

Final Report

2010 Performance Audit and Asset Management System Review for Griffin Power 2 Pty Ltd: Bluewaters Power Station Unit 2 EGL17

Audit Report	Authorisation	Name	Position	Date
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March 2010
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Glossary Of Terms

BW1	Bluewaters 1 Power Station
BW2	Bluewaters 2 Power Station
CM	Condition Monitoring
CORPAC	Financial Consultancy Company
DCS	Distributed Control System
EPC	Engineer, Procure & Construct Contract
ETAC	Electricity Transfer Access Contract
I & C	Instrument & Control
IHI	Ishikawajima-Harima Heavy Industries Co., Ltd now named "IHI Corporation".
IT	Information Technology
KKS	Propriety equipment numbering system
PPA	Power Purchase Agreement
O & M	Operations & Maintenance
OEM	Original Equipment Manufacturer
OPS	Operations
SAP	Enterprise Management System
SOX	Sulphur Di-oxide
STEM	Short term Electricity Market
TWPS	Transfield Worley Power Services
WO	Work Order
WP(N)	Western Power (Networks)

This report is prepared by representatives of GES Pty Ltd in relation to the above named client's conformance to the nominated audit standard(s). Audits are undertaken using a sampling process and the report and its recommendations are reflective only of activities and records sighted during this audit process. GES Pty Ltd shall not be liable for loss or damage caused to or actions taken by third parties as a consequence of reliance on the information contained within this report or its accompanying documentation.

Quality Control Record

	CLIENT	DATE
REQUESTED BY	KERRY ROBERTS: GRIFFIN ENERGY	JANUARY 2010
PREPARED BY	NICOLE DAVIES	MARCH 2010
CHECKED BY	NEEMA PREMJI	MARCH 2010
REVISION	1	MAY 2010

1. EXECUTIVE SUMMARY

Griffin Power 2 Pty Ltd, part of the Griffin Group of companies, is the Generation Licence holder for Bluewaters Power Station Unit 2 located in the Coolangatta Industrial Estate, Boys Home Road Collie. The project was commissioned in June 2006 and comprises of a single sub-critical natural circulation boiler and a single reheat condensing turbine, auxiliary plant, associated electrical substation, coal handling plant, an administration/stores/workshop building and a network of access roads. Commercial operation of the unit commenced on the 26th of November 2009.

Griffin Power holds a Generation Licence (Licence Number EGL17) under the *Electricity Industry Act* 2004. Sections 13 & 14 of the Electricity Industry Act 2004 require as a condition of every licence that the licensee must, not less than once in every period of 24 months (or any longer period that the Authority allows) calculated from the grant of the licence, provide the Authority with a Performance Audit and Asset Management System Review conducted by an independent expert acceptable to the Authority.

This combined report contains the audit findings for both the Performance Audit and Asset Management System Review.

The Authority approved the appointment of Geographe Environmental Services Pty Ltd & Premmck Management Services on the 8th February 2010 and subsequently required the development of an audit plan for ERA approval. Notification of the approval of the audit plan for the 2009 Performance Audit of Licence EGL17 was provided on the 22nd March 2010. Geographe Environmental Services & Premmck Management Services have followed the Audit Guidelines – Electricity, Gas and Water Licences (July 2009) in preparation for and in conducting the audit and review.

The period for the audit and review is 20 June 2007 to 31st December 2009, and the report is submitted to the Authority within timeframes required demonstrates compliance with the Authority's requirements.

The Asset Management System Review and the Performance Audit have been conducted in order to assess the effectiveness of the Griffin Power 2 Pty Ltd's Asset Management Systems and level of compliance with the conditions of its Generation Licence EGL17. Through the execution of the Audit Plan, field work, assessment and testing of the control environment, the information system, control procedures and compliance attitude, the audit team members have gained reasonable assurance that Griffin Power 2 Pty Ltd has an effective asset management and has complied with its Generating Licence during the audit period 20th June 2007 to 31st December 2009. This audit report is an accurate representation of the audit teams findings and opinions.

1.1 Performance Audit Summary

With the exception of Licence Condition 2.1, and Compliance Reporting Manual Ref 83 & 85, all licence requirements reviewed were found to be compliant during the audit. A summary of audit findings is detailed in Table 4.

As required in section 11.4.1 of the Audit Guidelines – Electricity, Gas and Water Licences (July 2009) Table 1 summarises the compliance rating for each licence condition using the 7-point rating scale described in Table 3 (Refer Section 2.3 Methodology).

A comprehensive report of the audit findings is included in Appendix 1.

There were Generation Licence compliance elements that were not included in the scope of this audit because they did not eventuate in this audit period or have not been established within licence EGL17. These are defined in Table 1.

Table 1 : Performance Audit Compliance Summary

Generating Licence Reference (CI = Clause, Sch = Schedule)	Generation Licence Criteria	Likelihood	Consequences	Inherent Risk	Adequacy of existing controls	Compliance Rating							
						NR	NA	0	1	2	3	4	5
CI 1	Definitions						✓						
CI 2	Grant of Licence	Unlikely	Minor	Low	Strong				✓				
CI 3	Term					✓							
CI 4	Fees	Unlikely	Minor	Low	Strong							✓	
CI 5	Compliance	Unlikely	Moderate	Medium	Strong							✓	
CI 6	Transfer of Licence					✓							
CI 7	Cancellation of Licence					✓							
CI 8	Surrender of Licence					✓							
CI 9	Renewal of Licence					✓							
CI 10	Amendment of Licence on application of the Licensee					✓							
CI 11	Amendment of Licence by the Authority	Unlikely	Major	High	Strong								✓
CI 12	Expansion or Reduction of Generating Works, Distribution Systems and Transmission Systems	Unlikely	Minor	Low	Strong						✓		
CI 13	Accounting Records	Unlikely	Minor	Low	Strong								✓
CI 14	Individual Performance Standards					✓							
CI 15	Performance Audit	Unlikely	Major	High	Strong							✓	
CI 16	Asset Management System	Unlikely	Major	High	Strong					✓			
CI 17	Reporting	Unlikely	Major	High	Strong								✓
CI 18	Provision of Information	Unlikely	Minor	Low	Strong							✓	
CI 19	Publishing Information					✓							
CI 20	Notices	Unlikely	Minor	Low	Strong								✓
CI 21	Review of the Authority's Decisions						✓						

1.2 Asset Management System Review Summary

The asset management system was found to be satisfactory with a few issues requiring attention.

As required by section 11.4.2 of the Audit Guidelines (July 2009) Table 2 summarises the auditor's assessment of both the process and policy definition rating and the performance rating for each key process in the licensee's asset management system, using the scales described in Table 5 and Table 6 (refer Section 3.3 Asset Management Review Methodology). The rating was determined by the auditor's judgement based on the execution of the Audit Plan.

In reviewing the asset management system in place at Bluewaters Power Station it must be noted that the system is a combination of Griffin Power 2 Pty Ltd and Transfield Worley Power Services (TWPS) policies, procedures and plans. Griffin Power 2 Pty Ltd is the asset owner and TWPS is the asset operations and maintenance contractor.

Griffin Power, under the terms of the O & M agreement with TWPS, is responsible for the supply of all consumables and waste removal for the station. Griffin Power is also responsible for the management of generation trading for the station.

The process and policy and asset management system adequacy ratings are summarised below;

Table 2: Asset Management System - Effectiveness Summary

Asset Management System	Asset Management Process And Policy Definition Adequacy Rating	Asset Management Performance Rating
1. Asset planning	A	2
2. Asset creation/ acquisition	A	1
3. Asset disposal	B	2
4. Environmental analysis	A	1
5. Asset operations	A	1
6. Asset maintenance	A	1
7. Asset Management Information System	A	1
8. Risk management	B	2

9. Contingency planning	B	2
10. Financial planning	B	1
11. Capital expenditure planning	B	1
12. Review of AMS	A	2

The Audit Guidelines (July 2009) require that auditors who have rated the adequacy of the process and policy definition process as C or D or the asset management performance as 3 or 4 also make recommendations to address the issue(s).

2. PERFORMANCE AUDIT

2.1 Performance Audit Scope

This is the first audit of Griffin Power's compliance with obligations relating to Generation Licence EGL17. As such, the scope of the audit for the period 20th June 2007 to 31st December 2009 is to:

- assess the license holder's internal compliance systems (i.e. process, outcome and output compliance)
- assess the license holders compliance with its license (including integrity of reporting)
- measure performance over time

This Performance Audit was conducted over the following period February to March 2010 and an overview methodology is outlined below;

- Initial approval to conduct audit obtained by ERA
- Preliminary Audit undertaken to assist with preparation of the Audit Plan
- Audit Plan preparation
- Submission of the Audit Plan to the ERA
- Audit Plan Approval
- Performance Audit conducted on site to execute Audit Plan
- Preparation of Audit Report

The following people were interviewed during the Performance Audit;

- Kerry Roberts - Power Station Manager Bluewaters
- Shane Cremin - General Manger Policy & Strategy

- Charles Martelli - General Manager Marketing
- Michael Karpinski - Project Accountant
- Mike Cavanagh - Executive General Manager Operations and Trading
- Pete Ryan - Manager Wholesale Energy Trading
- Tremayne Pirnie - Business Analyst
- Donna Gardiner - TWPS Administration Officer
- Dan Snelgar - TWPS Asset Engineer
- Ken Chong - Western Power – Griffin Contract Manager

A list of key documents and other information sources examined by the auditor during the Performance Audit is provided below;

- Bluewaters Power Station Asset Management Plan (March 2009)
- Risk Assessment Report, Risk Point, Griffin Energy – Bluewaters Power station 180.01 (February 2009)
- O&M Agreement, Griffin Power Pty Ltd & Griffin Power 2 Pty Ltd and Transfield Worley Power Services Pty Limited (January 2008)
- Daily Dispatch Plan (via e-mail Griffin Energy)
- TWPS Bluewaters PS Monthly Reports
- Dispatch Schedule: Operational Processes, Western Power
- Griffin Power & Griffin Power 2 Bluewaters 1 & 2 Monthly Reports
- TWPS document management system (TRIM)
- Communication Meeting Minutes
- Quarterly Environmental Report (May – July 2009)
- Environmental Licence Exceeded Target Reports
- TWPS Bluewaters PS Monthly Reports
- Incident report forms, TMF-6033-SA-0069
- Daily pre-start meeting minutes [TMF-6032-OP-0011]
- ERA Correspondence
- Emergency Response Plan [TMP-6033-SA-003]
- Electricity Transfer Access Contracts
- Power Purchase Agreements
- Western Australian Electricity Market Metrology Procedure (Western Power - September 2006)
- Web Portal

Further detail is included in Appendix 1 of the report. In total the Performance Audit required 85 hours of Nicole Davies time.

2.2 Performance Audit Objective

The objective of the performance audit, as defined by the Audit Guidelines, is to assess the effectiveness of measures taken by the licensee to meet obligations of the performance and quality standards referred to in the licence.

In addition to compliance requirements, a specific focus is to be taken on the systems and effectiveness of processes used to ensure compliance with the standards, outputs and outcomes required by the licence. The audit outcome is to identify areas of non-compliance and areas of compliance where improvement is required and recommend corrective action as necessary.

2.3 Performance Audit Methodology

A risk assessment, assessment of control environment and allocation of audit priority was undertaken in accordance with the Audit Guidelines – Electricity, Gas and Water Licences (July 2009) on each element relating to Generation licensee's of the Electricity Compliance Reporting Manual April 2008 issued by the Authority. The Performance Audit Methodology was detailed in the Audit Plan.

Table 3 defines the compliance ratings shown in section 1.1.

Table 3: 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 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

In order to focus the audit effort and identify areas for testing and analysis a preliminary assessment of the risk and materiality of non-compliance with the Generation Licence was undertaken in accordance with the requirements of AS/NZS4360 Risk Management¹ and Appendix 2 of the Audit Guidelines. This assessment rating was reviewed during the audit process subject to the verification of control environment.

Deviation from the Audit Plan

Changes made to the pre-assessment ratings during the audit process are highlighted in Appendix 1 and an explanation for the amendment provided.

¹ AS/NZS 4360:2004 has been superseded by AS/NZS ISO 31000:2009

2.4 Performance Audit Summary of Recommendations & Post Implementation Plan

As stipulated in section 11.9 of the Audit Guidelines (July 2009), the Audit Team notes that the Performance Audit Post Implementation Plan does not form part of the Audit Opinion. It is the responsibility of the licensee to ensure actions are undertaken.

Table 4 below details the Audit Findings and Recommendations as required by the Authority. It is noted that only Licence Condition 2.1, Licence Condition 12.2 (ref 103) and Compliance Reporting Manual Ref 83 & 85 are required to have Post Audit Action Plans defined in the report (Refer Audit Guidelines Section 11.9).

Table 4: Post Audit Implementation Plan and Summary of Audit Findings.

Ref	Audit Requirement	Issue	Recommendation	Post-Audit Action Plan
-	<p>Generation Licence Condition 2.1 – Electricity Industry Act 2004</p> <p>The license is granted a licence for the licence area to construct and operate generating works in accordance with the terms and conditions of this licence.</p>	<p>The Generation Licence EGL17 specifies a capacity of 220 MW the actual capacity of the Power Station is 229.8MW. This differs from the Installed Capacity stated within the Generation Licence.</p> <p>Compliance Rating: Non-Compliant [2]</p>	<ol style="list-style-type: none"> 1. Request an amendment to licence as soon as practicable to reflect current plant capacity in accordance with performance tests. 2. A formalised and comprehensive Compliance Scheduling Process could be established to incorporate the legislative requirements relating to the power station. Inclusion of parameters relating to requirements other than EGL17 would ensure alignment with other processes. For example, Capacity stated within the Environmental Licence (L8326) 	<p>ACTION: BW2 is a new unit only being commissioned in 2009. The final nameplate capacity (and performance test results) has been known for a number of months now.</p> <p>There are several regulatory instruments that contain reference to these numbers – of which EGL17 is one. Griffin is working through each instrument and its obligation to update the required information. Griffin will contact the ERA with regards amending EGL17 to take account of the known nameplate capacity and maximum output capability of Bluewaters Unit 2.</p> <p>Any future change to the capacity of BW2 will</p>

Ref	Audit Requirement	Issue	Recommendation	Post-Audit Action Plan
			<p>aligns with that of the ERA Licence (EGL17).</p> <p>3. An internal compliance audit process could be established to ensure ongoing compliance, this could be aligned with the requirement to submit annual compliance reports to the ERA.</p>	<p>entail a more co-ordinated approach to amending regulatory instruments, of which EGL17 will be given a higher priority than has been attributed in this case. This will be communicated to the Senior Management Group at an appropriate Management Meeting.</p> <p>Additionally, this obligation will be included in a comprehensive Compliance Manual, which will be reviewed annually under a process conducted by Griffin's internal Audit Team, likely just prior to annual compliance reporting to the ERA.</p> <p>RESPONSIBILITY: Shane Cremin, General Manager Policy & Strategy; Matt Thomson, Group Financial Manager (responsible for Audit Team)</p> <p>DATE: April 2010 (apply to amend licence)</p> <p>July 2010 (compliance manual finalised and first internal audit of Griffin licensed entities)</p>

Ref	Audit Requirement	Issue	Recommendation	Post-Audit Action Plan
85	<p>Generation Licence Condition 4.1 - Electricity Industry Act section 17 (1)</p> <p>The licensee must pay the applicable fees in accordance with the Regulations.</p> <p>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.</p>	<p>There is no formalised process established for the payment of fees. Due to an error on the invoice issued by the ERA (invoice ERA136) which incorrectly noted that the Licence was granted on 20 July 2007 the EFT Payment was not paid in appropriate timeframe. A formalised process for monitoring compliance is required.</p> <p>Compliance Rating: Non-Compliant [2]</p>	Refer to Recommendation 2 & 3	<p>ACTION: Griffin accounts payable function operates on a manual processing of invoices received. Payments cannot be authorised or generated without the receipt of the corresponding invoice. Typically, invoices are paid at 60 days from receipt, except in cases where pre-existing arrangements are in place. On receipt of invoices, they are entered into a rolling 3 month budget tracking system. For ERA invoices, all ERA correspondence is forwarded to the GM Policy & Strategy, who then authorises payment of the invoice and submits to accounts payable for action with instructions that the invoices must be paid within 1 month. This will continue into the future, however additional to this, a schedule of licence due dates (falling on the anniversary of each ERA licence) will be set up in an appropriate scheduling tool shared between the GM Policy & Strategy and the relevant Accounts Payable Clerk. This will ensure the relevant people are aware that invoices are expected from the ERA.</p> <p>RESPONSIBILITY: Shane Cremin, GM Policy & Strategy; Michelle Curtis, Accounts Payable.</p>

Ref	Audit Requirement	Issue	Recommendation	Post-Audit Action Plan
				DATE: Implementation of scheduling immediately, followed by ongoing continuation of accounts payable function
416	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 6.1(2) A user must, in relation to a network on which it has an access contract, comply with the rules, procedures, agreements and criteria prescribed.	Requirements of the Access Contract could be captured in a Compliance Manual. Compliance Rating: Compliant [4]	Refer to Recommendation 2 & 3	Action Plan not mandatory for inclusion in post audit implementation plan as detailed in Audit Guidelines (July 2009) Section 11.9. These items will be reviewed and actioned through internal management systems and will form part of next Audit/Review process.
418	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 7.2(1) Code participants must use reasonable endeavours to ensure that they can send and receive a notice by post, facsimile and electronic communication and must	Inclusion of the requirement in a formalised process would ensure compliance. Currently relies on expertise of employees. Compliance Rating: Compliant [4]	Refer to Recommendation 2 & 3	Action Plan not mandatory for inclusion in post audit implementation plan as detailed in Audit Guidelines (July 2009) Section 11.9. These items will be reviewed and actioned through internal management systems and will form part of next Audit/Review process.

