

BLUEWATERS POWER 1 PTY LTD Performance Audit & Asset Management

System Review Report 2022 ELECTRICITY GENERATION LICENCE – EGL4



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DEFINITION OF TERMS USED

AMP - Asset Management Plan

- AMPS Asset Management Planning System software platform
- AMS Asset Management System
- Audit Guidelines March 2019 Audit and Review Guidelines Electricity and Gas Licences
- Bluewaters BW1, BW2 & BWPS are jointly referred to as Bluewaters Group or Bluewaters
- **BW1** Bluewaters Power 1 Pty Ltd (EGL4)
- **BW2** Bluewaters Power 2 Pty Ltd (EGL17)
- BWPS Bluewaters Power Services Pty Ltd
- **CMMS** Computerised Maintenance Management System
- **CSA** Coal Supply Agreement
- Compliance Reporting Manual Electricity Compliance Reporting Manual February 2022
- EGL4 The Electricity Generation Licence for Bluewaters Power 1 Pty Ltd
- EGL17- The Electricity Generation Licence for Bluewaters Power 2 Pty Ltd
- ERL12 The Electricity Retail Licence for Bluewaters Power 1 Pty Ltd
- **EMP** Environmental Management Plan
- **ERA** Economic Regulation Authority
- **ETAC** Electricity Transfer Access Contract
- FMECA Failure Mode Analysis and Risk Assessment
- FOF Forced Outage Factor
- **GE** General Electric
- **GES** Geographe Environmental Services
- L8326/2008/5 Environmental Licence
- MW MegaWatt
- MOF Maintenance Outage Factor
- **OFI** Opportunities for Improvement
- MYOSH/VIKING HSEQ Management Software

QLIK - Software specializing in data visualization, executive dashboards and self-service business intelligence products.

- PPA Power Purchase Agreement
- RACC Risk, Audit and Compliance Committee
- **SAMP** Strategic Asset Management Plan

SWIN – South West Interconnected Network - The SWIN extends north to Kalbarri, east to Kalgoorlie and south to Albany and is not interconnected with other electricity systems.

SWIS – The South West Interconnected System comprises the distribution and transmission networks, generation plant and associated equipment in the area of Western Australia that extends north to Kalbarri, east to Kalgoorlie and south to Albany. The SWIN is the network component of the SWIS



This report was prepared by representatives of Geographe Environmental Services (**GES**) Pty Ltd in relation to the above-named client's conformance to the nominated audit standard(s). Audits were undertaken using a sampling process and the report and its recommendations were 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. The client had the opportunity for review to ensure no commercially sensitive information was disclosed.



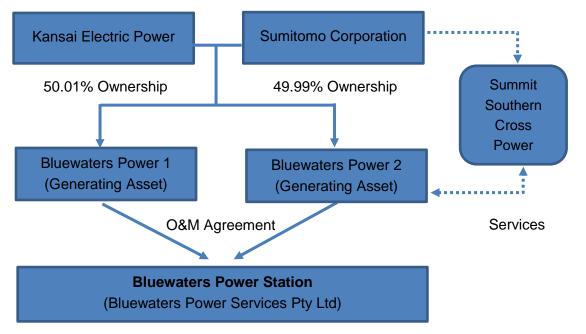
1. EXECUTIVE SUMMARY

The Licensee is Bluewaters Power 1 Pty Ltd (**BW1**).

The Economic Regulation Authority (the **ERA**) has under the provisions of the Electricity Industry Act 2004 (the Act), issued to BW1 the Electricity Generation Licence (**EGL4**) (the Licence).

Bluewaters Power 1 Pty Ltd is owned by Sumitomo Corporation & Kansai Electric Power Co. Ltd and is currently maintained and operated by Bluewaters Power Services Pty Ltd (**BWPS**). During the audit period the power station was operated & maintained by BWPS. For the purposes of this Audit & Review Plan, the Bluewaters Power 1 Pty Ltd will be referred to as "BW1" throughout this document.





BlueWaters Power 1 Pty Ltd holds an Electricity Generation Licence (**EGL4**) issued by the Economic Regulation Authority under the *Electricity Industry Act 2004*. This performance audit and asset management review is the 4th audit and review undertaken by the Licensee since commissioning and was conducted in accordance with the 2019 Audit and Review Guidelines – Electricity and Gas Licences (the **Guidelines**) issued by the ERA to assess the effectiveness of the licensee's Asset Management System (**AMS**).

Sections 13 and 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 an asset management system review report by an independent expert acceptable to the Authority. Geographe Environmental Services (**GES**) has been approved by the Authority to undertake this audit and review as outlined by the approved audit and review plan.



Following the previous 2017 Audit & Review, the ERA decided to maintain the period covered by the current 2022 audit and review at 60 months. As such, the period for the review is 1 January 2018 to 31 December 2022 (**audit or review period**).

Asset Overview

Bluewaters Power Station is the first privately owned, coal fired power station in Western Australia and a contributor to Western Australia's energy mix. Built in 2009, it is located 4.5 kilometres northeast of Collie, Western Australia. The Bluewaters Power Station runs on sub-bituminous coal, supplied under long-term contracts from the coal mining town of Collie. The Bluewaters Power Station uses subcritical technology to generate electricity to a capacity of 434 MegaWatts (**MW**).

Figure 2 Bluewaters Power Station Site Location



The Bluewaters Power Station assets consists of:

- Two 217MW generation assets Unit 1 & Unit 2
- Common Plant
 - o Raw Water Treatment
 - Waste Water Treatment & Disposal
 - Cooling Water Treatment
 - Coal Handling
 - Fuel Oil Storage
- Process Inputs
 - o Coal
 - Fuel Oil
 - o Process Chemicals
- Infrastructure
 - o Site Buildings & Amenities
 - Warehouse Inventory

The power station uses an efficient combustion process and employs emission control technology to reduce its emissions. While emissions cannot be entirely eliminated, they are continuously monitored and kept within the regulatory limits as imposed under the power stations environmental licence (L8326/2008/5).



The primary plant at the power station consists of two IHI boilers and two Alstom (now **GE**) steam turbines and is connected to Western Power's South West Interconnected Network (**SWIN**) via two 330kV transmission lines.

Operational services to manage BW1 & Bluewaters Power 2 Pty Ltd (**BW2**) are based at the Bluewaters Power Station in Collie and Perth Offices. Employees based on site in Collie are primarily employed through BWPS and Perth based Bluewaters employees are employed through BW2. There is a service agreement in place with BW2 which also enable Perth based employees who are employed by another Sumitomo subsidiary Summit Southern Cross Power Pty Ltd (**SSCP**), (a Sumitomo Corporation entity) to provide support services to BWPS and the generating assets. BW1 and BW2 are supplied coal under long term Coal Supply Agreements (**CSAs**) with The Griffin Coal Mining Company Pty Ltd (Receivers and Managers Appointed) (In liquidation). In order to address potential coal supply issues, alternative CSAs have been established and contingent coal preservation and stockpile strategies established to be implemented as and when appropriate.

Key contracts and notable dates applicable to Bluewaters include:

- Electricity Generation Licence (EGL4) expiry 8th March 2036
- Electricity Generation Licence (EGL17) expiry 19th June 2037
- Electricity Retail Licence (ERL12) expiry 13th August 2025
- Coal Supply Agreements Griffin Coal
- Services Agreement Summit Southern Cross Power
- Power Purchase Agreements Water Corp, Synergy, Boddington Gold Mine
- Water Supply Agreement Synergy
- Electricity Transfer Access Contract Western Power
- O&M Agreement BWPS/BW1/BW2

Bluewaters generation supplies three key customers:

- Water Corporation
- Boddington Gold Mine (BGM)
- Synergy

Bluewaters Power Station are actively reviewing options for longer term customer contracts to counter any potential reductions in demand due to PPA extension options.

Previous Performance Audit and Asset Management Review Report (2017)

The previous Performance Audit and AMS review report was for the review period 1st January 2014 to 31st December 2017 and was conducted in accordance with the Audit and Review Guidelines – Electricity and Gas Licences April 2014.

The Licensee confirmed that aside from the changes to Asset Management Planning Cycle including the development and implementation of Asset Management Planning System (**AMPS**) platform and establishment of fuel supply contingencies there have been no substantial changes to the assets or the business since the previous Performance Audit and AMS review.



The 2017 Performance Audit and AMS review reports as well as the ERA's Notice of Assessment are available on the ERA website.

The Performance Audit Report 2017 determined that there were 43 licence obligations applicable to Bluewaters' electricity generation licence and found:

- > Nine were rated A1 (adequate controls, compliant)
- > Two were rated B1 (generally adequate controls, compliant)
- > Three were rated B2 (generally adequate controls, non-compliant)
- > 29 were rated NP/NR (not performed, not rated).

The 2017 audit identified three non-compliances. Two of the non-compliances were minor administrative issues relating to paying prescribed licence fees late (Refer obligation 105) and submitting compliance reports to the ERA after the due date (Refer obligation 124). The third non-compliance concerned not having a formal system to record and review operational risks (refer obligation 106).

TABLE 1 Performance Audit Compliant and Control Rating Scales

Adequacy of Controls Rating		Compliance Rating	
Rating	Description	Rating	Description
А	Adequate controls - no improvement needed	1	Compliant
В	Generally adequate controls - improvement needed	2	Non-Compliant – minor impact on customers or third parties
С	Inadequate controls – significant improvement needed	3	Non-Compliant – moderate impact on customers or third parties
D	No controls evident	4	Non-Compliant – major impact on customers or third parties
NP	Not Performed	NR	Not rated – Determined Not Applicable during the audit period

Source: Table 6: 2019 Audit and Review Guidelines – Electricity and Gas Licences

As required by the 2014 Guidelines, the licensee developed a post audit implementation plan (**PAIP**) to address licence compliance (refer table 1) that were rated C, D, 2, 3 or 4 for the following licence obligations detailed in the Electricity Compliance Reporting Manual – February 2022 (**Electricity Compliance Reporting Manual**):

Ref	Licence Obligation	Control	Compliance
		Adequacy	Rating
01/2018	Obligation 124 Electricity Industry Act, section 11	В	2
	A licensee must provide the ERA, in the manner prescribed, with any information that the ERA requires in connection with its functions under the Electricity Industry Act.		
03/2018	Obligation 105 Economic Regulation Authority (Licensing Funding) Regulations 2014	В	2
	A licensee must pay the prescribed licence fees to the ERA according to clauses 6, 7 and 8 of the Economic Regulation Authority (Licensing Funding) Regulations 2014		
04/2018	Obligation 106 Electricity Industry Act, section 31(3)	В	2
	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.		



It was noted that the 2014 Guidelines left to the discretion of the licensee the need to determine whether to also include in the post-audit implementation plan actions to address recommendations made by the auditor that represent opportunities to improve controls and compliance processes (i.e. rated A, B, 1 – Refer Table 1). These opportunities for improvement (i.e. 101, 103 and 104) were considered as part of the audit scope but in accordance with the March 2019 Audit and Review Guidelines – Electricity and Gas Licences (**2019 Audit Guidelines**) they are not listed in the non-compliance section for the previous 2017 Performance Audit (refer section 2.5).

The 3 recommendations to address non-compliances contained in the 2017 PAIP were reviewed for effectiveness and implementation in the scope of audit (Refer Appendix 1) and actions taken by the licensee in response to recommendations for compliance with licence obligations in the previous audit report were considered.

The Asset Management Review Report 2017 determined of the 12 asset management components prescribed in the ERA's Audit and Review Guidelines: Electricity and Gas Licences found:

- > three components were rated A1 (documentation adequately defined, performing effectively).
- one component was rated A2 (documentation adequately defined, performance process requires some improvement).
- eight components were rated B2 (documentation requires some improvement, performance process requires some improvement).

There were no asset management process deficiencies identified within the 2017 Review Report (i.e. rated C, D, 3 or 4 – refer Table 3). It was noted that the 2014 Guidelines left to the discretion of the licensee the need to determine whether to also include in the post-review implementation plan actions to address recommendations made by the auditor that represent opportunities to improve asset management effectiveness (i.e. rated A, B, 1 or 2 – Refer Table 3). The 2017 PRIP addressed Opportunities for Improvement (**OFI**) for effectiveness criteria for 9 of the 12 asset management components and these opportunities for improvement (i.e. effectiveness criteria 1.8, 2.5, 3.3, 4.2, 5.1, 5.2, 7.1, 7.2, 7.5, 8.2, 9.1 and 12.2) were considered as part of the review scope but in accordance with 2019 Audit Guidelines they are not listed in the asset management deficiency section for the previous 2017 Performance Audit (refer section 3.5).



Rating	Process And Policy Rating Description	Rating	Performance Rating Description
А	Adequately defined	1	Performing effectively
В	Requires some improvement	2	Improvement required
С	Requires substantial improvement	3	Corrective action required
D	Inadequate	4	Serious action required
NR	Not rated	NR	Not rated

TABLE 3 Rating Scale Reviews - Process & Policy and Performance

1.1 Performance Audit & Asset Management Review Conclusion

As specified in the approved Audit & Review Plan, we have undertaken a reasonable assurance engagement in assessing Bluewaters' compliance with its Licence obligations and a limited assurance engagement on Bluewaters' Asset Management System (**AMS**), relating to its Electricity Generation Licence for Bluewaters Power 1 Pty Ltd (**EGL4**) for the period from 1 January 2018 to 31 December 2022.

In our opinion, based on the procedures we have performed and the evidence we have obtained, the Audit Team determined that Bluewaters' has established control procedures and control environment commensurate with the nature of its operations and has complied with its licence, with the 3 exceptions detailed in Table 6. The Audit Team also determined that Bluewaters' has established and maintained, an effective asset management system commensurate with its operational and maintenance activities and as such the processes, with the 10 exceptions detailed in Table 6, have met the required levels of performance for the duration of the review period.

The Audit Team note verified plant performance and 82% effective asset management system criterion (i.e 47/57 effective asset management criteria) and 91% compliance with its generation licence (i.e 30/33 applicable compliance obligations) as justification for our conclusion. Additionally, the functional aspects of the AMS were well established and the areas deficiency noted relate primarily to administrative processes.

Whilst the asset maintenance and operations, asset management information systems and financial elements of the Licensee's AMS have historically performed well and are attributable to the availability and performance of the plant. The Audit Team noted that several of the non-compliances and asset management deficiencies identified in this Audit & Review Report have also been raised in the previous 3 reports. In order to achieve a better outcome from the post audit/review improvement plans developed from this audit, a regular review of the AMS against the requirements of ISO 55000 or similar has been recommended. Use of a consistent framework when reviewing the AMS is beneficial in tracking improvements and would assist the Licensee to develop an asset management system maturity roadmap. It is the Audit Teams opinion that the compliance and the AMS processes have good potential and sound foundations that would be enhanced by undertaking regular process effectiveness reviews.



The following audit and review criteria have been raised in all previous Performance Audits & Asset Management Reviews;

- Compliance Processes
- Integrity of Reporting
- Risk Management
- Asset Planning
- Environmental Analysis
- Contingency Planning
- Review of AMS

A significant proportion of the licence compliance obligations and deficiencies in the asset management processes associated with the generation licence would largely be addressed by critically reviewing the asset management system in relation to risk assessment and management, contingency planning & resilience analysis, AMS monitoring, and management review, audit and assurance.

Additionally, it was noted that in general there was some disconnect between the AMS processes for corporate and site personnel, which has the potential to dilute the effectiveness of the controls and could potentially lead to hindered decision making. For example, in relation to the effectiveness of risk assessment outcomes and the quality and accuracy of some supporting AMS documentation, such as the Compliance Register.



1.2 2022 Performance Audit and Asset Management Review Summary of Findings

The Asset Management System Review and the Performance Audit have been conducted in order to assess the effectiveness of Bluewaters' Asset Management Systems and level of compliance with the conditions of its Electricity Generation Licence EGL4.

As required by the Audit Guidelines Section 5.1.6.1, Table 4 lists the number of licence obligations that were given each combination of compliance and controls ratings. The table allows licensees and the ERA to confirm the auditor has rated all relevant licence obligations and provides a simple summary of the licensee's compliance during the audit period.

In relation to the Performance Audit, there were 30 compliant and 3 non-compliant licence obligations in current audit period. The non-compliant obligations were associated with administrative issues, integrity of annual compliance reports and the requirement to develop an internal compliance monitoring process. An explanation of the audit findings is detailed in Appendix 1.

		Complian	ce Rating				
		1	2	3	4	N/R	TOTAL
	Α	1	-	-	-	-	1
Rating	В	1	3	-	-	-	4
	С	-	-	-	-	-	-
	D	-	-	-	-	-	-
ontrols	N/P	10	-	-	-	18	28
Cor	TOTAL	12	3	-	-	18	33

TABLE 4 Compliance and Controls Ratings Summary Table

An overall effectiveness rating for an asset management process was determined by the Audit Team, based on a combination of the process and policy adequacy rating and the performance rating for each effectiveness criterion.

There were 47 effective asset management criterion and 10 asset management criterion deficiencies (i.e., rated C, D, 3 or 4) identified in the current review and as such recommendations arising from the review are detailed in section 3.6. An explanation of the review findings is detailed in Appendix 2.



