



# McGill Engineering Services Pty Ltd

Engineering, Adjudication & Arbitration Services ABN 45 106 691 169

## Electricity Generation Performance Audit Report & Asset Management System Review Worsley Alumina Pty Ltd EGL 12

Prepared By Kevan McGill

Date 29 September 2008



# McGill Engineering Services Pty Ltd

Engineering, Adjudication & Arbitration Services ABN 45 106 691 169

Mr Tony Minards  
Powerhouse Performance Engineer  
Worsley Alumina Refinery  
Worsley  
Collie WA 6225

Dear Mr Minards

## **Performance Audit & Asset Management System Review Generation Licence EGL 12**

The fieldwork on the performance audit and asset management system review of Generation Licence EGL 12 for the audit period (1 July 2006 to 30 June 2008) is complete and I am pleased to submit the report to you.

In my opinion, the licensee maintained, in all material aspects, effective control procedures in relation to the Generation Licence (EGL 12) for the audit period based on the relevant clauses referred to within the scope section of this report.

Yours sincerely

Kevan McGill  
Director  
29 September 2008

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## Executive Summary

This performance audit and asset management review was conducted in accordance with the guidelines issued by the Economic Regulation Authority (*Authority*) for the audit period (1 July 2006 to 30 June 2008).

### Overall conclusion

In my opinion, the licensee maintained, in all material aspects, effective control procedures in relation to the Generation Licence (EGL 12) for the audit period based on the relevant clauses referred to within the scope section (Page 8) of this report.

### Performance audit

A summary of the findings of the performance audit is:

### Ratings

The *Authority* guidelines for performance audits require that the audit must provide a table that summarises the compliance rating for each licence condition using the 5-point rating scale described below.

#### Operational/performance 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 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

The results are summarised below.

Assessment		Licence obligations	Audit priority 4	Audit priority 5
Compliant	5	20	9	11
Compliant	4	1	1	
Compliant	3			
Non-compliant	2			
Significantly non compliant	1			
Not rated <sup>1</sup>		25	20	5

<sup>1</sup> Where an obligation was not exercised in the audit period, it was not possible to form an opinion about compliance and the item was not rated.

## Asset Management Review

The findings of the asset management review are summarized as;

### Ratings

The effectiveness ratings for each key process in the licensee’s asset management system using the 6-point scale are described below.

Asset management review effectiveness rating scale

Effectiveness	Rating	Description
Continuously improving	5	Continuously improving organisation capability and process effectiveness
Quantitatively controlled	4	Measurable performance goals established and monitored
Well-defined	3	Standard processes documented, performed and coordinated
Planned and tracked	2	Performance is planned, supervised, verified and tracked
Performed informally	1	Base practices are performed
Not performed	0	Not performed (indicate if not applicable)

### Asset management effectiveness summary

Asset Management System	Not performed 0	Performed informally 1	Planned and tracked 2	Well defined 3	Quantitatively controlled 4	Continuously improving 5
Process Effectiveness Rating						
Asset planning						
Asset creation/ acquisition						
Asset disposal						
Environmental analysis						
Asset operations						
Asset maintenance						
Asset Management Information System						
Risk management						
Contingency planning						
Financial planning						
Capital expenditure planning						
Review of AMS						

## Performance Audit and Asset Management System Review

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### Performance Audit Objectives

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Under section 13 of the *Electricity Industry Act 2004* (the Act), it is a requirement that every licensee provide the Economic Regulation Authority (*Authority*) not less than once in every period of 2 years with a performance audit conducted by an independent expert acceptable to the *Authority*.

The primary objective of the operational audit is to audit the effectiveness of measures taken by the Licensee to maintain quality and performance standards. The Act states a performance audit is an audit of the effectiveness of measures taken by the licensee to meet the performance criteria specified in the licence. The licence states that performance standards are contained in *applicable legislation*. Performance criteria are defined in the licence as:

- (a) the terms and conditions of the *licence*; and
- (b) any other relevant matter in connection with the *applicable legislation* that the *Authority* determines should form part of the *performance audit*.

The licence also provides for individual licence conditions namely - the *Authority* may prescribe *individual performance standards* in relation to the *licensee* of its obligations under this *licence* or the *applicable legislation* (the Act and subordinate legislation). There are no individual performance standards in evidence in the audit period.

The *Authority* has summarised the performance requirements in various legislation in its Electricity compliance reporting manual (March 2008)<sup>2</sup>.

McGill Engineering Services Pty Ltd has been engaged to carry out the performance audit and asset management system review for Electricity Generation Licence EGL 12 for Worsley Alumina Pty Ltd.

### Audit period

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The audit period is 1 July 2006 to 30 June 2008.

### Scope Limitation

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The review was undertaken by examination of documents, interviews with key persons and observations and not a detailed inspection of physical items. As there are no individual performance standards applied by the *Authority*, that area has been deleted from the audit.

### Inherent Limitations

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Because of the inherent limitations of any internal control structure, it is possible that fraud, error or non-compliance with laws and regulations may occur and not be detected.

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<sup>2</sup> Electricity compliance reporting manual, March 2008

An audit is not designed to detect all weaknesses in compliance measures as an audit is not performed continuously throughout the period and the audit procedures performed on the compliance measures are undertaken on a test basis.

Any projection of the evaluation of the operating licences to future periods is subject to the risk that the compliance measures in the plans may become inadequate because of changes in conditions or circumstances, or that the degree of compliance with them may deteriorate.

The audit opinion expressed in this report has been formed on the above basis.

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## Scope of the Audit/Review

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The *Authority* guideline<sup>3</sup> for performance audits sets out that the audit should be conducted in 3 phases.

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### 1. Risk and Materiality Assessment

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With reference to AS/NZS4360 Risk Management a preliminary assessment was made of the risk and materiality of non-compliance with the required licence conditions in order to focus the audit effort on areas of higher compliance risk and identify areas for testing and analysis.

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### 2. System Analysis, Assertion Setting and Review

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Through discussion, observation and review, a sample of cases or data was analysed relating to the licensee's quality and performance systems and standards against requirements of the Licence conditions to be audited.

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### 3. Fieldwork: Testing and Analysis

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Using the results of the risk assessment and systems analysis, detailed testing and analysis was performed to compare those standards maintained by the licensee with the relevant clauses of the Licence.

During this audit the Worsley licence operating area was visited.

In this case there are no actions taken in response to recommendations in previous audit/reviews to follow up as this is the first audit/review.

The key contacts were:

- Licensee
  - Tony Minards
- McGill Engineering Services Pty Ltd
  - Kevan McGill, John McLoughlin

The audit/review was conducted during July and August 2008 with the final audit report to be submitted to the *Authority* by 30 September 2008.

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<sup>3</sup> Audit Guidelines: Electricity, Gas and Water Licences, September 2006



## Audit requirements

Compliance with licence conditions is to be examined according to the likely inherent risk and the adequacy of controls to manage that risk.