Ref	Audit Requirement	Issue	Recommendation	Post-Audit Action Plan
	notify the network operator of a telephone number for voice communication in connection with the Code.			
	Government Gazette information – Licence Condition 5.1	<p>Ensure information contained in Government Gazettes is fed into compliance process.</p> <p>Compliance Rating: Compliant [4]</p>	Refer to Recommendation 2 & 3	Action Plan not mandatory for inclusion in post audit implementation plan as detailed in Audit Guidelines (July 2009) Section 11.9. These items will be reviewed and actioned through internal management systems and will form part of next Audit/Review process.
86	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.	<p>Operational Incidents are not always captured within the reporting process to Griffin. Improvement in the process will ensure this information is communicated and clear links to operations logs can be made.</p> <p>Compliance Rating: Compliant [4]</p>	4. Ensure that Operational Incidents reported in the TWPS Operations Incident Register align with the monthly reports to Griffin Power. Consideration could be given to referencing incident number for ease of identification.	Action Plan not mandatory for inclusion in post audit implementation plan as detailed in Audit Guidelines (July 2009) Section 11.9. These items will be reviewed and actioned through internal management systems and will form part of next Audit/Review process.

Ref	Audit Requirement	Issue	Recommendation	Post-Audit Action Plan
319	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 3.11(3) A Code participant who becomes aware of an outage or malfunction of a metering installation must advise the network operator as soon as practicable.	Control Room operators do not have access to the sent out meter data and the delay in information relay can be 2 weeks. The check meter is available to the Control Room Operators. Griffin do have access to data via the web portal. Compliance Rating: Compliant [4]	5. Establish formalised procedures/ process for Western Power and Griffin to communicate metering information. 6. Review the possibility of providing access to billing meter data for TWPS.	Action Plan not mandatory for inclusion in post audit implementation plan as detailed in Audit Guidelines (July 2009) Section 11.9. These items will be reviewed and actioned through internal management systems and will form part of next Audit/Review process.
103	Generation Licence condition 12.2 - Electricity Industry Act section 11 A licensee must amend the asset management system before an expansion or reduction in generating works, distribution systems and transmission systems and notify the Authority in the manner prescribed, if the expansion or reduction is not provided for in the asset management system	There has been an increased plant capacity realised during the commissioning of the plant. Whilst it is considered that the Asset Management System provides for the expansion a review after the completion of the warranty outage is recommended to ensure compliance. Compliance Rating: Compliant [3]	7. Review the Asset Management Plan on completion of the warranty outage at the end of the first year of commercial operation (as for Recommendation 9 in Asset Management Review)	ACTION: As part of their contract obligations, BW1 operators (TWPS) are obliged to review the asset management plan annually and submit a report to Griffin's Executive General Manager Operations and Trading. RESPONSIBILITY: Mike Cavanagh, Executive General manager Operations and Trading DATE: Annual Review and Budget forecasts are conducted each April.

Ref	Audit Requirement	Issue	Recommendation	Post-Audit Action Plan
81	Generation Licence Condition 15.1 - Electricity Industry Act section 13(1) 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.	<p>Ensure the requirement for the audits is captured through a formalised system. Currently rely on notification from the Authority and the personalised diary of employees.</p> <p>Compliance Rating: Compliant [4]</p>	Refer to Recommendation 2 & 3	Action Plan not mandatory for inclusion in post audit implementation plan as detailed in Audit Guidelines (July 2009) Section 11.9. These items will be reviewed and actioned through internal management systems and will form part of next Audit/Review process.
82	Generation Licence Condition 16.1 - Electricity Industry Act section 14 (1)(a) The <i>licensee</i> must provide for, and notify the Authority of, an <i>asset management system</i> in relation to the <i>generating works</i> within 2 <i>business days</i> from the <i>commencement date</i> or from the completion of construction of the <i>generating works</i> , whichever is later.	<p>The Licensee has provided for an asset management system.</p> <p>The primary driver of the O&M Agreement is availability which provides the requirements for an effective asset management system for the power station.</p> <p>However, formal notification of the asset management system has not been provided to the Authority.</p> <p>Compliance Rating: Non-Compliant [2]</p>	8. Provide notification of the AMP to the Authority in relation to the generating works.	<p>ACTION: Notify the Authority of the Asset Management System.</p> <p>RESPONSIBILITY: Shane Cremin, General Manager Policy & Strategy;</p> <p>DATE: June 2010</p>

Ref	Audit Requirement	Issue	Recommendation	Post-Audit Action Plan
83	Generation Licence Condition 16.2 - Electricity Industry Act section 14 (1)(b) A licensee must notify details of the asset management system and any substantial changes to it to the Authority.	The Licensee has not notified a substantial change to the Authority. Compliance Rating: Non-Compliant [2]	9. Communicate the plant capacity to the ERA.	As per Recommendation 1, 2 & 3
84	Generation Licence Condition 16.3 - Electricity Industry Act section 14 (1)(c) 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.	Ensure the requirement for the review is captured through a formalised system. Currently rely on notification from the Authority and the personalised diary of employees. Compliance Rating: Compliant [4]	Refer to Recommendation 2 & 3	Action Plan not mandatory for inclusion in post audit implementation plan as detailed in Audit Guidelines (July 2009) Section 11.9. These items will be reviewed and actioned through internal management systems and will form part of next Audit/Review process.
108	Generation Licence condition 16.4 - Electricity Industry Act section 11 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.	Ensure the requirement for the review is captured through a formalised system. Currently rely on notification from the Authority and the personalised diary of employees. Compliance Rating: Compliant [4]	Refer to Recommendation 2 & 3	Action Plan not mandatory for inclusion in post audit implementation plan as detailed in Audit Guidelines (July 2009) Section 11.9. These items will be reviewed and actioned through internal management systems and will form part of next Audit/Review process.

Ref	Audit Requirement	Issue	Recommendation	Post-Audit Action Plan
109	<p>Generation Licence condition 17.1 - Electricity Industry Act section 11</p> <p>The licensee must report to the Authority:</p> <p>(a) if the licensee is under external administration as defined by the Corporations Act 2001 (Cwlth) within 2 business days; or</p> <p>(b) if the licensee experiences a significant change in the licensee's corporate, financial or technical circumstances upon which this licence was granted which may affect the licensee's ability to meet its obligations under this licence within 10 business days of the change occurring.</p> <p>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</p>	<p>Whilst the organisation has complied with this condition in the audit period, recent circumstances relating to the Voluntary Administration of Griffin Coal may require the Licensee to ensure that if situations change the appropriate actions are implemented. Inclusion in a compliance reporting process or linkage to the Administration process may achieve this objective.</p> <p>Compliance Rating: Compliant [5]</p>	<p>10. Ensure ongoing correspondence to ERA regarding impact of voluntary administration of The Griffin Coal Company on EGL17.</p> <p>Also refer to Recommendation 2 & 3</p>	<p>Action Plan not mandatory for inclusion in post audit implementation plan as detailed in Audit Guidelines (July 2009) Section 11.9. These items will be reviewed and actioned through internal management systems and will form part of next Audit/Review process.</p>

Ref	Audit Requirement	Issue	Recommendation	Post-Audit Action Plan
	obligations.			
110	<p>Generation Licence condition 18.1 - Electricity Industry Act section 11 - Compliance and Reporting Manual March 2008 section 5.3 and section 5.4</p> <p>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.</p>	<p>Ensure the requirement for the provision of information is captured through a formalised system.</p> <p>Compliance Rating: Compliant [4]</p>	Refer to Recommendation 2 & 3	<p>Action Plan not mandatory for inclusion in post audit implementation plan as detailed in Audit Guidelines (July 2009) Section 11.9. These items will be reviewed and actioned through internal management systems and will form part of next Audit/Review process.</p>
112	<p>Generation Licence condition 20.1 - Electricity Industry Act section 11</p> <p>Unless otherwise specified, all notices must be in writing.</p>	<p>There are no formalised procedures for maintaining records of correspondence in relation to the Generation Licence.</p> <p>Compliance Rating: Compliant [4]</p>	<p>11. Consideration could be given to establishing a formalised procedure for maintaining records of (email and hardcopy correspondence). Guidance could be sought from ISO 9001.</p>	<p>Action Plan not mandatory for inclusion in post audit implementation plan as detailed in Audit Guidelines (July 2009) Section 11.9. These items will be reviewed and actioned through internal management systems and will form part of next Audit/Review process.</p>

3. ASSET MANAGEMENT SYSTEM EFFECTIVENESS REVIEW

3.1 AMS Review Scope

The scope of the AMS review includes an assessment of adequacy and effectiveness of Griffin Energy: Griffin Power 2 Pty Ltd asset management system, by evaluating during the audit period 20th June 2007 to 31st December 2009 the following;

1. Asset Planning
2. Asset creation/acquisition
3. Asset disposal
4. Environmental analysis
5. Asset operations
6. Asset maintenance
7. Asset management information system
8. Risk management
9. Contingency planning
10. Financial planning
11. Capital expenditure planning
12. Review of asset management system

The review has been established as a requirement of the current Generating Licence issued by the Economic Regulation Authority to Griffin Energy: Griffin Power 2 Pty Ltd.

The asset management review follows the approved audit plan and uses;

- a risk based approach to auditing using the risk evaluation model set out in AS/NZS 4360:2004¹;
- an overall effectiveness rating for an asset management process, based on a combination of the process and policy adequacy rating and the performance rating
- the format and content of the reviewer's report; and post- implementation plan as described in the Guidelines.

¹ AS/NZS 4360:2004 has been superseded by AS/NZS ISO 31000:2009

The following people were interviewed during the review;

Kerry Roberts -	Griffin Energy General Manager Energy Projects
Nicholas Yeak -	Griffin Energy Management Accountant
Wayne Trumble -	Griffin Energy Executive General Manager Power Generation
Paul Hanson -	Transfield Worley Power Services (TWPS) Station Manager
Steve Deonck -	TWPS Operations Manager
Rob Dewar -	TWPS Operations Coordinator (Mechanical)
Heidi Poiz -	TWPS Site Accountant
Donna Gardiner -	TWPS Administration Officer
Dan Snelgar -	TWPS Asset Engineer
Hon Lye -	TWPS Asset Manager
Stephen Armstrong -	TWPS Operations Coordinator / Supervisor (I&C)

The key documents and other information sources are detailed below and further in Appendix 2.

- Bluewaters Power Station Asset Management Plan (March 2009)
- Risk Assessment Report, Risk Point , Griffin Energy – Bluewaters Power station 180.01 (February 2009)
- O&M Agreement, Griffin Power Pty Ltd & Griffin Power 2 Pty Ltd and Transfield Worley Power Services Pty Limited (January 2008)
- Transfield Services, Assessing Operational Systems Performance (on-line system), TMD-0000-QA-0007 (October 2006,rev 10)
- Daily Dispatch Plan (via e-mail Griffin Energy)
- TWPS Bluewaters PS Monthly Reports (Oct & Nov 2009)
- Bluewaters Power Station O&M Budget U1 & 2, Financial Plan (2008-14) Ver 3
- Dispatch Schedule: Operational Processes, Western Power
- Bluewaters Power Station Unit EPC 1 Contract (July 2007)
- Risk Assessment Report, Risk Point , Griffin Energy – Bluewaters Power station 180.01 (February 2009)
- Griffin Power 2 cash flow statement (June 2009)
- Griffin Power & Griffin Power 2 Bluewaters 1 & 2 Monthly Report (Dec 2009)
- Griffin Power Capital Expenditure Application form (Bimetallic Mill Rolls)
- Griffin document management system (TRIM)
- Advisory Board Meeting Presentation 2009
- Communication Meeting Minutes
- Weekly Operations Minutes
- Quarterly Environmental Report (May – July 2009)

- Environmental Licence Exceeded Target Reports
- Griffin Energy Risk register
- Risk Assessment worksheets OPS -6033-001 to 0014
- TWPS Risk Register
- TWPS Bluewaters PS Monthly Reports (Oct & Nov 2009)
- Bluewaters Power Station Unit EPC 1 Contract (July 2007)
- Boiler Feed Pump Change Over & Pre-start procedures, TMF-6033-OP-003 &004
- Operations logs (electronic)
- Incident report forms, TMF-6033-SA-0069
- TWPS Risk Register & Risk Assessment Work sheet TMF-6033-RM-0001
- SAP management system
- Daily pre-start meeting minutes (TMF-6032-OP-0011)
- JSA's (eg burner tip cleaning TMF-6032-SA-0015)
- Yokogawa DCS history system
- OEM O&M manuals (TRIM)
- Incident report forms, TMF-6033-SA-0069
- Bluewaters 11 Summary Cost report as at 31 May 2009
- Bluewaters 11 Variations Report as at 31 May 2009
- Griffin Power & Griffin Power 2 Bluewaters 1 & 2 Monthly Report (Dec 2009)
- TWPS O&M Costs – December to June 2009 (monitored by Griffin Energy)
- DCS override procedure TMP-6033-OP-0100
- I&C calibration procedure TMP-6033-QA-0002 (draft)
- Plant modification form/procedure TMP-6033-EG0-0001
- SAP access protocol
- TWPS Monthly reports (October & November 2009)
- Bluewaters Unit 1 Quarterly Environmental Report (May – July 2009)
- Bluewaters Power Station Asset Management Plan (March 2009), Appendix I Sample Risk Assessment Worksheet & Appendix J Risk Action Plan
- Risk Assessment Report, Risk Point , Griffin Energy – Bluewaters Power station 180.01 (February 2009)
- Griffin Energy Risk register
- Risk Assessment worksheets OPS -6033-001 to 0014
- Risk Policy TMC-0000-RM-0002
- Risk Action Plan TMF-0000-RM-0002
- O&M Agreement, Griffin Power Pty Ltd & Griffin Power 2 Pty Ltd and Transfield Worley Power Services Pty Limited (January 2008)
- Transfield Services, Assessing Operational Systems Performance (on-line system), TMD-0000-QA-0007 (October 2006, rev 10), Section 13 Risk Management
- TWPS Betterways Continuous Improvement program
- Bluewaters 11 Summary Cost report as at 31 May 2009

- Bluewaters 11 – Cash Payments Monthly Phasing – May 2009
- Bluewaters 11 Variations Report as at 31 May 2009
- TWPS O&M Costs – December to June 2009 (monitored by Griffin Energy)
- Griffin Power 2 Pty Ltd Forecast Performance Indicators (Financial & Statistical 3 – year forecast 2008 -2010)
- Griffin Power 2 Pty Ltd Strategic Budget GFR 10 Year Performance Indicators (Financial & Statistical 10 –year forecast 2008 -2019)
- Griffin Power 2 Pty Ltd 10 Year Performance Indicators (Financial 10 –year forecast 2008 -2019)
- P&L Financial Indicators error check report
- Griffin Power 2 year annual monthly rolling budget + 8 years (cash flow statement, balance sheet & statement of financial performance)
- Griffin Power & Griffin Power 2 Bluewaters 1 & 2 Monthly Report (Dec 2009)
- Griffin Power 2 Pty Ltd Special Purpose Financial Report 30 June 2008 & 30 June 2009 (Deloitte Independent Auditors Report)

The review was conducted in conjunction with the Performance Audit during February – March 2010 and included a 2 day preliminary site audit, desktop review, 3 day audit to execute audit plan and interview sessions and report writing. In total the audit required 140 hours of Premmck Management Service's (Neema Premji and Brian McKenry) time.

3.2 Objective of the Asset Management System Review

The objective of the review is to examine the effectiveness of the processes used by Griffin Energy: Griffin Power 2 Pty Ltd to deliver asset management, the information systems supporting asset management activities and the data and knowledge used to make decisions about asset management. These elements were examined from a life cycle perspective i.e. planning, construction, operation, maintenance, renewal, replacement and disposal using the guidelines developed by the Economic Regulation Authority.

3.3 Methodology for Asset Management System Review

The audit methodology detailed in the Audit Guidelines – Electricity, Gas and Water Licences (July 2009) was used in the execution of the Asset Management System Review and is detailed in the Audit Plan.

Asset Management System Effectiveness Rating

The Audit Guidelines (section 11.4.2) states that the asset management review report must provide a table that summarises the auditor's assessment of both the process and policy definition rating and the performance rating for each key process in the licensee's asset management system using the scales described in Table 5 and Table 6. It is left to the judgement of the auditor to determine the most appropriate rating for each asset management process.

Table 5: 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 6: 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.
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.

Deviation from the Audit Plan

There were several changes made to the risk assessment ratings conducted for the Audit Plan for the Asset Management System Review. The revisions only involve the adequacy of existing controls. These changes are highlighted within Appendix 2 of the report.