ASSET MANAGEMENT SYSTEM PROCESS	PROCESS & POLICY OVERALL RATING	PERFORMANCE OVERALL RATING
1. ASSET PLANNING	В	2
2. ASSET CREATION AND ACQUISITION	А	2
3. ASSET DISPOSAL	А	1
4. ENVIRONMENTAL ANALYSIS	В	3
5. ASSET OPERATIONS	Α	2
6. ASSET MAINTENANCE	Α	2
7. ASSET MANAGEMENT INFORMATION SYSTEM	Α	1
8. RISK MANAGEMENT	В	3
9. CONTINGENCY PLANNING	В	3
10. FINANCIAL PLANNING	А	1
11. CAPITAL EXPENDITURE PLANNING	А	1
12. REVIEW OF AMS	В	3

TABLE 5 Summary of Asset Management Process Overall Rating

There were 3 recommendations made by the Audit Team to address the non-compliances associated with internal compliance processes during the audit period and there were 10 asset management system deficiencies identified during the review period. Opportunities for Improvement (**OFI**) for processes identified that relate to the performance audit and review findings have been provided directly to the Licensee and have not been included in this document as required by the 2019 Audit and Review Guidelines – Electricity and Gas Licences section 5.1.8.

TABLE 6 Summary of Recommendations for Performance Audit Non-Compliances & AMS Deficiencies

REF	OBLIGATION / ASSET MANAGEMENT CRITERIA DESCRIPTION	NON-COMPLIANCE/AMS DEFICIENCY & RECOMMENDED CORRECTIVE ACTION
103	Electricity Generation Licence, condition 5.1.2 and 5.1.3 / 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 ERA	The Licensee did not notify the ERA of the changes to the AMS during the audit period, for example the decision to not implement the AMS developed by the consultants and the transition to the AMPS platform for the AMS including the development, maintenance and implementation of the Plant Area AMPs for BW1. (Refer to recommendation 02/2018 of the previous audit report and approved PRIP.) <i>Recommendation 01/2022</i> - Further review the Compliance Register to ensure the information contained within it is current and effective in achieving compliance with the generation licence. Develop an internal audit program to monitor compliance and assess the effectiveness of corrective actions.
106	<i>Electricity Industry Act, section 31(3)</i> A licensee must take reasonable steps to minimise the extent, or duration, of any interruption, suspension or restriction of the supply of electricity due to an accident, emergency, potential danger or other unavoidable cause.	The Risk Register and Compliance Register were noted to include ineffective or non-specific controls to support risk mitigation and as such, enable compliance processes and ensure the implementation of corrective action. There were no internal monitoring and review processes established. <i>Refer recommendation: 06/2022</i> (Appendix 2 – Ref 2.5)



REF	OBLIGATION / ASSET MANAGEMENT CRITERIA DESCRIPTION	NON-COMPLIANCE/AMS DEFICIENCY & RECOMMENDED CORRECTIVE ACTION
124*	<i>Electricity Industry Act, section 11</i> A licensee must provide the ERA, in the manner prescribed, with any information that the ERA requires in connection with its functions under the Electricity Industry Act.	The Licensee had established a process for review of its non-compliances (i.e. Compliance Register), however, it was not effectively implemented or monitored to ensure compliance. Non-compliance was noted in relation to the completeness and accuracy of the compliance and performance reports provided to the ERA, for example Obligation 103 which was a Type 2 and as such reportable obligation was omitted from the 2019 the Annual Compliance Report.
		<i>Recommendation 03/2022</i> : Develop a more effective process for preparation of Compliance reports to ensure the integrity of data report.
1.1**	Asset management plan covers the processes in this table	During the review period the 11 of the 12 asset management processes in Table 23 of the Audit Guideline were collectively addressed by the SAMP, the AMP, the Plant Area AMPs and supporting processes. The exception being the asset management process 12 in relation to the requirement for AMS Review, specifically the requirement for regular independent reviews (e.g. internal audit) of the asset management system to be performed. There were no processes established to review the AMS, and no internal audits of the AMS were performed to assess its effectiveness. The AMS was in a state of transitional change with development and redevelopment throughout the period 2018-2022. Consequently, this did not facilitate a review process to ensure the asset management plan and the asset management system described in it remained current. <i>Recommendation 04/2022</i> : In order to ensure completeness and accuracy of the AMP (and SAMP), maximise the benefits and effectiveness of the AMS and the AMPS platform the following recommendations are made: Review and update the AMP and the SAMP with consideration of the requirements of Table 23 (refer Audit Guideline)
		 Undertake Gap Analysis of BW1 AMS to the requirements of ISO 55000 as a minimum (noted contractual agreements with Western Power and Customer require Good Electricity Industry Practice (GEIP) which incorporates the requirements of ISO 55000) Complete the Plant Area AMPs and ensure they contain adequate detail. Link AMPS platform to FMECA, SAP (CMMS) and
		VIKING/MYOSH (HSEQ Management Software)Ensure all AMPs have clearly defined responsible persons.
		 Establish version control to better track changes within the dynamic environment.
		 Develop an internal and/or external audit process to maintain transparency, accuracy and accountability within the organisation. Review AMS processes and develop and an AMS maturity roadmap to better align the corporate and site objectives
1.9**	Asset management plan is regularly reviewed and updated	Due to transitional changes of the AMS, the AMP has not been regularly reviewed during the review period.
		Recommendation 05/2022: BWPS finalise its development and implementation of the AMPS Platform and its review processes as per the



REF	OBLIGATION / ASSET MANAGEMENT CRITERIA DESCRIPTION	NON-COMPLIANCE/AMS DEFICIENCY & RECOMMENDED CORRECTIVE ACTION
		ERA guidelines. Ensure the review processes for the AMS and AMPs are documented and aligned with ISO 55000 as a minimum standard.
2.5**	Ongoing legal / environmental / safety obligations of the asset owner are assigned and understood	The Risk and Compliance processes were established to address some legal obligations; however these were not consistently utilised. A critical review of the compliance and risk processes highlighted the absence of some compliance requirements in the register (only licence renewal and the Performance Audit and AMS Review were included), allocation of ineffective controls to support compliance outcome and ensure the mitigation of risks through the implementation of treatment plans. There were no internal monitoring and review processes evident other than the automatic system notification which recorded a risk review start and end date and not any changes that may have been made or considerations made in the review process. Refer Appendix 2 - Ref 2.5 for specific detail. <i>Recommendation 06/2022:</i> It is recommended that the organisation undertake a review of the compliance register (refer recommendation 01/2022 – Appendix 1 - 103) and a critical review of the risk register as detailed in Appendix 1.
4.1**	Opportunities and threats in the asset management system environment are assessed	While strategic opportunities and threats were well managed, limitations to the effectives of the AMS for monitoring of risks and compliance processes have been highlighted in asset management criteria 2.5. <i>Refer recommendation 06/2022</i> (Appendix 2 – Ref 2.5)
4.3**	Compliance with statutory and regulatory requirements	Limitations were identified in relation to the effectiveness of the Compliance Register in achieving compliance outcomes. The lack of an internal monitoring and audit process was noted to be a deficient aspect of the organisation's compliance processes. <i>Recommendation 01/2022</i> (Refer Appendix 1 – 103)
8.1**	Risk management policies and procedures exist and are applied to minimise internal and external risks	Risk Management policies and procedures were established but were not effective in ensuring mitigation of risks. This function was undertaken by the management team, and it was recognised there was oversight and delegatory signoff of risks, for example Coal Supply. Overall, the identification, reporting of new risks and monitoring of risks (i.e. effectiveness of their controls) to the Board required improvement. <i>Refer recommendation 06/2022</i> (Appendix 2 – Ref 2.5)
8.2**	Risks are documented in a risk register and treatment plans are implemented and monitored	Risks were identified, documented and the risk assessment process was documented. Treatment plans (mitigation strategies) were listed however it was difficult to follow through the details of the risk treatment plans. Although automatic electronic reminders were sent to relevant responsible persons when risk reviews were due some were noted to be overdue, and overall monitoring (i.e. internal audit/critical assessment of the effectiveness of the controls) was lacking. Mitigation measures proposed were not specific to enable independent assessment in most instances. <i>Refer recommendation 06/2022</i> (Refer Appendix 2 – Ref 2.5 for specific detail)
9.1**	Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks	The development, testing of contingency plans to confirm their operability to cover high risks was not evident for all high risks.



REF	OBLIGATION / ASSET MANAGEMENT CRITERIA DESCRIPTION	NON-COMPLIANCE/AMS DEFICIENCY & RECOMMENDED CORRECTIVE ACTION
		Recommendation 11/2022: Review the Contingency Planning process to ensure development, understanding and testing of the contingency plans. Contingency Plans should be linked to the Risk Register and form part of an internal monitoring/auditing program (i.e. the review of controls for risks/compliance)
12.1**	A review process is in place to ensure the asset management plan and the asset management system	For the duration of the review period there have been no internal AMS Review or third-party reviews, for the AMS or the AMPs
	described in it remain current	<i>Recommendation 12/2022:</i> A review process to ensure the AMP and the AMS remain current is required. It was noted that the nature of the dynamic AMS should support this requirement moving forward. However, the quality of the information contained within the AMP should be reviewed to ensure they are effective. As such, use of an AMS framework (such as ISO 55000) and a formalised process to ensure independent reviews (e.g. internal or third party audits) are performed of the asset management system an annual basis is required. Consideration as to the requirement from the AMPs platform to enable document and version control is recommended to enable BW1 to demonstrate the approved AMP in place at any point in time
12.2**	Independent reviews (e.g. internal audit) are performed of the asset management system	For the duration of the review period there has not been a process established for independent reviews of the Asset Management System.
	· ·	Refer Recommendation 13/2022 (Appendix 1 - 12.1)

* Electricity Compliance Reporting Manual 2022

** Table 23 2019 Audit and Review Guidelines – Electricity and Gas Licences

The site visits were conducted on the 7th and 9th of February 2023 at the Perth Offices and the Bluewaters Power Station respectively. This audit and review report is an accurate representation of the audit team's findings and opinions. The Auditors confirm that the Licensee readily provided assistance to the Auditors, as required by Section 4.1 of the Audit Guidelines (2019).



2. PERFORMANCE AUDIT SCOPE & OBJECTIVES

The Performance has been carried out as a 'reasonable assurance engagement'. A reasonable assurance engagement conducted in accordance with ASAE 3500 required identifying areas where the compliance with the licence was not achieved, addressing the areas identified and considering the control procedures and the control environment established by the Licensee. A reasonable assurance engagement is a high but not absolute level of assurance.

2.1 Performance Audit Scope

The Performance Audit was conducted in accordance with (IAW) the following guidance documentation:

- 2019 Audit and Review Guidelines Electricity and Gas Licences
- the ERA approved Audit & Review Plan
- Electricity Generation Licence EGL4
- Electricity Compliance Reporting Manual July 2018, June 2020 and February 2022
- ISO 31000:2018 (risk-based approach to auditing using the risk evaluation model)
- ASAE 3000 Standard on Assurance Engagements Assurance Engagements Other than Audits or Reviews of Historical Financial Information
- ASAE 3100 Standard on Assurance Engagements Compliance Engagements
- ASAE 3500 Standard on Assurance Engagements Performance Engagements

In accordance with the Audit Guidelines, the scope of the audit considered the compliance with its licence and the obligations of the Electricity Compliance Reporting Manual 2022.

As specified in the Audit Plan, each licence obligation applicable to EGL4 and was individually considered in this audit for the duration of the audit period. Specifically, the scope for the Performance Audit included:

- Site visit to the Bluewaters Power Station and its Perth office.
- Interviews with key operational and administration staff.
- Review, testing and assessment of relevant documents and systems.
- Review of the licensee's Annual Compliance reports and compliance registers
- Preparation of an audit report in accordance with the format outlined in the Guidelines.
- Consideration of the recommendations from the previous audit report and PAIP and assessment of the actions taken by the licensee to address the recommendations (Refer Appendix 1, as determined not required for inclusion in Table 11 of this review report).

In order to meet their legal and other obligations, BW1 has established several material commercial agreements, approvals and compliance requirements associated with the Bluewaters Station and these requirements were considered within the scope of the Performance Audit.

- Commercial Agreements
 - Power Purchase Agreement (Synergy, Water Corp and Boddington Gold Mine)
 - Insurance Agreements
 - Licences and Permits
 - Electricity Generation Licence EGL4



- Ministerial Statements
- > DER Licence
- Management Plans with Compliance Requirements
- Electricity Compliance Reporting Manual (ERA)
 - Environmental Management Plan
 - Emergency Response Plan
- Statutory Compliance
 - Acts (for example Electricity Industry Act 2004, Security of Critical Infrastructure Act 2018, Work Health and Safety Act 2020 etc).
 - Regulations (for example Economic Regulation Authority (Licensing Funding) Regulations 2014, Work Health and Safety (General) Regulations 2022, etc)
 - Codes (for example, Electricity Industry (Metering) Code 2012)
 - Mandatory Australian Standards

2.2 Performance Audit Objectives

The objective of the performance audit was to provide to the Authority an independent assessment of the Licensee's compliance with applicable obligations under the licence.

Additionally, in relation to the previous audit the objective was to provide an assessment of findings from the last audit and the actions taken to address the recommendations from the previous audit.

2.3 Performance Audit Methodology

The performance audit methodology detailed in the Audit and Review Guidelines – Electricity and Gas Licences (March 2019) was used in the execution of the Performance Audit and its application to this audit was detailed in the Audit Plan. The were some obligations removed from the scope of audit as determined not applicable and no deviations from the Audit Plan detailed in sections 2.3.1 and 2.3.2.

A risk-based approach, using the risk model described in the Appendix 3 of 2019 Guideline, was applied to planning and conducting the audit by the Audit Team. The audit priority was determined for each of the applicable licence obligations by assessing the relevant risk factors and controls in place.

The audit procedures included audit, testing and assessment of relevant documents and systems in relation to financial management and planning, service performance standards, compliance, asset management, operations and maintenance functions and reporting determine effectiveness through:

- > Interview supervisory personnel and operational personnel
- Inspect relevant documents
- Obtain evidence policies, procedures and controls are in place and controls are working effectively
- Examine compliance reports and breach register
- > Obtain confirmations from third parties if applicable
- Examine reports and correspondence with other regulators (e.g. Environmental)
- > Physically examine applicable asset infrastructure



- > Review compliance documentation and breach registers
- > Sample output and timeliness procedures
- > Recalculate a sample of relevant performance indicators
- > Walkthrough the process to calculate relevant performance indicators

Bluewaters' audit priorities were determined in the development of the audit plan ranged from priority 2 to 5 (refer Appendix 1 for detail). The audit procedures focussed on higher priorities, with less extensive coverage of lower priorities. There was no requirement to adjust the audit priority determined in the audit plan.

TABLE 7 List of Personnel Who Participated in the Audit

ITEM	NAME	COMPANY	POSITION
1	Todd Shepherdson	BWPS	Station Manager
2	Steve Deonck	BWPS	Strategic Project Specialist
3	Stuart Hair	BWPS	Asset Service Manager
4	Iulian Sirbu	SSCP	Senior Manager Energy & Retail
5	Rachel Wright	BWPS	Procurement & Administration Coordinator
6	Shane Cremin	SSCP	General Manager Strategy
7	Gemma Modra	BW2	GM Finance & Accounting
8	Kelly Hetherington	BW2	Business Services Coordinator
9	Michael Duff	BWPS	Operations & Maintenance Manager
10	Rick Verhaaf	BWPS	Outage Manager
11	Phil Rosati	SSCP	IT Manager
12	Jason Louis	BWPS	Senior Engineer
13	Dimitri Lorenzo	BW2	Regulatory & Trading Analyst
14	Kim Smith	BWPS	Health & Safety Advisor
15	Dan Kurz	SSCP	Executive General Manager - Commercial
16	Lize Combrinck	BW2	IT Department Manager
17	Alex Kavanagh	SSCP	Continuous Improvement Coordinator

The Performance Audit was conducted during February - March 2023 in conjunction the Performance Audit for **ERL12** and **EGL17** and included desktop review and two days of site visits to execute the audit plan, conduct interview sessions and report writing. In total the Performance Audit for EGL4 required 50 hours of the Audit Team member's time.



2.3.1 Performance Audit Excluded Conditions

During the audit period, there were some Electricity Compliance Reporting Manual obligations for EGL4 that have been excluded (Refer Table 8) as they are not applicable to BW1 operations. There were no Type 1 reporting requirements applicable to EGL4. Excluded compliance obligations were detailed in the approved Audit Plan.

