authority's standard guidelines dealing with the asset management system review in accordance with clause 19.1.</i>	Check for any reviews.	The audit plan and Asset Management review plan have been accepted by Alinta and the Authority	5	
			Clause 20.7	<i>The review of the asset management system must be conducted by an independent expert approved by the Authority. If the licensee fails to nominate an</i>	Check for appointment letter or approvals notification.	The asset management review is being conducted by an Authority approved independent expert	5	

Electricity Compliance Manual No	*Obligation under Condition	Type	Licence Clause or Schedule	Licence Obligation	Audit Actions	Findings	Compliance Scale	Recommended Action (s)
				<p><i>independent expert within one month of the date that the review of the asset management system was due, or the independent expert nominated by the licensee is rejected on two successive occasions by the Authority, the Authority may choose an independent expert to conduct the review of the asset management system.</i></p>				

3.1 Asset Management Review

Table 6 Asset Management Process and Policy Definition Adequacy Ratings

Rating	Description	Criteria
A	Adequately defined	<ul style="list-style-type: none"> Processes and policies are documented. Processes and policies adequately document the required performance of the assets. Processes and policies are subject to regular reviews, and updated where necessary. The asset management information system(s) are adequate in relation to the assets that are being managed.
B	Requires some improvement	<ul style="list-style-type: none"> Process and policy documentation requires improvement. Processes and policies do not adequately document the required performance of the assets. Reviews of processes and policies are not conducted regularly enough. The asset management information system(s) require minor improvements (taking into consideration the assets that are being managed).
C	Requires significant improvement	<ul style="list-style-type: none"> Process and policy documentation is incomplete or requires significant improvement. Processes and policies do not document the required performance of the assets. Processes and policies are significantly out of date. The asset management information system(s) require significant improvements (taking into consideration the assets that are being managed).
D	Inadequate	<ul style="list-style-type: none"> Processes and policies are not documented. The asset management information system(s) is not fit for purpose (taking into consideration the assets that are being managed).

Table 7 Asset Management Performance Ratings

Rating	Description	Criteria
1	Performing effectively	<ul style="list-style-type: none"> The performance of the process meets or exceeds the required levels of performance. Process effectiveness is regularly assessed and corrective action taken where necessary.

Rating	Description	Criteria
2	Opportunity for improvement	<ul style="list-style-type: none"> The performance of the process requires some improvement to meet the required level. Process effectiveness reviews are not performed regularly enough. Process improvement opportunities are not actioned.
3	Corrective action required	<ul style="list-style-type: none"> The performance of the process requires significant improvement to meet the required level. Process effectiveness reviews are performed irregularly, or not at all. Process improvement opportunities are not actioned.
4	Serious Action required	<ul style="list-style-type: none"> Process is not performed, or the performance is so poor that the process is considered to be ineffective.

Table 8 Asset Management Effectiveness Summary

ASSET MANAGEMENT SYSTEM	Asset Management process and policy definition adequacy rating	Asset Management performance rating
Asset planning	A	2
Asset creation/ acquisition	A	1
Asset disposal	A	1
Environmental analysis	A	1
Asset operations	A	1
Asset maintenance	A	1
Asset Management Information System	A	1
Risk Management	A	1
Contingency planning	A	1
Financial planning	A	1
Capital expenditure planning	A	1
Review of AMS	B	2

3.1.1 Observations and Recommendations

The Licence comprises two MHI 701DA heavy duty industrial gas fired gas turbines with a total capacity of 280 MW operating on combined cycle where the steam is supplied to the refinery. The plant also include other balance of plant such as gas yard metering station, water treatment plant, gas pipeline including laterals and associated equipment, air inlet filters and gas exhaust structures, evaporative cooling and other balance of plant required for effective operation.

Alinta has an Operating and Maintenance (O&M) Agreement with Alcoa; where Alcoa has the responsibility for providing and operating an AMS on Alinta's behalf.

Field notes compiled by Pius Tang and reviewed by Alan Meagher.