In addition, the reference numbering differs to that in the Audit Plan as the Outcome has been put as an overarching reference to reflect the structure of Table 16 in the Guidelines, Appendix 2 includes the pre-audit review ratings based on the same reference numbering scheme as set out in the audit guidelines.

Summary of Findings

After reviewing the effectiveness of Griffin Power's asset management system the audit priorities were revised as summarised in Table 7 below. On the scale of 0 to 5, priority 1 being the highest risk rating moving down to priority 5 the lowest risk rating. Appendix 2 details the findings of each of the Asset Management Elements and sub-elements detailing observations and where applicable recommendations.

Table 7: Summary of Post Audit Findings

AMS Audit Elements	Asset Management System Post - Audit Priority Rating						Comments
	Priority 1	Priority 2	Priority 3	Priority 4	Priority 5	Total	
1. Asset Planning				5	3	8	
2. Asset creation/acquisition				5		5	
3. Asset disposal				4		4	
4. Environmental analysis				4		4	
5. Asset operations				4	1	5	
6. Asset maintenance				6		6	
7. Asset Management Information System				1	6	7	
8. Risk Management		1		2		3	
9. Contingency Planning		1				1	
10. Financial Planning				6		6	

11. Capital expenditure planning				4		4	
12. Review of Asset Management System					2	2	
Total		2		41	12	55	

Recommendations and Post Review Implementation Plans

Table 8: Recommendations and Post – Review Action Plans

Ref	Audit Requirement	Issue	Recommendation	Post-Audit Action Plan
1.1	Asset Planning – Planning process and objectives reflect the needs of the stakeholders and is integrated with business planning Effectiveness Rating - 5	The Asset Management Plan (AMP) is the first version of the plan for Bluewaters and needs to be reviewed and updated after the April Outage 2010 to better reflect the stakeholder's needs in relation to future asset management.	The Asset Management Plan should be reviewed and updated after the warranty outage in April 2010.	ACTION: As part of their contract obligations, BW2 operators (TWPS) are obliged to review the asset management plan annually and submit a report to Griffin's Executive General Manager Operations and Trading. RESPONSIBILITY: Mike Cavanagh, Executive General manager Operations and Trading DATE: Annual Review and Budget forecasts are conducted each April

Ref	Audit Requirement	Issue	Recommendation	Post-Audit Action Plan
1.4	Asset Planning – Lifecycle costs of owning and operating assets are assessed Effectiveness Rating – 4	Business risk profile review by CORPAC included a review of the life cycle costs associated with the operating assets when project was first initiated. These needs to be documented and updated after the first outage.	Document whole of life cycle cost model and review annually	Action Plan not mandatory for inclusion in post review implementation plan as detailed in Audit Guidelines (July 2009) Section 11.9. These items will be reviewed and actioned through internal management systems and will form part of next Audit/Review process.
1.7	Asset Planning – Likelihood and consequences of asset failure are predicted Effectiveness Rating – 4	The risk report addressed issues related to asset failure prior to start up of the unit. Since then Griffin and TWPS has been addressing the risk issues but is poorly documented and reviewed and needs to be aligned to the AMP.	Risk Treatment Plans and reports should be reviewed on a more frequent basis, i.e. quarterly	Action Plan not mandatory for inclusion in post review implementation plan as detailed in Audit Guidelines (July 2009) Section 11.9. These items will be reviewed and actioned through internal management systems and will form part of next Audit/Review process.
7.6	Asset Management Information System – Key computations related to licensee performance reporting are materially accurate Effectiveness Rating - 4	Currently the Western Power Sent Out metering is not transmitted to the control room, control room metering is separate. There is no ability for control room staff to verify sent out levels.	Consideration should be given to import Western Power metering data into the control room for cross – checking of service delivery levels.	Action Plan not mandatory for inclusion in post review implementation plan as detailed in Audit Guidelines (July 2009) Section 11.9. These items will be reviewed and actioned through internal management systems and will form part of next Audit/Review process.

Ref	Audit Requirement	Issue	Recommendation	Post-Audit Action Plan
8.2	Risk Management – Risks are documented in a risk register and treatment plans are actioned and monitored Effectiveness Rating – 2	Griffin and TWPS has been addressing the risk issues but is poorly documented and reviewed and needs to be aligned to the AMP.	Risk Register, Treatment Plans and reports should be reviewed on a more frequent basis, i.e. quarterly	Action Plan not mandatory for inclusion in post review implementation plan as detailed in Audit Guidelines (July 2009) Section 11.9. These items will be reviewed and actioned through internal management systems and will form part of next Audit/Review process.
9.1	Contingency Planning – Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks Effectiveness Rating – 2	Individual contingency plans /documentation for all fuel and consumables to the Power Stations, operation and maintenance are not integrated.	An over-arching business contingency plan should be developed for the station documenting separate plans for Griffin Power.	Action Plan not mandatory for inclusion in post review implementation plan as detailed in Audit Guidelines (July 2009) Section 11.9. These items will be reviewed and actioned through internal management systems and will form part of next Audit/Review process.
10.1	Financial Planning – The financial plan states the financial objectives and strategies and actions to achieve the objectives Effectiveness Rating – 4	Financial planning and business planning processes are evident however documentation of the process was not.	Develop procedural documentation to detail the process in relation to annual budgeting, business planning and the 10 year financial plans.	Action Plan not mandatory for inclusion in post review implementation plan as detailed in Audit Guidelines (July 2009) Section 11.9. These items will be reviewed and actioned through internal management systems and will form part of next Audit/Review process.

Ref	Audit Requirement	Issue	Recommendation	Post-Audit Action Plan
11.1	Capital Expenditure Planning – There is a capital expenditure plan that covers issues to be addressed, actions proposed, responsibilities and dates Effectiveness Rating – 4	Capital expenditure planning and business planning processes are evident however documentation of the process was not.	Develop procedural documentation to detail the process in relation to capital budgeting.	Action Plan not mandatory for inclusion in post review implementation plan as detailed in Audit Guidelines (July 2009) Section 11.9. These items will be reviewed and actioned through internal management systems and will form part of next Audit/Review process.
12.1	A review process is in place to ensure that the asset management plan and the asset management system described therein are kept current Effectiveness Rating - 5	The current AMP was developed prior to commercial operation of the station and has not as yet been updated	Review and update the AMP after the planned outage in April 2010.	Action Plan not mandatory for inclusion in post review implementation plan as detailed in Audit Guidelines (July 2009) Section 11.9. These items will be reviewed and actioned through internal management systems and will form part of next Audit/Review process.

3.4 2010 Post Audit Implementation Plan

As stipulated in section 11.9 of the Audit Guidelines (July 2009), the Audit Team notes that the Asset Management Review Post Implementation Plan does not form part of the Audit Opinion. It is the responsibility of the licensee to ensure actions are undertaken as determined by Griffin Power 2 Pty Ltd.

4. RECOMMENDATIONS FOR AMENDMENT TO AUDIT PROCESS

Audit Guidelines

The following errors were noted in the Audit Guidelines (July 2009). These were communicated to the ERA by GES Pty Ltd in order to clarify the audit process;

1. Section 6.3 Risk based approach to audits & reviews. Reference to Appendix 1 is incorrect and should be Appendix 2 on;
 - Last paragraph Page 5
 - Second paragraph Page 6
2. Section 8.2. Auditor Independence; typographic error entity³ should be entity³ (Page 8)
3. Appendix 4, Section 2 Asset Management Key System Processes – numbering (3) to (14) should be (1) to (12)
4. AS/NZS 4360:2004 has been superseded by AS/NZS 31000:2009

These errors have not impacted the audit process and are understood to be addressed by the ERA on the next revision of the document.

5. FOLLOW UP AUDIT PROCESS

This is the first Performance Audit and Asset Management Review conducted since the issue of the licence. Review of actions taken in response to recommendations will form part of subsequent audit plans.

The license proposes that Griffin Power 2 Pty Ltd reports progress on the Post Audit Implementation Plan to the ERA in the annual Compliance Reports.

APPENDIX 1

GRIFFINS ENERGY: GRIFFIN POWER 2 PTY LTD PERFORMANCE AUDIT MARCH 2010

Compliance Reporting Manual Ref	Licence Condition Requirement	Compliance Rating	Verification/ Tests	Effectiveness
GENERATION LICENCE CONDITION 1 - DEFINITIONS				
-	Determined to be not applicable to the audit scope.	NA	NOT APPLICABLE	
GENERATION LICENCE CONDITION 2 - GRANT OF LICENCE				
-	<p>Generation Licence condition 2.1- Electricity Industry Act 2004</p> <p>The licensee is granted a licence for the licence area to construct and operate generating works or operate existing generating works in accordance with the terms and conditions of this licence.</p>	Non-Compliant [2]	<ul style="list-style-type: none">Bluewaters Unit 2 Generation Licence EGL17 – Schedule 1 S3.2Bluewater’s Power Station Unit 1 EPC Exhibit 2 S2.1Discussions with Station Manager, TWPSEnvironmental Licence L8326/2008/1Discussion with Manager Wholesale Energy TradingUnit 2 Test Report – IHI – 19th November 2009 [Document Ref 200-K097034]	<p>The Installed Capacity of the Unit as defined by EGL17 is 220MW of which 208MW is sent out and the remaining parasitic power. The EPC contract aligns with this specification, however, through the commissioning and operation phases a greater capacity has been realised.</p> <p>As such the Generation Licence (EGL17) does not reflect the current plated capacity of the plant which is 229.8 MW or the maximum capacity achieved in the EPC Performance tests of 230MW.</p> <p>Refer to Ref 103 & 83 for more detail.</p>
Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
Likelihood	Likely	2 NOTE: The Audit Priority has been changed from 4 to 2.	<ol style="list-style-type: none">Request an amendment to licence as soon as practicable to reflect current plant capacity in accordance with performance tests.A formalised and comprehensive Compliance Scheduling Process could be established to incorporate the legislative requirements relating to the power station. Inclusion of parameters relating to requirements other than EGL4 would ensure alignment with other	
Consequence	Major			
Inherent Risk	High			
Adequacy of Controls	Moderate			

Compliance Reporting Manual Ref	Licence Condition Requirement	Compliance Rating	Verification/ Tests	Effectiveness
			processes. For example, Capacity stated within the Environmental Licence (L8326) aligns with that of the ERA Licence (EGL4).	
			3. An internal compliance audit process could be established to ensure ongoing compliance, this could be aligned with the requirement to submit annual compliance reports to the ERA.	
GENERATION LICENCE CONDITION 3 - TERM				
-	Generation Licence Condition 3.1 - Electricity Industry Act 2004 The licence commences on the commencement date and continues until the earlier of; (a) the cancellation of the licence pursuant to clause 7 of this licence; (b) the surrender of the licence pursuant to clause 8 of this licence; or (c) the expiry date.	Not Rated [NR]	<ul style="list-style-type: none"> Compliance Reports during audit period 20th June 2007– 31 December 2009 <ul style="list-style-type: none"> - Griffin Power 2 Pty Ltd 1 July 2008 - 30 June 2009 (dated 14/08/09) - Griffin Power 2 Pty Ltd 1 July 2007 - 30 June 2008 (dated 20/08/08) - Griffin Power 2 Pty Ltd Compliance Report 20 June 2007 – 30 June 2008 (20/08/07) Interview with Power Station Manager 	No issues with regards to surrender or cancellation of the licence were raised during the audit period. As such assessment of compliance with clause cannot be undertaken.
	Risk Assessment	Audit Priority	Corrective Action/Opportunity for Improvement	

Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness		
	Likelihood	Unlikely	4	Nil			
	Consequence	Moderate					
	Inherent Risk	Medium					
	Adequacy of Controls	Strong					
GENERATION LICENCE CONDITION 4 - FEES							
85 [TYPE NR]	Generation Licence Condition 4.1 - Electricity Industry Act section 17 (1) The licensee must pay the applicable fees in accordance with the Regulations. 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.		Non-Compliant [2]	<ul style="list-style-type: none">▪ Payment of fees before the 20th July of each year▪ Discussion with Manager Strategy & Policy▪ Review of payment/pending invoice process	Licence fees were paid in accordance with requirements as follows; - ERA Invoice ERA081 EFT 16/7/08 - ERA Invoice ERA136 EFT 7/8/09 – approved 30/6/09 It is noted that Invoice ERA136 was due to be paid by 20 th July and approvals were recorded on the invoice by 30/6/09. However the EFT Payment was not undertaken until 7/8/09. The Invoice notes incorrectly that the licence was granted on 20 th July (i.e. must be paid by 20 th August). A formalised process for monitoring compliance may have identified this error.		
	Risk Assessment					Audit Priority	Corrective Action/Opportunity for Improvement
	Likelihood	Likely				2	Refer to Recommendation 2 [Condition 2 – Grant of Licence]
Consequence	Moderate						

Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
	Inherent Risk	High		Note: Due to issues identified Audit Priority Rating has been changed from 5 to 2.	
	Adequacy of Controls	Medium			
GENERATION LICENCE CONDITION 5 - COMPLIANCE					
86 [TYPE NR]	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.		Compliant [4]	<ul style="list-style-type: none">▪ O & M Agreement Amendment Deed▪ TWPS Monthly Reports▪ Bluewaters Power Station Audit Schedule, TWPS▪ Bluewaters Power Station – Emergency Response Plan Rev1 [TMP-6033-SA-003]▪ MSS Security/Paramedic onsite 24 hrs per day 7 days per week.▪ Operations Incident Register▪ Operations Incident Report [TWPS TMF-6033-SA-0069]▪ Discussion with Station Manager TWPS	<p>O & M Agreement adequately addresses requirements to maximise electricity generation; high availability targets are set for TWPS, safety and environmental performance requirements are specified.</p> <p>Compliance with the Agreement is monitored by Griffin.</p> <p>TWPS recently implemented an Audit Schedule and safety audits are included. it is understood that TWPS will audit against their operational procedures [For example, Health Safety & Environment Ref TMD-8009-PM-0014]</p> <p>Noted that incident reports do not clearly match information sent through to Griffin in Monthly Reports.</p>
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	

Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
	Likelihood Consequence Inherent Risk Adequacy of Controls	Unlikely Moderate Medium Strong	4	4. TWPS could improve processes for aligning operational incidents detailed in the Operations Incident Register and monthly report information to Griffin. Considerations could be given to referencing the incident number for ease of identification.	
87 [TYPE 2]	Generation Licence Condition 5.1- Electricity Industry Act section 41 (6) A licensee must pay the costs of taking an interest in land or an easement over land.		Compliant [5]	<ul style="list-style-type: none"> Lot 8 on Plan 20710 being (part of) the land compromised in Certificate of Title Volume 2206 Folio 576 	Griffin owns the land on which the Power Station is located.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood Consequence Inherent Risk Adequacy of Controls	Unlikely Minor Low Strong	5	Nil	
309 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 3.5(6) 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. Western Power Corporation (WPC) is the Network Operator for Griffin Power.		NA	Not Applicable as Griffin Power is not the Network Operator. Reference to Electricity Industry Metering Code.	

Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
319 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 3.11(3) A Code participant who becomes aware of an outage or malfunction of a metering installation must advise the network operator as soon as practicable.		Compliant [4]	<ul style="list-style-type: none"> Discussion with Western Power Griffin Account Manager TWPS Asset Engineer Web portal Email communications (8/8/07) between Manager Wholesale Energy Trading and WPN Account Manager re: communication issues regarding modem in July 2007. 	<p>All meters for Griffin Power are monitored and read by Western Power. The check meter information is also monitored by the Control Room Operators as well as System Management. Currently TWPS do not have access to billing meter data.</p> <p>Email trail is evidenced between Western Power and Griffin in relation to metering data queries.</p> <p>Communication procedures could be better established to ensure transfer of information and metering instrumentation performance.</p>
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood	Unlikely	4	<p>5. Formalised procedures/processes for Western Power and Griffin to communicate metering information.</p> <p>6. Review possibility of providing access to billing meter data for TWPS.</p>	
	Consequence	Moderate			
	Inherent Risk	Medium			
	Adequacy of Controls	Strong			
331 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 3.16(5) 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.		Not Rated [NR]	<ul style="list-style-type: none"> Discussion with Western Power Griffin Account Manager Discussion with Manager Policy & Strategy 	<p>Tariff Metering requirements are covered in retail contracts. The Network Operator manages metering requirements for Griffin Power. Griffin Power has only two customers.</p> <p>This requirement relates to the conversion of non interval metering to interval</p>

Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
					metering. There is no need for conversion as the customers are billed on aggregated data in accordance with the contract. As such assessment of compliance with clause cannot be undertaken.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood	Unlikely	4	Nil	
	Consequence	Moderate			
	Inherent Risk	Medium			
Adequacy of Controls	Strong				
342 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 3.27 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.		Compliant [5]	<ul style="list-style-type: none">▪ Key locked room procedures established for access▪ Western Australian Electricity Market Metrology Procedure (Western Power - September 2006)▪ Discussion with Station Manager TWPS	All tariff meters installed at Bluewaters Power Station are the property of Western Power. Griffin Power has confirmed that all legislative requirements have been adhered to with respect to installation of meters.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood	Unlikely	2	Nil	
	Consequence	Major			
	Inherent Risk	High			
Adequacy of Controls	Strong				

Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
349 [TYPE NR]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 4.4(1) 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.		Compliant [4]	<ul style="list-style-type: none"> Web Portal The Electricity Transfer Access Contract [ETAC] Section 28 [Contract Reference Number 3805267] Email communications (8/8/07) between Manager Wholesale Energy Trading and WPN Account Manager re: communication issues regarding modem in July 2007. Communication with Western Power Metering Services 	<p>All discrepancies have been resolved to the satisfaction of the customer. Failures were associated with communications links and were resolved. Evidenced via email trail. These instances did not affect data integrity.</p> <p>Reference is noted for finding ref 351 that there have been no data inaccuracies identified during the audit period that would indicate an issue with data adequacy.</p>
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood	Unlikely	4	Nil	
	Consequence	Moderate			
	Inherent Risk	Medium			
	Adequacy of Controls	Strong			
350 [TYPE NR]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 4.5(1) A Code participant must not knowingly permit the registry to be materially		Compliant [5]	<ul style="list-style-type: none"> Web Portal Web portal system is not able to be manipulated i.e. data not accessible by network people only 	<p>This is primarily the responsibility of WPN.</p> <p>Griffin Power has a check meter installed and review processes are established for verifying metering data. In addition Western Power through the System</p>

Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
	inaccurate.			accessed by WPN	Management has access to this data. As such meter information can be verified from three different sources; (i) Western Power Portal (ii) Monthly Reports from Contractor (TWPS) (iii) SCADA System There have been no complaints of inaccurate data in the registry during the audit period.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood	Unlikely	5	Nil	
	Consequence	Minor			
	Inherent Risk	Low			
	Adequacy of Controls	Strong			
351 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 4.5(2) 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.		Not Rated [NR]	▪ Web Portal	There have been no issues relating to standing data raised during the audit period. As such assessment of compliance with clause cannot be undertaken.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	

Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
	Likelihood	Unlikely	5	Nil	
	Consequence	Minor			
	Inherent Risk	Low			
	Adequacy of Controls	Strong			
363 [TYPE NR]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.4(2) 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).		Not Applicable [NA]	<ul style="list-style-type: none"> Discussion with Western Power Griffin Account Manager System established to monitor frequency of meter readings Western Australian Electricity Market Metrology Procedure (Western Power - September 2006) 	Clause only applicable to accumulation meters.
365 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.5(3) 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.		Compliant [5]	<ul style="list-style-type: none"> Interview with Manager Policy & Strategy 	Griffin Power have confirmed that there has been no charge for the provision of data during the audit period.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood	Unlikely	5	Nil	
	Consequence	Minor			

Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
	Inherent Risk	Low			
	Adequacy of Controls	Strong			
376 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.16 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.		Not Applicable [NA]	<ul style="list-style-type: none"> Web Portal Discussion with Western Power Griffin Account Manager Discussions with Manager Wholesale Energy Trading 	Griffin does not collect data or receive data from the metering installation. This clause is considered not applicable.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood	NA	NA	Nil	
	Consequence	NA		Note: This has changed from the audit plan rating.	
	Inherent Risk	NA			
	Adequacy of Controls	NA			
377 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.17(1) 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		Not Applicable [NA]	<ul style="list-style-type: none"> Web Portal 	The Network Operator is responsible for tariff metering. This clause is considered not applicable.

Compliance Reporting Manual Ref	Licence Condition Requirement	Compliance Rating	Verification/ Tests	Effectiveness
	services to the customer.			
	Risk Assessment	Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood	NA	Nil	
	Consequence	NA	Note: This has changed from the audit plan rating.	
	Inherent Risk	NA		
	Adequacy of Controls	NA		
378 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.18 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.	Not Applicable [NA]	<ul style="list-style-type: none"> Discussion with Western Power Griffin Account Manager 	Griffin Power does not collect or receive information regarding a change in the energisation status of a metering point. Western Power manages the status of metering points. This clause is considered not applicable.
	Risk Assessment	Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood	NA	Nil	
	Consequence	NA	Note: This has changed from the audit plan rating.	
	Inherent Risk	NA		
	Adequacy of Controls	NA		
379 [TYPE NR]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.19(1) A user must, when requested by the network operator acting in accordance with good	Compliant [5]	<ul style="list-style-type: none"> Discussions with Manager Policy & Strategy Discussion with Business Analyst 	PPA have been established that address requirement of data access and metering. There have been no complaints about the

Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
	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.			<ul style="list-style-type: none"> Discussions with customer Relationship Managers Power Purchase Agreements [PPA] 	collection of customer information.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood	Unlikely	4	Nil	
	Consequence	Moderate			
	Inherent Risk	Medium			
	Adequacy of Controls	Strong			
380 [TYPE NR]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.19(2) 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.		Compliant [5]	<ul style="list-style-type: none"> Web Portal Discussion with General Manager Policy & Strategy Discussion with Western Power Griffin Account Manager Power Purchase Agreements [PPA] NMI (National Metering Identifier) Allocation Procedure For The Western Australia Electricity Market Version 1 [12/04/06] 	The metering requirements are specified in the customer contracts and the licensee maintains customer information. Compliant by way of billing process and NMI allocation procedure.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	

Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
	Likelihood Consequence Inherent Risk Adequacy of Controls	Unlikely Moderate Medium Strong	4	Nil	
381 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.19(3) 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.		Not Rated [NR]	<ul style="list-style-type: none"> Power Purchase Agreements [PPA] Discussion with General Manager Policy & Strategy 	There has been no change in a sites prescribed attributes during the audit period. As such assessment of compliance with clause cannot be undertaken. Note: Timeframe specified is 1 business day
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood Consequence Inherent Risk Adequacy of Controls	Unlikely Moderate Medium Strong	4	Nil	
382 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.19(4) 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.		Not Rated [NR]	<ul style="list-style-type: none"> Discussion with Manager Policy & Strategy PPA 	There are no sensitive loads at customer's sites. As such assessment of compliance with clause cannot be undertaken.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	

Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
	Likelihood Consequence Inherent Risk Adequacy of Controls	Unlikely Moderate Medium Strong	4	Nil	
384 [TYPE NR]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.19(6) 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.		Not Rated [NR]	<ul style="list-style-type: none"> Discussion with General Manager Policy & Strategy 	There have been no changes in attributes that result from the provision of standing data. As such assessment of compliance with clause cannot be undertaken.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood Consequence Inherent Risk Adequacy of Controls	Unlikely Moderate Medium Strong	4	Nil	
390 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.21(5) A Code participant must not request a 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.		Not Rated [NR]	<ul style="list-style-type: none"> Interview with Manager Wholesale Energy Trading 	The licensee has not made any requests for tests or audits of the metering system during the audit period. As such assessment of compliance with clause cannot be undertaken.

Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood	Unlikely	5	Nil	
	Consequence	Minor			
	Inherent Risk	Low			
	Adequacy of Controls	Strong			
391 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.21(6) A Code participant must not make a test or audit request that is inconsistent with any access arrangement or agreement.		Not Rated [NR]	▪ Interview with Manager Wholesale Energy Trading	Confirmed that during the audit period 20 June 2007 to 31 December 2009, Griffin Power did not make any requests for audit or tests. As such assessment of compliance with clause cannot be undertaken.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood	Unlikely	5	Nil	
	Consequence	Minor			
	Inherent Risk	Low			
	Adequacy of Controls	Strong			
	409 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.27 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.		Not Rated [NR]	▪ Discussions with General Manager Policy & Strategy

Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood	Unlikely	4	Nil	
	Consequence	Moderate			
	Inherent Risk	Medium			
	Adequacy of Controls	Strong			
416 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 6.1(2) A user must, in relation to a network on which it has an access contract, comply with the rules, procedures, agreements and criteria prescribed.		Compliant [4]	<ul style="list-style-type: none">▪ Discussion with Western Power Griffin Account Manager▪ Manager Policy & Strategy	Electricity Transfer Agreement Contract has been established. The contract obligations have been met.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood	Unlikely	4	Refer to Recommendation 1. [Ref Grant of Licence]	
	Consequence	Moderate			
	Inherent Risk	Medium			
Adequacy of Controls	Strong				
418 [TYPE NR]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 7.2(1) 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		Compliant [4]	<ul style="list-style-type: none">▪ Review communications by post, facsimile and electronic communication to confirm access.▪ Discussion with Business Analyst	Evidence of means of communication have been established. Discussions with the Metering Services indicated they have the means to communicate with Griffin Power and evidence of emails indicated access to it.. Verified content of MBS system/entered

Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
	for voice communication in connection with the Code.				into Meter Data Registry. Inclusion of the requirement could be considered for the proposed compliance scheduling process.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood Consequence Inherent Risk Adequacy of Controls	Likely Moderate Medium Strong	2	Refer to Recommendation 1	
420 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 7.2(4) 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.		Not Rated [NR]	<ul style="list-style-type: none"> Discussion with Business Analyst 	There have been no requests for contact details from the network operator. As such assessment of compliance with clause cannot be undertaken.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood Consequence Inherent Risk Adequacy of Controls	Unlikely Minor Low Strong	5	Nil	
421	Generation Licence Condition 5.1 - Electricity		Not Rated	<ul style="list-style-type: none"> Discussion with the Business Analyst 	During the audit period Griffin Power did not change the contact details listed. As

Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
[TYPE 2]	Industry Metering Code clause 7.2(5) 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.		[NR]		such assessment of compliance with clause cannot be undertaken. Note: It is anticipated that this requirement would be captured by Recommendation 1.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood	Probable	2	Nil	
	Consequence	Major			
422 [TYPE 2]	Inherent Risk	High			
	Adequacy of Controls	Strong			
422 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 7.5 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.		Compliant [5]	<ul style="list-style-type: none"> ETAC Discussion with General Manager Policy & Strategy 	There has been no breach of Confidentiality during the audit period. The ETAC addresses requirements relating to Confidentiality
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood	Probable	4	Nil	
	Consequence	Moderate			
	Inherent Risk	Medium			

Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
	Adequacy of Controls	Moderate			
423 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 7.6(1) A Code participant must disclose or permit the disclosure of confidential information that is required to be disclosed by the Code.		Compliant [5]	<ul style="list-style-type: none"> Web Portal Discussion with Manager Strategy & Policy 	Confidential information is described in the code as; (a) metering database or (b) other information that is confidential or commercially sensitive. The ETAC section 32 addresses confidentiality requirements and the metering database is controlled by WPN.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood	Unlikely	4	Nil	
	Consequence	Moderate			
	Inherent Risk	Medium			
	Adequacy of Controls	Strong			
424 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 8.1(1) 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.		Not Rated [NR]	<ul style="list-style-type: none"> Discussion with Manager Strategy & Policy 	During the Audit Period there has been no notices given in regards to disputes. As such assessment of compliance with clause cannot be undertaken.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood	Unlikely	2	Nil	

Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
	Consequence Inherent Risk Adequacy of Controls	Major High Moderate			
425 [TYPE NR]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 8.1(2) 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.		Not Rated [NR]	<ul style="list-style-type: none"> Discussion with Manager Strategy & Policy 	During the Audit Period there has been no notices given in regards to disputes. As such assessment of compliance with clause cannot be undertaken.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood Consequence Inherent Risk Adequacy of Controls	Unlikely Major High Moderate	2	Nil	
426 [TYPE NR]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 8.1(3) 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		Not Rated [NR]	<ul style="list-style-type: none"> Discussion with Manager Strategy & Policy 	During the Audit Period there has been no notices given in regards to disputes. As such assessment of compliance with clause cannot be undertaken.

Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
	party who must meet and attempt to resolve the dispute by negotiations in good faith.				
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood	Unlikely	2	Nil	
	Consequence	Major			
	Inherent Risk	High			
Adequacy of Controls	Moderate				
427 [TYPE 2]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 8.1(4) 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.		Not Rated [NR]	▪ Discussion with Manager Strategy & Policy	During the Audit Period there has been no notices given in regards to disputes. As such assessment of compliance with clause cannot be undertaken.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood	Unlikely	2	Nil	
	Consequence	Major			
	Inherent Risk	High			
Adequacy of Controls	Moderate				
428 [TYPE NR]	Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 8.3(2) The disputing parties must at all times		Not Rated [NR]	▪ Discussion with Manager Strategy & Policy	During the Audit Period there has been no notices given in regards to disputes. As such assessment of compliance with

Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
	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				clause cannot be undertaken.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood	Unlikely	2	Nil	
	Consequence	Major			
	Inherent Risk	High			
	Adequacy of Controls	Moderate			
-	Generation Licence Condition 5.1 - Review of Government Gazette Amendments		Compliant [4]	<ul style="list-style-type: none"> Discussion with General Manager Policy & Strategy Corporate requirements in relation to compliance and reputation 	Griffin Power were aware of the changes made and had copies of the notices on file for review.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood	Unlikely	2	Consideration could be given to ensuring that the proposed compliance scheduling process [Recommendation 1] incorporate a review of the Government Gazettes.	
	Consequence	Major			
	Inherent Risk	High			
	Adequacy of Controls	Strong			

Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
	Generation Licence condition 5.2 Subject to the provisions of any applicable legislation, the Authority may direct the Licensee in writing to do any measure necessary to: (a) correct the breach of any applicable legislation; or (b) prevent the breach of any applicable legislation occurring again, and specify a time limit by which such action must be taken		Not Rated [NR]	<ul style="list-style-type: none">▪ Discussion with Manager Policy & Strategy▪ Corporate requirements in relation to compliance and reputation	During the audit scope the Authority has not required the licensee to correct the breach of any applicable legislation; or prevent the breach of any applicable legislation occurring again. As such assessment of compliance with clause cannot be undertaken. Note: It is anticipated that this requirement would be captured by Recommendation 1.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood	Unlikely	2	Nil	
	Consequence	Major			
	Inherent Risk	High			
Adequacy of Controls	Strong				
GENERATION LICENCE CONDITION 6 - TRANSFER OF LICENCE					
	Generation Licence condition 6.1 - Electricity Industry Act section 18 -Transfer of a licence This licence may be transferred only in accordance with the Act.		Not Rated [NR]	<ul style="list-style-type: none">▪ Discussion with Manager Policy & Strategy	No transfer of licence undertaken during the audit period. As such assessment of compliance with clause cannot be undertaken.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	

Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
	Likelihood Consequence Inherent Risk Adequacy of Controls	Unlikely Major High Strong	2	Nil	
GENERATION LICENCE CONDITION 7 - CANCELLATION OF LICENCE					
	Generation Licence condition 7.1 - Electricity Industry Act section 35 -Cancellation of a licence This <i>licence</i> may be cancelled only in accordance with the <i>Act</i> .		NA	Determined not to be applicable to audit	
GENERATION LICENCE CONDITION 8 - SURRENDER OF LICENCE					
-	Generation Licence condition 8.1 - Electricity Industry Act 2004 (Schedule 1 - provision I) The <i>licensee</i> may surrender the <i>licence</i> at any time by written <i>notice</i> to the <i>Authority</i> .		NA	Determined not to be applicable to audit	
-	Generation Licence condition 8.2 The surrender of the licence will take effect on the day that the Authority publishes a notice of the surrender in the Gazette.		NA	Determined not to be applicable to audit	
-	Generation Licence condition 8.3 The licensee will not be entitled to a refund		NA	Determined not to be applicable to audit	

Compliance Reporting Manual Ref	Licence Condition Requirement	Compliance Rating	Verification/ Tests	Effectiveness
	of any fees by the Authority.			
GENERATION LICENCE CONDITION 9 - RENEWAL OF LICENCE				
-	Generation Licence condition 9.1 This licence may be renewed only in accordance with the Act.	NA	Determined not to be applicable to audit	
GENERATION LICENCE CONDITION 10 - AMNENDMENT OF LICENCE ON APPLICATION OF THE LICENSEE				
-	Generation Licence condition 10.1 The licensee may apply to the Authority to amend the licence in accordance with the Act.	Not Rated [NR]	<ul style="list-style-type: none">Discussions with Manager Policy & StrategyGriffin Correspondence [20/8/08]ERA Correspondence [D/08/8615]ERA Website	<p>The Licensee requested an extension of the period covered by the audit and review from 20 June 2007 to 30 June 2009 20 June 2007 to 31 December 2009 for EGL17. However, no request to amend the licence was made. As such assessment of compliance with clause cannot be undertaken.</p> <p>Note: This was determined to be Not Applicable in the Audit Plan</p>
GENERATION LICENCE CONDITION 11 - AMENDMENT OF LICENCE BY THE AUTHORITY				
	Generation Licence condition 11.1 Subject to any applicable legislation, the Authority may amend the licence at any time in accordance with this clause.	Compliant [5]	<ul style="list-style-type: none">Review of ERA CorrespondenceDiscussions with Manager Policy & StrategyERA Notice 22 June 2007	<p>Amendment 1: Changing the definition of customer to be consistent with the definition in the Electricity Industry Act 2004</p> <p>Organisation was aware of changes and</p>

Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
				▪ GG54 p1083 3/4/09	relevant documentation was reviewed on file.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood	Unlikely	4	Nil Note: This was determined to be Not Applicable in the Audit Plan	
	Consequence	Moderate			
	Inherent Risk	Medium			
	Adequacy of Controls	Strong			
	Generation Licence condition 11.2 Before amending the licence under clause 11.1, the Authority must: (a) provide the licensee with written notice of the proposed amendments under consideration by the Authority; (b) allow 15 business days for the licensee to make submissions on the proposed amendments; and (c) take into consideration those submissions.		NA	Determined not to be applicable to audit	
	Generation Licence condition 11.3 This clause also applies to the substitution of the existing licence.		NA	Determined not to be applicable to audit	
	Generation Licence condition 11.4 For avoidance of doubt, the licensee will not		NA	Determined not to be applicable to audit	