REF No.* **OBLIGATIONS UNDER LICENCE CONDITION** INCLUSION/EXCLUSION OF OBLIGAITON IN THE SCOPE OF THE PERFORMANCE AUDIT 120 **Electricity Industry Act, section 11** Not Applicable - Individual performance standards have not been prescribed by the Authority. A licensee must comply with any individual performance standards prescribed by the ERA. 364 Electricity Industry Metering Code, clause 3.27 Not Applicable to Generators (Obligation removed for Generation Licences in the Electricity Compliance Reporting A person must not install a metering installation on a network unless Manual - June 2020) 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. 401 **Electricity Industry Metering Code, clause 5.16** Not Applicable - the clause relates to a user's obligations to a network operator. Western Power is the network operator and If a user collects or receives energy data from a metering BW1 does not operate as a user of any other network. installation, then the user must provide the network operator with the energy data (in accordance with the communication rules) within the timeframes prescribed. 402 Electricity Industry Metering Code, clause 5.17(1) Not Applicable to Generators (Obligation removed for Generation Licences in the Electricity Compliance Reporting A user must provide standing data and validated, and where Manual - February 2022) necessary substituted or estimated, energy data to the user's customer to which that information relates where the user is required by an enactment or an agreement to do so for billing purposes or for the purpose of providing metering services to the customer. 405 **Electricity Industry Metering Code, clause 5.18** Not Applicable - the clause relates to a user's obligations to a network operator. Western Power is the network operator and If a user collects or receives information regarding a change in the BW1 does not operate as a user of any other network. energisation status of a metering point then the user must provide the network operator with the prescribed information, including the stated attributes, within the timeframes prescribed. 406 Electricity Industry Metering Code, clause 5.19(1) Not Applicable to Generators (Obligation removed for Generation Licences in the Electricity Compliance Reporting A user must, when requested by the network operator acting in Manual - February 2022) accordance with good electricity industry practice, use reasonable

TABLE 8 Obligations Excluded from the Audit Report

network operator.

endeavours to collect information from customers, if any, that assists the network operator in meeting its obligations described in the Code and elsewhere, and provide that information to the



REF No.*	OBLIGATIONS UNDER LICENCE CONDITION	INCLUSION/EXCLUSION OF OBLIGAITON IN THE SCOPE OF THE PERFORMANCE AUDIT
407	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 prescribed information in relation to the site of each connection point with which the user is associated. Note: The prescribed information listed in clause 5.19(2) was changed by the <i>Electricity Industry (Metering) Amendment Code</i> 2018.	Not Applicable to Generators (Obligation removed for Generation Licences in the Electricity Compliance Reporting Manual – February 2022)
408	Electricity Industry Metering Code, clause 5.19(3) Subject to subclauses 5.19(3A) and 5.19(6), the user must, within 1 business day after becoming aware of any change in an attribute described in subclause 5.19(2), notify the network operator of the change.	Not Applicable to Generators (Obligation removed for Generation Licences in the Electricity Compliance Reporting Manual – February 2022)
435	Electricity Industry Metering Code, clause 5.27 Upon request from a network operator, the current user for a connection point must provide the network operator with customer attribute information that it reasonably believes are missing or incorrect within the timeframes prescribed.	Not Applicable to Generators (Obligation removed for Generation Licences in the Electricity Compliance Reporting Manual – February 2022)

* Electricity Compliance Reporting Manual – June 2020

2.3.2 Deviation from the Audit Plan

As required by section 5.1.4 of the Audit and Review Guidelines – 2019, Auditors must identify any licence obligations or effectiveness criteria that were assessed after the approval of the audit plan by the ERA, as 'not applicable' or if the auditor has revised the audit priority for one or more licence obligations, the auditor must identify this in the report. There were no deviations from the Audit Plan.



2.4 Performance Audit Detailed Summary of Ratings

As required by section 5.1.6.1 of the Audit & Review Guidelines (March 2019) Table 9 summarises the auditor's assessment of the performance summary rating for each applicable licence obligation as specified in the Electricity Compliance Reporting Manual 2022 using the scales described in Table 1A.

TABLE 9 Performance Audit Compliance Summary

Obligation Reference No.		Priority	Adequacy of Controls Rating						ce Rati	Ŭ		
Reference No.		Thomy	Α	В	С	D	NP	1	2	3	4	NR
SECTION 8: TYP	PE 1 REPORTING REQUIREMENTS											
THERE ARE NO	TYPE 1 REPORTING REQUIREMENTS APPLICA	BLE TO EGL4										
SECTION 12: EL	ECTRICITY INDUSTRY ACT - LICENCE CONDITI	ONS AND OBL	IGATIO	NS								
101* ^{∆♦⊗}	Electricity Industry Act section 13(1) EGL, condition 5.3.1	4					NP	1				
102* ◆	Electricity Industry Act section 14(1)a) EGL, condition 5.1.1	4					NP	1				
103	Electricity Industry Act section 14(1)(b) EGL, condition 5.1.2 and 5.1.3	4		В					2			
104 ^{*∆∢⊗}	Electricity Industry Act section 14(1)(c) EGL, condition 5.1.4	4					NP	1				
105 [⊗]	Electricity Industry Act section 17(1) EGL, condition 4.2.1	4	A					1				
106* [⊗]	Electricity Industry Act section 31(3) EGL, condition 4.1.1	2		В			ND		2			
107	Electricity Industry Act section 41(6) EGL, condition 4.1.1	4					NP					NR
	ECTRICITY LICENCES - LICENCE CONDITIONS		IONS									
119	Electricity Industry Act section 11 EGL, condition 4.3.1	4					NP	1				
121	Electricity Industry Act section 11 EGL, condition 5.3.2	4					NP	1				
122	Electricity Industry Act section 11 EGL, condition 5.1.5	4					NP	1				
123*	Electricity Industry Act section 11 EGL, condition 4.4.1	2		В				1				
124 ^{*⊗}	Electricity Industry Act section 11 EGL, condition 4.5.1	4		В					2			
125	Electricity Industry Act section 11 EGL, condition 3.8.1 and 3.8.2	4					NP					NR
126	Electricity Industry Act section 11 EGL, condition 3.7.1	4					NP	1				
SECTION 15: EL	ECTRICITY INDUSTRY METERING CODE - LICE	NCE CONDITIO	NS ANI	O OBL	IGATIO	ONS						
PART 3 – METEI	RS AND METERING INSTALLATIONS											
324	Electricity Industry Metering Code CI 3.3B	4					NP					NR
339	Electricity Industry Metering Code Cl 3.11(3)	4					NP					NR
PART 4 - THE	METERING DATABASE											
371	Electricity Industry Metering Code CI 4.4(1)	5					NP					NR
372	Electricity Industry Metering Code Cl 4.5(1)	5					NP	1				



373	Electricity Industry Metering Code CI 4.5(2)	4	NP		NR
PART 5 - ME	TERING SERVICES				
388	Electricity Industry Metering Code CI 5.4(2)	4	NP		NR
416	Electricity Industry Metering Code CI 5.21(5)	4	NP		NR
417	Electricity Industry Metering Code CI 5.21(6)	4	NP		NR
PART 6	DOCUMENTATION				
448	Electricity Industry Metering Code, CI 6.1(2)	4	NP	1	
PART 7 - NC	TICES AND CONFIDENTIAL INFORMATION				
451	Electricity Industry Metering Code CI 7.2(1)	5	NP	1	
453	Electricity Industry Metering Code CI 7.2(4)	4	NP		NR
454	Electricity Industry Metering Code CI 7.2(5)	4	NP		NR
455	Electricity Industry Metering Code CI 7.5	4	NP		NR
456	Electricity Industry Metering Code CI 7.6(1)	4	NP		NR
PART 8 - DIS	SPUTE RESOLUTION				
457	Electricity Industry Metering Code CI 8.1(1)	5	NP		NR
458	Electricity Industry Metering Code CI 8.1(2)	5	NP		NR
459	Electricity Industry Metering Code CI 8.1(3)	5	NP		NR
460	Electricity Industry Metering Code CI 8.1(4)	4	NP		NR
461	Electricity Industry Metering Code CI 8.3(2)	5	NP		NR

* Indicates Audit Priority differs from rating defined in 2017 Audit Report

• Indicates obligation was reclassified during the audit period from NR to Type 2 (Refer Amendment Record - Electricity Compliance Reporting Manual – July 2017, July 2018, June 2020 & February 2022). Prior to the amendment, the rating was NR.

 $^{\Delta}\,$ Indicates revision of clause in the Electricity Compliance Reporting Manual during the audit period.

[®] Indicates the obligation non-compliant or identified as a process improvement in the 2017 Audit Report or an Annual Compliance Report during the audit period



2.5 Status of Recommendations 2017 Performance Audit

In executing the Audit Plan and in line with the Audit & Review Guidelines (March 2019) the auditors, when assessing if the licensee has complied with its licence obligations, applied a level of scrutiny that corresponds to a "reasonable assurance engagement". This was further detailed within the audit plan (refer Paragraph 12(a)(i)(a) of ASAE 3000, June 2014). This was the 4th Performance Audit of EGL4 with the previous audit occurring in 2017. As such, the status of recommendations from the previous audit, and as required by Section 11.3 of the Audit Guidelines (March 2019) are detailed in Table 10.

TABLE 10 Status of Recommendations Addressing Non-Compliances from the Previous Audit

A Resolved during current audit period					
Recommendation Reference (no./year)	Licence Obligation Reference Number Controls and Compliance Rating Legislative Obligation Details of Inadequate Controls and/or Non- Compliance	Auditors' Recommendation	Date Resolved	Further Action Required (Yes/No/Not Applicable) Details of Further Action Required (Including Current Recommendation Reference, if Applicable)	
04/2018	 106 B2 <i>Electricity Industry Act, section 31(3)</i> Generation Licence, condition 4.2.1 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. The risk register only addressed strategic risks and not O&M risks. 	The risk register was kept and maintained with quarterly reviews by the Risk, Audit and Compliance Committee (RACC) covered only strategic risks and not O&M risks in detail. Risks such as blade failure, generator circuit breaker fault, should be evaluated and a register maintained with regular review. There is a risk of overlooking maintenance tasks scheduled for outages. A review of the capability of SAP to incorporate the Priority Field as compulsory field could be considered or establishing a routine searching report to identify the unallocated task priorities to ensure identified maintenance tasks are included in the outage planning process	28 May 2018*	No further action required. Note: ERA Notice for 2017 Performance Audit detailed recommendation 04/2018 was completed by the time the post-review implementation plan was received. * 02/2022 – the obligation has been raised as an AMS deficiency in current report, however, it addresses a different deficiency. ERA Updates up until 2019 were sighted.	

B Unresolved at end of current audit period



	Details of Inadequate Controls and/or Non- Compliance			
01/2018	• 124	Ensure there is a Compliance Process	Undetermined	Yes
	• B2	established to ensure ongoing compliance. Could be linked to current project described by		Licensee has only partially addressed the
	 Electricity Industry Act, section 11 	GM of HR to link accountabilities to		recommendation with the development of the
	 Generation Licence, condition 4.2.1 	performance review.		Compliance Register. A review and/or
	 A licensee must provide the ERA, in the manner prescribed, with any information that the ERA requires in connection with its functions under the Electricity Industry Act. 			accountability process has not been established. Refer to Recommendation 01/2022 (Refer Appendix 1 – 103)
	 The 2014 & 2015 Compliance Report were submitted after the specified date and has been noted in the 2016 Compliance Report. 			ERA Updates up until 2019 were sighted.
03/2018	■ 105	Ensure payment of and scheduling of	Undetermined	No
	■ B2	payment for licence fees is captured in		Effective resolution.
	 Economic Regulation Authority (Licensing Funding) Regulations 2014 	compliance or accounting systems.		
	 Generation Licence, condition 4.5.1 			Note: compliance was achieved in all licence
	 A licensee must pay the prescribed licence fees to the ERA according to clauses 6, 7 and 8 of the Economic 			payments for audit period 1 January 2018-31 December 2022.
	Regulation Authority (Licensing Funding) Regulations 2014			ERA Updates up until 2019 were sighted.
	 Late payment of the Standing Charges was noted on 2 occasions during the audit period. 			



2.6 2022 Performance Audit Recommendations and Action Plans

Recommendations made within the report are detailed below (if applicable) and will be reviewed and included in the post audit implementation plan (if required) by the licensee to ensure compliance with requirements.

TABLE 11 Recommendations to Address Current Non-Compliances

A Resolved during the current audit period

Recommendation	Licence Obligation Reference Number	Auditors' Recommendation	Date	Auditors Comments
Reference (no./year)			Resolved &	
()	Controls and Compliance Rating		Action Taken	
	Legislative Obligation		by the	
			Licensee	
	Details of Inadequate Controls and/or Non-			
	Compliance			

There were no non-compliances identified that were resolved during the audit period.



B Unresolved during the current audit period					
Recommendation Reference	Lice	ence Obligation Reference Number	Auditors' Recommendation	Auditors Comments	
(no./year)	Con	trols and Compliance Rating			
	Leg	islative Obligation			
		ails of Inadequate Controls and/or Non- npliance			
01/2022	: : :	 103 B2 <i>Electricity Industry Act, section 14(1)(b)</i> Generation Licence, condition 5.1.2 and 5.1.3 A licensee must notify details of the asset management system and any substantial changes to it to the ERA. The Licensee did not notify the ERA of the changes to the AMS during the audit period, for example the decision to not implement the AMS developed by the consultants and the transition to the AMPS platform for the AMS including the development, maintenance and implementation of the Plant Area AMPs for BW1. (Refer to recommendation 02/2018 of the previous audit report and approved PRIP.) 	Further review the Compliance Register to ensure the information contained within it to ensure it is current and effective in achieving compliance with the generation licence. Ensure responsible personnel are trained and aware of their obligations (i.e. include a RACI matrix). Develop an internal audit program to monitor compliance and assess the effectiveness of corrective actions.	Refer 2022 PAIP	
02/2022		106 B2 Electricity Industry Act, section 31(3)	Refer recommendation 06/2022 (Appendix 2 – Ref 2.5)	Refer 2022 PAIP	
	•	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.

 The Risk Register and Compliance Register were noted to include ineffective or non-specific controls to support risk mitigation and as such, enable compliance processes and ensure the implementation of corrective action. There were no internal monitoring and review processes established.

03/2022

■ B2

.

124

- EGL, condition 4.5.1
- A licensee must provide the ERA, in the manner prescribed, with any information that the ERA requires in connection with its functions under the Electricity Industry Act.
- The Licensee had established a process for review of its non-compliances (i.e. Compliance Register), however, it was not effectively implemented or monitored to ensure compliance. Non-compliance was noted in relation to the completeness and accuracy of the compliance and performance reports provided to the ERA, for example Obligation 103 which was a Type 2 and as such reportable obligation was omitted from the 2019 the Annual Compliance Report.

Develop a more effective process for preparation of Compliance reports to Refer 2022 PAIP ensure the integrity of data report. Additionally, training requirements should be reviewed to ensure understanding and awareness of the legislative requirements relating to EGL4.

Revise the Compliance Register to ensure:

- the Obligations are referenced accurately against the current Electricity Compliance Reporting Manual (i.e. there is a process established for updating obligations)
- include Reportable Field or use "Impact of Non-Compliance" column as only type 1 and 2 obligations are reportable (i.e. obligation type (NR, 1 or 2)
- include compliance criteria field in Compliance Register to allow internal audit process to be established and create a time dependent audit schedule (i.e. prior to the submission of the Annual Compliance Report 31 August annually to ensure information reported is correct).
- > Ensure a record of the review is able to be recorded.



3. AMS EFFECTIVENESS REVIEW SCOPE & OBJECTIVES

The Asset Management System Review has been carried out as a 'limited assurance engagement'. A limited assurance engagement conducted in accordance with ASAE 3500 required identifying areas where the AMS is likely to be materially ineffective, addressing the areas identified and considering the process used to prepare the AMS. A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both the risk assessment procedures, including an understanding of internal control, and the procedures performed in response to the assessed risks.

3.1 AMS Review Scope

The asset management review was conducted in accordance with (IAW) the following guidance documentation:

- 2019 Audit and Review Guidelines Electricity and Gas Licences
- the ERA approved Review Plan
- Electricity Generation Licence EGL4
- ISO 31000:2018 (risk-based approach to auditing using the risk evaluation model)
- ASAE 3000 Standard on Assurance Engagements Assurance Engagements Other than Audits or Reviews of Historical Financial Information
- ASAE 3100 Standard on Assurance Engagements Compliance Engagements
- ASAE 3500 Standard on Assurance Engagements Performance Engagements

In accordance with the Review Guidelines, the scope of the review considered the effectiveness of Bluewaters' existing control procedures within the 12 key processes in the asset management life cycle and their associated effectiveness criterion (Refer Table 15 for detail) as outlined as detailed in Table 23 of the 2019 Guidelines.

The scope of the AMS review included an assessment of adequacy and effectiveness of the Bluewaters' Asset Management System by evaluating during the review period 1 January 2018 to 31 December 2022 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



Each key process and effectiveness criteria were applicable to Bluewaters' AMS and was individually considered in this review for the duration of the review period. Specifically, the scope for the AMS review included:

- Site visit to the Bluewaters Power Station and Perth office.
- Interviews with key operational and administrative staff.
- Review, testing and assessment of relevant documents and systems.
- Review of the licensee's understanding and compliance with legal / environmental / safety obligations
- Preparation of a review report in accordance with the format outlined in the Guidelines.
- Consideration of the recommendations from the previous review report and PRIP and assessment of the actions taken by the licensee to address the recommendations (Refer Appendix 1, as determined not required for inclusion in Table 17 of this review report).

3.2 Asset Management System Review Objective

The objective of the review was to provide to the Authority an independent assessment of performance against each asset management process and determined the effectiveness of BW1 AMS in relation to EGL4 and to provide recommendations to address any asset management system deficiencies observed.

Additionally, in relation to the previous review the objective was to provide an assessment of findings from the last review and the actions taken to address the recommendations, if applicable, from the previous review.

3.3 Asset Management System Review Methodology

The review methodology detailed in the Audit and Review Guidelines – Electricity and Gas Licences (March 2019) was used in the execution of the Asset Management System Review and its application to this review was detailed in the Review Plan. The were no deviations from the Review Plan.

A risk-based approach, using the risk model described in the Appendix 3 of 2019 Guideline, was applied to planning and conducting the review by the Audit Team. The review priority was determined for each of the 12 asset management processes by assessing the relevant risk factors and controls in place.