Nature of audit work conducted

The *Authority* guidelines for performance audits require that the audit considers:

- a) **Process compliance** - the effectiveness of systems and procedures in place throughout the audit period, including the adequacy of internal controls.
- b) **Outcome compliance** – the actual performance against standards prescribed in the licence throughout the audit period.
- c) **Output compliance** – the existence of the output from systems and procedures throughout the audit period (that is, proper records exist to provide assurance that procedures are being consistently followed and controls are being maintained).
- d) **Integrity of performance reporting** – the completeness and accuracy of the performance reporting to the Authority.
- e) **Compliance with any individual licence conditions** - the requirements imposed on the specific licensee by the Authority or specific issues for follow-up that are advised by the Authority.

Stage	Auditor	Standard
1. Risk & Materiality Assessment Outcome - Operational/ Performance Audit Plan	K McGill	ASA 300 (replaces AUS 302): Planning ASA 315 (replaces AUS 402): Risk Assessments and Internal Controls AUS 808: Planning Performance Audits AS/NZS 4360:2004: Risk Management ERA Guidelines
2. System Analysis	K McGill	AUS 810: Special Purpose Reports on Effectiveness of Control Procedures
3. Fieldwork Assessment and testing of; <ul style="list-style-type: none"> <li>• The control environment</li> <li>• Information system</li> <li>• Compliance procedures</li> <li>• Compliance attitude</li> </ul>	K McGill John McLoughlin	AUS 502: Audit Evidence AUS 806: Performance Auditing
4. Reporting	K McGill	ASA 300 (replaces AUS 302): Planning AUS 806: Performance Auditing

## Overall conclusion

In my opinion, the licensee maintained, in all material aspects, effective control procedures in relation to the Generation Licence (EGL 12) for the audit period based on the relevant clauses referred to within the scope section (Page 8) of this report.

## Findings

The conclusions of each of the elements of the licence are summarised in the following table. The audit risk as determined for each licence condition is also shown. The detail of the audit assessment and findings can be seen in Appendix I (Page 18)

Item	Reporting manual number	Licence obligation	Audit risk assessment	Compliance Rating	
<i>Licence obligation Type 2</i>					
5.1 <sup>4</sup>	87	Pay for interest in land	4	Not rated	
12.2	103	Amend AMS <sup>5</sup> on expansion	4	Not rated	
12.3	104	Expansion outside licence area	4	Not rated	
13.1	105	Accounting standards	4	Compliant	4
14.4	106	Individual performance standards	n/a		
15.2	107	Audit guidelines	4	Compliant	5
16.1/ 16.2	83	AMS	4	Compliant	5
16.4	108	AMS Audit Guidelines	4	Compliant	5
17.1	109	External Administration	4	Compliant	5
18.1	110	Information provision	4	Compliant	5
19.2	111	Publish information	4	Not rated	
20.1	112	Notices	4	Not rated	
<i>Licence obligations Type NR</i>					
4.1	85	Licence fees	5	Compliant	5
5.1	86	Minimise disruption	5	Compliant	5
15.1	81	Performance audit	5	Compliant	5
16.1	82	AMS	5	Compliant	5
16.3	84	AMS Review	5	Compliant	5
<i>Metering Code Type 2</i>					
3.5.6 <sup>6</sup>	309	Metering installation charges	n/a		

<sup>4</sup> Licence clause number

<sup>5</sup> Asset Management System

3.11.3	319	Metering installation outage	4	Not rated	
3.16(5)	331	Metering Service level agreement	4	Not rated	
3.27	342/390 <sup>7</sup>	Registered installer	4	Compliant	5
4.5(2)	351/399	Notify of inaccuracy	4	Not rated	
5.5(3)	365/413	No charge for data	4	Not rated	
5.16	376/424	Provide Network operator with data	4	Not rated	
5.17(1)	377/425	Provide standing and validated energy data to customer	4	Compliant	5
5.18	378/426	Change of energisation status	4	Not rated	
5.19(3)	381/429	Notify change of attributes	4	Not rated	
5.19(4)	382/430	Notify of sensitive load	4	Not rated	
5.21(5)	390/438	Test conditions	4	Not rated	
5.21(6)	391/439	Test consistent with access arrangement	4	Not rated	
5.27	409/457	Missing customer attribute information	4	Not rated	
6.1(2)	416/464	Comply with access contract	4	Not rated	
7.2(4)	420/468	New contact details to network operator	4	Not rated	
7.2(5)	421/469	Change in contact details to network operator	4	Not rated	
7.5	422/470	Confidentiality of information	4	Compliant	5
7.6(1)	423/471	Disclosure of permitted confidential information	4	Compliant	5
8.1(4)	427/475	Dispute procedures	4	Not rated	
<i>Metering Code Type NR</i>					
4.4(1)	349/397	Liaise to resolve discrepancies in energy data	5	Compliant	5
4.5(1)	350/398	Registry accuracy	5	Compliant	5
5.4(2)	363/411	Provide assistance to network operator	5	Compliant	5
5.19(1)	379/427	Collect customer information	5	Compliant	5
5.19(2)	380/430	Customer attributes for connection point	5	Compliant	5

<sup>6</sup> Metering Code Clause number

<sup>7</sup> March 2008 Reporting Manual / 2007 Reporting Manual

5.19(6)	384/432	Change in customer attributes for connection point	5	Not rated	
7.2(1)	418/466	Capacity to receive notices form Network operator	5	Compliant	5
8.1(1)	424/472	Dispute procedures	5	Not rated	
8.1(2)	425/473	Dispute procedures	5	Not rated	
8.1(3)	426/474	Dispute procedures	5	Not rated	
8.3(2)	428/476	Dispute resolution	5	Not rated	

## Audit Results and Recommendations

### Summary of significant results

Item	Licence obligation
13.1	<p><i>Electricity Industry Act section 11.</i> A licensee and any related body corporate must maintain accounting records that comply with the Australian Accounting Standards Board Standards or equivalent International Accounting Standards.</p>
	<p><b>Issue 1</b></p> <p>The Worsley joint venture is not a reporting entity in its own right; it only puts together special purpose annual accounts. The owners of the joint venture report their respective interests through their own accounts. As part of the joint venture agreement, Worsley does not perform certain functions like depreciation. This is so the joint ventures can take their asset register and apply their own individual depreciation rates. Worsley just provides a basis for their workings. This is similar for items that require discounting.</p> <p>Worsley follows IFRS Accounting standards except where the joint venture agreement prevents it. The only other exception would be fair valuing. Worsley does not do any fair valuing on the principle that the Joint Venture participants would do those adjustments in their own books.</p>
	<p><b>Recommendation 1</b></p>
	<p>None</p>

### Post Audit implementation Plan

Item	Action	Recommendation	Responsible	When
13.1	Accounting standards	None		

## Asset Management System Review

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### Asset Management System Review Objectives

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Under the *Electricity Industry Act 2004* (the Act) section 14, the licensee must develop and maintain an asset management system to manage the significant asset base for ongoing service delivery to its customers. The Act requires a review of the asset management system every two years (or other time approved by the Economic Regulation Authority - Authority).