Compliance Reporting Manual Ref	Licence Condition Requirement	Compliance Rating	Verification/ Tests	Effectiveness
	have to pay an associated application fee or licence fee for the purpose of clause 11.1.			
GENERATION LICENCE CONDITION 12 - EXPANSION OF GENERATING WORKS				
	Generation Licence condition 12.1 The licensee may expand or reduce the generating works if the relevant expansion or reduction is provided for in the asset management system.	NA	Determined to be Not Applicable to Audit - there has been no expansion or reduction in generating works during the audit period	
103 [TYPE 2]	Generation Licence condition 12.2 - Electricity Industry Act section 11 A licensee must amend the asset management system before an expansion or reduction in generating works, distribution systems and transmission systems and notify the Authority in the manner prescribed, if the expansion or reduction is not provided for in the asset management system	Compliant [3]	<ul style="list-style-type: none"> Environmental Licence L8326/2008/1 Asset Management Plan (March 2009) Discussion with Station Manager TWPS Discussion with Manager Policy & Strategy 	<p>It is the Auditors Opinion that the Asset Management System provides for the expansion in the generating works.</p> <p>However it is noted that the plated Capacity for the Plant is 229.8MW with approximately 21MW being parasitic power (Refer finding Grant of Licence).</p> <p>It is noted that Environmental Licence L8326/2008/2 has been amended to reflect an increased capacity of 425MW for Unit 1 and Unit 2, of which it is understood that 217MW and 208MW are generated respectively (after consideration of parasitic power). This amendment is outside the scope of the audit period (i.e. 04/03/10) and should be reviewed for compliance prior to the next audit.</p>

Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood	Probable	2	7. Review the Asset Management System as detailed in Asset Management System Review (2010)- Recommendation 9. Recommendation 9 (as detailed in Asset Management Review) – the AMP should be reviewed on completion of the warranty outage at the end of the first year of commercial operation is supported and consideration of compliance with obligation is recommended	
	Consequence	Major			
	Inherent Risk	High			
Adequacy of Controls	Moderate				
104 [TYPE 2]	Generation Licence condition 12.3 - Electricity Industry Act section 11 A licensee must not expand the generating works, distribution systems or transmission systems outside the licence area.		Compliant [5]	<ul style="list-style-type: none">Interview with the Power Station ManagerSite tourERA Website	There has been no expansion or reduction outside the licence area during the audit period.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood	Unlikely	5	Nil	
	Consequence	Minor			
	Inherent Risk	Low			
Adequacy of Controls	Strong				
-	Generation Licence condition 12.4 The licensee must pay any applicable fees in accordance with the Regulations.		NA	Determined not to be applicable to the audit scope.	
GENERATION LICENCE CONDITION 13 - ACCOUNTING RECORDS					

Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
105 [TYPE 2]	Generation Licence condition 13.1 - Electricity Industry Act section 11 The licensee and any related body corporate must maintain accounting records that comply with the Australian Accounting Standards Board Standards or equivalent International Accounting Standards.		Compliant [5]	<ul style="list-style-type: none">▪ Discussion with Project Accountant▪ Accounting process review▪ Monthly Reports review▪ Review of Financial Audit 2007-2008 (Deloittes 24/1/08)	<p>In the sample of Financial Audits selected the Statement of Compliance noted that the financial report was prepared in accordance with the basis of accounting specified by all Accounting Standards.</p> <p>Ongoing verification observed through Monthly Reports which contain;</p> <ul style="list-style-type: none">▪ Cash Flow statements▪ Financial statements
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood	Unlikely	5	Nil	
Consequence	Minor				
Inherent Risk	Low				
Adequacy of Controls	Strong				
GENERATION LICENCE CONDITION 14 - INDIVIDUAL PERFORMANCE STANDARDS					
	Generation Licence condition 14.1 Performance standards are contained in applicable legislation.		NA	Determined not to be applicable to the audit scope.	
	Generation Licence condition 14.2 The Authority may prescribe individual performance standards in relation to the licensee of its obligations under this licence		NA	Determined not to be applicable to the audit scope.	

Compliance Reporting Manual Ref	Licence Condition Requirement	Compliance Rating	Verification/ Tests	Effectiveness
	or the applicable legislation.			
	Generation Licence condition 14.3 Before approving any individual performance standards under this clause, the Authority will: (a) provide the licensee with a copy of the proposed individual performance standards; (b) allow 15 business days for the licensee to make submissions on the proposed individual performance standards; and (c) take into consideration those submissions	NA	Determined not to be applicable to the audit scope.	
106 [TYPE 2]	Generation Licence condition 14.4 - Electricity Industry Act section 11 Once approved by the Authority, the 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.	Not Rated [NR]	<ul style="list-style-type: none"> Interview with the Manager Policy & Strategy 	The Authority has not prescribed any individual reporting standards to Griffin Power. As such assessment of compliance with clause cannot be undertaken.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement
	Likelihood	Unlikely	5	Nil
	Consequence	Minor		

Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
	Inherent Risk	Low			
	Adequacy of Controls	Strong			
GENERATION LICENCE CONDITION 15 - PERFORMANCE AUDIT					
81 [TYPE NR]	Generation Licence Condition 15.1 - Electricity Industry Act section 13(1) 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.		Compliant [4]	<ul style="list-style-type: none"> Various email correspondence (from 04/11/09) Discussions with General Manager Policy & Strategy 	The requirement for the audit is monitored by the General Manager Policy & Strategy in his Online Diary. The requirement was also identified and responded in a series of internal email correspondence beginning 04/11/09. A more formalised approach to Compliance Scheduling is recommended.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood	Unlikely	5	Implementation of Recommendation 1 would ensure compliance with this requirement is achieved.	
	Consequence	Minor			
	Inherent Risk	Low			
	Adequacy of Controls	Strong			
107 [TYPE 2]	Generation Licence condition 15.2 - Electricity Industry Act section 11 A licensee must comply, and require its auditor to comply, with the Authority's standard audit guidelines dealing with the performance audit.		Compliant [5]	<ul style="list-style-type: none"> Compliance with ERA process Management meeting minutes 	Direct instructions from Licensee to Auditor to comply with the ERA guidelines. Copies of communications received from ERA relating to audit requirements sent by Griffin Power through to Auditor to convey requirements specifically the undertaking of audits in compliance with the Audit Guidelines: Electricity, Gas and

Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
					Water Licences (Letter ERA 8/2/10 Ref D24418)
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood	Unlikely	5	Implementation of Recommendation 1 would ensure compliance with this requirement is achieved.	
	Consequence	Minor			
	Inherent Risk	Low			
	Adequacy of Controls	Strong			
-	Generation Licence condition 15.3 The licensee may seek a review of any of the requirements of the Authority's standard audit guidelines in accordance with clause 21.1.		NA	Determined not to be applicable to audit scope as there were no reviews undertaken.	
-	Generation Licence condition 15.4 The independent auditor may be nominated by the licensee but must be approved by the Authority prior to the audit pursuant to clause 0.1. Should the Authority reject the licensee's nomination of an independent auditor twice or, in the event that no nomination has been made by the licensee within 1 month of the date the audit was due, the Authority may choose an independent auditor who will conduct the audit.		NA	The Authority did not reject the licensee's nomination.	

Compliance Reporting Manual Ref	Licence Condition Requirement	Compliance Rating	Verification/ Tests	Effectiveness
GENERATION LICENCE CONDITION 16 - ASSET MANAGEMENT SYSTEM				
82 [TYPE NR]	Generation Licence Condition 16.1 - Electricity Industry Act section 14 (1)(a) A licensee must provide for an asset management system.	Non Compliant [2]	<ul style="list-style-type: none"> O&M specifies Maintenance requirements Asset Management Plan (March 2009) Bluewaters Generation Licence Application 	The Licensee has provided for an asset management system. The primary driver of the O&M Agreement is availability which provides the requirements for an effective asset management system for the power station. However, formal notification of the asset management system has not been provided to the Authority.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement
	Likelihood Consequence Inherent Risk Adequacy of Controls	Unlikely Major High Strong	2	8. Provide notification of the AMP to the Authority in relation to the generating works.
83 [TYPE 2]	Generation Licence Condition 16.2 - Electricity Industry Act section 14 (1)(b) A licensee must notify details of the asset management system and any substantial changes to it to the Authority.	Non-Compliant [2]	<ul style="list-style-type: none"> Email correspondence from Asset Management Auditors Discussions with General Manager Policy & Strategy Discussions with Power Station Manager TWPS 	The asset management plan was not submitted to the ERA as part of the Licence Application process. However, details of the proposed asset management system included in the application have been verified as implemented by the Auditors conducting the Asset

Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
					Management Review. (Refer finding 103) The Licensee has not communicated the change in capacity of the plant to the ERA i.e. current plated capacity is 229.8MW.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood Consequence Inherent Risk Adequacy of Controls	Unlikely Minor Low Strong	5	9. Communicate the plant capacity to the ERA in line with the Power Stations Environmental Licence.	
84 [TYPE NR]	Generation Licence Condition 16.3 - Electricity Industry Act section 14 (1)(c) 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.		Compliant [4]	<ul style="list-style-type: none"> Various email correspondence (from 04/11/09) Discussions with General Manager Policy & Strategy 	The requirement for the audit is monitored by the General Manager Policy & Strategy in his Online Diary. The requirement was also identified and responded in a series of internal email correspondence beginning 04/11/09. A more formalised approach to Compliance Scheduling is recommended. This audit indicates compliance with the requirement.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood Consequence Inherent Risk Adequacy of Controls	Unlikely Minor Low Strong	5	Implementation of Recommendation 1 would ensure compliance with this requirement is achieved.	

Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
108 [TYPE 2]	Generation Licence condition 16.4 - Electricity Industry Act section 11 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.		Compliant [4]	<ul style="list-style-type: none"> Compliance with ERA process Management meeting minutes 	<p>Direct instructions from Licensee to Auditor to comply with the ERA guidelines.</p> <p>Copies of communications received from ERA relating to audit requirements sent by Griffin Power through to Auditor to convey requirements specifically the undertaking of audits in compliance with the Audit Guidelines: Electricity, Gas and Water Licences (Letter ERA 8/2/10 Ref D24418)</p>
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood	Unlikely	5	Implementation of Recommendation 1 would ensure compliance with this requirement is achieved.	
	Consequence	Minor			
	Inherent Risk	Low			
	Adequacy of Controls	Strong			
-	Generation Licence condition 16.5 Electricity Industry Act section 11The licensee may seek a review of any of the requirements of the Authority's standard guidelines dealing with the asset management system in accordance with clause 21.1.		NA	Determined to be Not Applicable to Audit	
-	Generation Licence condition 16.6 The independent expert may be nominated by the licensee but must be approved by the		NA	Determined to be Not Applicable to Audit	

Compliance Reporting Manual Ref	Licence Condition Requirement	Compliance Rating	Verification/ Tests	Effectiveness
	Authority prior to the review pursuant to clause 16.3. Should the Authority reject the licensee's nomination of an independent expert twice or in the event that no independent expert has been nominated by the licensee within 1 month of the date the review was due, the Authority may choose an independent expert who will conduct the review.			
GENERATION LICENCE CONDITION 17 - REPORTING				
109 [TYPE 2]	<p>Generation Licence condition 17.1 - Electricity Industry Act section 11</p> <p>The licensee must report to the Authority:</p> <p>(a) if the licensee is under external administration as defined by the Corporations Act 2001 (Cwlth) within 2 business days; or</p> <p>(b) if the licensee experiences a significant change in the licensee's corporate, financial or technical circumstances upon which this licence was granted which may affect the licensee's ability to meet its obligations under this licence within 10 business days of the change occurring.</p> <p>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</p>	Compliant [5]	<ul style="list-style-type: none"> Discussions with ERA Discussions with General Manager Policy & Strategy Review of correspondence [Letter from Griffin to ERA 04/01/10] 	<p>During the Audit Period (20th June 2007 to 31st December 2009) Griffin Power was not under external administration and had not undergone any significant change in circumstances upon which the licence was granted, which may affect its ability to meet its licence obligations. As such there was no requirement to report to the Authority.</p> <p>It is noted that Griffin Power notified the ERA on 4/01/10 (outside the audit scope) of details relating to voluntary administration of The Griffin Coal Mining Company (refer to confidential correspondence previously sent to ERA). This action demonstrates a clear understanding of obligations relating to Generation Licence.</p>

Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
	which the licence was granted which may affect a licensee’s ability to meet its obligations.				This impact of this process upon Griffin Power will be reviewed through the next audit cycle.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood	Unlikely	5	10. Ensure ongoing correspondence to ERA regarding impact of voluntary administration of The Griffin Coal Company on EGL17.	
	Consequence	Minor			
	Inherent Risk	Low			
Adequacy of Controls	Strong				
GENERATION LICENCE CONDITION 18- PROVISION OF INFORMATION					
110 [TYPE 2]	Generation Licence condition 18.1 - Electricity Industry Act section 11 - Compliance and Reporting Manual March 2008 section 5.3 and section 5.4 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.		Compliant [4]	<ul style="list-style-type: none">Compliance Reporting Manual March 2008 Section 5.4 Reporting Cycle<ul style="list-style-type: none">Griffin Power 2 Pty Ltd 1 July 2008 - 30 June 2009 (dated 14/08/09)Griffin Power 2 Pty Ltd 1 July 2007 - 30 June 2008 (dated 20/08/08)Griffin Power 2 Pty Ltd Compliance Report 20 June 2007 – 30 June 2008(20/08/07)	Every licensee is required to submit a compliance report to the Authority covering all of its type 1 and type 2 licence obligations for each financial year (1 July to 30 June inclusive) by 31 August immediately following the financial year that is the subject of the report. Compliance Reports submitted to ERA during Audit Period 20th June 2007 to 31st December 2009.
Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement		

Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
	Likelihood Consequence Inherent Risk Adequacy of Controls	Unlikely Minor Low Strong	5	Implementation of Recommendation 1 would ensure compliance with this requirement is achieved	
GENERATION LICENCE CONDITION 19 - PUBLISHING INFORMATION					
	Generation Licence condition 19.1 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.		NA	Determined to be Not Applicable to Audit - the Authority has not required to Griffin to publish anything during the audit period	
111 [TYPE 2]	Generation Licence condition 19.2 - Electricity Industry Act section 11 A licensee must publish any information it is directed by the Authority to publish, within the timeframes specified.		Not Rated [NR]	<ul style="list-style-type: none">▪ Interview with the Manager Policy & Strategy▪ Review ERA website	The Authority has not directed Griffin Power to publish any information during the audit period. As such assessment of compliance with clause cannot be undertaken.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement	
	Likelihood Consequence Inherent Risk Adequacy of Controls	Unlikely Minor Low Strong	5	Nil	

Compliance Reporting Manual Ref	Licence Condition Requirement	Compliance Rating	Verification/ Tests	Effectiveness
-	Generation Licence condition 19.3 If the licensee considers that the information is confidential it must: (a) immediately notify the Authority; and (b) seek a review of the Authority’s decision in accordance with clause 21.1.	NA	Determined to be Not Applicable to Audit	
-	Generation Licence condition 19.4 Once it has reviewed the decision, the Authority will direct the licensee in accordance with the review to: (a) publish the information; (b) publish the information with the confidential information removed or modified; or (c) not publish the information.	NA	Determined to be Not Applicable to Audit	
GENERATION LICENCE CONDITION 20 - NOTICES				
112 [TYPE 2]	Generation Licence condition 20.1 - Electricity Industry Act section 11 Unless otherwise specified, all notices must be in writing.	Compliant [4]	▪ Review of ERA correspondence	Griffin Power maintains formal records of correspondence (email and hardcopy). A TRIM database is used to file information.
	Risk Assessment		Audit Priority	Corrective Action/Opportunity for Improvement
	Likelihood	Unlikely	5	11. Consideration could be given to establishing a formalised procedure

Compliance Reporting Manual Ref	Licence Condition Requirement		Compliance Rating	Verification/ Tests	Effectiveness
	Consequence Inherent Risk Adequacy of Controls	Minor Low Strong		for maintaining records of (email and hardcopy correspondence). Guidance could be sought from ISO 9001.	
-	Generation Licence condition 20.2 A notice will be regarded as having been sent and received: (a) when delivered in person to the addressee; or (b) 3 business days after the date of posting if the notice is posted in Western Australia; or (c) 5 business days after the date of posting if the notice is posted outside Western Australia; or (d) if sent by facsimile when, according to the sender’s transmission report, the notice has been successfully received by the addressee; or (e) if sent by email when, according to the sender’s electronic record, the notice has been successfully sent to the addressee’s electricity licensing email address.		NA	Determined to be Not Applicable to Audit	
GENERATION LICENCE CONDITION 21 - REVIEW OF THE AUTHORITY'S DECISIONS					
-	Generation Licence condition 21.1		NA	Determined to be Not Applicable to Audit	