The review procedures included review, testing and assessment of relevant documents and systems in relation to financial management and planning, service performance standards, compliance, asset management, operations and maintenance functions and reporting determine effectiveness through:

- > Interview administrative personnel and operational personnel.
- Obtain evidence policies, procedures and controls are in place and controls are working effectively.
- Examine compliance reports and breach register.
- Physically examine applicable asset infrastructure
- Examine asset management system effectiveness criteria.
- Sample output and timeliness procedures
- Walkthrough the process to calculate relevant performance indicators.
- Review of key process control and management systems



The review priorities for BW1 were determined in the development of the review plan and ranged from priority 2 to 5 (refer Appendix 2 for detail). The review procedures focussed on higher priorities, with less extensive coverage of lower priorities. There was no requirement to adjust the review priority determined in the review plan.

ITEM	NAME	COMPANY	POSITION
1	Todd Shepherdson	BWPS	Station Manager
2	Steve Deonck	BWPS	Strategic Project Specialist
3	Stuart Hair	BWPS	Asset Service Manager
4	Iulian Sirbu	SSCP	Senior Manager Energy & Retail
5	Rachel Wright	BWPS	Procurement & Administration Coordinator
6	Shane Cremin	SSCP	General Manager Strategy
7	Gemma Modra	BW2	GM Finance & Accounting
8	Kelly Hetherington	BW2	Business Services Coordinator
9	Michael Duff	BWPS	Operations & Maintenance Manager
10	Rick Verhaaf	BWPS	Outage Manager
11	Phil Rosati	SSCP	IT Manager
12	Jason Louis	BWPS	Senior Engineer
13	Dimitri Lorenzo	BW2	Regulatory & Trading Analyst
14	Kim Smith	BWPS	Health & Safety Advisor
15	Dan Kurz	SSCP	Executive General Manager - Commercial
16	Lize Combrinck	BW2	IT Department Manager
17	Alex Kavanagh	SSCP	Continuous Improvement Coordinator

TABLE 12 List of Personnel Who Participated in Review

The AMS Review was conducted during February - March 2023 in conjunction with the Asset Management Review for EGL17 with the site visits on the 7th and 9th of February 2023 and included desktop review and a two days of site visits to execute the review plan, interview sessions and report writing. In total the AMS Review for EGL4 required 60 hours of each of the Audit Teams time.



3.4 Asset Management System Effectiveness Detailed Summary of Ratings

The asset management system was found to be appropriate and met the requirements of the Audit and Review Guidelines – Electricity and Gas Licences (2019). There were 10 asset management system deficiencies where the asset management review performance rating or process and policy rating required recommendations to be made (refer section 5.1.8 of the Audit and Review Guidelines).

There were a number of Opportunities for Improvement that were noted, and they have been provided directly to the Licensee. The 10 deficiencies were addressed by 6 recommendations and were primarily related to the asset planning, risk management, compliance processes and AMS review.

As required by section 5.1.6.2 of the Audit & Review Guidelines (March 2019) Table 15 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 Tables 13 and 14.

RATING	DESCRIPTION	CRITERIA
A	Adequately defined	 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 being managed.
В	Requires some improvement	 Processes and policies require 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) requires minor improvements (taking into consideration the assets being managed).
C	Requires substantial improvement	 Processes and policies are incomplete and require substantial improvement. Processes and policies do not document the required performance of the assets. Reviews of processes and policies are considerably out of date. The asset management information system(s) requires substantial improvements (taking into consideration the assets being managed)
D	Inadequate	 Processes and policies are not documented. The asset management information system(s) is not fit for purpose (taking into consideration the assets being managed).

TABLE 13 Asset Management Process and Policy Definition Adequacy Ratings



TABLE 14 Asset Management Performance Ratings

RATING	DESCRIPTION	CRITERIA
1	Performing effectively	 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	Improvement required	 The performance of the process requires some improvement to meet the required level. Process effectiveness reviews are not performed regularly enough. Recommended process improvements are not implemented
3	Corrective action required	 The performance of the process requires substantial improvement to meet the required level. Process effectiveness reviews are performed irregularly or not at all. Recommended process improvements are not implemented
4	Serious action required	 Process is not performed, or the performance is so poor the process is considered to be ineffective.
NP	Not Performed	 Not Performed – A performance rating was not able to be assessed. The licensee's performance (performance rating) for the management process and effectiveness criterion was not able to be assessed as function did not occur during the review period.

The process and policy and asset management system adequacy ratings are summarised in Table 15.

TABLE 15 Asset Management System Effectiveness Summary

ASSET MANAGEMENT SYSTEM CRITERA	PROCESS & POLICY RATING	PERFORMANCE RATING
1. ASSET PLANNING	В	2
1.1 Asset management plan covers the processes in this table	В	3
1.2 Planning processes and objectives reflect the needs of all stakeholders and are integrated with business planning	А	1
1.3 Service levels are defined in the asset management plan	А	2
1.4 Non-asset options (e.g. demand management) are considered	А	1
1.5 Lifecycle costs of owning and operating assets are assessed	А	2
1.6 Funding options are evaluated	А	1
1.7 Costs are justified, and cost drivers identified	А	1
1.8 Likelihood and consequences of asset failure are predicted	В	2
1.9 Asset management plan is regularly reviewed and updated	В	3
2. ASSET CREATION AND ACQUISITION	Α	2
2.1 Full project evaluations are undertaken for new assets, including comparative assessment of non- asset options	A	1
2.2 Evaluations include all life-cycle costs	А	1
2.3 Projects reflect sound engineering and business decisions	А	1
2.4 Commissioning tests are documented and completed	А	2
2.5 Ongoing legal / environmental / safety obligations of the asset owner are assigned and understood	В	3
3. ASSET DISPOSAL	Α	1
3.1 Under-utilised and under-performing assets are identified as part of a regular systematic review process	A	1
3.2 The reasons for under-utilisation or poor performance are critically examined and corrective action or disposal undertaken	A	1
3.3 Disposal alternatives are evaluated	А	1



4. ENVIRONMENTAL ANALYSIS B 2 4. ENVIRONMENTAL ANALYSIS B 3 4.1 Opportunities and threats in the asset management system environment are assessed B 3 4.2 Derformance standards (availability of service Capacity, continuity, emergency response, etc.) are measured and achieved A 2 4.3 Compliance with statutory and regulatory requirements B 3 3 5.4 Sect DEPERATIONS A 2 5.1 Operational policies and procedures are documented and linked to service levels required A 1 2.7 Rick management is applied to prioritise operations tasks A 2 3.5 Assets or documented in a assession A 1 5.4 Accounting data is documented for assets A 1 5.6 Asset: Maxime Adapted, and staff receive training commensurate with their responsibilities. A 1 6. AssEt MAXNENANCE A 2 2 6.1 Maintenance policies and procedures are documented and linked to service levels required A 2 7.6 AssEt MAXNENANCE A 2 2 8.6 Maintenance pains (emergency, corrective and preventative) are documented and completed on schedule <	ASSET MANAGEMENT SYSTEM CRITERA	PROCESS & POLICY RATING	PERFORMANCE RATING
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9. CONTINGENCY PLANNING B 3	8.3 Probability and consequences of asset failure are regularly assessed		
	9. CONTINGENCY PLANNING	В	3



ASSET MANAGEMENT SYSTEM CRITERA	PROCESS & POLICY RATING	PERFORMANCE RATING
9.1 Contingency plans are documented understood and tested to confirm their operability and to cover higher	В	3
10. FINANCIAL PLANNING	Α	1
10.1 The financial plan states the financial objectives and identifies strategies and actions to achieve those	A	1
10.2 The financial plan identifies the source of funds for capital expenditure and recurrent costs	А	1
10.3 The financial plan provides projections of operating statements (profit and loss) and statement of financial position (balance sheets)	A	1
10.4 The financial plan provides firm predictions on income for the next five years and reasonable predictions beyond this period	A	1
10.5 The financial plan provides for the operations and maintenance, administration and capital expenditure requirements of the services	A	1
10.6 Large variances in actual/budget income and expenses are identified and corrective action taken where necessary	A	1
11. CAPITAL EXPENDITURE PLANNING	Α	1
11.1 There is a capital expenditure plan covering works to be undertaken, actions proposed, responsibilities and dates	A	1
11.2 The capital expenditure plan provides reasons for capital expenditure and timing of expenditure	A	1
11.3 The capital expenditure plan is consistent with the asset life and condition identified in the asset management plan	A	1
11.4 There is an adequate process to ensure the capital expenditure plan is regularly updated and implemented	A	1
12. REVIEW OF AMS	В	3
12.1 A review process is in place to ensure the asset management plan and the asset management system described in it remain current	В	3
12.2 Independent reviews (e.g., internal audit) are performed of the asset management system	В	3



3.5 Status of Recommendations 2017 Asset Management Review

This was the 4th Asset Management System Review and as required recommendations from the previous review were considered. The recommendations contained in the 2017 Asset Management Review Report were process improvements and not found to be deficiencies in the asset management system. As such and in accordance with the Section 5.1.8 of the 2019 Guidelines, which states Auditors who wish to make recommendations for asset management processes or effectiveness criteria that received a rating other than those rated C, D, 3 or 4 should provide those recommendations directly to the licensee, these have not been included in Table 16.

However, the recommendations for process improvements were reviewed for effectiveness and implementation in the scope of the review. Instances where AMS deficiencies have been identified in the current review report that were raised as process improvements in the previous review report have been highlighted in Appendix 2.

TABLE 16 Ineffective Components Recommendations, Previous Review Implementation Plan

A Resolved during cu	rrent review period			
Recommendation Reference (no./year)	Rating Asset Management Process and Effectiveness Criterion	Auditors' Recommendation	Date Resolved	Further Action Required (Yes/No/Not Applicable)
	Details of Deficiency Details of Inadequate Controls and/or Non- Compliance			Details of Further Action Required (Including Current Recommendation Reference, if Applicable)

There were no 2017 Review asset management system deficiencies identified in the previous review.

B Unresolved at end of current review period

There were no 2017 Review asset management system deficiencies identified in the previous review.



As stipulated in section 5.3 of the Audit and Review Guidelines – Electricity and Gas Licences (March 2019), the Audit Team noted that the Asset Management Review Post Implementation Plan does not form part of the Audit Opinion. There were 10 asset management deficient addressed by 6 recommendations made from the current review that required post review implementation plans.

TABLE 17 Recommendations to Address Current Asset System Deficiencies

 A Resolved during current review period

 Recommendation Reference (no./year)
 Rating
 Action Taken by Licensee
 Date Resolved
 Auditor's Comments

 Details of Deficiency Details of Deficiency Details of Inadequate Controls and/or Non-Compliance
 Details of Deficiency Details of Inadequate Controls and/or Non-Compliance
 There were no recommendations from the current review that were resolved during the current review period.





Recommendation Reference (no./year)	Rating Asset Management Process and Effectiveness Criterion	Auditors Recommendation	Action taken by the Licensee by the end of the review period
	Details of Deficiency		
04/2022 05/2022	 B3 1.1 Asset management plan covers the processes in this table During the review period the 11 of the 12 asset management processes in Table 23 of the Audit Guideline were collectively addressed by the SAMP, the AMP, the Plant Area AMPs and supporting processes. The exception being the asset management process 12 in relation to the requirement for AMS Review, specifically the requirement for regular independent reviews (e.g. internal audit) of the asset management system to be performed. There were no processes established to review the AMS, and no internal audits of the AMS were performed to assess its effectiveness. The AMS was in a state of transitional change with development and redevelopment throughout the period 2018-2022. Consequently, this did not facilitate a review process to ensure the asset management system described in it remained current. B3 1.9 Asset management plan is regularly reviewed and updated Due to transitional changes of the AMS, the AMP has not been regularly reviewed 	 In order to ensure completeness and accuracy if the AMP (and SAMP), maximise the benefits and effectiveness of the AMS and the AMPS platform the following recommendations are made: Review and update the AMP and the SAMP with consideration of the requirements of Table 23 (refer Audit Guideline) Undertake Gap Analysis of BW1 AMS to the requirements of ISO 55000 as a minimum (not contractual agreements with Western Power and Customer require good electricity industry practice which incorporates the requirements of ISO 55000) Complete the Plant Area AMPs and ensure they contain adequate detail. Link AMPS platform to FMECA, SAP (CMMS) and VIKING/MYOSH (HSEQ Management Software) Ensure all AMPs have clearly defined responsible persons. Establish version control to better track changes within the dynamic environment Develop an internal and/or external audit process to maintain transparency, accuracy and accountability within the organisation. Review AMS processes and develop and an AMS maturity roadmap to better align the corporate and site objectives. 	Nil action taken Refer 2022 PRIP



06/2022		B3 2.5 Ongoing legal / environmental / safety obligations of the asset owner are assigned and understood The Risk and Compliance processes were established to address some legal obligations; however these were not consistently utilised. A critical review of the compliance and risk processes highlighted the absence of some compliance requirements in the register, allocation of ineffective controls to support compliance outcome and ensure the mitigation of risks through the implementation of treatment plans. There were no internal monitoring and review processes evident other than a risk review start and end date. Overall, the identification, reporting of new risks and monitoring of risks (i.e. effectiveness of their controls) to the board required	It is recommended that the organisation undertake a review of the compliance register (refer recommendation 01/2022) and a critical review of the risk register as detailed in Appendix 1.	Nil action taken Refer 2022 PRIP
07/2022		improvement. Refer Appendix 2 – Ref 2.5 for specific detail. B3 4.1 Opportunities and threats in the asset management system environment are assessed	Refer recommendation 06/2022 (Appendix 2 – Ref 2.5)	Nil action taken Refer 2022 PRIP
		While strategic opportunities and threats were well managed, limitations to the effectives of the AMS for monitoring of risks and compliance processes have been highlighted in asset management criteria 2.5.		
08/2022	•	B3 4.3 Compliance with statutory and regulatory requirements Limitations were identified in relation to the effectiveness of the Compliance Register	Recommendation 01/2022 (Refer Appendix 1 – 103)	Nil action taken Refer 2022 PRIP
Pov 2		· · · · · · · · · · · · · · · · · · ·		



	in achieving compliance outcomes. The lack of an internal monitoring and audit process was noted to be a deficient aspect of the organisations compliance processes.		
09/2022	 B3 8.1 Risk management policies and procedures exist and are applied to minimise internal and external risks Risk Management policies and procedures were established but were not effective in ensuring mitigation of risks. Whilst it was recognized there was oversight and delegatory signoff of risks in relation to Coal Supply. Overall, the reporting of new risks and monitoring of risks (i.e. effectiveness of their controls) required improvement. 	Refer recommendation 06/2022 (Appendix 2 – Ref 2.5)	Nil action taken Refer 2022 PRIP
10/2022	B3 8.2 Risks are documented in a risk register and treatment plans are implemented and monitored	Refer recommendation 06/2022 (Appendix 2 – Ref 2.5)	Nil action taken Refer 2022 PRIP
	Risks were identified, documented and the risk assessment process was documented. Treatment plans (mitigation strategies) were listed however it was difficult to follow through the details of the risk treatment plans. Although automatic electronic reminders were sent to relevant responsible persons when risk reviews some were noted to be overdue, and overall monitoring (i.e. internal audit/critical assessment of the effectiveness of the controls) was lacking. Mitigation measures proposed were not specific to enable independent assessment in most instances. Refer Appendix 2 – Ref 8.2 for specific detail.		