An asset management system is to set out the measures to be taken by the licensee for the proper maintenance of assets used in the generation of electricity and in the operation and maintenance of, and, where relevant, the construction or alteration of, the generator's assets.

### Asset Management System Review Recommendations

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The recommendations identify:

- a) The asset management process.
- b) The effectiveness rating.
- c) The issue(s) identified that have resulted in the nominated effectiveness rating.
- d) The recommended action(s) to improve the effectiveness of the asset management process to an acceptable level.

### Asset management system review methodology

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The asset management review report provides a table that summarises the auditor's assessment of the effectiveness ratings for each key process in the licensee's asset management system using the 6-point scale described below.

The overall effectiveness rating is based on an assessment of the adequacy and effectiveness of the licensee's asset management system.

### Use of Audit Processes and Practices

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- 1 Accepted audit processes and practices were used to complete the review. These include the sampling techniques associated with process reviews such as interviews to define accountability, observations, document sighting and testing of users.
- 2 The review addressed four key elements of successful delivery of asset management to allow the assessment of the effectiveness of the asset management system. These elements are:
  - Process – the existence of a suitable process for activities
  - Documentation – the existence of a document defining a process
  - Availability/accessibility/understanding – the process is understood, available to those required to use it and accessible to them
  - Use- confirmation the process is used consistently

3 The audit priorities were determined and include in the asset management system review plan approved by the *Authority*.

The review was conducted by Kevan McGill and John McLoughlin during August 2008.

### Audit priority

The *Authority* guidelines for asset management system reviews sets out a rating for audit priority based on inherent risk and existing controls. The following priorities were determined in accordance with the guidelines and audit plan and accepted by the Licensee.

The review priorities and findings are as follows. The detail of the review and findings can be seen in Appendix II (Page 39).

Item	Licence obligation	Inherent Risk	Controls risk requirement	Review priority	Rating					
					0	1	2	3	4	5
1	Asset planning	High	Strong	2						
2	Asset creation/ acquisition	High	Strong	2						
3	Asset disposal	Medium	Moderate	4						
4	Environmental analysis	Medium	Moderate	4						
5	Asset operations	High	Strong	2						
6	Asset maintenance	High	Strong	2						
7	Asset Management Information System	High	Strong	2						
8	Risk management	Medium	Moderate	4						
9	Contingency planning	Medium	Moderate	4						
10	Financial planning	Medium	Moderate	4						
11	Capital expenditure planning	Medium	Moderate	4						
12	Review of AMS	Medium	Moderate	4						

### Overall conclusion

In my opinion, the licensee maintained, in all material aspects, an adequate and effective asset management system in relation to the Generation Licence (EGL 12) for the audit period based on the relevant clauses referred to within the scope section (Page 8) of this report.

## Findings

The conclusions of each of the elements of the licence are summarised in the following table. The audit risk as determined for each licence condition is also shown.

Asset management process	Review risk assessment	Rating	
Asset planning	2	Performed informally	3
Asset creation/ acquisition	2	Well defined	3
Asset disposal	4	Well defined	3
Environmental analysis	4	Well defined	3
Asset operations	2	Well defined	3
Asset maintenance	2	Well defined	3
Asset Management Information System	4	Well defined	3
Risk management	4	Well defined	3
Contingency planning	4	Well defined	3
Financial planning	4	Well defined	3
Capital expenditure planning	4	Well defined	3
Review of AMS	4	Not performed	0

The overall effectiveness rating for each licence condition is based on an assessment of the effectiveness of the licensee's existing control procedures to manage its assets.

## Review Results and Recommendations

The following summarises the key results and recommendations

Asset Management Item	Recommendation
Asset planning	<b>Issue 1</b>
	The licensee is unlikely in the near future to make significant alterations to the licensed plant. The licensee conducts the shorter timeframe asset management elements (operations, maintenance, risk and contingency planning and financial planning) consistent with its planning needs. Other than a strategic overview, the elements of an asset management process exist informally. Developing an explicit planning process could link the processes together with more assured outcomes. An asset planning framework would assist ensuring that there is a consistent focus on the required outcomes.
	<b>Recommendation 1</b>
	Consideration is given to implementing a formal asset planning process consistent with the required generation plant outcomes.
Risk Management	<b>Issue 1</b>
	The 132kV cable tray should be labelled High Voltage to distinguish it

	from adjacent services.
	<b>Recommendation 1</b>
	Label the 132kv cable tray High Voltage.
AMS review	<b>Issue 1</b>
	A more formal processes to trigger reviews of the AMS should be put in place rather than rely on implied causes to bring about change.
	<b>Recommendation 1</b>
	A process be implemented that schedules regular review of the asset management system.

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Post Audit implementation Plan

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AMS item	Recommendation	Responsible	When
Asset planning	Consideration is given to implementing a formal asset planning process consistent with the required generation plant outcomes.	Tony Minards	June 2009
Risk management	Label the 132kv cable tray High Voltage.	Tony Minards	December 2008
AMS review	A process be implemented that schedules regular review of the asset management system.	Tony Minards	June 2009



## Audit Evidence

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The following evidence was gathered for the audits and asset management system review.

### Legislation and standards

- Electricity Industry Act 2004
- Auditing and Assurance handbook
- Electricity Generating Licence EGL 12

### Licensee's documents

- Quality auditors' reports
- Auditor 's report
- Asset management system
- Acquisition process diagram
- Disposal process diagram
- Capital investment process diagram
- Maintenance schedule diagram
- Risk management framework
- Transmission line design parameters
- Procurement documents
- Environment audit report
- Annual information returns
- Licence fee invoices/receipts
- Backup and restore management process
- Project management framework
- Powerhouse asset register
- Powerhouse environmental risks
- Financial planning guidelines
- Powerhouse cost plan and commitments

## Audit Time

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The audits and asset management review were undertaken by Kevan McGill and John McLoughlin and took approximately 60 hours aggregate for the 2 reviews.

Appendix 1 Performance Audit Detail Results and Recommendations

Audit Licence conditions Type 2

<b>Licence obligation 5.1</b>							Compliance rating Not rated		
<i>Electricity Industry Act section 41(6)</i> A licensee must pay the costs of taking an interest in land or an easement over land.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input type="checkbox"/>
As no interest in land or easement over land has occurred in the audit period, no cost payments arose and compliance or otherwise could not be assessed. As there has been no activity, performance could not be rated.									
<b>Issues</b>									
None									
<b>Recommendations</b>									
None									
<b>Management Actions</b>									
Not applicable									

<b>Licence obligation 12.2</b>							Compliance rating Not rated		
<i>Electricity Industry Act section 11.</i> A licensee must amend the asset management system before an expansion or reduction in generating works, distribution systems and transmission systems and notify the <i>Authority</i> in the manner prescribed, if the expansion or reduction is not provided for in the asset management system.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
No expansions or contractions occurred in the audit period, so no opinion could be formed about amending the asset management system.									
<b>Issues</b>									
None									
<b>Recommendations</b>									
None.									
<b>Management Actions</b>									
None.									