Compliance Reporting Manual Ref	Licence Condition Requirement	Compliance Rating	Verification/ Tests	Effectiveness
	<p>The licensee may seek a review of a reviewable decision by the Authority pursuant to this licence in accordance with the following procedure:</p> <p>(a) the licensee shall 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</p> <p>(b) the Authority will consider the submission and provide the licensee with a written response within 20 business days.</p> <p>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 licensee's right to have a decision of the Authority reviewed in accordance with the Act.</p>			

APPENDIX 2

GRIFFIN ENERGY: GRIFFIN POWER 2 PTY LTD ASSET MANAGEMENT SYSTEM REVIEW MARCH 2010

Appendix 2: Audit Review Ratings & Recommendations

1	Key Process - 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).</i>	Asset management process and policy definition adequacy rating <p style="text-align: center;">A</p>	Asset management performance rating <p style="text-align: center;">2</p>
	Outcome <i>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.</i>		
	Interviewees: Kerry Roberts – General Manager Energy Projects, Griffin Energy Nicholas Yeak – Management Accountant, Griffin Energy Paul Hanson – Station Manager Bluewaters, TWPS Hon Lye – Asset Engineer, TWPS	Relevant documentation: <ol style="list-style-type: none"> 1. Bluewaters Power Station Asset Management Plan (March 2009) 2. Risk Assessment Report, Risk Point , Griffin Energy – Bluewaters Power station 180.01 (February 2009) 3. O&M Agreement, Griffin Power Pty Ltd & Griffin Power 2 Pty Ltd and Transfield Worley Power Services Pty Limited (January 2008) 4. Transfield Services, Assessing Operational Systems Performance (on-line system), TMD-0000-QA-0007 (October 2006,rev 10) 5. Daily Dispatch Plan (via e-mail Griffin Energy) 6. TWPS Bluewaters PS Monthly Reports (Oct & Nov 2009) 7. Bluewaters Power Station O&M Budget U1 & 2, Financial Plan (2008-14) Ver 3 8. Dispatch Schedule: Operational Processes, Western Power 9. Bluewaters Power Station Unit EPC 1 Contract (July 2007) 10. Risk Assessment Report, Risk Point , Griffin Energy – Bluewaters Power station 180.01 (February 2009) 11. Griffin Power cash flow statement (June 2009) 12. Griffin Power & Griffin Power 2 Bluewaters 1 & 2 Monthly Report (Dec 2009) 	
	Criteria Effectiveness		Post Review Audit Priority

	Policy	Performance	Likelihood	Consequence	Inherent Risk rating	Adequacy of existing controls	Review priority	Adequacy rating	Performance Rating
			A=likely B=probable C=unlikely	1=minor 2=moderate 3=major	L=low M=medium H=high	S=strong M=moderate W=weak			
1.1	Ref docs -1, 3, 5 & 7 Interviews with the Station Manager and Asset Engineer, AMP was based on operating experience of Collie A Power Station & a review of the installed plant by TWPS.	The Asset Management Plan (AMP) is the first version of the plan for Bluewaters which has been reviewed by Griffin Power; it provides sufficient detail for the initial operating period of the station up to the warranty outage in April 2010. It is a deliverable of the O & M Agreement to ensure stakeholder needs are met, providing detail on all stakeholders within the business context section of the AMP and the actions required to meet stakeholder needs. Asset operational planning is based on the daily dispatch plan for the unit and long term maintenance requirements as detailed in the AMP and O&M Agreement.	C	1	L	S	5	A	2
1.2	Ref docs - 3, 5 7 & 9 Interview (General Manager Energy Projects) – service	Station capabilities and dispatch requirements are set each day; service level is clearly defined	C	1	L	S	5	A	1

	levels are defined through Power Purchase Agreements. Ref docs 3 & 5, detail the short term (daily) & long term service level requirements	for each 24 hour period. Long-term service levels are detailed in the O&M agreement and performance guarantees within the EPC contract							
1.3	Interview (General Manager Energy Projects)	Excess generation capability is available to STEM. Demand management can be achieved via STEM	C	1	L	S	5	A	1
1.4	Interview (General Manager Energy Projects)	Business risk profile review by CORPAC included a review of the life cycle costs associated with the operating assets.	B	2	M	M	4	B	2
1.5	Ref doc – 11 & 13	Cash flow statements review loan arrangements, external borrowings & cash flows on a monthly basis. Capital expenditure application includes details of possible financing options for the acquisition of assets.	B	2	M	s	4	A	1
1.6	Ref docs - 2, 3, 6, 7 & 12 – cost drivers related to asset operations and maintenance are well defined.	TWPS monthly reports on budget and cost drivers including unbudgeted expenditure and cost initiatives. Griffin monthly reports review cost drivers for the unit.	B	2	M	S	4	A	1
1.7	Ref Doc – 10 Interview (General Manager Energy Projects), risk assessment conducted prior to	The risk report addressed issues related to asset failure prior to start up of the unit.	B	2	M	M	4	B	2

	operation of the station assessed likelihood & consequence of asset failure								
1.8	Ref doc - 1 The AMP requires that the plan be reviewed in line with Griffin Power's planning & budget cycle.	The current plan is version 1 of the AMP, as the unit is still within its first year of commercial operation the plan has not been updated.	C	2	M	S	4	A	2

Comments & Recommendations

Recommendation 1 – The Asset Management Plan should be reviewed and updated after the warranty outage in April 2010.

Recommendation 2 – Document whole of life cycle cost model and review annually

Recommendation 3 – Risk Treatment Plans and reports should be reviewed on a more frequent basis, i.e. quarterly

Comment – Audit priorities for 1.6 & 1.7 were reclassified to 4, review of documentation and processes reduced the inherent risk for these criteria

2	Key Process - Asset creation/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.</i>	Asset management process and policy definition adequacy rating A	Asset management performance rating 1						
	Outcome <i>A more economic, efficient and cost-effective asset acquisition framework which will reduce demand for new assets, lower service costs and improve service delivery.</i>								
Interviewees: Kerry Roberts – General Manager Energy Projects, Griffin Energy Paul Hanson – Station Manager Bluewaters, TWPS Hon Lye – Asset Engineer, TWPS Steve Deonck – Operations Manager		Relevant documentation: <div>1. Bluewaters Power Station Asset Management Plan (March 2009)</div> <div>2. Risk Assessment Report, Risk Point , Griffin Energy – Bluewaters Power station 180.01 (February 2009)</div> <div>3. O&M Agreement, Griffin Power Pty Ltd & Griffin Power 2 Pty Ltd and Transfield Worley Power Services Pty Limited (January 2008)</div> <div>4. Transfield Services, Assessing Operational Systems Performance (on-line system), TMD-0000-QA-0007 (October 2006, rev 10)</div> <div>5. Griffin document management system (TRIM)</div> <div>6. Griffin Power Capital Expenditure Application form (Bimetallic Mill Rolls)</div> <div>7. Advisory Board Meeting Presentation 2009</div>							
Criteria Effectiveness		Post Review Audit Priority							
	Policy	Performance	Likelihood	Consequence	Inherent Risk rating	Adequacy of existing controls	Review priority	Adequacy rating	Performance Rating
			A=likely B=probable	1=minor 2=moderate	L=low M=medium	S=strong M=moderate			

			C=unlikely	3=major	H=high	W=weak			
2.1	Ref docs – 1,2,3, 4, 6 & 7	Capital expenditure application form requires a full evaluation of projects, non-asset options are also evaluated as part of the overall planning process.	C	2	M	S	4	A	1
2.2	Ref docs – 1, 6 & 7	As above.	B	2	M	S	4	A	1
2.3	Ref docs – 1,2, 3, 4, 6 & 7	A system is in place to ensure that projects are fully assessed and reviewed within the business planning process. The capital expenditure application process requires both an engineering and financial review of each project.	C	2	M	S	4	A	1
2.4	Ref doc - 5 All commissioning documentation is retained within TRIM.	Commissioning data is available to both Griffin and TWPS. System is backed up daily.	C	2	M	S	4	A	1
2.5	Ref doc – 3, 4 & 7	The O & M agreement assigns the legal/environmental/safety responsibilities and obligations of the asset owner and the asset operator.	C	2	M	S	4	A	1

Comments & Recommendations

Comment – Audit priorities for 2.1, 2.2, 2.3 & 2.5 were reclassified to 4, review of documentation and processes reduced the inherent risk for these criteria.

3	Key process - 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</i>	Asset management process and policy definition adequacy rating B	Asset management performance rating 2							
	Outcome <i>Effective management of the disposal process will minimise holdings of surplus and under-performing assets and will lower service costs.</i>									
Interviewees: Kerry Roberts – General Manager Energy Projects, Griffin Energy Paul Hanson – Station Manager Bluewaters, TWPS		Relevant documentation: 1. Bluewaters Power Station Asset Management Plan (March 2009) 2. Risk Assessment Report, Risk Point , Griffin Energy – Bluewaters Power station 180.01 (February 2009) 3. Griffin Power Capital Expenditure Application form								
Criteria Effectiveness		Post Review Audit Priority								
	Policy	Performance	Likelihood	Consequence	Inherent Risk rating	Adequacy of existing controls	Review priority	Adequacy Rating	Performance Rating	
			A=likely B=probable C=unlikely	1=minor 2=moderate 3=major	L=low M=medium H=high	S=strong M=moderate W=weak				
3.1	Ref docs – 1, 2 &3 Interview Station Manager Bluewaters regarding spares review conducted by TWPS	At this early stage in the station’s life cycle under-utilised assets have not been assessed. The risk reviews conducted prior to station start up identified the potential for under-utilised or under-	B	2	M	M	4	B	2	

		performing assets. For example - premature mill roll wear, this has been addressed through the risk process and an investment has been made to acquire new rolls via the capital expenditure application process.							
3.2	Ref docs - 1& 2 Interview Station Manager Bluewaters regarding spares review conducted by TWPS	The risk reviews conducted prior to station start up identified the potential for premature mill roll wear, this has been addressed through the risk process and an investment has been made to acquire new rolls.	B	2	M	M	4	B	2
3.3		At this early stage in the station's life cycle asset disposal has not been considered	B	2	M	M	4	B	2
3.4		At this early stage in the station's life cycle asset replacement has not been considered, with the exception of the mill rolls.	B	2	M	M	4	B	2

Comments & Recommendations

Comment – At this point in time asset disposal has not been a critical element of the asset management system due to the age of the station and limited operation experience.

4	Key Process - Environmental analysis <i>Environmental analysis examines the asset system environment and assesses all external factors affecting the asset system.</i>		Asset management process and policy definition adequacy rating A		Asset management performance rating 1				
	Outcome <i>The asset management system regularly assesses external opportunities and threats and takes corrective action to maintain performance requirements.</i>								
Interviewees: Kerry Roberts – General Manager Energy Projects, Griffin Energy Paul Hanson – Station Manager Bluewaters, TWPS Wayne Trumble - Executive General Manager Power Generation, Griffin Energy			Relevant documentation: 1. Bluewaters Power Station Asset Management Plan (March 2009) 2. Risk Assessment Report, Risk Point , Griffin Energy – Bluewaters Power station 180.01 (February 2009) 3. O&M Agreement, Griffin Power Pty Ltd & Griffin Power 2 Pty Ltd and Transfield Worley Power Services Pty Limited (January 2008) 4. Transfield Services, Assessing Operational Systems Performance (on-line system), TMD-0000-QA-0007 (October 2006, rev 10) 5. Communication Meeting Minutes 6. Weekly Operations Minutes 7. Quarterly Environmental Report (May – July 2009) 8. Environmental Licence Exceeded Target Reports 9. Griffin Energy Risk register 10. Risk Assessment worksheets OPS -6033-001 to 0014 11. TWPS Risk Register 12. TWPS Bluewaters PS Monthly Reports (Oct & Nov 2009) 13. Advisory Board Meeting Presentation 2009						
Criteria Effectiveness			Post Review Audit Priority						
	Policy	Performance	Likelihood	Consequence	Inherent Risk rating	Adequacy of existing controls	Review priority	Adequacy Rating	Performance Rating
			A=likely	1=minor	L=low	S=strong			

			B=probable C=unlikely	2=moderate 3=major	M=medium H=high	M=moderate W=weak			
4.1	Ref docs - 2, 9, 10, 11 & 13 Interviews General manager Energy Projects and Station Manager with respect to assessing threats in the system environment, risk assessments were conducted prior to station start up.	Threats to the operations at Bluewaters one are addressed through the risk assessments conducted by Griffin Energy and TWPS.	C	2	M	S	4	A	1
4.2	Ref docs – 5, 6, 7 & 13 Interview with Station Manager regarding on line environmental monitoring and reporting SOX emissions.	Data is collected and reported on a regular basis through written reports and face to face meetings to adequately report service standards. The monthly report provides sufficient information to measure performance standards, it provides detail on safety, environment, budget, and production, contract KPI's, emergency response and improvement projects, deviations from standards are noted and described. Continuous on line monitoring of emissions linked to the station's environmental licence required notification to the DEC when targets are exceeded, SOX notifications have been reported on a regular basis.	C	2	M	S	4	A	1

4.3	Ref docs – 7, 8 & 13	Regular reporting occurs to ensure compliance with statutory and regulatory requirements.	C	2	M	S	4	A	1
4.4	Ref docs – 12 & 13	Monthly reports detail service levels. Daily dispatch plans direct the ½ hourly service level requirements of the station.	C	2	M	S	4	A	1
Comments & Recommendations									
Nil									

5	<p>Key Process - Asset operations <i>Operations functions relate to the day-to-day running of assets and directly affect service levels and costs.</i></p> <p>Outcome <i>Operations plans adequately document the processes and knowledge of staff in the operation of assets so that service levels can be consistently achieved.</i></p>	<p>Asset management process and policy definition adequacy rating</p> <p style="text-align: center;">A</p>	<p>Asset management performance rating</p> <p style="text-align: center;">1</p>
<p>Interviewees: Kerry Roberts – General Manager Energy Projects, Griffin Energy Paul Hanson – Station Manager Bluewaters, TWPS Steve Deonck – Operations Manager, TWPS Donna Gardiner – Administration Assistant</p>		<p>Relevant documentation:</p> <ol style="list-style-type: none"> 1. Bluewaters Power Station Asset Management Plan (March 2009), Section 6 Operations Strategy 2. Risk Assessment Report, Risk Point , Griffin Energy – Bluewaters Power station 180.01 (February 2009) 3. Bluewaters Power Station Unit EPC 1 Contract (July 2007) 4. O&M Agreement, Griffin Power Pty Ltd & Griffin Power 2 Pty Ltd and Transfield Worley Power Services Pty Limited (January 2008) 5. Transfield Services, Assessing Operational Systems Performance (on-line system), TMD-0000-QA-0007 (October 2006, rev 10) 6. Griffin document management system (TRIM) 7. Daily operations meetings (not minuted) 8. Boiler Feed Pump Change Over & Pre-start procedures, TMF-6033-OP-003 &004 9. Operations logs (electronic) 10. Incident report forms, TMF-6033-SA-0069 11. TWPS Risk Register & Risk Assessment Work sheet TMF-6033-RM-0001 12. SAP management system 13. TWPS Bluewaters PS Monthly Reports (Oct & Nov 2009) 14. Training Matrix & training records (location P drive) 	
Criteria Effectiveness		Post Review Audit Priority	

	Policy	Performance	Likelihood	Consequence	Inherent Risk rating	Adequacy of existing controls	Review priority	Adequacy Rating	Performance rating
			A=likely B=probable C=unlikely	1=minor 2=moderate 3=major	L=low M=medium H=high	S=strong M=moderate W=weak			
5.1	Ref docs - 1, 3, 4, 6 & 8, definition of service level requirements and plant performance requirements	Operations policies and procedures are well documented, evidence exists that procedures are followed; each procedure sheet requires sign off and are regularly audited. Service levels are defined in both the EPC for the warranty period and the O&M agreement for the commercial operations period.	C	2	M	S	4	A	1
5.2	Ref docs - 2, 8 & 11, assessment of risks associated with Bluewaters Unit 1 operations	Operational tasks have been risk assessed and prioritised as low, medium and high. High level risks are given priority and are documented in the risk register where engineering solutions are required or where disruption to operations could occur, other risks associated with the normal day-to-day operation of the plant are controlled via the operating instructions. Daily operations	C	2	M	S	4	A	1

		meetings assess and prioritise tasks							
5.3	Ref doc - 12, SAP system	Asset register is maintained and updated in SAP, utilising the KKS plant identification system	C	1	L	S	5	A	1
5.4	Ref doc - 13, Monthly reports	TWPS report monthly the operational costs for Bluewaters 1 including any unbudgeted expenditure	C	2	M	S	4	A	1
5.5	Ref doc - 14, Training matrix & records	All operations staff have been trained commensurate with their duties.	C	2	M	S	4	A	1