11/2022	•	B3 9.1 Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks The testing of contingency plans to confirm their operability to cover high risks was not evident.	 Review the Contingency Planning process to ensure: Risk Register and ensure all High/Critical risks requiring mitigation have accurate contingencies or plant redundancies documented, for example reference the bores for the water supply. Contingency Plans are consistent with the Strategic Plan the AMPS platform is reviewed to ensure all applicable Asset Area Plans to include contingency plans. Schedule and carry-out testing and training of each contingency plan. Update the BCDRF, BCP and develop the Crisis Management Plan and Business Unit Recovery Plans or capture in the AMPS, where appropriate. Ensure all personnel listed in the Contingency Plans are trained as per requirements and records reflected in the Training register. 	Nil action taken in relation to outstanding Contingency Plans Refer 2022 PRIP
12/2022	•	B3 12.1 A review process is in place to ensure the asset management plan and the asset management system described in it remain current For the duration of the review period there have been no internal AMS Review or third party reviews, for the AMS or the AMPs	A review process to ensure the AMP and the AMS remain current is required. It was noted that the nature of the dynamic AMS should support this requirement moving forward. However, the quality of the information contained within the AMP should be reviewed to ensure they are effective. As such a formalised process to ensure independent reviews (e.g. internal or third party audits) are performed of the asset management system an annual basis is required. Consideration as to the requirement from the AMPs platform to enable document and version control is recommended to enable BW1 to demonstrate the approved AMP in place at any point in time	Nil action taken Refer 2022 PRIP
13/2022	•	B3 12.2 Independent reviews (e.g. internal audit) are performed of the asset management system For the duration of the review period there has not been a process established for independent reviews of the Asset Management System.	Refer recommendation 12/2022 (Appendix 2 – Ref 12.1)	Nil action taken Refer 2022 PRIP



APPENDIX 1- BLUEWATERS POWER 1 PTY LTD PERFORMANCE AUDIT

MARCH 2023



TABLE 18 Performance Audit

KEY

- * Indicates Audit Priority differs from rating defined in 2017 Audit Report
- Indicates obligation was reclassified during the audit period from NR to Type 2 (Refer Amendment Record Electricity Compliance Reporting Manual July 2018, June 2020 & February 2022). Prior to the amendment, the rating was NR.
- ^a Indicates revision of clause in the Electricity Compliance Reporting Manual during the audit period.
- + Indicates the obligation was not included in the 2017 audit scope but has been included in 2022 audit scope.
- [®] Indicates the obligation non-compliant or identified as a process improvement in the 2017 Audit Report or an Annual Compliance Report during the audit period

12. Electr	ricity Industry Act – Licence conditions and obligations			
No.	2022 AUDIT REPORT EVIDENCE/ /VERIFICATION/FINDING/ACTION			
101 ^{∆♦}	OBLIGATION: Electricity Generation Licence, condition 5.3.1 / Electricity Industry Act, section 13(1)	Audit Priority	Controls Rating:	Compliance Rating:
Туре	A licensee must provide the ERA with a performance audit conducted by an independent expert acceptable to the ERA, not less than once every 24 months (or any longer period that the ERA allows).	4	NP	1
[2] ^Δ	Finding – GES was appointed with the Economic Regulation Authority's (ERA's) approval to undertake the Performance Audi 31 December 2017 and the report was submitted and published to the ERA website.	t for Bluewaters P	ower 1 Pty Ltd for the	period 1 January 2014 to
	Documents/Evidence – ERA Website, 15, 37, 67, 69, 72, 73, 110 Observations:			
	 2018 Performance Audit & 2018 Asset Management Review published to ERA website. (Refer <u>https://www.erawa.cc</u> The PAIP and PRIP published on the ERA Website. The audit identified three non-compliances. ERA published notice 20 May 2018 Noted planning for the current audit occurred during the audit period and the 2022 Performance Audit was undertake 2022) 			
	Recommendation: Nil	Action: Nil		



102 [◆]	OBLIGATION: Electricity Generation Licence, condition 5.1.1 / Electricity Industry Act, section 14(1)(a)	Audit Priority	Controls Rating:	Compliance Rating:
Туре	A licensee must provide for an asset management system	4	NP	1
[2]	Finding – The Licensee provided for an asset management system (AMS) for the duration of the Audit Period. Documentation Ltd was noted to have revised their Asset Management Planning processes and moved from a static AMS to a dynamic AMS up			•
	For the duration of the audit period the Licensee, although in a state of transitional change, maintained and implemented support detailed in Appendix 2 Asset Management Process – Asset Planning).	rting asset manage	ement systems and pro	cesses (Refer to findings
	Documents/Evidence – 1, 3, 5, 7, 8, 9, 12, 37, 75, 76, 80, 94, 102, 103, 106, AMPS, SAP			
	Observations:			
	 It was noted that during the audit period for the timeframe January 2018 to Sept 2019 prior to the development of there was no specific SAMP or AMP developed and implemented. Despite this, it was observed that the requirements for example the costs including operation, maintenance, CAPEX, site administration, were still carried on a weekly, m into the financial models and performed as the current drivers of the SAMP and AMP. Additionally, there were a num were established and functional, for example SAP, MYOSH and various ancillary systems. It was also understo referenced, and this was provided for review. The AMPS platform was developed in mid-2021 and roll out began in 2022. There were still some outstanding aspect to the Water Supply and Disposal Asset Area Plan sections to be completed included; Section 2 – RACI Section 3 Documents & Drawings Section 7 Asset Performance, to be finalised. Section 7 Asset Performance, to be finalised. Section 8 Maintenance Activity Areas (elements relating to Maintenance Strategy, Resourcing and Delive It was noted that BW1 performed well and met the customer service level requirements as defined in the PPAs. The Licensee developed and, with the exception of establishing an AMS review process, implemented a Post Aud Plan (PRIP) as published on the ERA website. 	for the AMS such a nonthly, quarterly an ober of supporting a od that although e cts of the 15 Plant /	as the financial required nd 5 year basis. These asset management sys xpired the AMP 2017 Area AMPs developed	nents of the organization costs became the inputs tems and processes that Live 020317 FY17 was for example with respect
	Recommendation: Nil	Action: Nil		
	OBLIGATION: Electricity Generation Licence, condition 5.1.2 and 5.1.3 / Electricity Industry Act, section 14(1)(b)	Audit Priority	Controls Rating:	Compliance Rating:
103	OBLIGATION. Electricity Generation Licence, condition 5.1.2 and 5.1.37 Electricity industry Act, section 14(1)(b)	-	•	Compliance Rating.



[2]	Finding – The Licensee confirmed that aside from the transition to the AMPS platform for asset management planning and the any substantial changes to the AMS since the ERA was last advised of the details of the system in accordance with section 14	•	coal supply contingenc	ies, there have not been
	The Licensee did not notify the ERA of the changes to the AMS during the audit period, for example the decision to not implet the AMPS platform for the AMS including the development, maintenance and implementation of the Plant Area AMPs for BW and approved PRIP). The process to ensure monitoring and implementation of post-audit actions or improvement plans was no	1. (Refer to recom	mendation 02/2018 of	
	Documents/Evidence – PAIP, 2017 Performance Audit Report, 12, 30, 37, 53, 67, 78, 96, 106, 110			
	 Observations: Noted that Obligation 103 recommendation (02/2018) stated the Licensee was to "ensure the ERA are notified of the consultants". An Action Plan 02/2018/EGL04developed by the Licensee stated "Bluewaters' would notify the ERA of Person: Station Manager Target Date:31/03/2019". 			
	The Compliance Register did not contain any of the of the recommendations contained in the 2017 PAIP and PRIP.			
	There was no internal audit program established to monitor compliance and assess the effectiveness of corrective active act	ctions.		
	 Recommendation 01/2022: In order to facilitate more effective completion and implementation of improvement plans/corrective actions it is recommended, further review the Compliance Register to ensure the information contained within it to ensure it: Contains accurate, complete (noted some compliance obligations do not have information in the fields such as source, departments, action required, etc), current and effective information to support the ongoing compliance of the organisation with its generation licence. Details responsible personnel who are trained and aware of their obligations (i.e. include a RACI matrix). Can be used to monitor compliance and assess the effectiveness of corrective actions/compliance outcomes (i.e. provide framework for internal audits to determined compliance Linked to reporting requirements 	Action: Refer 2	022 PAIP	
104 ^{*∆♦}	OBLIGATION: Electricity Generation Licence, condition 5.1.4 / Electricity Industry Act, section 14(1)(c)	Audit Priority	Controls Rating:	Compliance Rating:
Type [2]	A licensee must provide the ERA with a report by an independent expert about the effectiveness of its asset management system every 24 months, or such longer period as determined by the ERA.	4	NP	1
[4]	Finding – GES was appointed with the Economic Regulation Authority's (ERA's) approval to undertake the Asset Managemer 2014 to 31 December 2017 and the report was submitted and published to the ERA website.	t Review for Bluev	vaters Power 1 Pty Ltd	for the period 1 January



	Licensee s Recomment recomment	subsequently develo	oped the PRIP. as completed by th 2019. This tim	the time the post	t-review implemen	he 2017 Review Report made nine re ntation plan was received by the ERA ess improvements.			
Reco	commendation:	Nil					Action: Nil		
		tricity Generation	Licence, cond	ition 4.2.1/ Eco	nomic Regulatio	on Authority (Licensing Funding)	Audit Priority	Controls Rating:	Compliance Rating
•	gulations 2014		onco foos to the	ERA according	to clauses 6, 7 a	and 8 of the Economic Regulation	4	Α	1
Auth Find	hority (Licensing ding – The Licen	Funding) Regulatio	ns 2014. nnual Licence ch			lay on which the licence was Granted	i (i.e. 9 March 200		th after each annivers
Authorian Find of that	hority (Licensing ding – The Licen hat day during the RA INVOICE #	Funding) Regulatio see paid the five Ar audit period (i.e. 8 DATE ISSUED	ns 2014. Innual Licence ch 3 April annually). DUE DATE	arges within one	month after the d	NOTES	· · · · · · · · · · · · · · · · · · ·	6) and within one mon	th after each annivers
Authorian Author	hority (Licensing ding – The Licen hat day during the	Funding) Regulatio see paid the five Ar a audit period (i.e. 8	ns 2014. Innual Licence ch 3 April annually).	arges within one	month after the d		but the requirement	6) and within one mon	th after each annivers
Authorian Author	hority (Licensing ding – The Licen hat day during the RA INVOICE #	Funding) Regulatio see paid the five Ar audit period (i.e. 8 DATE ISSUED	ns 2014. Innual Licence ch 3 April annually). DUE DATE	arges within one	month after the d	NOTES Due date not specified on invoice	but the requirements.	6) and within one mon	th after each annivers
Author Find of that ER 101 101	hority (Licensing ding – The Licen hat day during the RA INVOICE # 01419	Funding) Regulatio see paid the five Ar audit period (i.e. 8 DATE ISSUED 27/02/2018	ns 2014. Innual Licence ch April annually). DUE DATE 08/04/2018	arges within one DATE PAID 09/03/2018	month after the d	NOTES Due date not specified on invoice were specified on the ERA invoice	but the requirement e. by of the invoice provide the requirement	6) and within one mon	th after each annivers
Authoric Find of the of	hority (Licensing ding – The Licen hat day during the RA INVOICE # 01419 01859	Funding) Regulatio see paid the five Ar audit period (i.e. 8 DATE ISSUED 27/02/2018 27/02/2019	ns 2014. nual Licence ch April annually). DUE DATE 08/04/2018 08/04/2019	arges within one DATE PAID 09/03/2018 08/03/2019	month after the d COMPLIANT YES YES	NOTES Due date not specified on invoice were specified on the ERA invoice Payment date stamped on the cop Due date not specified on invoice	but the requirement e. by of the invoice provide the requirement but the requirement	6) and within one mon nts for payment rovided. nts for payment	th after each annivers



	 Observations: Noted the ERA invoices for annual licence fee and Standing Charge payments issued from 2021 and 2022 included an Note extract from the Compliance Register stated annual licence fee due by 01/04 annually. There were no invoices provided which included an interest component indicating a late payment charge. There was no internal audit or effectiveness review process implemented to determine compliance with licence obligate Reports. 			ual Compliance
	Recommendation: Nil	Action: Nil		
06 [⊗]	OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Act, section 31(3)	Audit Priority	Controls Rating:	Compliance Rating:
Гуре [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.	2	В	2
	Finding – The Licensee has undertaken risk assessment which was implemented for the site and corporate risks. The Licensee both contractually and operationally and has taken reasonable steps to minimise potential disruption to the generation and supply Strategy. Corporate Business Continuity and IT Disaster Recovery Plans have been developed. Well established accident and However, the Risk Register and Compliance Register were noted to include ineffective controls to support the risk mitigatio corrective action and there was limited internal monitoring and review processes established. The control measures were ger involved and were not formally assessed for effectiveness (i.e. subject to independent evaluation).	y of electricity, for e emergency proced n and compliance nerally non-specific	example development dures were developed processes and ensu c, often reliant on tacit	of the Coal Conservation and implemented. The the implementation of knowledge of personnel
	 For example, from the BWG Corporate Risk extract, Risk No. 109 Critical System Failure - Plant failure or reduced capacity of options including; Perform equipment performance assessments. 	caused by failure c	of critical systems liste	d a number of treatment
	 Implement quality management system. Business continuity plan Review engagement with key suppliers Data analytics Cyber review (DCS) 			



	Australia) and required authority for response to be managed by the CEO or a Board Member the organisation. It was a one page system failure. Similar assessments were made in relation to other treatment options such as BW1 was not actively implement management system. Further, there was no clear link to the corrective actions, assessment of their effectiveness or indication identified on 12/1/2017 and appears to have been subject to monthly review. The Licensee confirmed that although the BCP established at a management level that addressed the business continuity requirements. These were not referenced in the AM Documents/Evidence –12, 16, 18, 20, 22, 24, 26, 27, 28, 30, 51, 58, 78, 80, 81, 82, 83, 84, 93, 96, 99, 102, 106, 110, Intervieu	enting quality man n of when they we was not effective i S.	agement system but n re achieved to addres n addressing the risk t	nore accurately an asset s risk 109. Risk 109 was here were other process
	Observations:		Ũ	
	 Note confirmation of completion of recommendation 04/2018 was submitted to the ERA during the audit period as age. The Licensee has undertaken significant contingency planning in relation to coal supply issues. The RACC was inactive during 2022, as the Licensee reallocated resources to address the potential coal supply issue. Whilst the RACC was suspended, the Board became much more engaged on the day to day of the business and ever and board were focussing on, other risks were actively managed by the board – for example, COVID management, i retrospectively added to the risk register (mostly just outside or late in the audit period) MYSOH/Viking system used for maintenance of the risk register. It was noted that the Management Team reviewed the Viking risks as captured. 	ies en though Coal su	pply was the primary ri	•
	Recommendation 02/2022: Refer recommendation 06/2022 (Appendix 2 – Ref 2.5)	Action: Refer 2	022 PAIP	
107	OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Act, section 41(6)	Audit Priority	Controls Rating:	Compliance Rating:
Туре	A licensee must pay the costs of taking an interest in land or an easement over land.	4	NP	NR
[2]	 Finding – The Licensee confirmed that Bluewaters Power Station did not take an interest or an easement over land at the record the audit period, as defined by Part 9 the Land Administration Act 1997. Land access arrangements have been established. Documents/Evidence – Interview with Power Station Manager, 46 Observations: Obligation specific to the requirements of the Land Administration Act 1997 in relation to compulsory acquisition of la 		rection of the Minister	under the Licence during
	 For the duration of the audit period, BW1 leased the land on which the power station was located. 			
	Recommendation: Nil	Action: Nil		



	OBLIGATION: Electricity Generation Licence, condition 4.3.1 / Electricity Industry Act, section 11	Audit Priority	Controls Rating:	Compliance Rating:
	A licensee and any related body corporate must maintain accounting records that comply with the Australian Accounting Standards Board Standards or equivalent International Accounting Standards.	4	NP	1
	Finding – For the duration of the audit period, the Bluewaters Power 1 Pty Ltd has maintained financial statements for the finance third party accountants and assessed for compliance with Australian financial reporting standards.	ial years ending 31	I March and these wer	e audited by independer
	Documents/Evidence – 37, 55, 57, 76, 80			
	Observations:			
	 BW1 financial statements and signed annual audit reports were provided for review for the years ending 31 March 20 The Licensee provided Quarterly Bluewaters Power Performance Reports and Half yearly accounts applicable to the 		2021 and 2022	
·	Recommendation: Nil	Action: Nil		
	OBLIGATION: Electricity Generation Licence, condition 5.3.2 / Electricity Industry Act, section 11	Audit Priority	Controls Rating:	Compliance Rating
	OBLIGATION: Electricity Generation Licence, condition 5.3.2 / Electricity Industry Act, section 11 A licensee must comply, and require its auditor to comply, with the ERA's standard audit guidelines for a performance audit	Audit Priority 4	Controls Rating:	Compliance Rating
		4	NP	1
	A licensee must comply, and require its auditor to comply, with the ERA's standard audit guidelines for a performance audit Finding – The Licensee engaged the Auditor to undertake the Performance Audit with a Request for Proposal for BW1 and	4 I requested the Au	NP	1
	A licensee must comply, and require its auditor to comply, with the ERA's standard audit guidelines for a performance audit Finding – The Licensee engaged the Auditor to undertake the Performance Audit with a Request for Proposal for BW1 and Authority's 2019 Audit and Review Guidelines.	4 I requested the Au	NP	1
	A licensee must comply, and require its auditor to comply, with the ERA's standard audit guidelines for a performance audit Finding – The Licensee engaged the Auditor to undertake the Performance Audit with a Request for Proposal for BW1 and Authority's 2019 Audit and Review Guidelines. Documents/Evidence –Bluewaters Power 1 Pty Ltd Performance Audit and Asset Management Review Plan 2022, GES engaged	4 d requested the Au	NP uditor to comply with t	1 he Economic Regulatio
	A licensee must comply, and require its auditor to comply, with the ERA's standard audit guidelines for a performance audit Finding – The Licensee engaged the Auditor to undertake the Performance Audit with a Request for Proposal for BW1 and Authority's 2019 Audit and Review Guidelines. Documents/Evidence –Bluewaters Power 1 Pty Ltd Performance Audit and Asset Management Review Plan 2022, GES enga Observations: Copies of communications received from the Authority relating to audit requirements were sent by Licensee through	4 d requested the Au	NP uditor to comply with t	1 he Economic Regulatio
	A licensee must comply, and require its auditor to comply, with the ERA's standard audit guidelines for a performance audit Finding – The Licensee engaged the Auditor to undertake the Performance Audit with a Request for Proposal for BW1 and Authority's 2019 Audit and Review Guidelines. Documents/Evidence –Bluewaters Power 1 Pty Ltd Performance Audit and Asset Management Review Plan 2022, GES enga Observations: Copies of communications received from the Authority relating to audit requirements were sent by Licensee through audits in compliance with the 2019 Audit and Review Guidelines – Electricity and Gas Licences	4 d requested the Au agement document	NP uditor to comply with t	1 he Economic Regulation



[2]	Finding – The Licensee engaged the Auditor to undertake an Asset Management System Review with a Request for Proposal Regulation Authority's 2019 Audit and Review Guidelines.	for BW1 and requ	lested the Auditor to co	omply with the Economic
	Documents/Evidence – Bluewaters Power 1 Pty Ltd Performance Audit and Asset Management Review Plan 2022, GES eng	agement documer	nts, 67	
	 Observations: Copies of communications received from the Authority relating to audit requirements were sent by Licensee through a audits in compliance with the 2019 Audit and Review Guidelines – Electricity and Gas Licences The Review Plan was developed by the Audit Team, endorsed by the Licensee and approved by the ERA. 	to Auditor to conve	ey requirements specif	ically the undertaking of
	Recommendation: Nil	Action: Nil		
123	OBLIGATION: Electricity Generation Licence, condition 4.4.1 / Electricity Industry Act, section 11	Audit Priority	Controls Rating:	Compliance Rating:
Type [2]	In the manner prescribed, a licensee must notify the ERA, if it is under external administration or if there is a significant change in the circumstances that the licence was granted which may affect the licensee's ability to meet its obligations.	2	В	1
	 Finding – The Licensee confirmed there were no significant changes in the circumstances that EGL4 was granted. Documents/Evidence – 37, 53, 57, 58, 67, 69, 80 Observations: The Compliance Register did not specifically reference the requirement. BW1 was not placed under external administration during the audit period BW1 maintained ongoing discussions with the Government in relation to coal supply issues. The Licensee confirmed: there were no other significant changes in circumstances that affected BW1s ability to meet its Licence obligation going concern was assessed by management and external auditors in respect to the Financial Statements of the the Financial Statements have been signed off by the Board and the external auditors. Recommendation: Nil 			
124 ^{*⊗}	OBLIGATION: Electricity Generation Licence, condition 4.5.1 / Electricity Industry Act, section 11	Audit Priority	Controls Rating:	Compliance Rating:
Туре	A licensee must provide the ERA, in the manner prescribed, with any information that the ERA requires in connection with its functions under the Electricity Industry Act.	4	В	2



[2] Finding – During the Audit Period the Licensee was required to provide the Authority with the following information as required in connection with its functions under the Act.
 The 2018-2022 Annual Compliance Reports were to be submitted by the 31^{st of} August annually.