<b>Licence obligation 12.3</b>							Compliance rating Not rated		
<i>Electricity Industry Act section 11.</i>									
A licensee must not expand the generating works, distribution systems or transmission systems outside the licence area.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
No expansions or contractions occurred in the audit period.									
<b>Issues</b>									
None									
<b>Recommendations</b>									
None									
<b>Management Actions</b>									
Not applicable									

<b>Licence obligation 13.1</b>							Compliance rating Compliant - 4		
<i>Electricity Industry Act section 11.</i>									
A licensee and any related body corporate must maintain accounting records that comply with the Australian Accounting Standards Board Standards or equivalent International Accounting Standards.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
The Worsley joint venture is not a reporting entity in its own right; it only puts together special purpose annual accounts. The owners of the joint venture report their respective interests through their own accounts. As part of the joint venture agreement, Worsley does not perform certain functions like depreciation. This is so the joint ventures can take their asset register and apply their own individual depreciation rates. Worsley just provides a basis for their workings. This is similar for items that require discounting.									
<b>Issues</b>									
Worsley follows IFRS (International Financial Reporting Standards - These are the standards which have been adopted by the Australian accounting bodies) Accounting standards except where the joint venture agreement prevents it. The only other exception would be fair valuing. Worsley does not do any fair valuing on the principle that the Joint Venture participants would do those adjustments in their own books.									
<b>Recommendations</b>									
None									
<b>Management Actions</b>									
Not applicable									

<b>Licence obligation 14.4</b>							Compliance rating		
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										Not applicable
<i>Electricity Industry Act section 11.</i>										
A licensee must comply with any individual performance standards prescribed by the Authority.										
<b>Observations</b>										
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input type="checkbox"/>	
No individual reporting standards have been prescribed. This item was deleted from the audit										

<b>Licence obligation 15.2</b>										Compliance rating Compliant - 5
<i>Electricity Industry Act section 11.</i>										
A licensee must comply, and require its auditor to comply, with the <i>Authority's</i> standard audit guidelines dealing with the performance audit.										
<b>Observations</b>										
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>	
This audit is in accordance with the <i>Authority's</i> guidelines.										
<b>Issues</b>										
None										
<b>Recommendations</b>										
None										
<b>Management Actions</b>										
Not applicable										

<b>Licence obligation 16.1&amp; 16.2</b>										Compliance rating Compliant - 5
<i>Electricity Industry Act section 14(1)(b)</i>										
A licensee must notify details of the asset management system and any substantial changes to it to the Authority.										
<b>Observations</b>										
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>	
The <i>Authority</i> was advised of the asset management system as part of the licence application and there have been no substantial changes in the audit period to require advice to the <i>Authority</i> .										
<b>Issues</b>										
None										
<b>Recommendations</b>										
None										
<b>Management Actions</b>										

Not applicable
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<b>Licence obligation 16.4</b>	Compliance rating Compliant - 5								
<i>Electricity Industry Act section 11.</i>									
A licensee must comply, and must require the licensee's expert to comply, with the relevant aspects of the Authority's standard guidelines dealing with the asset management system.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
This asset management system review complies with the <i>Authority's</i> guidelines.									
<b>Issues</b>									
None									
<b>Recommendations</b>									
None									
<b>Management Actions</b>									
Not applicable									

<b>Licence obligation 17.1</b>	Compliance rating Compliant - 5								
<i>Electricity Industry Act section 11.</i>									
A licensee must report to the Authority, in the manner prescribed, if a licensee is under external administration or there is a significant change in the circumstances upon which the licence was granted which may affect a licensee's ability to meet its obligations.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
The licensee is not under external administration nor has there been a significant change in the circumstances on which the licence was granted and therefore no need to advise the <i>Authority</i> .									
<b>Issues</b>									
None									
<b>Recommendations</b>									
None									
<b>Management Actions</b>									
Not applicable									

<b>Licence obligation 18.1</b>	Compliance rating Compliant - 5
<i>Electricity Industry Act section 11.</i>	

A licensee must provide the Authority, in the manner prescribed, any information the Authority requires in connection with its functions under the Electricity Industry Act.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
The licensee has provided the information in the manner prescribed to the <i>Authority</i> .									
<b>Issues</b>									
None									
<b>Recommendations</b>									
None									
<b>Management Actions</b>									
Not applicable									

<b>Licence obligation 19.2</b>								Compliance rating Not rated	
<i>Electricity Industry Act section 11.</i>									
A licensee must publish any information it is directed by the Authority to publish, within the timeframes specified.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
The <i>Authority</i> did not direct any information to be published. As there has been no activity, performance could not be rated.									
<b>Issues</b>									
None									
<b>Recommendations</b>									
None									
<b>Management Actions</b>									
Not applicable									

<b>Licence obligation 20.1</b>								Compliance rating Not rated	
<i>Electricity Industry Act section 11.</i>									
Unless otherwise specified, all notices must be in writing.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
No notices were issued and accordingly it could not be observed if notices were in writing.									
<b>Issues</b>									
None									

<b>Recommendations</b>
None
<b>Management Actions</b>
Not applicable

Audit Licence obligations Type NR

<b>Licence obligation 4.1</b>	Compliance rating Compliant - 5								
<i>Electricity Industry Act section 17(1)</i>									
A licensee must pay to the Authority the prescribed licence fee within one month after the day of grant or renewal of the licence and within one month after each anniversary of that day during the term of the licence.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
The fees have been paid and on time. Copies of receipts have been provided. Payment was due on 30 June and payment was raised on 2 July 2008 for payment before 31 July 2008.									
<b>Issues</b>									
None									
<b>Recommendations</b>									
None									
<b>Management Actions</b>									
Not applicable									

<b>Licence obligation 5.1</b>	Compliance rating Compliant - 5								
<i>Electricity Industry Act section 31(3)</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.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
The plant operates as base load and is dispatched as part of Verve's commitment. The licensee does not have to forecast sent out capacity as the float is taken up by Verve. The plant has very high availability as is consistent with a continuous process such as alumina processing. There have been five forced outages in the audit period. There is sufficient flexibility in the plant design that alumina production was not seriously affected by these outages.									
<b>Issues</b>									
None									

<b>Recommendations</b>
None
<b>Management Actions</b>
Not applicable

<b>Licence obligation 15.1</b>	Compliance rating Compliant - 5								
<i>Electricity Industry Act section 13(1)</i>									
A licensee must, not less than once every 24 months, provide the Authority with a performance audit conducted by an independent expert acceptable to the Authority.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
This audit satisfies the requirement.									
<b>Issues</b>									
None									
<b>Recommendations</b>									
None									
<b>Management Actions</b>									
Not applicable									

<b>Licence obligation 16.1</b>	Compliance rating Compliant - 5								
<i>Electricity Industry Act section 14(1)(a)</i>									
A licensee must provide for an asset management system.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
The licensee has an asset management system in respect to the licensee's assets.									
<b>Issues</b>									
None									
<b>Recommendations</b>									
None									
<b>Management Actions</b>									
Not applicable									