Comments & Recommendations									
Nil									

6	Key process - Asset maintenance <i>Maintenance functions relate to the upkeep of assets and directly affect service levels and costs.</i>	Asset management process and policy definition adequacy rating	Asset management performance rating
	Outcome <i>Maintenance plans cover the scheduling and resourcing of the maintenance tasks so that work can be done on time and on cost.</i>	A	1
Interviewees: Kerry Roberts – General Manager Energy Projects, Griffin Energy Paul Hanson – Station Manager Bluewaters, TWPS Steve Deonck – Operations Manager, TWPS Donna Gardiner – Administration Assistant Rob Dewar – Operations Coordinator (Mechanical) Stephen Armstrong – Operations Coordinator/Supervisor (I &C)		Relevant documentation: <ol style="list-style-type: none"> 1. Bluewaters Power Station Asset Management Plan (March 2009) 2. Risk Assessment Report, Risk Point, Griffin Energy – Bluewaters Power station 180.01 (February 2009) 3. Bluewaters Power Station Unit EPC 1 Contract (July 2007) 4. O&M Agreement, Griffin Power Pty Ltd & Griffin Power 2 Pty Ltd and Transfield Worley Power Services Pty Limited (January 2008) 5. Transfield Services, Assessing Operational Systems Performance (on-line system), TMD-0000-QA-0007 (October 2006, rev 10) 6. Griffin document management system (TRIM) 7. Daily operations meetings (not minuted) 8. TWPS Risk Register & Risk Assessment Work sheet TMF-6033-RM-0001 9. SAP management system 10. TWPS Bluewaters PS Monthly Reports (Oct & Nov 2009) 11. Daily pre-start meeting minutes (TMF-6032-OP-0011) 12. JSA's (eg burner tip cleaning TMF-6032-SA-0015) 13. Yokogawa DCS history system 14. OEM O&M manuals (TRIM) 15. Incident report forms, TMF-6033-SA-0069 16. Bluewaters 2 Summary Cost report as at 31 May 2009 17. Bluewaters Variations Report as at 31 May 2009 18. Griffin Power & Griffin Power 2 Bluewaters 1 & 2 Monthly Report (Dec 2009) 19. TWPS O&M Costs – December to June 2009 (monitored by Griffin) 	

			Energy)						
Criteria Effectiveness			Post Review Audit Priority						
	Policy	Performance	Likelihood	Consequence	Inherent Risk rating	Adequacy of existing controls	Review priority	Adequacy Rating	Performance Rating
			A=likely B=probable C=unlikely	1=minor 2=moderate 3=major	L=low M=medium H=high	S=strong M=moderate W=weak			
6.1	Ref docs - 1, 3, 4, 6, 9 & 12	Maintenance policies and procedures are well documented; linkages exist between the maintenance policies and the required service levels. Planned outages reflect the service level as described in the O&M agreement	c	2	M	S	4	A	1
6.2	Ref docs - 1, 9, 13 & 14 – OEM maintenance schedule recommendations have been uploaded on to the SAP system	SAP inspection schedule derived from the OEM manuals dictates the timing of inspections. Schedule will be updated as experience with the plant requirements is gained over time. Long term inspection schedules are currently under development (spreadsheet). CM schedules have been initiated and will develop over time, including historical trending from the DCS.	c	2	M	S	4	A	1

6.3	Ref docs - 1, 4, 9 & 14	Long term maintenance plans are documented in the asset management plan and O&M agreement, short term planning (ie recording of outage work) is collated in SAP.	c	2	M	S	4	A	1
6.4	Ref doc s – 3, 7, 10, 11 & 15	Failures are addressed at a number of levels. On a daily basis at the daily operations meeting and pre-start meetings. via the incident reporting system and documented in the monthly reports. Currently the focus is on investigating warranty issues as the unit is currently operating within its 24 month warranty period.	c	2	M	S	4	A	1
6.5	Ref docs – 1, 2, 5, 8 & 12	Risk assessments have been conducted on Bluewaters Unit 1 including maintenance risks. Priorities are set on a daily basis at the daily operations meeting and loaded into SAP. Longer term priorities (ie work planned for outages) is entered and collated in SAP by the operations coordinators.	c	2	M	S	4	A	1
6.6	Ref docs – 4, 10, 16, 17, 18 & 19	The O&M agreement sets out the annual costs for the unit including the maintenance budget.	c	2	M	S	4	A	1

		The monthly reports include information on maintenance costs and any unbudgeted expenditure.							
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Comments & Recommendations

Comment – Audit priorities for 6.1, 6.2, 6.3, 6.4, 6.5 & 6.6 were reclassified, review of documentation and processes reduced the inherent risk for these criteria.

7	<p>Key process - 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.</i></p> <p>Outcome <i>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.</i></p>	<p>Asset management process and policy definition adequacy rating</p> <p style="text-align: center;">A</p>	<p>Asset management performance rating</p> <p style="text-align: center;">1</p>
<p>Interviewees: Paul Hanson – Station Manager Bluewaters, TWPS Steve Deonck – Operations Manager, TWPS Rob Dewar – Operations Coordinator (Mechanical) Dan Snelgar – Asset Engineer</p>		<p>Relevant documentation:</p> <ol style="list-style-type: none"> 1. Bluewaters Power Station Asset Management Plan (March 2009) 2. O&M Agreement, Griffin Power Pty Ltd & Griffin Power 2 Pty Ltd and Transfield Worley Power Services Pty Limited (January 2008) 3. Transfield Services, Assessing Operational Systems Performance (on-line system), TMD-0000-QA-0007 (October 2006, rev 10) 4. Griffin document management system (TRIM) 5. SAP management system 6. Yokogawa DCS 7. DCS override procedure TMP-6033-OP-0100 8. I&C calibration procedure TMP-6033-QA-0002 (draft) 9. Plant modification form/procedure TMP-6033-EG0-0001 10. SAP access protocol 11. TWPS Monthly reports (October & November 2009) 12. Bluewaters Unit 1 Quarterly Environmental Report (May – July 2009) 	
Criteria Effectiveness		Post Review Audit Priority	

	Policy	Performance	Likelihood	Consequence	Inherent Risk rating	Adequacy of existing controls	Review priority	Adequacy Rating	Performance Rating
			A=likely B=probable C=unlikely	1=minor 2=moderate 3=major	L=low M=medium H=high	S=strong M=moderate W=weak			
7.1	Ref docs – 4, 5 & 6	On-line system documentation exists for systems. O&M manuals held in TRIM provide additional information.	C	1	L	S	5	A	1
7.2	Ref doc – 8	Calibration of data input instrumentation is monitored through CalStation (calibration software system). Calibrators' certification maintained by Asset Engineer. SAP data entry (eg WO closing history) checked by Operations Coordinators (Mechanical and I & C).	C	1	L	S	5	A	1
7.3	Ref docs – 5, 6, 7, 9 & 10	Site access to SAP via request to Griffin IT Group – 2 levels Application Limited Pro and Application Pro, access record viewed on site. Access to control system password issued by Asset Engineer, modification & maintenance access limited to Engineer & Technicians, operational access to shift	C	1	L	S	5	A	1

		operators. Protocols exist for modifications & overrides.							
7.4	Site access & security interview with Station Manager	Whole of site secured by wire mesh fencing, CCTV cameras in place, access through swipe card controlled gates after induction (level dependant on entry requirements). Access to Admin block, laboratory and control room via swipe card. Register of issued swipe cards is maintained in the access control system.	C	1	L	S	5	A	1
7.5	Back up procedures were discussed by interview with Asset Engineer	Control system back up daily via IHI installed system. Site server backup daily by admin staff, Griffin IT Group maintain backup tapes (Bluewaters servers). Griffin systems back up daily by Griffin IT Group (Perth servers)	C	1	L	S	5	A	1
7.6	Ref doc - 8	Calibration of data input instrumentation is monitored through CalStation (calibration software system). Calibrators' certification maintained by Asset Engineer. SAP data entry (eg WO closing history) checked by Operations Coordinators (Mechanical and I & C).	B	2	M	M	4	A	2

		Note: Western Power metering is maintained by Western Power, generation Sent Out instrumentation monitored by control staff is from separate instrumentation.							
7.7	Ref doc – 11 & 12	Monthly reports and quarterly environment reports provide adequate information to monitor licence obligations	c	1	L	S	5	A	1

Comments & Recommendations

Recommendation 4 – Consideration should be given to import Western Power metering data into the control room for cross – checking of service delivery levels.

Comment – Audit priorities for 7.1, 7.2, 7.3, 7.4, 7.5 7.6 & 7.7 were reclassified, review of documentation and processes reduced the inherent risk for these criteria.

8	Key Process - Risk Management <i>Risk management involves the identification of risks and their management within an acceptable level of risk.</i>	Asset management process and policy definition adequacy rating B	Asset management performance rating 2							
	Outcome <i>An effective risk management framework is applied to manage risks related to the maintenance of service standards</i>									
Interviewees: Paul Hanson – Station Manager Bluewaters, TWPS Kerry Roberts - General Manager Energy Projects, Griffin Energy		Relevant documentation: 1. Bluewaters Power Station Asset Management Plan (March 2009) 2. Bluewaters Power Station Asset Management Plan (March 2009), Appendix I Sample Risk Assessment Worksheet & Appendix J Risk Action Plan 3. Risk Assessment Report, Risk Point , Griffin Energy – Bluewaters Power station 180.01 (February 2009) 4. Griffin Energy Risk register 5. Risk Assessment worksheets OPS -6033-001 to 0014 6. Risk Policy TMC-0000-RM-0002 7. Risk Action Plan TMF-0000-RM-0002 8. O&M Agreement, Griffin Power Pty Ltd & Griffin Power 2 Pty Ltd and Transfield Worley Power Services Pty Limited (January 2008) 9. Transfield Services, Assessing Operational Systems Performance (on-line system), TMD-0000-QA-0007 (October 2006, rev 10), Section 13 Risk Management 10. TWPS Betterways Continuous Improvement program								
Criteria Effectiveness		Post Review Audit Priority								
	Policy	Performance	Likelihood	Consequence	Inherent Risk rating	Adequacy of existing controls	Review priority	Adequacy Rating	Performance Rating	
			A=likely B=probable C=unlikely	1=minor 2=moderate 3=major	L=low M=medium H=high	S=strong M=moderate W=weak				

8.1	Ref docs 1, 2, 6, 7 & 10	Risk management forms an integral step in TWPS management strategies, policies and procedures are well documented within the TWPS OPS system.	B	2	M	M	4	B	2
8.2	Ref docs 3,4 & 5	Risks are documented by both Griffin and TWPS in registers and risk plans. Frequency of review of the risk registers and action plans by Griffin should be improved, TWPS regularly review their action plans.	A	2	H	M	2	B	2
8.3	Ref docs 3,4 & 5	Both the Griffin and TWPS risk registers were developed in the lead up to the commercial operation of Bluewaters Unit 2, the unit is operating within the first year of its 2 year warranty period. TWPS regularly review the register however the Griffin register has not as yet been updated.	B	2	M	M	4	B	2

Comments & Recommendations

Recommendation 5 – Risk Register, Treatment Plans and reports should be reviewed on a more frequent basis, i.e. quarterly

9	Key Process - Contingency Planning <i>Contingency plans document the steps to deal with the unexpected failure of an asset.</i>		Asset management process and policy definition adequacy rating B			Asset management performance rating 2			
	Outcome- <i>Contingency plans have been developed and tested to minimise any significant disruptions to service standards.</i>								
Interviewees: Kerry Roberts - General Manager Energy Projects, Griffin Energy			Relevant documentation: 1. Coal Supply & Ash Disposal Agreement June 2008						
Criteria Effectiveness			Post Review Audit Priority						
	Policy	Performance	Likelihood	Consequence	Inherent Risk rating	Adequacy of existing controls	Review priority	Adequacy Rating	Performance Rating
			A=likely B=probable C=unlikely	1=minor 2=moderate 3=major	L=low M=medium H=high	S=strong M=moderate W=weak			
9.1	Ref doc – 1 Interview with General Manager Energy Projects	Coal supply and ash disposal alternatives are detailed with the agreement. Alternate water supplies are available from the Ewington mine and Big Blue Lake adjacent to the Bluewaters site. Currently, a project has been initiated to provide a direct supply from Big Blue to the station. At this stage the contingency plans have not been tested due to the early stage of the stations	A	2	H	M	2	B	2

		operations.							
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Comments & Recommendations

Recommendation 6 – An over-arching business contingency plan should be developed for the station documenting separate plans for Griffin Power.
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10	<p>Key Process - Financial Planning <i>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.</i></p> <p>Outcome <i>A financial plan that is reliable and provides for long-term financial viability of services</i></p>	<p>Asset management process and policy definition adequacy rating</p> <p>B</p>	<p>Asset management performance rating</p> <p>1</p>
<p>Interviewees: Kerry Roberts – General Manager Energy Projects, Griffin Energy Wayne Trumble - Executive General Manager Power Generation, Griffin Energy Nicholas Yeak – Management Accountant, Griffin Energy</p>		<p>Relevant documentation:</p> <ol style="list-style-type: none"> 1. Advisory Board Meeting Presentation 2009 2. Bluewaters Power Station O & M Budget Unit 1 & 2 (Ver 3) 3. Bluewaters 2 Summary Cost report as at 31 May 2009 4. Bluewaters 2 – Cash Payments Monthly Phasing – May 2009 5. Bluewaters Variations Report as at 31 May 2009 6. TWPS O&M Costs – December to June 2009 (monitored by Griffin Energy) 7. Griffin Power 2 Pty Ltd Forecast Performance Indicators (Financial & Statistical 3 –year forecast 2008 -2010) 8. Griffin Power 2 Pty Ltd Strategic Budget GFR 10 Year Performance Indicators (Financial & Statistical 10 –year forecast 2008 -2019) 9. Griffin Power 2 Pty Ltd 10 Year Performance Indicators (Financial 10 –year forecast 2008 -2019) 10. P&L Financial Indicators error check report 11. Griffin Power 2 year annual monthly rolling budget + 8 years (cash flow statement, balance sheet & statement of financial performance) 12. Griffin Power & Griffin Power 2 Bluewaters 1 & 2 Monthly Report (Dec 2009) 13. Griffin Power 2 Pty Ltd Special Purpose Financial Report 30 June 2008 & 30 June 2009 (Deloitte Independent Auditors Report) 	
Criteria Effectiveness		Post Review Audit Priority	

	Policy	Performance	Likelihood	Consequence	Inherent Risk rating	Adequacy of existing controls	Review priority	Adequacy Rating	Performance Rating
			A=likely B=probable C=unlikely	1=minor 2=moderate 3=major	L=low M=medium H=high	S=strong M=moderate W=weak			
10.1	Ref docs – 1, 2, 3, 4, 6, 7, 8, 9, 11 & 12	Detailed financial plans exist for both the construction and operating periods of the station including the O&M costs associated with the TWPS contract. Financial planning occurs during the February June period of each year for the following financial year, it includes both recurrent and capital expenditure planning.	B	2	M	S	4	B	1
10.2	Ref docs – 1, 2, 3, 4, 6, 7, 8, 9, 11, 12 & 13	Funding sources are documented within the plan, there is only one source of funds for both capital expenditure and recurrent costs.	B	2	M	S	4	B	1
10.3	Ref docs – 1, 2, 3, 4, 6, 7, 8, 9, 11, 12 & 13	The plan provides in depth projections for profit and loss and financial position for the initial 2-years of the plan and projections for the following 8 years (10 year plan)	B	2	M	S	4	B	1
10.4	Ref docs – 1, 2, 3, 4, 6, 7, 8, 9, 11 & 12	The plan provides firm predictions for income for the	B	2	M	S	4	B	1

		initial 2-years of the plan and projections for the following 8 years (10 year plan)							
10.5	Ref docs – 1, 2, 3, 4, 6, 7, 8, 9, 11 & 12	The plan provides for the operations and maintenance, administration and capital expenditure for the services. The O&M costs associated with the TWPS contract are provided in detail and are closely monitored by griffin Energy.	B	2	M	S	4	B	1
10.6	Ref docs – 5, 10 & 12	Variances from actual and budget income and expense are reported and monitored monthly by Griffin Energy, significant variances, corrective actions and improvement initiatives are reported in the monthly report.	B	2	M	S	4	B	1

Comments & Recommendations

Recommendation 7 – develop procedural documentation to detail the process in relation to annual budgeting, business planning and the 10 year financial plans.

Comment – Audit priorities for 10.1, 10.2, 10.3, 10.4, 10.5 & 10.6 were reclassified, review of documentation and processes reduced the inherent risk for these criteria.