Table 9 Asset Management Review Field Notes

1. Asset Planning			
Key process: Asset planning strategies are focussed on meeting customer needs in the most effective and efficient manner (delivering the right service at the right price).			
Outcome: Integration of asset strategies into operational or business plans will establish a framework for existing and new assets to be effectively utilised and their service potential optimised			
Review approach			
<ul style="list-style-type: none"> Assess the adequacy of the asset planning process. Assess the adequacy of the asset management plan. Assess whether the asset management plan is up to date and implemented in practice. Assess whether the plan clearly assigns responsibilities and whether these have been applied in practice. 			
Effectiveness Criteria	Effectiveness	Comments	Recommendations
1.1 Does the planning process and objectives reflect the need of all stakeholders and is it integrated with business planning?	Yes	Alinta has established a new plan called Pinjarra Power Station – Strategic Asset Management Plan (SAMP) consistent with PAS 55-1:2008 reference source. The station is operated as a peaker plant depending on the load requirement by Western Power.	The SAMP has not been approved and presently is established as an uncontrolled copy without dissemination of information to the other personnel. The SAMP need to be approved and disseminated. A reporting system is to be established to measure and monitor actual against the plans. <i>Auditor's comment:</i> <i>(Unverified information has been provided after</i>

			<i>the Audit that the SAMP was approved and issued in August 2013. This should be verified at the next audit)</i>
1.2 Have service levels been defined?	Yes	There is a service level agreement between Alinta and Alcoa which are monitored regularly. The SAMP provides the details for the operational requirements of the assets. This operating requirement is in conjunction with the SWIS planner as agreed with Western Power.	
1.3 Have non-asset options (e.g. demand management) been considered.	Yes	Alinta has a strict asset acquiring process which utilises business case considerations prior to any asset acquisitions. Utilisation is a non-issue.	
1.4 Have the lifecycle costs of owning and operating assets been assessed?	Yes	The lifecycle costs of owning and operating the assets are established in the SAMP. This is routinely monitored.	
1.5 Have funding options been evaluated?	Yes	The funding for its Capex and Opex are under Alinta's business plans.	
1.6 Are the costings justified and have the cost drivers been identified?	Yes	All costs are justified through the SAMP and business plans. All costs are monitored and cost drivers are identified.	
1.7 Have the likelihood and consequences of asset failure been predicted?	Yes	The plant continues to carry out asset remaining life audits through HAZOP and HAZID principles.	
1.8 Are the plans being regularly reviewed and updated?	Yes	The performance of the plant is being monitored and reviewed through weekly and monthly reporting.	
1.9 Is the capability of the plant adequate to meet future demand?	Yes	The plant is adequate for its plant purpose.	
2. Asset Creation and Acquisition			
Key process: Asset creation/acquisition means the provision or improvement of an asset where the outlay can be expected to provide benefits beyond the year of outlay.			
Outcome: A more economic, efficient and cost effective asset acquisition framework which will reduce demand for new assets, lower service costs and improve service			

delivery.

Review approach

- Assess the adequacy of policies and procedures covering the creation and acquisition of assets.
- Select a sample of creations/acquisitions over the review period and confirm that adequate procedures have been followed and actual costs are as predicted.

Effectiveness Criteria	Effectiveness	Comments	Recommendations
2.1 <i>Are full project evaluations being undertaken for new assets, including comparative assessment of non-asset solutions?</i>	Yes	Alinta utilise a Project Management System (PMS) to conduct project evaluation process. There is no major asset creation during the audit period. However, all minor improvement and replacement projects consideration passes through rigid risk management process and justification. All approved projects are included into the SAMP.	
2.2 <i>Do evaluations include all life-cycle costs?</i>	Yes	The PMS provides the guidelines for the evaluations to meet life cycle costs. The analyses are for a period of 6 years which is entered into the SAMP. This is then monitored.	
2.3 <i>Do projects reflect sound engineering and business decisions?</i>	Yes	All business cases are scrutinised through PMS guidelines. They are also analysed through risk and business plans.	
2.4 <i>Are the commissioning tests documented and completed?</i>	Yes	Alcoa being the O&M operator has the responsibility to complete and document all commissioning tests.	
2.5 <i>Have the ongoing legal/environmental/safety obligations of the asset owner been assigned and understood?</i>	Yes	Alinta manages the responsibility for ensuring all legal /environment /safety obligations are met. Alinta and Alcoa have full time compliance personnel. Alinta has developed a compliance manual to track its obligations.	
3. Asset Disposal			

Key process: Effective asset disposal frameworks incorporate consideration of alternatives for the disposal of surplus, obsolete, underperforming or unserviceable assets. Alternatives are evaluated in cost benefit terms.