Provision of information for the calculation of standing data charges was due 30th September annually for 2018 to 2022.

The 5 Annual Compliance Reports were submitted within the requirement timeframe. However, the Standing Charges data was submitted outside the required timeframes on 1 occasion.

The Licensee had established a process for review of its non-compliances (i.e. Compliance Register), however, it was not completely aligned with the obligations, effectively implemented or monitored to ensure compliance and as such was not effective. Non-compliance was noted in relation to the completeness and accuracy of the compliance and performance reports provided to the ERA, for example Obligations 103 and 124 which were a Type 2 and as such reportable obligations were omitted from the 2019 and 2020 the Annual Compliance Reports.

Annual Compliance Reports

Year	2018	2019	2020	2021	2022
Date Submitted	29/8/2018	30/8/2019	28/8/2020	30/8/2021	29/07/2022
Compliant	YES	YES	YES	YES	YES
Obligations Reported	Nil	Nil	Nil	Nil	Nil
Integrity of Reporting		Omitted 103 – As per recommendation 02/2018 in PAIP, the requirement to inform the ERA of the change to the AMS with the development of the external consultants interim 5 year AMP and the subsequent development and implementation of the AMPS platform.	Omitted 103 – Refer 2019 Omitted 124 – Late submission of 2019 Standing data.	Omitted 103 – Refer 2019 Omitted 124 – Refer 2020	Omitted 103 – Refer 2019 Omitted 124 – Refer 2020

Standing Data

Year	2018	2019	2020	2021	2022
Compliant	YES	NO	YES	YES	YES

Rev 3



	Documents/Evidence – ERA Licence Payment Report, 37, 53, 67, 69, 71, 110			
	 Observations: Electricity Generation Licence required under the <i>Economic Regulation Authority (Licensing Funding) Regulations 2</i> electricity retail (i.e. number of customers) for BW1 There was no internal audit or effectiveness review process implemented to determine compliance with licence oblig Reports. 	ation prior to the d	evelopment of the Ann	ual Compliance
	 It was noted that the Compliance register did not reference the requirement to submit Annual Compliance Reports by relation to the standing charges by 30 September annually. Confirmation of dates for submission of Standing data for 2018-2022 was verbally provided. Payment of annual licence fees compliant for all 5 invoices due and for 20 invoices for standing charges due during a Form RFE-01 Request for Execution of a Document was used for the 2018 Annual Compliance Report only. 	-	requirement to commu	inication information in
	Recommendation: 03/2022 Develop a more effective process for preparation of Compliance reports to ensure the integrity of data report. Additionally, training requirements should be reviewed to ensure understanding and awareness of the legislative requirements relating to EGL4.	Action: Refer	2022 PAIP	
	Revise the Compliance Register to ensure:			
	the Obligations are referenced accurately against the current Electricity Compliance Reporting Manual (i.e. there is a process established for updating obligations)			
	 include Reportable Field or use "Impact of Non-Compliance" column as only type 1 and 2 obligations are reportable (i.e. obligation type (NR, 1 or 2) 			
	include compliance criteria field in Compliance Register to allow internal audit process to be established and create a time dependent audit schedule (i.e. prior to the submission of the Annual Compliance Report 31 August annually to ensure information reported is correct).			
	Ensure a record of the review is able to be recorded.			
125	OBLIGATION: Electricity Generation Licence, condition 3.8.1 and 3.8.2 / Electricity Industry Act, section 11	Audit Priority	Controls Rating:	Compliance Rating:
Туре	A licensee must publish any information as directed by the ERA to publish, within the timeframes specified.	4	NP	NR
[2]	Finding – The Licensee confirmed that other than the annual compliance reports and request for standing data described aborany other information during the audit period.	ove, the ERA did n	ot direct Buewaters Po	ower 1 Pty Ltd to publish



	Documents/Evidence –EGL4, 67			
	Observations:			
	 Nil 			
	Recommendation: Nil	Action: Nil		
126	OBLIGATION: Electricity Generation Licence, condition 3.7.1 / Electricity Industry Act, section 11	Audit Priority	Controls Rating:	Compliance Rating:
Type	All notices must be in writing, unless otherwise specified.	4	NP	1
[2]	Finding – During the audit period the Licensee maintained records of communication with the Authority, primarily via mail or notices in relation to the Electricity Generation Licence were reviewed as part of the audit.	email communicat	ion. All responses we	re in writing and specific
	Documents/Evidence – 67			
	Observations:			
	 Examples of communications provided refer Appendix 3, for example submission of compliance reports, etc. 			
	Recommendation: Nil	Action: Nil		
		Action. Nil		
15 Electricit	y Industry Metering Code – Licence Conditions and Obligations			
PART 3 –	METERS AND METERING INSTALLATIONS			
324	OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 3.3B	Audit Priority	Controls Rating:	Compliance Rating:
Туре [2]	If a user is aware of bi-directional electricity flows at a metering point that was not previously subject to a bi-directional flows or any changes in a customer's or user's circumstances in a metering point that will result in bi-directional flows, the user must notify the network operator within 2 business days.	4	NP	NR
	Finding – During the audit period, the Licensee confirmed that BW1 did not become aware of changes in bi-directional electricit directional electricity flow and as such was require meet notification requirements.	ty flow in a meterin	g point, which was not	previously subject to bi-
	Documents/Evidence – Discussion with Regulatory & Trading Analyst, 34, 44, 52, 100			



	Observations:			
	 The Licensee did not receive any requests from users in relation to bi-directional flows at a metering point which was changes in a customer's circumstances in a metering point which will result in bi-directional electricity flows. The Licensee has no meters and Western Power owns the meters at Bluewaters Power Station Terminal substation 		-	
	Recommendation: Nil	Action: Nil		
339+	OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 3.11(3)	Audit Priority	Controls Rating:	Compliance Rating:
Type	A Code participant who becomes aware of an outage or malfunction of a metering installation must advise the network operator as soon as practicable.	4	NP	NR
[2]	Finding – The Licensee confirmed that during the audit period there was no outage or malfunction of the metering installations	S.		
	Documents/Evidence – MYOSH/Viking, Qlik, 34, 44, 52, 67, 100, 108			
	Observations:			
	 Note the PPAs specified requirements in relation to reliability of metering installations. 			
	 WPN has primary responsibility for the management and monitoring of meters. There were no outages or malfunction usage and metering discrepancies could be identified through production calculations. 	ons identified during	g the audit period. Pro	duction staff monitor
		ons identified during Action: Nil	g the audit period. Pro	duction staff monitor
PART 4	usage and metering discrepancies could be identified through production calculations.	1	g the audit period. Pro	duction staff monitor
PART 4 371	usage and metering discrepancies could be identified through production calculations. Recommendation: Nil	1	g the audit period. Proc	duction staff monitor
	usage and metering discrepancies could be identified through production calculations. Recommendation: Nil - THE METERING DATABASE	Action: Nil		
371 Туре	usage and metering discrepancies could be identified through production calculations. Recommendation: Nil THE METERING DATABASE OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 4.4(1) If there is a discrepancy between energy data held in a metering installation and in the metering database, the affected Code	Action: Nil Audit Priority 5	Controls Rating:	Compliance Rating:
371 Туре	usage and metering discrepancies could be identified through production calculations. Recommendation: Nil - THE METERING DATABASE OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 4.4(1) If there is a discrepancy between energy data held in a metering installation and in the metering database, the affected Code participants and the network operator must liaise to determine the most appropriate way to resolve the discrepancy. Finding – The Licensee confirmed that for the duration of the audit period, there were no discrepancies in metering data.	Action: Nil Audit Priority 5	Controls Rating:	Compliance Rating:
371 Туре	usage and metering discrepancies could be identified through production calculations. Recommendation: Nil THE METERING DATABASE OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 4.4(1) If there is a discrepancy between energy data held in a metering installation and in the metering database, the affected Code participants and the network operator must liaise to determine the most appropriate way to resolve the discrepancy. Finding – The Licensee confirmed that for the duration of the audit period, there were no discrepancies in metering data. accordance with the PPA, which had Dispute Resolution provisions.	Action: Nil Audit Priority 5	Controls Rating:	Compliance Rating:



	Recommendation: Nil	Action: Nil				
372	OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 4.5(1)	Audit Priority	Controls Rating:	Compliance Rating		
Type [NR]	A Code participant must not knowingly permit the registry to be materially inaccurate.	5	NP	1		
[1414]	Finding – The Licensee confirmed they did not knowingly permit the registry to be materially inaccurate during the audit period	l.				
	Documents/Evidence – MYOSH/Viking, Qlik, 34, 44, 52, 53, 67, 100, 108					
	Observations:					
	Western Power was solely responsible for the management of standing data within the metering registry and/or metering	ering database				
	Recommendation: Nil	Action: Nil				
373	OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 4.5(2)	Audit Priority	Controls Rating:	Compliance Rating		
Туре [2]	Subject to subclause 5.19(6), if a Code participant, other than a network operator, becomes aware of a change to, or 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.	4	NP	NR		
	Finding – The Licensee confirmed that for duration of the audit period BW1 did not becomes aware of a change to, or inaccuracy in, an item of standing data in the registry, where they were required to notify the network operator and provide details of the change or inaccuracy within the timeframes prescribed.					
	Documents/Evidence – MYOSH/Viking, Qlik, 34, 44, 52, 53, 67, 100, 108					
	Observations:					
	 Western Power was solely responsible for the management of standing data within the metering registry and/or meters standing data or the metering registry. 	ering database, an	d BW1 has no active r	ole in managing		
	 The Licensee was aware of the no later than 2 business days (or such other time as is specified in the applicable ser the Compliance Register. 	vice level agreem	ent). However, it was r	not formally captured in		
	Recommendation: Nil	Action: Nil				
	• METERING SERVICES	I				
AN I J						



388+	A user must, when reasonably requested by a network operator, assist the network operator to comply with the network operator's obligation under subclause 5.4(1).	4	NP	NR
Type [2]	Finding – The Licensee confirmed that during the audit period BW1 were not requested to assist Western Power comply windertake a meter readings and obtain the energy data.	th its obligations	and Western Power h	ad access the meters to
	Documents/Evidence – Qlik, 34, 44, 52, 53, 67, 100, 108			
	Observations:			
	 Western Power are required to undertake at least one meter reading that provides an actual value per year that pass 	es validation.		
	Recommendation: Nil	Action: Nil		
416 ⁺	OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 5.21(5)	Audit Priority	Controls Rating:	Compliance Rating:
Туре	A Code participant must not request a test or audit under subclause 5.21(1) unless the Code participant is a user and the test or audit relates to a time or times at which the user was the current user, or the Code participant is the IMO.	4	NP	NR
[2]	Finding – The Licensee confirmed no tests have been requested during the audit period that would contravene the obligations	relating BW1 as a	a user.	
	Documents/Evidence – Qlik, 34, 44, 52, 53, 67, 100, 108			
	Observations:			
	 Under the Metering Code BW1 was a user and any test or audit related to times at which the user was the current us 	er.		
	Recommendation: Nil	Action: Nil		
417 ⁺	OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 5.21(6)	Audit Priority	Controls Rating:	Compliance Rating:
Туре	A Code participant must not make a request under subclause 5.21(1) that is inconsistent with any access arrangement or agreement.	4	NP	NR
[2]	Finding – Refer finding 416			
	Documents/Evidence – Qlik, 34, 44, 52, 53, 67, 100, 108			



	Observations:			
	Under the Metering Code BW1 was a user and any test or audit related to times at which the user was the current us	ser.		
	Recommendation: Nil	Action: Nil		
PART 6	DOCUMENTATION	L		
448	OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 6.1(2)	Audit Priority	Controls Rating:	Compliance Rating:
Type [NR]	A user must, in relation to a network on which it has an access contract, comply with the rules, procedures, agreements and criteria prescribed.	4	NP	1
	Finding – The Licensee has confirmed BW1 does not have a specific SLA in place with Western Power, the Metering Code momentum services.	odel SLA provides	the most relevant refe	rence for the provision of
	Documents/Evidence – Western Power Build Pack, 34, 44, 52, 53, 67, 100, 108			
	Observations:			
	https://www.westernpower.com.au/industry/manuals-guides-standards/build-pack/			
	 There have been no disputes with Western Power in relation to the access contract during the audit period. The Licensee confirmed they are aware of the build pack requirements published by Western Power. 			
	Recommendation: Nil	Action: Nil		
PART 7 -	NOTICES AND CONFIDENTIAL INFORMATION			
451*	OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 7.2(1)	Audit Priority	Controls Rating:	Compliance Rating:
Type [NR]	Code participants must use reasonable endeavours to ensure that they can send and receive a notice by post, facsimile and electronic communication and must notify the network operator of a telephone number for voice communication in connection with the Code.	5	NP	1
	Finding – The Licensee confirmed obligations relating to notices were specified with the Electricity Transfer Access Contract (I	ETAC).		



	Observations:			
	 The Licensee had established and evidenced post, electronic and voice communication channels commensurate wi technology has been superseded and was not generally used by code participants. 	th the expectations	of a major business.	The use of facsimile
	Recommendation: Nil	Action: Nil		
453	OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 7.2(4)	Audit Priority	Controls Rating:	Compliance Rating:
Type [2]	If requested by a network operator with whom it has entered into an access contract, the Code participant must notify its contact details to a network operator within 3 business days after the request.	4	NP	NR
	Finding – During the audit period Western Power did not make any further request for BW1 to provide its contact details.			
	Documents/Evidence – 34, 44, 52, 53, 67, 100, 108			
	Observations:BW1 had satisfied the requirement of notifying Western Power of its contact details			
		Action: Nil		
454	BW1 had satisfied the requirement of notifying Western Power of its contact details	Action: Nil Audit Priority	Controls Rating:	Compliance Rating:
Туре	BW1 had satisfied the requirement of notifying Western Power of its contact details Recommendation: Nil		Controls Rating:	Compliance Rating:
-	BW1 had satisfied the requirement of notifying Western Power of its contact details Recommendation: Nil OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity 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	Audit Priority		
Туре	BW1 had satisfied the requirement of notifying Western Power of its contact details Recommendation: Nil OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity 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 under subclause 7.2(4) at least 3 business days before the change takes effect.	Audit Priority		
Туре	BW1 had satisfied the requirement of notifying Western Power of its contact details Recommendation: Nil OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity 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 under subclause 7.2(4) at least 3 business days before the change takes effect. Finding – During the audit period BW1 did not make any changes to the contact details notified to Western Power.	Audit Priority		
Туре	BW1 had satisfied the requirement of notifying Western Power of its contact details Recommendation: Nil OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity 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 under subclause 7.2(4) at least 3 business days before the change takes effect. Finding – During the audit period BW1 did not make any changes to the contact details notified to Western Power. Documents/Evidence – 34, 44, 52, 53, 67, 100, 108	Audit Priority		



455	OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 7.5	Audit Priority	Controls Rating:	Compliance Rating
Туре [2]	A Code participant must subject to subclauses 5.17A and 7.6 not disclose, or permit the disclosure of, confidential information provided to it under or in connection with the Code and may only use or reproduce confidential information for the purpose for which it was disclosed, or another purpose contemplated by the Code	4	NP	NR
	Finding – The Licensee confirmed that during the audit period, there has been no disclosure of confidential information and no i cannot be rated for compliance.	instance of disclos	ure of information. The	erefore, these obligation
	Documents/Evidence – 34, 44, 52, 53, 67, 100, 108			
	Observations:			
	The PPAs reference confidentiality requirements.			
	Recommendation: Nil	Action: Nil		
456	OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 7.6(1)	Audit Priority	Controls Rating:	Compliance Rating
Туре [2]	A Code participant must disclose or permit the disclosure of confidential information that is required to be disclosed by the Code.	4	NP	NR
	Finding – Refer Obligation 455.			
	Documents/Evidence – 34, 44, 52, 53, 67, 100, 108			
	Observations:			
	The PPAs reference confidentiality requirements.			
	Recommendation: Nil	Action: Nil		
ART 8 ·	DISPUTE RESOLUTION			
457	OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 8.1(1)	Audit Priority	Controls Rating:	Compliance Rating
Туре	If any dispute arises between any Code participants, then (subject to subclause 8.2(3)) representatives of disputing parties must meet within 5 business days after a notice given by a disputing party to the other disputing parties and attempt to resolve	5	NP	NR