<p>11</p>	<p>Key Process - 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.</i></p> <p>Outcome - <i>A capital expenditure plan that provides reliable forward estimates of capital expenditure and asset disposal income, supported by documentation of the reasons for the decisions and evaluation of alternatives and options.</i></p>	<p>Asset management process and policy definition adequacy rating</p> <p>B</p>	<p>Asset management performance rating</p> <p>1</p>
<p>Interviewees: Kerry Roberts – General Manager Energy Projects, Griffin Energy Wayne Trumble - Executive General Manager Power Generation, Griffin Energy Nicholas Yeak – Management Accountant, Griffin Energy</p>	<p>Relevant documentation:</p> <ol style="list-style-type: none"> 1. Advisory Board Meeting Presentation 2009 2. Bluewaters Power Station O & M Budget Unit 1 & 2 (Ver 3) 3. Bluewaters 2 Summary Cost report as at 31 May 2009 4. Bluewaters 2 – Cash Payments Monthly Phasing – May 2009 5. Bluewaters Variations Report as at 31 May 2009 6. TWPS O&M Costs – December to June 2009 (monitored by Griffin Energy) 7. Griffin Power 2 Pty Ltd Forecast Performance Indicators (Financial & Statistical 3 –year forecast 2008 -2010) 8. Griffin Power 2 Pty Ltd Strategic Budget GFR 10 Year Performance Indicators (Financial & Statistical 10 –year forecast 2008 -2019) 9. Griffin Power 2 Pty Ltd 10 Year Performance Indicators (Financial 10 –year forecast 2008 -2019) 10. P&L Financial Indicators error check report 11. Griffin Power 2 year annual monthly rolling budget + 8 years (cash flow statement, balance sheet & statement of financial 		

			<p>performance) Bluewaters Power Station Asset Management Plan (March 2009)</p> <p>12. Griffin Power & Griffin Power 2 Bluewaters 1 & 2 Monthly Report (Dec 2009)</p> <p>13. Griffin Power 2 Pty Ltd Special Purpose Financial Report 30 June 2008 & 30 June 2009 (Deloitte Independent Auditors Report)</p> <p>14. O&M Agreement, Griffin Power Pty Ltd & Griffin Power 2 Pty Ltd and Transfield Worley Power Services Pty Limited (January 2008)</p> <p>15. Griffin Power Capital Expenditure Application form</p> <p>16. Risk Assessment Report, Risk Point , Griffin Energy – Bluewaters Power station 180.01 (February 2009)</p> <p>17. Bluewaters Power Station Asset Management Plan (March 2009)</p>						
Criteria Effectiveness			Post Review Audit Priority						
	Policy	Performance	Likelihood	Consequence	Inherent Risk rating	Adequacy of existing controls	Review priority	Adequacy Rating	Performance Rating
			A=likely B=probable C=unlikely	1=minor 2=moderate 3=major	L=low M=medium H=high	S=strong M=moderate W=weak			
11.1	Ref docs – 1, 4, 5, 7, 8, 9, 11, 12 & 14	The capital expenditure plan is well documented including phase payments in relation to the construction of the station. The O & M contract clearly defines the responsibilities of the owner and operator in relation to capital expenditure.	B	2	M	S	4	B	1

11.2	Ref docs – 1, 4, 5, 7, 8, 9, 11, 12, 14, 15, 16 & 17	Reasons for capital expenditure are well documented, phase payments for capital expenditure are documented, proposals for capital expenditure via the capital expenditure application form include detail on financial funding and timing.	B	2	M	S	4	B	1
11.3	Ref docs – 1, 4, 5, 7, 8, 9, 11, 12, 14, 15, 16 & 17	Financial planning occurs during the February June period of each year for the following financial year, it includes both recurrent and capital expenditure planning. The strategic budget and forecast performance indicators reflect the capital expenditure plan. Future capital expenditure for the station will be based on the risk reviews conducted by both Griffin and TWPS which is reflected in the current AMP.	B	2	M	S	4	B	1
11.4	Ref docs – 1, 3, 4, 5, 6, 7, 8, 9, 11, 12, 14, 16 & 17	As above. In additional, the TWPS 'Betterways' program can provide input into the capital expenditure plan through continuous improvement initiatives.	B	2	M	S	4	B	1

Comments & Recommendations

Recommendation 8 – develop procedural documentation to detail the process in relation to capital budgeting.

Comment – Audit priorities for 11.1, 11.2, 11.3 & 11.4 were reclassified, review of documentation and processes reduced the inherent risk for these criteria.

12	Key Process - Review of AMS <i>The asset management system is regularly reviewed and updated</i>		Asset management process and policy definition adequacy rating A			Asset management performance rating 2			
	Outcome <i>Review of the Asset Management System to ensure the effectiveness of the integration of its components and their currency.</i>								
Interviewees:			Relevant documentation: 1. Bluewaters Power Station Asset Management Plan (March 2009)						
Criteria Effectiveness			Post Review Audit Priority						
	Policy	Performance	Likelihood	Consequence	Inherent Risk rating	Adequacy of existing controls	Review priority	Adequacy rating	Performance Rating
			A=likely B=probable C=unlikely	1=minor 2=moderate 3=major	L=low M=medium H=high	S=strong M=moderate W=weak			
12.1	Ref doc - 1	The 2009 Asset Management Plan was developed by TWPS on behalf of Griffin Power; this is the first AMP for the station which is currently in its first year of commercial operation. The plan was reviewed by Griffin Power as a deliverable under the O&M Agreement	C	1	L	S	5	A	2
12.2	Ref doc - 1	Review by Griffin Power. Note this is the first external audit of the AMS under the ERA guidelines.	B	1	L	S	5	A	2

Comments & Recommendations

Recommendation 9 – the AMP should be reviewed on completion of the warranty outage at the end of the first year of commercial operation

Table 9: Effectiveness Criteria Pre- Audit Review

1	Key Process - 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).</i>	Outcome <i>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.</i>					
			Likelihood	Consequence	Inherent Risk rating	Adequacy of existing controls	Review priority
	Effectiveness Criteria	Inherent Risks (No Controls)	A=likely B=probable C=unlikely	1=minor 2=moderate 3=major	L=low M=medium H=high	S=strong M=moderate W=weak	
1.1	Planning process and objectives reflect the needs of all stakeholders and is integrated with business planning	Some stakeholder needs not addressed	C	1	L	S	5
1.2	Service levels are defined	Some service levels not defined	C	1	L	S	5
1.3	Non-asset options (e.g. demand management) are considered	Agreements in place with energy off-takers for consumption of resource, demand management	C	1	L	S	5
1.4	Lifecycle costs of owning and operating assets are assessed	Lifecycle costs larger than expected	B	2	M	M	4
1.5	Funding options are evaluated	Alternate funding cost less	B	2	M	M	4
1.6	Costs are justified and cost drivers identified	Costs are larger than expected	A	2	H	M	2
1.7	Likelihood and consequences of asset failure are predicted	Asset fail more often with severer consequences than expected	A	2	H	S	2
1.8	Plans are regularly reviewed and updated	Plans do not reflect best practices	C	2	M	S	4

2	Key Process - Asset creation/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.</i>		Outcome <i>A more economic, efficient and cost-effective asset acquisition framework which will reduce demand for new assets, lower service costs and improve service delivery.</i>				
	Effectiveness Criteria	Inherent Risks (No Controls)	Likelihood	Consequence	Inherent Risk rating	Adequacy of existing controls	Review priority
			A=likely B=probable C=unlikely	1=minor 2=moderate 3=major	L=low M=medium H=high	S=strong M=moderate W=weak	
2.1	Full project evaluations are undertaken for new assets, including comparative assessment of non-asset solutions	Higher costs than necessary	B	3	H	S	2
2.2	Evaluations include all life-cycle costs	Higher costs than expected	B	2	H	S	2
2.3	Projects reflect sound engineering and business decisions	Projects cost more, do not meet their objectives or are unsafe to operate	B	3	M	S	4
2.4	Commissioning tests are documented and completed	Valuable information lost and asset does not operate correctly or safely	C	2	M	S	4
2.5	Ongoing legal/environmental/safety obligations of the asset owner are assigned and understood	Assets and practices do not meet current legislative requirements	B	3	H	S	2

3 Key process - 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</i>			Outcome <i>Effective management of the disposal process will minimise holdings of surplus and under-performing assets and will lower service costs.</i>				
	Effectiveness Criteria	Inherent Risks (No Controls)	Likelihood	Consequence	Inherent Risk rating	Adequacy of existing controls	Review priority
			A=likely B=probable C=unlikely	1=minor 2=moderate 3=major	L=low M=medium H=high	S=strong M=moderate W=weak	
3.1	Under-utilised and under-performing assets are identified as part of a regular systematic review process	Higher costs and lower service	B	2	M	M	4
3.2	The reasons for under-utilisation or poor performance are critically examined and corrective action or disposal undertaken	The reasons for under-utilisation or poor performance are critically examined and corrective action or disposal undertaken	B	2	M	M	4
3.3	Disposal alternatives are evaluated	Disposal alternatives are evaluated	B	2	M	M	4
3.4	There is a replacement strategy for assets	There is a replacement strategy for assets	B	2	M	M	4

4 Key Process - Environmental analysis <i>Environmental analysis examines the asset system environment and assesses all external factors affecting the asset system.</i>			Outcome <i>The asset management system regularly assesses external opportunities and threats and takes corrective action to maintain performance requirements.</i>				
	Effectiveness Criteria	Inherent Risks (No Controls)	Likelihood	Consequence	Inherent Risk rating	Adequacy of existing controls	Review priority
			A=likely B=probable C=unlikely	1=minor 2=moderate 3=major	L=low M=medium H=high	S=strong M=moderate W=weak	
4.1	Opportunities and threats in the system environment are assessed	Failure to assess opportunities and threats in the system environment	C	2	M	S	4
4.2	Performance standards (availability of service, capacity, continuity, emergency response, etc) are measured and achieved	Failure to monitor performance standards	C	2	M	S	4
4.3	Compliance with statutory and regulatory requirements	Failure to comply with statutory and regulatory compliance	C	2	M	S	4
4.4	Achievement of customer service levels	Failure to achieve customer service levels	C	2	M	S	4

5	Key Process - Asset operations <i>Operations functions relate to the day-to-day running of assets and directly affect service levels and costs.</i>		Outcome <i>Operations plans adequately document the processes and knowledge of staff in the operation of assets so that service levels can be consistently achieved.</i>				
	Effectiveness Criteria	Inherent Risks (No Controls)	Likelihood	Consequence	Inherent Risk rating	Adequacy of existing controls	Review priority
			A=likely B=probable C=unlikely	1=minor 2=moderate 3=major	L=low M=medium H=high	S=strong M=moderate W=weak	
5.1	Operational policies and procedures are documented and linked to service levels required	Service levels not consistently achieved	C	2	M	S	4
5.2	Risk management is applied to prioritise operations tasks	Unimportant tasks performed before important tasks	C	2	M	S	4
5.3	Assets are documented in an Asset Register including asset type, location, material, plans of components, an assessment of assets' physical/structural condition and accounting data	Asset information missing and condition unknown	C	1	L	S	5
5.4	Operational costs are measured and monitored	Operational costs too high	C	2	M	S	4
5.5	Staff receive training commensurate with their responsibilities	Staff perform tasks for which they are not trained	C	2	M	S	4

6	Key process - Asset maintenance <i>Maintenance functions relate to the upkeep of assets and directly affect service levels and costs.</i>		Outcome <i>Maintenance plans cover the scheduling and resourcing of the maintenance tasks so that work can be done on time and on cost.</i>				
	Effectiveness Criteria	Inherent Risks (No Controls)	Likelihood	Consequence	Inherent Risk rating	Adequacy of existing controls	Review priority
			A=likely B=probable C=unlikely	1=minor 2=moderate 3=major	L=low M=medium H=high	S=strong M=moderate W=weak	
6.1	Maintenance policies and procedures are documented and linked to service levels required	Service levels not consistently achieved	A	2	H	S	2
6.2	Regular inspections are undertaken of asset performance and condition	Asset performance and condition unknown	A	2	H	S	2
6.3	Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule	Maintenance tasks not done on time, in sequence or correctly	A	2	H	S	2
6.4	Failures are analysed and operational/maintenance plans adjusted where necessary	Failures are repeated	A	2	H	S	2
6.5	Risk management is applied to prioritise maintenance tasks	Unimportant tasks performed before important tasks	A	2	H	S	2
6.6	Maintenance costs are measured and monitored	Maintenance costs too high	A	2	H	S	2

7	Key process - 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.</i>		Outcome - <i>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.</i>				
	Effectiveness Criteria	Inherent Risks (No Controls)	Likelihood A=likely B=probable C=unlikely	Consequence 1=minor 2=moderate 3=major	Inherent Risk rating L=low M=medium H=high	Adequacy of existing controls S=strong M=moderate W=weak	Review priority
7.1	Adequate system documentation for users and IT operators	Service levels not consistently achieved	B	2	M	M	4
7.2	Input controls include appropriate verification and validation of data entered into the system	Incorrect data entered into system	B	2	M	M	4
7.3	Logical security access controls appear adequate, such as passwords	Unauthorised access to system	A	2	H	M	2
7.4	Physical security access controls appear adequate	Unauthorised access to equipment	B	2	M	S	4
7.5	Data backup procedures appear adequate	Complete loss of data or very old data available after systems failure	A	2	H	M	2
7.6	Key computations related to licensee performance reporting are materially accurate	Service levels not consistently achieved	A	2	H	M	2
7.7	Management reports appear adequate for the licensee to monitor licence obligations	Service levels not consistently achieved	A	2	H	S	4

8 Key Process - Risk Management <i>Risk management involves the identification of risks and their management within an acceptable level of risk.</i>			Outcome <i>An effective risk management framework is applied to manage risks related to the maintenance of service standards</i>				
	Effectiveness Criteria	Inherent Risks (No Controls)	Likelihood	Consequence	Inherent Risk rating	Adequacy of existing controls	Review priority
			A=likely B=probable C=unlikely	1=minor 2=moderate 3=major	L=low M=medium H=high	S=strong M=moderate W=weak	
8.1	Risk management policies and procedures exist and are being applied to minimise internal and external risks associated with the asset management system	Ineffective or misapplication of risk management procedures to asset management system	B	2	M	M	4
8.2	Risks are documented in a risk register and treatment plans are actioned and monitored	Failure to capture risks within risk register processes	A	2	H	M	2
8.3	The probability and consequences of asset failure are regularly assessed	Inadequate review of asset failures	B	2	M	M	4

9 Key Process - Contingency Planning <i>Contingency plans document the steps to deal with the unexpected failure of an asset.</i>			Outcome- <i>Contingency plans have been developed and tested to minimise any significant disruptions to service standards.</i>				
	Effectiveness Criteria	Inherent Risks (No Controls)	Likelihood	Consequence	Inherent Risk rating	Adequacy of existing controls	Review priority
			A=likely B=probable C=unlikely	1=minor 2=moderate 3=major	L=low M=medium H=high	S=strong M=moderate W=weak	
9.1	Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks	Service levels worse than expected following failures	A	2	H	M	2

10	Key Process - Financial Planning <i>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.</i>		Outcome <i>A financial plan that is reliable and provides for long-term financial viability of services</i>				
	Effectiveness Criteria	Inherent Risks (No Controls)	Likelihood	Consequence	Inherent Risk rating	Adequacy of existing controls	Review priority
			A=likely B=probable C=unlikely	1=minor 2=moderate 3=major	L=low M=medium H=high	S=strong M=moderate W=weak	
10.1	The financial plan states the financial objectives and strategies and actions to achieve the objectives	Financial objectives and strategies not documented appropriately in financial plan	A	3	H	M	2
10.2	The financial plan identifies the source of funds for capital expenditure and recurrent costs	Source of funds for Capital and Operational expenditures not identified or documented	A	3	H	M	2
10.3	The financial plan provides projections of operating statements (profit and loss) and statement of financial position (balance sheets)	Inadequate financial plan	A	3	H	M	2
10.4	The financial plan provide firm predictions on income for the next five years and reasonable indicative predictions beyond this period	Inadequate financial plan	A	3	H	M	2
10.5	The financial plan provides for the operations and maintenance, administration and capital expenditure requirements of the services	Inadequate financial plan	A	3	H	M	2
10.6	Significant variances in actual/budget income and expenses	Corrective action not taken when significant variances in	A	3	H	M	2

	are identified and corrective action taken where necessary	actual/budget income and expenses occurred					
11	Key Process - 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.</i> <i>Since capital investments tend to be large and lumpy, projections would normally be expected to cover at least 10 years, preferably longer.</i> <i>Projections over the next five years would usually be based on firm estimates.</i>		Outcome - <i>A capital expenditure plan that provides reliable forward estimates of capital expenditure and asset disposal income, supported by documentation of the reasons for the decisions and evaluation of alternatives and options.</i>				
	Effectiveness Criteria	Inherent Risks (No Controls)	Likelihood A=likely B=probable C=unlikely	Consequence 1=minor 2=moderate 3=major	Inherent Risk rating L=low M=medium H=high	Adequacy of existing controls S=strong M=moderate W=weak	Review priority
11.1	There is a capital expenditure plan that covers issues to be addressed, actions proposed, responsibilities and dates	Inadequate Capital Expenditure plan	A	3	H	M	2
11.2	The plan provide reasons for capital expenditure and timing of expenditure	Inadequate Capital Expenditure plan	A	3	H	M	2
11.3	The capital expenditure plan is consistent with the asset life and condition identified in the asset management plan	Inadequate Capital Expenditure plan	A	3	H	M	2
11.4	There is an adequate process to ensure that the capital expenditure plan is regularly updated and actioned	Inadequate Capital Expenditure processes to ensure update of plan	A	3	H	M	2

12	Key Process - Review of AMS <i>The asset management system is regularly reviewed and updated</i>		Outcome <i>Review of the Asset Management System to ensure the effectiveness of the integration of its components and their currency.</i>				
	Effectiveness Criteria	Inherent Risks (No Controls)	Likelihood	Consequence	Inherent Risk rating	Adequacy of existing controls	Review priority
			A=likely B=probable C=unlikely	1=minor 2=moderate 3=major	L=low M=medium H=high	S=strong M=moderate W=weak	
12.1	A review process is in place to ensure that the asset management plan and the asset management system described therein are kept current	Inadequate review processes for AMS	C	1	L	S	2
12.2	Independent reviews (e.g. internal audit) are performed of the asset management system	Inadequate review processes for AMS	B	1	L	S	2

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