Outcome: Effective management of the disposal process will minimise holdings of surplus and underperforming assets and will lower service costs.

Review approach

- Assess the adequacy of policies and procedures covering the identification of underperforming assets, disposal of assets and replacement strategy.
- Determine whether a regular review of the usefulness of assets is performed.
- Select a sample of disposals over the review period and confirm that adequate procedures have been followed.

Effectiveness Criteria	Effectiveness	Comments	Recommendations
3.1 <i>Are under-utilised and under-performing assets identified as part of a regular systematic review process?</i>	Yes	The performance of the asset is monitored against the KPI routinely through data submitted.	
3.2 <i>Are the reasons for under-utilisation or poor performance critically examined and corrective action or disposal undertaken?</i>	Yes	The reasons for under-utilisation or poor performance assets are examined and subject to scrutiny against failure risk and business financial risk. Assets that require replacement will be included in the SAMP to be scheduled in for replacement.	
3.3 <i>Are disposal alternatives evaluated?</i>	Yes	The closure plan outlines the policy and methodology of disposal and its alternatives.	
3.4 <i>Is there a replacement strategy for assets?</i>	Yes	The SAMP outlines the replacement strategy.	

4. Environmental Analysis

Key process: Environmental analysis examines the asset system environment and assesses all external factors affecting the asset system.

Outcome: The asset management system regularly assesses external opportunities and threats and takes corrective action to maintain performance requirements.

Review approach

- Review achievement of performance and service standards over the audit period.

- Investigate any breaches and assess corrective action taken.
- Review the adequacy of reporting and monitoring tools.

Effectiveness Criteria	Effectiveness	Comments	Recommendations
4.1 Are opportunities and threats in the system environment assessed?	Yes	Under the O&M agreement, Alcoa is obligated for the safety and environmental assessment. Alcoa utilised a risk based system to assess the opportunities and threats in the system environment. This is regularly monitored. External issues such as gas supply are also assessed.	
4.2 Are Performance Standards (availability of service, capacity, continuity, emergency response etc.) measured and achieved?	Yes	No major aspects of environmental issues are present during the audit period. Alcoa carry out emissions monitoring. All other KPIs are routinely monitored through the weekly and monthly report.	
4.3 Is there compliance with statutory and regulatory requirements?	Yes	Alcoa has maintained the ISO-14001 for the site. The compliance manual lists out all regulations that the power station need to comply. All compliance is monitored. There was no known non-compliance during the audit period.	There seems to be some minor issues with the compliance manual created. The compliance manual needs to be audited, approved and issued for compliance and monitoring.
4.4 Have customer service levels been achieved?	Yes	The power plant meets the service levels agreed to with Western Power.	
5. Asset Operations			
Key process: Operations functions relate to the day-to-day running of assets and directly affect service levels and costs.			
Outcome: Operations plans adequately document the processes and knowledge of staff in the operation of assets so that service levels can be consistently achieved.			
Review approach <ul style="list-style-type: none"> • Assess the adequacy of policies and procedures covering operations functions • Assess the adequacy of staff resourcing and training • Confirm the policies and procedures have been followed during the review period by testing of asset register, observation of operational procedures, analysis of costs, etc. 			

- Assess the significance of exceptions identified and whether adequate corrective action has been taken.