<b>Licence obligation 16.3</b>	Compliance rating Compliant - 5
<i>Electricity Industry Act section 14(1)(c)</i>	
A licensee must provide the Authority with a report by an independent expert as to the	



effectiveness of its asset management system every 24 months, or such longer period as determined by the Authority.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
This review satisfies the requirement.									
<b>Issues</b>									
None									
<b>Recommendations</b>									
None									
<b>Management Actions</b>									
Not applicable									

Audit Metering Code Type 2

<b>Licence obligation 5.1</b>								Compliance rating Not Applicable	
<i>Electricity Industry Metering Code clause 3.5(6)</i>									
The requirement is that a network operator may only impose a charge for providing, installing, operating or maintaining a metering installation in accordance with the applicable service level agreement between it and the user.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input type="checkbox"/>
This requirement is listed in the Reporting Manual but is an obligation on the network operator and not the licensee.									
<b>Issues</b>									
None									
<b>Recommendations</b>									
None									
<b>Management Actions</b>									
Not applicable									

<b>Licence obligation 5.1</b>								Compliance rating Not rated	
<i>Electricity Industry Metering Code clause 3.11(3)</i>									
The requirement is that a Code participant who becomes aware of an outage or malfunction of a metering installation must advise the network operator as soon as practicable.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>

No meter outages or malfunctions have occurred in the audit period. As there has been no activity, performance could not be rated.
<b>Issues</b>
None
<b>Recommendations</b>
None
<b>Management Actions</b>
Not applicable

<b>Licence obligation 5.1</b>	Compliance rating Not rated								
<i>Electricity Industry Metering Code clause 3.16(5)</i>									
The requirement is that a network operator or a user may require the other to negotiate and enter into a written service level agreement in respect of the matters in the metrology procedure dealt with under clause 3.16(4) of the Code.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
This requirement relates to the conversion of non interval metering to interval metering. All the meters are interval meters (half hour meters) so there is no need for conversion. As there has been no activity, performance could not be rated.									
<b>Issues</b>									
None									
<b>Recommendations</b>									
None									
<b>Management Actions</b>									
Not applicable									

<b>Licence obligation 5.1</b>	Compliance rating Compliant - 5								
<i>Electricity Industry Metering Code clause 3.27</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.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
The meters were installed by Western Power – the network operator.									
<b>Issues</b>									
None									
<b>Recommendations</b>									

None
<b>Management Actions</b>
Not applicable

<b>Licence obligation 5.1</b>	Compliance rating Not rated								
<i>Electricity Industry Metering Code clause 4.5(2)</i>									
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.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
The licensee is a Code participant but no issues about standing data have arisen. As there has been no activity, performance could not be rated.									
<b>Issues</b>									
None									
<b>Recommendations</b>									
None									
<b>Management Actions</b>									
Not applicable									

<b>Licence obligation 5.1</b>	Compliance rating Not rated								
<i>Electricity Industry Metering Code clause 5.5(3).</i>									
A user must not impose any charge for the provision of the data under this Code unless it is permitted to do so under another enactment.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
No data has been provided therefore no charges have been made. As there has been no activity, performance could not be rated.									
<b>Issues</b>									
None									
<b>Recommendations</b>									
None									
<b>Management Actions</b>									
Not applicable									

<b>Licence obligation 5.1</b>	Compliance rating
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										Not rated
<i>Electricity Industry Metering Code clause 5.16.</i>										
A user that collects or receives energy data from a metering installation must provide the network operator with the energy data (in accordance with the communication rules) within the timeframes prescribed.										
<b>Observations</b>										
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>	
The network operator (Western Power) reads the meters and therefore collects the energy data and not the licensee. As there has been no activity, performance could not be rated.										
<b>Issues</b>										
None										
<b>Recommendations</b>										
None										
<b>Management Actions</b>										
Not applicable										

<b>Licence obligation 5.1</b>										Compliance rating Compliant - 5
<i>Electricity Industry Metering Code clause 5.17(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.										
<b>Observations</b>										
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>	
The customer is Verve and the meters are read by Western Power. No metering complaints have been received by the Licensee.										
<b>Issues</b>										
None										
<b>Recommendations</b>										
None										
<b>Management Actions</b>										
Not applicable										

<b>Licence obligation 5.1</b>										Compliance rating Not rated
<i>Electricity Industry Metering Code clause 5.18.</i>										
A user that collects or receives information regarding a change in the energisation status of a metering point must provide the network operator with the prescribed information,										

including the stated attributes, within the timeframes prescribed.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
There has been no change to the energisation state of the meters. As there has been no activity, performance could not be rated.									
<b>Issues</b>									
None									
<b>Recommendations</b>									
None									
<b>Management Actions</b>									
Not applicable									

<b>Licence obligation 5.1</b>								Compliance rating Not rated	
<i>Electricity Industry Metering Code clause 5.19(3).</i>									
A user must, after becoming aware of any change in a site's prescribed attributes, notify the network operator of the change within the timeframes prescribed.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
There has been no change in the sites prescribed attributes. As there has been no activity, performance could not be rated.									
<b>Issues</b>									
None									
<b>Recommendations</b>									
None									
<b>Management Actions</b>									
Not applicable									

<b>Licence obligation 5.1</b>								Compliance rating Not rated	
<i>Electricity Industry Metering Code clause 5.19(4).</i>									
A user that becomes aware that there is a sensitive load at a customer's site must immediately notify the network operator's Network Operations Control Centre of the fact.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
There are no sensitive loads. As there has been no activity, performance could not be rated.									
<b>Issues</b>									

None
<b>Recommendations</b>
None
<b>Management Actions</b>
Not applicable

<b>Licence obligation 5.1</b>	Compliance rating Not rated								
<i>Electricity Industry Metering Code clause 5.21(5).</i>									
A Code participant must not request a meter test or audit 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.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
There have been no meter tests or audits. As there has been no activity, performance could not be rated.									
<b>Issues</b>									
None									
<b>Recommendations</b>									
None									
<b>Management Actions</b>									
Not applicable									

<b>Licence obligation 5.1</b>	Compliance rating Not rated								
<i>Electricity Industry Metering Code clause 5.21(6).</i>									
A Code participant must not make a test or audit request that is inconsistent with any access arrangement or agreement.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
There have been no meter tests or audits. As there has been no activity, performance could not be rated.									
<b>Issues</b>									
None									
<b>Recommendations</b>									
None									
<b>Management Actions</b>									
Not applicable									

<b>Licence obligation 5.1</b>		Compliance rating Not rated	
<i>Electricity Industry Metering Code clause 5.27.</i>			
Upon request, a current user must provide the network operator with customer attribute information that it reasonably believes are missing or incorrect within the timeframes prescribed.			
<b>Observations</b>			
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>
Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>
Compliance	<input checked="" type="checkbox"/>		
There has been no missing or incorrect customer attributes. As there has been no activity, performance could not be rated.			
<b>Issues</b>			
None			
<b>Recommendations</b>			
None			
<b>Management Actions</b>			
Not applicable			

<b>Licence obligation 5.1</b>		Compliance rating Not rated	
<i>Electricity Industry Metering Code clause 6.1(2).</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.			
<b>Observations</b>			
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>
Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>
Compliance	<input checked="" type="checkbox"/>		
The licensee does not carry out metering services but are provided by Western Power, the network operator. As there has been no activity, performance could not be rated.			
<b>Issues</b>			
None			
<b>Recommendations</b>			
None			
<b>Management Actions</b>			
Not applicable			

<b>Licence obligation 5.1</b>		Compliance rating Not rated	
<i>Electricity Industry Metering Code clause 7.2(4)</i>			
A Code participant must notify its contact details to a network operator with whom it has entered into an access contract within 3 business days after the network operator's request.			