	Finding – The Senior Manager Energy and Retail confirmed that there have been no disputes between code participants regatheres obligations cannot be rated for compliance.	arding metering du	Iring the period subjec	t to the audit. Therefore,				
	Documents/Evidence – 34, 44, 52, 53, 67, 100, 108							
	Observations:							
	The PPAs reference dispute resolution processes.							
	Recommendation: Nil	Action: Nil						
458	OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 8.1(2)	Audit Priority	Controls Rating:	Compliance Rating:				
Type [NR]	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.	5	NP	NR				
	Finding – Refer Obligation 457		Finding – Refer Obligation 457					
	Documents/Evidence – 34, 44, 52, 53, 67, 100, 108							
	Documents/Evidence – 34, 44, 52, 53, 67, 100, 108 Observations: Nil							
		Action: Nil						
459	Observations: Nil	Action: Nil Audit Priority	Controls Rating:	Compliance Rating:				
459 Type [NR]	Observations: Nil Recommendation: Nil		Controls Rating:	Compliance Rating:				
Туре	Observations: Nil Recommendation: Nil OBLIGATION: Electricity Generation Licence, condition 4.1.1 / 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 party who must meet and attempt to	Audit Priority						
Туре	Observations: Nil Recommendation: Nil OBLIGATION: Electricity Generation Licence, condition 4.1.1 / 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 party who must meet and attempt to resolve the dispute by negotiations in good faith.	Audit Priority						



	Recommendation: Nil	Action: Nil		
460	OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 8.1(4)	Audit Priority	Controls Rating:	Compliance Rating:
Туре [2]	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.	4	NP	NR
	Finding – Refer Obligation 457			
	Documents/Evidence – 34, 44, 52, 53, 67, 100, 108			
	Observations: Nil			
	Recommendation: Nil	Action: Nil		
461	OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 8.3(2)	Audit Priority	Controls Rating:	Compliance Rating:
Type [NR]	The disputing parties must at all times conduct themselves in a manner which is directed towards achieving the objective in subclause 8.3(1).	5	NP	NR
	Finding – Refer Obligation 457			
	Documents/Evidence – 34, 44, 52, 53, 67, 100, 108			
	Observations: Nil			
	Recommendation: Nil	Action: Nil		

Note:

NP - not possible to provide a controls rating because no activity has taken place to exercise the obligation during the audit period

NR - Not applicable to audit period and as such compliance was not assessed



APPENDIX 2 - BLUEWATERS POWER 1 PTY LTD ASSET MANAGEMENT REVIEW

MARCH 2023



TABLE 19 Audit Review Ratings and Recommendations

1. AS	SET PLANNING		OVERALL EFFEC	TIVENESS RATING
□ Ass □ Ass □ Ass Key P	 Assess the adequacy of the asset planning process Assess the adequacy of the asset management plan Assess whether the asset management plan is up-to-date and implemented in practice Assess whether the asset management plan clearly assigns responsibilities and whether these have been applied in practice Key Process – Asset planning strategies focuses on meeting customer needs in the most effective and efficient manner (delivering the right service at the right price). 		PROCESS & POLICY RATING* B	PERFORMANCE RATING 2
Outco their s	me – Asset planning is integrated into operational or business plans, providing a framework for existing and new assets to be e rervice optimised.	ffectively utilised and		
No.	2022 REVIEW REPORT EVIDENCE/ /VERIFICATION/FINDING/ACTION			
1.1	OBLIGATION: Asset management plan covers the processes in this table*	Review Priority	P&P* Rating:	Performance Rating:
	*Table 23 of the 2019 Audit and Review Guidelines – Electricity and Gas Licences	4	В	3
	audit) of the asset management system to be performed. There were no processes established to review the AMS, and no int AMS was in a state of transitional change with development and redevelopment throughout the period 2018-2022. Consequentl plan and the asset management system described in it remained current. As detailed in the 2017 Review Report and PRIP, during the review period the Licensee commenced redevelopment of its AM asset management planning cycle to align it with Bluewaters' strategic business planning processes. A management decision of format provided. Instead, a change in direction was taken in relation to Bluewaters' AMS and the AMPS platform initiative was changing the Plant Area AMPs from static (i.e. annually reviewed document) to dynamic/live processes (i.e. up to date AMS softw have been utilised in the development and population of the AMPS platform.	y, this did not facilitate IS with the assistance was made to not imple is driven by an effort t	a review process to ensur of external consultants), a ment the AMS developed to move the AMPs to a dig	e the asset management as well as a review of the by the consultants in the gital system and as such
	It was noted, during the audit period the following occurred in relation to the AMP:			
	• there was a period January 2018 to September 2019 where the 2017 AMP (although expired) supported the AMS			
	 in September 2019 the previous 2017 AMP was made obsolete and new AMP developed the 2019 Asset Management Plan document title was updated to Strategic Asset Management Plan 2019-2024 (with 	minor formatting note	d) in November 2022	
	 an AMP 2022-2023 was developed in December 2022 			
	development and implementation of the AMPS Platform commenced in 2021 and the Plant Areas AMPs development	nt was ongoing at the e	end of the audit period.	



Consequently, throughout the audit period the AMS was supported with a number of interim systems and supporting processes while facilitating the development and implementation of the SAMP, AMP and the Plant Area AMPs. However, it was acknowledged that the power station continued to perform well with the asset management systems and processes that were established and functional:

- SAP (including the financial planning, outage planning, maintenance and condition monitoring, etc)
- MYOSH Viking HSE & Risk Management Application
- Ancillary Systems
 - SAGE e-Pass Operational Permit to Work (PTW) systems
 - Gallagher Site access control
 - Content Manager Document control
 - **Qlik** Business Intelligence tool
 - o Emergency Response & Crisis Management Processes
 - o OEM Recommendations
 - o Outage Reports
 - Condition Monitoring
 - Failure Mode Analysis and Risk Assessment (FMECA)
- Increased focus and week to week involvement by the Board and management team.
- Committees, i.e. RACC

Documents/Evidence - 1,3,5,7,9,12,13,24,33,34,39,40,43,80,81,99, 107 and Perth Office and Site Interviews.

Observations:

- At the start of the audit period in 2018, the annual Asset Management Plan, AMP 2017 Live 020317 FY17 was still applicable and was provided for review.
- The AMP was redefined in November 2022 to the Strategic Asset Management Plan (SAMP) 2019 to 2024.
- The Strategic Asset Management Plan (SAMP) for Sept 2019 to 2024, the Asset Management Plans (AMPs) for 2022-2023 and the Plant Area AMPs were provided for review. All these documents included a framework for the asset management systems that were to be applied to BW1.
- It was noted that document and version control was not consistently applied to the AMPs and Plant Area AMPs and as such determination of the changes made and the specific details of the AMP established at any point in time during the review period was not evident.
- The Licensee's Asset Management Policy was developed in March 2019.
- In 2018 Bluewaters' engaged consultants to review the asset management system and subsequently the 2017 AMP process was maintained. Over an 18-month period, a new AMS was developed by the consultants to cover a 5-year horizon for the Asset Management Cycle, (i.e 2019 to 2024). The decision was made to not implement the consultants Asset Management Cycle and the AMPS platform was subsequently developed to produce live Asset Area Plans during 2021-2022. The first annual publication of these plans was scheduled for March 2023 when the financial budgets will be released, however the live versions have been in place since early 2022 and have been utilized by the BW1 personnel.
- The AMPS platform was supported by the Licensee's Computerized Maintenance Management System (CMMS) (i.e SAP).



- In relation to the Asset Planning processes, this review has focused and has based its findings, observations and recommendations on the SAMP (2019-2024), AMP (2022-2023) and Asset Area Plans developed in AMPS and viewed during the site audit. In light of this, it was observed that the financial requirements of the organization, such as the costs including operation, maintenance, CAPEX, site administration, were still carried on a weekly, monthly, quarterly and 5-year basis and subsequently became the inputs into the financial models and performed as the current drivers of the SAMP and AMP. The basis of costs were the OEM recommendations, condition monitoring, SAP and Outage results and FMECA used to identify potential failures in systems and equipment. The FMECA were inclusive of risk assessments but were not included in AMPS. (Refer email from Senior Manager Energy & Retail dated 28th February 2023).
 - A major observation made during the review was that during CY 2022, the challenges with the coal supply issues focused the management team in the Perth office and BW1 operational staff onto the continued daily operation and development of strategies to manage this challenging period. This was evident from the weekly communications to the Board and the scrutiny of the coal supply chain, power generation availability and financial outcomes, in particular regard to BWPS lenders. This coal supply issues did have an impact with reduced overall generation levels of BW1 however the management and operations teams actively reviewed the asset planning and maintenance schedules.
 - AMPs were developed to align with Operational, Maintenance and Engineering (OME) activities together with BWPS Corporate Strategic and Framework. The AMPs viewed addressed the following elements: Asset management Systems, Resources and Supporting Documents, Bluewaters Strategic Plan and OME Strategic Context which included Plant Flexibility, Wholesale Electricity Market (WEM) Reform, Plant Mid-Life Refurbishment, Power Purchase Agreements, Employee Attraction and Retention, Environmental, Social, and Governance (ESG), Community Engagement, Cyber Security, Insurance and COVID-19. Internal Audit and AMS review was not referenced in the AMS documentation.
 - During the site visit BW1 demonstrated the AMS and its working, including its linkages to SAP, FMECA in the context of daily, weekly, monthly, quarterly, six monthly, yearly, outages and 5year maintenance plans. These were based on condition monitoring results and OEM recommendations. The AMPs provided did not include this information and instead relied on reference documents which were not linked to the AMS.
 - Utilizing the AMPS platform, BW1 have for the first time generated Area Asset Plans.
 - The AMPS platform was developed in mid-2021 and roll out began in 2022. There were still some outstanding aspects of the 15 Plant Area AMPs developed for example with respect to the Water Supply and Disposal Asset Area Plan sections to be completed included;
 - Section 2 RACI
 - Section 3 Documents & Drawings
 - > Section 6.1 Key Asset Information and 6.3 Registerable Plant of Section 6 Asset Information
 - > Section 7 Asset Performance, to be finalised.
 - > Section 8 Maintenance Activity Areas (elements relating to Maintenance Strategy, Resourcing and Delivery and Statutory Requirements)
 - Both the SAMP and AMP provided referred to business contingency plans and compliance registers
 - Risks that were identified from the AMS, depending on its risk assessment, were either documented in the OME Risk Register and/or Corporate Risk register.

Recommendation 04/2022: Whilst the AMPS platform has been established and has significant potential to facilitate an effective AMS, it was noted	Action: Refer 2022 PRIP
that the AMP and the SAMP included some obsolete, incomplete, inaccurate and out of date content. Additionally, the Plant Area AMPs FMECAs	
were undertaken outside the AMP and were not referenced or documented. There was no review process implemented to critically assess the	
performance of the AMS.	
In order to ensure completeness and accuracy if the AMP (and SAMP), maximise the benefits and effectiveness of the AMS and the AMPS platform the following recommendations are made:	



	Docume Observa	 akeholder with respect to each interest category defining their scope of interest. aents/Evidence – 1,3,5,7,9,12,13,24,33,34,36,39,40,43, 78, 99 and Perth Office and Site Interviews rations: The high-level obligations of the PPA with Synergy, Water Corporation, BGM and AEMO were captured within the AI Key contracts were referenced in the AMP (i.e. PPAs, Water Supply Agreement and EGL4). Planning and conducting asset outages of BW1 were conducted in consultation with in-house stakeholder, (i.e the Tr The Station Manager and the Trading Team confirmed there have been no disputes and/or complaints from their cus mendation: None 	MP and LCM rading Team and AEM	O to limit and control loss	
	Docume	 nents/Evidence – 1,3,5,7,9,12,13,24,33,34,36,39,40,43, 78, 99 and Perth Office and Site Interviews rations: The high-level obligations of the PPA with Synergy, Water Corporation, BGM and AEMO were captured within the AI Key contracts were referenced in the AMP (i.e. PPAs, Water Supply Agreement and EGL4). Planning and conducting asset outages of BW1 were conducted in consultation with in-house stakeholder, (i.e the Tr 	MP and LCM rading Team and AEM	O to limit and control loss	
	Docume	 Anticidence – 1,3,5,7,9,12,13,24,33,34,36,39,40,43, 78, 99 and Perth Office and Site Interviews Antions: The high-level obligations of the PPA with Synergy, Water Corporation, BGM and AEMO were captured within the AI Key contracts were referenced in the AMP (i.e. PPAs, Water Supply Agreement and EGL4). 	MP and LCM		
	Docume	nents/Evidence – 1,3,5,7,9,12,13,24,33,34,36,39,40,43, 78, 99 and Perth Office and Site Interviews rations: The high-level obligations of the PPA with Synergy, Water Corporation, BGM and AEMO were captured within the AI			akeholders and scored f
	Docume	ents/Evidence – 1,3,5,7,9,12,13,24,33,34,36,39,40,43, 78, 99 and Perth Office and Site Interviews			akeholders and scored i
	Docume	ents/Evidence – 1,3,5,7,9,12,13,24,33,34,36,39,40,43, 78, 99 and Perth Office and Site Interviews	,,		akeholders and scored f
	each sta	akeholder with respect to each interest category defining their scope of interest.	.,		akeholders and scored f
	-	g – Annually the Strategic Objectives were approved by the Board and set the framework for the Asset Management Placed the role of stakeholders in setting the requirements and expectations for the asset objectives. The SAMP (2019-202	•	•	
	busines	ss planning	4	Α	1
.2		ATION: Planning processes and objectives reflect the needs of all stakeholders and are integrated with	Review Priority	P&P* Rating:	Performance Rating
	>	Review AMS processes and develop and an AMS maturity roadmap to better align the corporate and site objectives.			
	>	Establish version control to better track changes within the dynamic environment Develop an internal and/or exte maintain transparency, accuracy and accountability within the organisation.	rnal audit process to		
	~	Ensure all AMPs have clearly defined responsible persons			
	>	Link AMPS platform to FMECA, SAP (CMMS) and VIKING/MYOSH (HSEQ Management Software)			
	>	Complete the Plant Area AMPs and ensure they contain adequate detail			
	1	Undertake Gap Analysis of BW1 AMS to the requirements of ISO 55000 as a minimum (not contractual agreements and Customer require good electricity industry practice which incorporates the requirements of ISO 55000)	with Western Power		
	>				



	BW1 was reported weekly, monthly and results collected and presented in the Weekly and Monthly reports and presented both to executive Management and the Board. On a quarterly basis the Station manager presented the quarterly reports to the staff.						
	on of the service levels in the SAMP was considered appropriate as they were focused on Availability rates an ancial performance of the business.	nd low Forced/Maintenance Outa	age Factor (FOF/MOF) v	which drove the asset a			
Docum	nents/Evidence – 1,3,5,7,9,12,13,24,33,34,39,40,43,80,81,99,107 and Perth Office and Site Interviews.						
Observ	Observations:						
	 Redacted PPA's were provided to determine the service levels required from the PPA's The SAMP detailed the required generation, which was in broad terms, that was that the baseline case forecast performance assumed a continuation of 18-month outages plus one mid-cycle maintenance outage, with a FOF specified which was consistent with historical performance discounted for abnormal one-off events, 						
1	 From discussions with the Station Manager and the Trading team it was determined that a daily protocol existed between the two sites to allow for optimum planning of despatches to PPA customer and STEM with balancing submissions made to AEMO daily. 						
•		isted between the two sites to al	llow for optimum planning	g of despatches to PPA			
.		o the Management Team and the	e Board on a weekly bas				
Recom	customer and STEM with balancing submissions made to AEMO daily. Copies of the Cash Flow Forecasts (including 12 weekly forecasts) were viewed as these were submitted to	o the Management Team and the	e Board on a weekly bas				
	customer and STEM with balancing submissions made to AEMO daily. Copies of the Cash Flow Forecasts (including 12 weekly forecasts) were viewed as these were submitted to weekly service levels including BWPS Coal stockpiles, BW1 generation and coal profile, BW1 financial pos	o the Management Team and the	e Board on a weekly bas				
	customer and STEM with balancing submissions made to AEMO daily. Copies of the Cash Flow Forecasts (including 12 weekly forecasts) were viewed as these were submitted to weekly service levels including BWPS Coal stockpiles, BW1 generation and coal profile, BW1 financial pos	o the Management Team and the ition and any significant incident.	e Board on a weekly bas Action: Nil	is. These reports detai			
OBLIGA	customer and STEM with balancing submissions made to AEMO daily. Copies of the Cash Flow Forecasts (including 12 weekly forecasts) were viewed as these were submitted to weekly service levels including BWPS Coal stockpiles, BW1 generation and coal profile, BW1 financial pos	o the Management Team and the ition and any significant incident. Review Priority 5 I supply chain to BW1, the Tradin	e Board on a weekly bas Action: Nil P&P* Rating: A g team have implemented	is. These reports detain Performance Rati			
OBLIGA Finding continua	customer and STEM with balancing submissions made to AEMO daily. Copies of the Cash Flow Forecasts (including 12 weekly forecasts) were viewed as these were submitted to weekly service levels including BWPS Coal stockpiles, BW1 generation and coal profile, BW1 financial pose mendation: Nil ATION: Non-asset options (e.g. demand management) are considered g – Non-asset options (e.g. demand management) were considered, for example, with the difficulties in the coal	o the Management Team and the ition and any significant incident. Review Priority 5 I supply chain to BW1, the Tradin	e Board on a weekly bas Action: Nil P&P* Rating: A g team have implemented	is. These reports deta Performance Rati 1			
OBLIGA Finding continua Docume	customer and STEM with balancing submissions made to AEMO daily. Copies of the Cash Flow Forecasts (including 12 weekly forecasts) were viewed as these were submitted to weekly service levels including BWPS Coal stockpiles, BW1 generation and coal profile, BW1 financial posi- mmendation: Nil GATION: Non-asset options (e.g. demand management) are considered g – Non-asset options (e.g. demand management) were considered, for example, with the difficulties in the coal ial supply of power to their current customers. Weekly reports were submitted to the Management and the Boa	o the Management Team and the ition and any significant incident. Review Priority 5 I supply chain to BW1, the Tradin	e Board on a weekly bas Action: Nil P&P* Rating: A g team have implemented	is. These reports detain Performance Rati			
OBLIGA Finding continua Docume	customer and STEM with balancing submissions made to AEMO daily. Copies of the Cash Flow Forecasts (including 12 weekly forecasts) were viewed as these were submitted to weekly service levels including BWPS Coal stockpiles, BW1 generation and coal profile, BW1 financial posi- mendation: Nil ATION: Non-asset options (e.g. demand management) are considered g – Non-asset options (e.g. demand management) were considered, for example, with the difficulties in the coal ial supply of power to their current customers. Weekly reports were submitted to the Management and the Boa ments/Evidence – 1,3,5,7,9,12,13,33,34,36,39,40,80, 96 and Perth Office and Site Interviews.	o the Management Team and the ition and any significant incident. Review Priority 5 I supply chain to BW1, the Tradin ard and were provided for review.	e Board on a weekly bas Action: Nil P&P* Rating: A Ig team have implemente	is. These reports detai Performance Rati 1			