Effectiveness Criteria	Effectiveness	Comments	Recommendations
5.1 <i>Are the operational policies and procedures documented and do the link to the required service levels?</i>	Yes	The Alinta's O&M Agreement requires Alcoa to maintain the policies and procedures required for the service levels. Alcoa maintain a Document Management System known as Alcoa Performance Support System (APSS).	
5.2 <i>Is risk management applied to prioritise operations tasks?</i>	Yes	The asset operation and maintenance is through predominantly risk based assessment. The plant operation is still consistent with the OEM's recommendation.	
5.3 <i>Are assets documented in an Asset Register including asset type, location, material, plans of components, an assessment assets' physical/structural condition and accounting data?</i>	Yes	All the plant assets are registered in the electronic asset maintenance system (eAM). The eAM include asset identification, details, assessment, and financial book value among other information.	
5.4 <i>Are operational costs measured and monitored?</i>	Yes	All operational costs are monitored through the monthly report.	
5.5 <i>Are staff receiving training commensurate with their responsibilities?</i>	Yes	Alcoa has a learning management system which records all operational and statutory training. All training commensurate with the responsibilities of the staff.	
5.6 <i>Is the cogeneration facility operations able to provide a reliable service to customers?</i>	Yes	The facility has provided reliable service to the grid.	
5.7 <i>Where the Licensee contracts a third party to manage the cogeneration facility, does the Licensee effectively monitor the performance of the third party?</i>	Yes	The performance of the O&M asset operator is constantly monitored through the weekly and monthly reports.	

5.8 <i>Is the current staffing arrangements and responsibilities adequate for effective asset operations?</i>	Yes	The current staffing is sufficient as confirmed by the coordinator. As the power generation assets are operated by Alcoa, it is integrated into the Alumina Refinery staffing.	
6. Asset Maintenance			
Key process: Maintenance functions relate to the upkeep of assets and directly affect service levels and costs.			
Outcome: Maintenance plans cover the scheduling and resourcing of the maintenance tasks so that work can be done on time and on cost.			
Review approach <ul style="list-style-type: none"> • Assess the adequacy of policies and procedures covering maintenance functions • Confirm the policies and procedures have been followed during the review period by testing of maintenance schedules, analyses of cost etc. • Assess the significance of exceptions identified and whether adequate corrective action has been taken. 			
Effectiveness Criteria	Effectiveness	Comments	Recommendations
6.1 <i>Have the maintenance policies and procedures been documented and linked to service levels required.</i>	Yes	Alcoa operates a fully functioning AMS. All the service standards are defined and monitored. The Alinta's O&M Agreement requires Alcoa to maintain the policies and procedures required for the maintenance service levels. Alcoa maintain a Document Management System known as Alcoa Performance Support System (APSS).	
6.2 <i>Are regular inspections undertaken of asset performance and condition?</i>	Yes	The asset has been inspected as per manufacturer's recommendation.	
6.3 <i>Have the maintenance plans (emergency, corrective and preventative) been documented and completed on schedule.</i>	Yes	Maintenance plans are documented and completed as scheduled through prioritisation registered in the eAM. Alinta has a long term service agreement (LTSA) with the OEM, all major maintenance are carried out in line with OEM recommendations.	
6.4 <i>Are the failures analysed and operational/maintenance plans adjusted where necessary?</i>	Yes	Failures are analysed and any adjustments necessary are made.	

6.5 <i>Has risk management been applied to prioritise maintenance tasks?</i>	Yes	Risk management process is the main method in managing the asset. All maintenance jobs are performed with consideration to task priorities associated to risk with safety to people as the top priority.	
6.6 <i>Are the maintenance costs measured and monitored?</i>	Yes	All maintenance cost are monitored through the monthly report and against the SAMP.	
6.7 <i>Is the current staffing arrangements and responsibilities adequate for effective asset maintenance?</i>	Yes	The present staffing is sufficient to meet the obligations of the O&M agreement.	
7. Asset Management Information System			
Key process: An asset management information system is a combination of processes, data and software that support the asset management functions.			
Outcome: The asset management information system provides authorised, complete and accurate information for the day to date running of the asset management system. The focus of the review is the accuracy of performance information used by the licensee to monitor and report on service standards.			
Review approach			
<ul style="list-style-type: none"> Assess the adequacy of policies and procedures covering the general control and security of the computer systems used to provide management information on service standards/licence obligations. Confirm that management reports on service standards/licence obligations are being reviewed and significant exceptions to service standards are promptly up and action. 			
Effectiveness Criteria	Effectiveness	Comments	Recommendations
7.1 <i>Is there adequate system documentation for users and IT operators?</i>	Yes	Alcoa uses the Oracle system supported by the Global Support Centre (GSC). The technical documentation is maintained in the eAM. The procedures documentation are kept in the APSS.	
7.2 <i>Do the input controls include appropriate verification and validation of data entered into the system?</i>	Yes	There are processes in place to ensure data entered into the system are verified including through data reconciliation.	
7.3 <i>Is there a logical security access control which is adequate, such as passwords?</i>	Yes	Alcoa has a very strict enforcement of passwords which require minimum of 8 characters to include numbers, letters, capitals, characters. This system is based on the Alcoa's Security Assess Policy.	