<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
There have been no requests for contact details from the network operator. As there has been no activity, performance could not be rated.									
<b>Issues</b>									
None									
<b>Recommendations</b>									
None									
<b>Management Actions</b>									
Not applicable									

<b>Licence obligation 5.1</b>	Compliance rating Not rated								
<i>Electricity Industry Metering Code clause 7.2(5)</i>									
A Code participant must notify any affected network operator of any change to the contact details it notified to the network operator at least 3 business days before the change takes effect									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
There has been no change in contact details. As there has been no activity, performance could not be rated.									
<b>Issues</b>									
None									
<b>Recommendations</b>									
None									
<b>Management Actions</b>									
Not applicable									

<b>Licence obligation 5.1</b>	Compliance rating Compliant - 5								
<i>Electricity Industry Metering Code clause 7.5</i>									
A Code participant must 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.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
No complaints have risen about disclosure of confidential information.									
<b>Issues</b>									



None
<b>Recommendations</b>
None
<b>Management Actions</b>
Not applicable

<b>Licence obligation 5.1</b>	Compliance rating Compliant - 5								
<i>Electricity Industry Metering Code clause 7.6(1)</i>									
A Code participant must disclose or permit the disclosure of confidential information that is required to be disclosed by the Code.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
No information has been required to be disclosed.									
<b>Issues</b>									
None									
<b>Recommendations</b>									
None									
<b>Management Actions</b>									
Not applicable									

<b>Licence obligation 5.1</b>	Compliance rating Not rated								
<i>Electricity Industry Metering Code clause 8.1(4)</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 to the resolution.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
There have been no metering disputes. As there has been no activity, performance could not be rated.									
<b>Issues</b>									
None									
<b>Recommendations</b>									
None									
<b>Management Actions</b>									
Not applicable									

Audit Metering Code Obligations Type NR

<b>Licence obligation 5.1</b>		Compliance rating Compliant - 5	
<i>Electricity Industry Metering Code clause 4.4(1)</i>			
A network operator and affected Code participants must liaise together to determine the most appropriate way to resolve a discrepancy between energy data held in a metering installation and data held in the metering database.			
<b>Observations</b>			
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>
Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>
Compliance	<input checked="" type="checkbox"/>		
There have been no discrepancies in energy data which is read by the network operator anyway.			
<b>Issues</b>			
None			
<b>Recommendations</b>			
None			
<b>Management Actions</b>			
Not applicable			

<b>Licence obligation 5.1</b>		Compliance rating Compliant - 5	
<i>Electricity Industry Metering Code clause 4.5(1)</i>			
A Code participant must not knowingly permit the registry to be materially inaccurate.			
<b>Observations</b>			
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>
Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>
Compliance	<input checked="" type="checkbox"/>		
There have been no inaccuracies in the registry which is held by the network operator anyway.			
<b>Issues</b>			
None			
<b>Recommendations</b>			
None			
<b>Management Actions</b>			
Not applicable			

<b>Licence obligation 5.1</b>		Compliance rating Compliant - 5	
<i>Electricity Industry Metering Code clause 5.4(2)</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. Meters have to be read at least once per year and if not, has the licensee			

provided assistance to the network operator to read the meter.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
The network operator (Western Power) reads the meters remotely (half hourly impulses) so the annual requirement is easily met.									
<b>Issues</b>									
None									
<b>Recommendations</b>									
None									
<b>Management Actions</b>									
Not applicable									

<b>Licence obligation 5.1</b>								Compliance rating Compliant - 5	
<i>Electricity Industry Metering Code clause 5.19(1)</i>									
A user must, when requested by the network operator acting in accordance with good electricity industry practice, use reasonable endeavours to collect information from customers, if any, that assists the network operator in meeting its obligations described in the Code and elsewhere									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
There have been no complaints about the collection of customer information.									
<b>Issues</b>									
None									
<b>Recommendations</b>									
None									
<b>Management Actions</b>									
Not applicable									

<b>Licence obligation 5.1</b>								Compliance rating Compliant - 5	
<i>Electricity Industry Metering Code clause 5.19(2)</i>									
A user must, to the extent that it is able, collect and maintain a record of the address, site and customer attributes, prescribed in relation to the site of each connection point, with which the user is associated.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
The site and customer (metering) attributes have not changed. Verve is the customer and is in effect part of Verve's total capacity. There is no connection point for a customer									

just the network connection for the site.
<b>Issues</b>
None
<b>Recommendations</b>
None
<b>Management Actions</b>
Not applicable

<b>Licence obligation 5.1</b>	Compliance rating Not rated								
<i>Electricity Industry Metering Code clause 5.19(6)</i>									
A user must use reasonable endeavours to ensure that it does notify the network operator of a change in an attribute that results from the provision of standing data by the network operator to the user.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
There have been no changes in (metering) attributes. As there has been no activity, performance could not be rated.									
<b>Issues</b>									
None									
<b>Recommendations</b>									
None									
<b>Management Actions</b>									
Not applicable									

<b>Licence obligation 5.1</b>	Compliance rating Compliant - 5								
<i>Electricity Industry Metering Code clause 7.2(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.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
The network operator has the current contact details. This has been verified with Verve.									
<b>Issues</b>									
None									
<b>Recommendations</b>									
None									

<b>Management Actions</b>
Not applicable

<b>Licence obligation 5.1</b>	Compliance rating Not rated								
<i>Electricity Industry Metering Code clause 8.1(1)</i>									
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 under or in connection with the Electricity Industry Metering Code by negotiations in good faith.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
There have been no metering disputes. As there has been no activity, performance could not be rated.									
<b>Issues</b>									
None									
<b>Recommendations</b>									
None									
<b>Management Actions</b>									
Not applicable									

<b>Licence obligation 5.1</b>	Compliance rating Not rated								
<i>Electricity Industry Metering Code clause 8.1(2)</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 faith.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
There have been no metering disputes. As there has been no activity, performance could not be rated.									
<b>Issues</b>									
None									
<b>Recommendations</b>									
None									
<b>Management Actions</b>									
Not applicable									