7.4 Does the physical security access control appear adequate?	Yes	The physical security access to the centre is adequate.	
7.5 Does the data backup procedure appear adequate?	Yes	Alcoa maintained a strict policy of data backup including daily backup, data stored offsite, testing managed from Alcoa's Pittsburgh office.	
7.6 Are the key computations related to licensee performance reporting materially accurate?	NR	Alinta do not directly extract data from the system (eAM) for licensee reporting.	
7.7 Do the management reports appear adequate for the licensee to monitor licensee obligations?	Yes	The management reports appear adequate for the licensee to monitor licensee obligation.	
8. Risk Management			
Key process: Risk management involve the identification of risks and their management within an acceptable level of risk.			
Outcome: An effective risk management framework is applied to manage risks related to the maintenance of service standards.			
Review approach			
<ul style="list-style-type: none"> Assess the adequacy of policies and procedures covering risk management and contingency planning. Assess whether the risk management policies and procedures have been applied in practice Assess the adequacy of staff understanding and training on risk management. 			
Effectiveness Criteria	Effectiveness	Comments	Recommendations
8.1 Do risk management policies and procedures exist and are they being applied to minimise internal and external risks associated with the asset management system?	Yes	Alinta and Alcoa both have risk management policies and procedures that are adhered to. Risks are assessed and applied to maintenance in particular.	
8.2 Are risks documented in a risk register and are treatment plans actioned and monitored?	Yes	The risk register exists and are constantly monitored for treatment actions.	
8.3 Is the probability and consequences of asset failure being regularly monitored?	Yes	The asset integrity audits are continued to be carried out regularly. Loss prevention inspections are also carried out.	

9. Contingency Planning			
Key process: Contingency plans document the steps to deal with unexpected failure of an asset.			
Outcome: Contingency plans have been developed and tested to minimise any significant disruption to service standards.			
Review approach			
<ul style="list-style-type: none"> Determine whether contingency plans have been developed and are current Determine whether contingency plans have been tested. If so, review the results to confirm that any improvements identified have been actioned. 			
Effectiveness Criteria	Effectiveness	Comments	Recommendations
9.1 Are contingency plans documented, understood and tested to confirm their operability and to cover higher risks?	Yes	The Disaster Recovery Plan is in the APSS Document. Alcoa's operations resources has plans to meet the needs in the event of Disaster Recovery Plan needs to be carried out.	
9.2 Is there a contingency plan for the unavailability or loss of key operational staff (including third party contract staff)?	Yes	Alcoa has a contingency plan for the unavailability or loss of key operational staff.	
10. Financial Planning			
Key process: The financial planning component of the asset management plan brings together the financial elements of the service delivery to ensure its financial viability over the long term.			
Outcome: A financial plan that is reliable and provides for the long-term financial viability of the services.			
Review approach			
<ul style="list-style-type: none"> Obtain an understanding of the financial planning, budgeting and reporting process and assess its effectiveness. Obtain a copy of the current financial plan (including budget/actual) and assess whether the process is being followed. 			
Effectiveness Criteria	Effectiveness	Comments	Recommendations
10.1 Does the financial plan state the financial objectives and strategies and actions to achieve the objectives?	Yes	Alinta's O&M budget states the financial objectives including strategies and actions to achieve the objectives.	

10.2 Does the financial plan identify the source of funds for capital expenditure and recurrent costs?	Yes	The financial plan is aligned with Alinta's overall business plans. All budgets are submitted from both Alcoa and Alinta Power Plant operations and then rolled up to the Alinta business plans after approval.	
10.3 Does the financial plan provide projections of operating statements (profit and loss) and statement of financial position (balance sheets)?	Yes	The financial plan does provide projections of operating profit and loss through the balance sheet statement and operating statements.	
10.4 Does the financial plan provide firm predictions on income for the next five years and reasonable indicative predictions beyond this period?	Yes	The financial planning does consider projections on income for 5 years as confirmed by the CFO. The expenditure is monitored through the monthly report and the SAMP.	
10.5 Does the financial plan provide for the operations and maintenance, administration and capital expenditure requirements of the services?	Yes	The financial plan does provide the O&M, administration and capital expenditure requirements.	
10.6 Are significant variances in actual/budget income and expenses identified and corrective action taken where necessary?	Yes	The actual versus budget expense and income are closely monitored by Alinta financial operation. Any significant variances will raise alerts which resulted in investigations with corrective actions implemented.	
11. Capital Expenditure Planning			
<p>Key process: The capital expenditure plan provides a schedule of new works, rehabilitation and replacement works, together with estimated annual expenditure on each over the next five or more years. Since capital investments tend to be large and lumpy, projections would normally be expected to cover at least 10 years, preferably longer. Projections over the next five years would usually be based on firm estimates.</p> <p>Outcome: A capital expenditure plan that provides reliable forward estimates of capital expenditure and asset disposal income, supported by documentation of the reasons for decisions and evaluation of alternatives and options.</p>			
<p>Review approach</p> <ul style="list-style-type: none"> • Obtain an understanding of the capital expenditure planning process and assess its effectiveness. • Obtain a copy of the capital expenditure plan for the current year and assess whether the process is being followed. 			

Effectiveness Criteria	Effectiveness	Comments	Recommendations
11.1 <i>Is there a capital expenditure plan that covers issues to be addressed, actions proposed, responsibilities and dates?</i>	Yes	The SAMP carries the expenditure that is required to maintain the assets in accordance to the manufacture's recommendation and asset integrity audits.	
11.2 <i>Does the plan provide reasons for capital expenditure and timing of expenditure?</i>	Yes	All capital expenditure is either through manufacture's recommendation or through business case.	
11.3 <i>Is the capital expenditure plan consistent with the asset life and condition identified in the asset management plan?</i>	Yes	The capital expenditure is consistent with the asset life and condition which are in the SAMP.	
11.4 <i>Is there adequate process to ensure that the capital expenditure plan is regularly updated and actioned?</i>	Yes	The capital expenditure is monitored through the monthly reporting.	
12. Review of AMS			
Key process: The asset management system is regularly reviewed and updated.			
Outcome: Review of the Asset Management System to ensure the effectiveness of the integration of its components and their currency.			
Review approach <ul style="list-style-type: none"> • Determine when the asset management plan was last updated and assess whether any significant changes have occurred. • Determine whether any independent reviews have been performed. If so, review results and actions taken. • Consider the need to update the asset management plan based on the results of this review. • Determine when the AMS has last reviewed. 			

Effectiveness Criteria	Effectiveness	Comments	Recommendations
12.1 <i>Is there a review process in place to ensure that the asset management plan and the asset management system described therein are kept?</i>	Yes	The SAMP is updated yearly through review.	
12.2 <i>Are independent reviews (e.g. internal audit) of the asset management system reviewed?</i>	Yes	The Auditor has received unverified information that independent review of the AMS (SAMP) was conducted FY2012 and is rescheduled for FY2014.	Implement a review as scheduled FY2014 of the SAMP including reviewing key O&M procedures to meet the requirements of the power plant. The FY2012 independent audit should be verified at the next Audit

4. Signature of Auditor

To the best of my knowledge, this report is based on true representation of the audit findings and opinions.

My thanks go to all parties who assisted in providing information and cooperation in respect to this audit.

Alan Meagher

Lead Auditor

GHD

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

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Document Status

Rev No.	Author	Reviewer		Approved for Issue		
		Name	Signature	Name	Signature	Date
0	P Tang	N Nello A Meagher		Robert Ceic		30/8/2013
1	Minor Changes			A Meagher		29/10/2013
						

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