<b>Licence obligation 5.1</b>								Compliance rating Not rated	
<i>Electricity Industry Metering Code clause 8.1(3)</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.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
There have been no metering disputes. As there has been no activity, performance could not be rated.									
<b>Issues</b>									
None									
<b>Recommendations</b>									
None									
<b>Management Actions</b>									
Not applicable									

<b>Licence obligation 5.1</b>								Compliance rating Not rated	
<i>Electricity Industry Metering Code clause 8.3(2)</i>									
The disputing parties must at all times conduct themselves in a manner which is directed towards achieving the objective of dispute resolution with as little formality and technicality and with as much expedition as the requirements of Part 8 of the Code and a proper hearing and determination of the dispute, permit.									
<b>Observations</b>									
Process	<input checked="" type="checkbox"/>	Outcome	<input checked="" type="checkbox"/>	Output	<input checked="" type="checkbox"/>	Reporting	<input checked="" type="checkbox"/>	Compliance	<input checked="" type="checkbox"/>
There have been no metering disputes. As there has been no activity, performance could not be rated.									
<b>Issues</b>									
None									
<b>Recommendations</b>									
None									
<b>Management Actions</b>									
Not applicable									

Appendix II Asset management system review results and recommendations

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<b>Asset Planning</b>						<b>Effectiveness rating</b> Performed informally - 2	
1. <i>Asset planning</i>							
Asset planning strategies are focused on meeting customer needs in the most effective and efficient manner (delivering the right service at the right price).							
<b>Observations</b>							
Process	<input checked="" type="checkbox"/>	Documentation	<input checked="" type="checkbox"/>	Availability	<input checked="" type="checkbox"/>	Use	<input checked="" type="checkbox"/>
<p>The licensee has 3 steam generators that are 25 years old and one that is 8 years old. There is no formalised asset planning for the generation plant in isolation from the Alumina plant. The organisation has committed to a major extension of the Alumina plant (with separate generation) including a major strategic planning process. The procurement processes include justification supporting the recommended action with appropriate management delegation for approval.</p> <p>The licensee is independently quality assessed to AS 9001</p>							
<b>Issues</b>							
<p>The licensee is unlikely in the near future to make significant alterations to the licensed plant. The licensee conducts the shorter timeframe asset management elements (operations, maintenance, risk and contingency planning and financial planning) consistent with its planning needs. Other than a strategic overview, the elements of an asset management process exist informally. Developing an explicit planning process could link the processes together with more assured outcomes. An asset planning framework would assist ensuring that there is a consistent focus on the required outcomes.</p>							
<b>Recommendation</b>							
Consideration is given to implementing a formal asset planning process consistent with the required generation plant outcomes.							
<b>Rating</b>							
Performed informally - 2							

<b>Asset Creation</b>						<b>Effectiveness rating</b> Well defined - 3	
2 <i>Asset creation and acquisition</i>							
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.							
<b>Observations</b>							
Process	<input checked="" type="checkbox"/>	Documentation	<input checked="" type="checkbox"/>	Availability	<input checked="" type="checkbox"/>	Use	<input checked="" type="checkbox"/>
Procurement of major generating plant is a very significant exercise taking considerable time. There has been no asset creation on the generating plant but on related plant such							

as transformers. The asset creation processes are appropriate for the scale of works.
<b>Issues</b>
The procurement processes are appropriate for the scale of works.
<b>Rating</b>
Well defined - 3

<b>Asset Disposal</b>	Effectiveness rating Well Defined - 3
<i>3. Asset disposal</i> Effective asset disposal frameworks incorporate consideration of alternatives for the disposal of surplus, obsolete, under-performing or unserviceable assets. Alternatives are evaluated in cost-benefit terms.	
<b>Observations</b>	
Process	<input checked="" type="checkbox"/> Documentation
<input checked="" type="checkbox"/> Availability	<input checked="" type="checkbox"/> Use
There is no disposal action in the audit period and none are contemplated. There are disposal processes in addition to those for justification of replacement of plant (which includes disposal of redundant plant). Removing the generation plant is unlikely during the life of the Alumina plant. The disposal processes are well defined.	
<b>Issues</b>	
None.	
<b>Recommendation</b>	
None	
<b>Rating</b>	
Well defined - 3	

<b>Environmental analysis</b>	Effectiveness rating Well defined - 3
<i>4. Environmental analysis</i> Environmental analysis examines the asset system environment and assesses all external factors affecting the asset system.	
<b>Observations</b>	
Process	<input checked="" type="checkbox"/> Documentation
<input checked="" type="checkbox"/> Availability	<input checked="" type="checkbox"/> Use
The Licensee has a number of environmental licences and no unresolved issues have arisen with respect to environmental matters. Issues about air and water quality are being managed actively. The licensee conducts internal audits of their environmental licence obligations. No non compliances have been reported. The principal external threats to the assets relate to availability of fuel. Major breakdowns are an internal issue covered under contingencies.	



<b>Issues</b>
<p>There are no environmental non-compliances reported.</p> <p>There are contingency plans for fuel availability. Coal stockpiles on site for delays in coal availability. The alumina plant can operate with reduced capacity on coal when gas is short (with the corresponding reduction in steam requirements and the related electricity requirements). Verve has also sold gas to Worsley by substituting liquids also. Worsley simply must have steam for process and enough gas for calcination of the Alumina</p> <p>The generating assets are coal based and not affected by gas shortages. A separate licence provides 25% of the steam generation from a gas fired cogeneration plant and this is also used to generate electricity.</p>
<b>Recommendation</b>
None
<b>Rating</b>
Well defined - 3

<b>Asset operations</b>	Effectiveness rating Well defined - 3						
<p>5. <i>Asset operations</i></p> <p>Operations functions relate to the day-to-day running of assets and directly affect service levels and costs.</p>							
<b>Observations</b>							
Process	<input checked="" type="checkbox"/>	Documentation	<input checked="" type="checkbox"/>	Availability	<input checked="" type="checkbox"/>	Use	<input checked="" type="checkbox"/>
<p>The licensee has 3 steam generators that are 25 years old and one 8 years old. The plant operates in base load mode which is a low thermal cycling mode with reduced stresses. The demands of the alumina process dictate continuous generation with Verve taking any excess and alternatively providing support when the plant requires maintenance. The licensee does not have to provide a sent out capacity to the IMO or system management but indicates when they will be taking plant off line and will be importing power.</p> <p>The steam capacity of the boilers has recently been increased from 197 tons/hr to 227 tons/hr (15%) with the appropriate modifications to valves.</p> <p>The licensee operates the plant. The licensee does not record plant starts as they start infrequently.</p> <p>The assets include 55km of 66kv overhead transmission line. This line supplies the licensee's loads and therefore is covered by the exemption order as self supply and a licence is not required. The line is constructed to appropriate standards.</p>							
<b>Issues</b>							
The asset operation is appropriate for the duty.							
<b>Recommendation</b>							
None							
<b>Rating</b>							
Well defined - 3							

<b>Asset Maintenance</b>							Effectiveness rating Well defined - 3	
<i>6. Asset maintenance</i>								
Maintenance functions relate to the upkeep of assets and directly affect service levels and costs.								
<b>Observations</b>								
Process	<input checked="" type="checkbox"/>	Documentation	<input checked="" type="checkbox"/>	Availability	<input checked="" type="checkbox"/>	Use	<input checked="" type="checkbox"/>	
<p>Maintenance is controlled by an IT system that coordinates tasks, incorporates condition, risk, breakdown and time based maintenance. Maintenance jobs are standardised which gives a quality and safety assurance and change management where by changing the standard job specification the work process is changed. Spare parts required for standard jobs and inventories are also contained in the system. The German business software SAP is used and has been well tailored to the licensee's specific maintenance needs.</p> <p>The licensee provides first line maintenance and contracts to suppliers such as Siemens to service their major maintenance outages. The generation plant was manufactured by Mitsubishi but is a clone of GE plant for which Siemens is the local agent. Currently one machine is off line for maintenance and the required electricity is imported and package steam generators are providing the steam needs.</p> <p>The transmission line is maintained for supply continuity. The licensee employs a specialist HV maintenance team who carry out planned maintenance activities. In some cases specialist contractors, such as Western Power, are used to carry out maintenance activities.</p>								
<b>Issues</b>								
The maintenance is appropriate for the duty required.								
<b>Recommendation</b>								
None.								
<b>Rating</b>								
Well defined - 3								

<b>Asset Management Information System</b>							Effectiveness rating Well defined - 3	
<i>7. Asset Management Information System (MIS)</i>								
An asset management information system is a combination of processes, data and software that support the asset management functions.								
<b>Observations</b>								
Process	<input checked="" type="checkbox"/>	Documentation	<input checked="" type="checkbox"/>	Availability	<input checked="" type="checkbox"/>	Use	<input checked="" type="checkbox"/>	
<p>The licensee has a competent asset management information system with a number of elements. The German business software SAP is used and has been well tailored to the licensee's specific maintenance needs.</p> <p>It has complex spreadsheets managing expenditure and a dedicated maintenance management database to control a complex list of items. The maintenance system links</p>								

<p>project management to scheduled tasks to standard work plans (assisting with safety and change management), asset register and parts inventory.</p> <p>Access to write to the database is controlled (passwords) and changes are tracked. There is good documentation for data recovery procedures and the systems are backed up regularly to ensure data integrity.</p>
<b>Issues</b>
None
<b>Recommendation</b>
None
<b>Rating</b>
Well defined 3

<b>Risk management</b>	Effectiveness rating Well Defined- 3
<i>8. Risk management</i>	
Risk management involves the identification of risks and their management within an acceptable level of risk.	
<b>Observations</b>	
Process	<input checked="" type="checkbox"/> Documentation
	<input checked="" type="checkbox"/> Availability
	<input checked="" type="checkbox"/> Use
<p>The Licensee has a good documented risk management system and there is evidence that risk based approaches is being used e.g. for environmental management of greenhouse and particulate emissions, bottom ash and fly ash, water, and noise.</p> <p>The electricity 132Kv cable connecting to Western Power is in a cable tray that is not marked.</p>	
<b>Issues</b>	
The 132kV cable tray should be labelled High Voltage to distinguish it from adjacent services.	
<b>Recommendation</b>	
Label the 132kv cable tray High Voltage.	
<b>Rating</b>	
Well Defined- 3	

<b>Contingency planning</b>	Effectiveness rating Well defined - rating 3
<i>9. Contingency planning</i>	
Contingency plans document the steps to deal with the unexpected failure of an asset.	
<b>Observations</b>	
Process	<input checked="" type="checkbox"/> Documentation
	<input checked="" type="checkbox"/> Availability
	<input checked="" type="checkbox"/> Use
The Licensee has good documentation of its data recovery plans.	

<p>The licensee has an arrangement with Verve to import electricity when required and has package steam generators for back up steam.</p> <p>Fuel contingencies are provided with local stockpiles of coal and fuel oil. An inventory of spare parts is kept.</p> <p>The Licensee has detailed maintenance scheduled out for several years, with minor and major shutdowns allowed to deal with potential issues. Maintenance is partly conducted on condition based maintenance which monitors critical items for indicators of future failures. The asset management plans for each power station have detailed critiques of the units with detected issues to be managed and potential failure modes considered.</p> <p>The plant operates in base load mode which is a low thermal cycling mode with reduced stresses. The maintenance regime is geared to keeping the plant operational without forced outages.</p>
<p><b>Issues</b></p>
<p>The licensee has arrangements with Verve to import electricity in the event of plant failure and package steam boilers for steam shortfalls.</p> <p>In a gas shortage, the alumina plant can operate on reduced mode with coal which reduces the need for steam and electricity. A separate licence provides 25% of the steam generation from a gas fired cogeneration plant and this is also used to generate electricity. The licensed assets are primarily coal fed so are not affected by gas shortages.</p>
<p><b>Recommendation</b></p>
<p>None</p>
<p><b>Rating</b></p>
<p>Well defined - 3</p>

<p><b>Financial planning</b></p>	<p>Effectiveness rating Well defined - rating 3</p>
<p><i>10. Financial planning</i></p> <p>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.</p>	
<p><b>Observations</b></p>	
<p>Process</p>	<p><input checked="" type="checkbox"/> Documentation</p>
<p>Availability</p>	<p><input checked="" type="checkbox"/> Use</p>
<p>The Licensee has financial plans, budgeting and monitoring processes.</p>	
<p><b>Issues</b></p>	
<p>None</p>	
<p><b>Recommendation</b></p>	
<p>None</p>	
<p><b>Rating</b></p>	
<p>Well defined - rating 3</p>	

<b>Capital expenditure planning</b>							Effectiveness rating Well defined - rating 3	
<i>11. Capital expenditure planning</i>								
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.								
<b>Observations</b>								
Process	<input checked="" type="checkbox"/>	Documentation	<input checked="" type="checkbox"/>	Availability	<input checked="" type="checkbox"/>	Use	<input checked="" type="checkbox"/>	
The licensee has a well defined capital investment process covering small (<\$5m) to very large projects (>\$100m).The process covers concept to post implementation review.								
<b>Issues</b>								
None.								
<b>Recommendation</b>								
None								
<b>Rating</b>								
Well defined - rating 3								

<b>Review of AMS</b>							Effectiveness rating Not performed - rating 0	
<i>12. Review of AMS</i>								
The asset management system is regularly reviewed and updated.								
<b>Observations</b>								
Process	<input checked="" type="checkbox"/>	Documentation	<input checked="" type="checkbox"/>	Availability	<input checked="" type="checkbox"/>	Use	<input checked="" type="checkbox"/>	
As a generator the service delivery is heavily asset based and needs an AMS. There is no review process for the asset management system.								
<b>Issues</b>								
A more formal processes to trigger reviews of the AMS should be put in place rather than rely on implied causes to bring about change.								
<b>Recommendation</b>								
A process be implemented that schedules regular review of the asset management system.								
<b>Rating</b>								
Not performed - 0								