	Recommendation: None		Action: Nil				
1.5	OBLIGATION: Lifecycle costs of owning and operating assets are assessed	Review Priority	P&P* Rating:	Performance Rating:			
		4	А	2			
	and CAPEX and Corporate overheads. Major works, CAPEX and OPEX were identified, and the major outages planned for un	Finding – Lifecycle costs of BW1 was reviewed with the base model commencing 2002 and then updated in 2017. For the asset life the life cycle costs included current PPA, STEM prices, all OPEX and CAPEX and Corporate overheads. Major works, CAPEX and OPEX were identified, and the major outages planned for until 2049. The AMP contained a summary asset condition and a summary of the poorly performing/critical components, detailing the future plans to replace or repair these components, either as ongoing maintenance and/or outages.					
	Documents/Evidence – 1,3,5,7,9,12,13,33,34,36,80 and Perth Office and Site Interviews.	Documents/Evidence – 1,3,5,7,9,12,13,33,34,36,80 and Perth Office and Site Interviews.					
	Observations:						
	 Alternative customers and markets were being sought to counter the potential loss of current customers. Commercially sensitive aspects have been redacted. 						
	 Summary of Life Cycle costs sighted in spreadsheets recognised outage costs based on planned maintenance cycles. 						
	 The base case financial model for the business projected the anticipated revenue, operational costs and EBITDA. 						
	Recommendation: None		Action: Nil				
1.6	OBLIGATION: Funding options are evaluated	Review Priority	P&P* Rating:	Performance Rating:			
		4	А	1			
	Finding – Costs of generation were calculated annually as part of Strategic Planning, AMP and budgeting process with the Boa cost were included in the calculation and projected for 5 years.	ard approving the final l	budgets. Future planned	CAPEX and OPEX project			
	Documents/Evidence – 57, 58, 80, 83 and Perth Office interviews						
	 All costs pertaining to BW1 were monitored and reviewed on a weekly and monthly basis. 						
	All request for expenditure identified source of funds, that being within or outside of budget and followed an authority	for expenditure appro	val process, (i.e. OME ar	nd Finance Workflow).			
	Recommendation: None		Action: Nil				



		4	A	1
	Finding – Costs were well identified and justified. Costs and cost drivers were monitored vigilantly and reported all the way to the conducted.	Board. Variances wer	e identified as part of the p	ocess and investigations
	Documents/Evidence – 7,9,12,13,24,33,39,40,57,80 and Perth Office and Site Interviews.			
	Observations: The LCM costs provided justification and included site management and staffing costs (i.e. non O&M Costs - OPEX), total cost of generation (\$/MWh), fixed and variable operating and maintenance costs (O&M), fuel costs and tax costs	-	osts, CAPEX (i.e. outage c	osts), financing costs,
	Recommendation: None		Action: Nil	
1.8	OBLIGATION: Likelihood and consequences of asset failure are predicted	Review Priority	P&P* Rating:	Performance Rating:
		4	В	2
	AMPs. Asset failures were included in the OME Risk register, using VIKING MYOSH. In viewing the OME Risk Register it was id measures were non-specific or measurable and monitoring of the risks needed improvement. It was difficult to assess what co instances the residual risk had been determined, however, the controls were planned and not currently implemented. Documents/Evidence – 1,3,5,7,9,12,13,24,33,40,43,57,80,81,94,107, 110 and Perth Office and Site Interviews.	-		-
	Observations:			
	 Operations had identified that they had to constantly address blockages in the ash transmitter almost on a weekly ba section baskets which was causing these blockages. As a result, the engineering submitted an AFE for CAPEX that External consultant engaged to perform condition inspection and recommend repair options, notably for the turbine a 	followed through a we		t of erosion in the cold
	 Thorough inspections of assets were undertaken during audit period and detailed asset condition reports including in Critical Spares were identified and to ensure these were well maintained at the required levels and readily available full CAPEX business cases. 	•	•	cted in 2021/2022 with a
	 At Site, personnel demonstrated that at daily meetings, when SAP workorders were received it went through a Not maintenance schedule or FMECA process. 	ification Notice priority	v process where it was ass	signed to the appropriate
	Examples where residual risk determined where controls not implemented include Risk ID critical system failure 109	and the coal supply ris	sks 204, 195 and 115	
	Recommendation: None		Action: Nil	



1.9 OE	BLIGATION: Asset management plan is regularly reviewed and updated	Review Priority	P&P* Rating:	Performance Rating:		
		4	В	3		
the	inding – During the audit period the AMP was not regularly reviewed. The AMP was reviewed in September 2019 when it was redefined as the SAMP (2019-2024) and external consultants finalised the development of the AMS. Thereafter, BWPS changed its strategic direction in its asset management planning systems with the decision to not proceed with the consultants AMS and to instead evelop and implement the AMPS platform for Plant Area AMPs. An AMP for the period 2022-2023 was developed in December 2022.					
	e Power Station Manager indicated that the Plant Area AMPs were reviewed as part of the Asset Management Planning Cyc cumented. As detailed previously, the SAMP and the AMP have not been regularly reviewed and updated or audited for accu		,	r, these reviews were not		
Do	cuments/Evidence – 1,3,5, email dated 28 th February and Perth and Site interviews.					
OI	oservations:					
	During the previous audit period the AMP was reviewed annually due to changes in strategic direction this process d	id not continue in the o	current audit period.			
	 The SAMP, the AMP and the Plant Area AMPs have not been audited in their new format since the previous audit. 					
	 AMPS was still being populated and Asset Area plans were in draft, while it contained O&M it was still being populated 	ed with respect to RAC	Ji requirements.			
	commendation 05/2022: BWPS finalise its development and implementation of the AMPS Platform and its review process idelines. Ensure the review processes for the AMS and AMPs are documented and aligned with ISO 55000 or similar as a m	•	Action: Refer PRIP 202	22		
		•	Action: Ref	fer PRIP 202		



	SET CREATION AND ACQUISITION		OVERALL EFFECT	IVENESS RATING
□ Asse □ Sele predict	ess the adequacy of policies and procedures covering the creation and acquisition of assets act a sample of asset creations/ acquisitions over the review period and confirm adequate procedures have been followed and a ted	actual costs are as	PROCESS & POLICY RATING*	PERFORMANCE RATING
	rocess – Asset creation/acquisition is the provision or improvement of assets. me – The asset acquisition framework is economic, efficient and cost-effective; it reduces demand for new assets, lowers service of	posts and improves	Α	2
	e delivery.	osis and improves		
No.	2022 REVIEW REPORT EVIDENCE/ /VERIFICATION/FINDING/ACTION			
2.1	OBLIGATION: Full project evaluations are undertaken for new assets, including comparative assessment of non-	Review Priority	P&P* Rating:	Performance Rating:
	asset options	4	Α	1
	 Observations: BW1 had in place a full project evaluation process and financial model. The project business case addressed financial and a complete risk assessment. This then followed through the OME finance and procurement workflow procedure 		0 11	
	 Asset procurement process of the Gas Air Heater Cold Baskets and Strategic Spares Shed was viewed. 			0 01
	Asset procurement process of the Gas Air Heater Cold Baskets and Strategic Spares Shed was viewed. Recommendation: None		Action: Nil	0 01
2.2		Review Priority	Action: Nil P&P* Rating:	0 01
2.2	Recommendation: None	Review Priority 4		d delegation.
2.2	Recommendation: None	4	P&P* Rating: A	d delegation. Performance Rating: 1
2.2	Recommendation: None OBLIGATION: Evaluations include all life-cycle costs Finding – CAPEX projects were evaluated for its operational life expectancy. These projects were included into lifecycle cost	4	P&P* Rating: A	d delegation. Performance Rating: 1



	Observations:						
	Lifecycle Cost Summary included in the CAPEX projections.						
	CAPEX cost summary and projections were also included in the rolling 5 year CAPEX plan commencing 2019 to 2	2024.					
	Recommendation: None		Action: Nil				
2.3	OBLIGATION: Projects reflect sound engineering and business decisions	Review Priority 4	P&P* Rating: A	Performance Rating			
	Finding – Based on the CAPEX evaluations forms projects implemented on site, such as the SAP Trading Infrastructure, M terms of engineering, business risk assessments and cost/benefit analysis. As appropriate external vendors (OEMs) were in						
	Documents/Evidence – 1,3,5,7,8,9,12,33,36,40,43,58,80 and site interviews						
	 Observations: All CAPEX evaluations followed the OME workflow and finance workflow procedures. Projects were approved as per the delegation of Authority. 						
	Recommendation: None		Action: Nil				
2.4	OBLIGATION: Commissioning tests are documented and completed	Review Priority 4	P&P* Rating: A	Performance Rating 2			
	Finding – The Site Manager confirmed all new assets and equipment were fully commissioned and tested by vendor as part of handover. Commissioning tests were included in OEM manuals provided at handover and included in SAP as required.						
	Documents/Evidence – 36,47,94, 102 and SAP						
	Observations:						
	 BW1 had in place Boiler Feed Pump and Cooling Tower Fan commissioning protocols on the BWPS intranet and 9 BWPS had in place Decommissioning Plans for BW1 (Dated 2006) 	SAP.					
	Recommendation: None		Action: Nil				



2.5	OBLIGATION: Ongoing legal / environmental / safety obligations of the asset owner are assigned and understood	Review Priority 4	P&P* Rating: B	Performance Rating: 3
	Finding – The Licensee has established Risk and Compliance processes to address some legal obligations, however these processes highlighted inclusion of EGL4 renewal, the AMS and Performance Audit only. It was noted there was the absence Obligation 124 reporting of annual compliance report by 31 August, annual reporting standing data), allocation of ineffective of through the implementation of treatment plans. There were no internal monitoring and review processes evident other than a detailed in Obligation 106 – Appendix 1).	ce of other complian	ce requirements in the regis	ster (for example, EGL04 ure the mitigation of risks
	Whilst it was noted the Risk Management Process considered compliance obligations as part of the risk assessment matrix, ir did not demonstrate this was well implemented (refer examples risk 109 detailed in Obligation 106 and the coal supply risks plans, effective management review of risks and delegatory signoffs of risks were not demonstrated.	-		
	It was understood the Safety, O&M and legal obligations that were entered into SAP and/or Viking-MYOSH were prompted a Corporate compliance requirements were also prompted as such however these, depending on their risk assessment, were a	•		Person until completed.
	Compliance was dependent on the identification of the compliance obligation, the inclusion of the requirement within the app its legal requirement was fulfilled and the training and awareness of the employees to ensure statutory tasks were not archiv task, for example statutory inspection.			
	Another example identified was related to the coal supply issue and the subsequent development of the Coal Conservation a financial risks and legal obligations during the review period. It was understood that due to limited resources the RACC was mitigate the potential coal supply risks. It was noted that the Risk Register referenced the Coal Supply Issues (refer Doc No 2 included in the Risk Register in December 2022 and January 2023 and risk 115 was which addressed Coal Supply Constraints the consideration of coal supply issues and associated risks and a potential glitch in the Viking system was suggested as leading Register does not reference the Coal Supply requirements.	as suspended for 20 04, 195 and 115) bu was identified in Sep	22 to allow specialised proje tt both risks 204 and 195 app otember 2018. Evidence was	ects to be established to beared to only have been provided to demonstrate
	This may be attributable to compliance being driven by the tacit knowledge and expertise of employees, the disconnect betwee (refer obligation 106 as an example) contained within the primary systems to achieve compliance (i.e the Risk Register and C	•	•	quality of the information
	Documents/Evidence - 1,2,5,7,8,9,18,22,24,36,40,57,58,69, 110 and Perth and interview Executive General Manager - Con	nmercial		



Observ	ations:	
•	AMP identified safety, environmental and operational risks and some of these were included in the Corporate and/or Site Risk Register	
•	Compliance processes were established and reporting in relation to environmental obligations was undertaken. Performance was in ge employees and not specifically the strength of the systems and the controls applied. Refer example in obligation 106 (Appendix 1).	neral attributable to tacit knowledge of the
•	On a quarterly basis the Management presented to the Board health, safety, environmental, Regulatory, Strategic and Governance obl OSH Act, privacy Act and AEMO legal requirements.	igations, for example WEM Regulatory update
•	Risk Audit and Compliance Committee (RACC) was reinstated by the Board in October 2022. It was originally established in 2019 and Board. Board Directors form members of this Committee. The RACC was suspended during 2022 as Board oversight through the quar and lender involvement in the business on a weekly basis. Evidence of Board involvement from documented confidential processes was	terly RACC meeting was replaced by active bo
	BWPS does have in place Health and Safety Policy and Environmental Policy	
	Safety meetings were held on site monthly.	
A - -	Is complete (i.e. fields that are required are not left empty, refer examples observed:) Active/Inactive, Date Risk Identified,	
-	Date Risk Identified,	
-	Strategic Risk Owner, Risk Owner,	
-	Describe the controls we already have in place,	
-	Strategic Controls Owner,	
-	Controls Owner,	
-	What are the potential impacts with the controls applied?,	
-	Residual Risk Rating,	
-	•	
-	Is this risk acceptable?	
-	Is this risk acceptable? Treatment Option,	
-	Is this risk acceptable? Treatment Option, Treatment Plan Required	
- - -	Is this risk acceptable? Treatment Option, Treatment Plan Required Effective in mitigating risks	
-	Is this risk acceptable? Treatment Option, Treatment Plan Required	
- - - -	Is this risk acceptable? Treatment Option, Treatment Plan Required Effective in mitigating risks Contains measurable controls that can be independently assessed (i.e include specifics such as document number, SAP routine,	
	Is this risk acceptable? Treatment Option, Treatment Plan Required Effective in mitigating risks Contains measurable controls that can be independently assessed (i.e include specifics such as document number, SAP routine, compliance obligation references, etc)	



The reconvening of the RACC to oversee the risk management process is recommended to proceed as planned by the Licensee in February 2023.	
The SAMP detailed the role of risk as an input to the Asset Management Planning Cycle (refer SAMP 2019-2024 figure 5) but did not specifically highlight compliance processes. The interdependence of the Risk and Compliance Register should also be considered in the review process, and this could be achieved through interrogating the Risk Register for risks with compliance inherent risk rating and ensuring these are captured in the Compliance register and vice versa.	



3. ASS	SET DISPOSAL		OVERALL EFFEC	TIVENESS RATING
 Assess the adequacy of policies and procedures covering the identification of under-performing assets, disposal of assets and replacement strategy Determine whether a regular review of the performance of assets is undertaken Select a sample of disposals over the review period and confirm adequate procedures have been followed 		PROCESS & POLICY RATING*	PERFORMANCE RATING	
Outco	rocess – Asset disposal is the consideration of alternatives for the disposal of surplus, obsolete, under-performing or unserviceable me – The asset management framework minimises holdings of surplus and underperforming assets and lowers service costs. ost-benefits of disposal options are evaluated.	assets.	А	1
No.	2022 REVIEW REPORT EVIDENCE/ /VERIFICATION/FINDING/ACTION	_		
3.1	OBLIGATION: Under-utilised and under-performing assets are identified as part of a regular systematic review process	Review Priority	P&P* Rating:	Performance Rating:
		4	Α	1
	 Finding – Systematic inspections and reviews of any incidents of the power station were reported in SAP and discussed at Daily Log any underperforming assets were prioritised and Notification Notice produced either for the Maintenance and/or Engineering Depart Documents/Evidence – 1,3,5,7,9,12,13,33,36,40,43,57,80 and 94 Observations: Power Plant has been well established and operating. 		•	• •
	 Performance of Assets were monitored as per the condition monitoring and maintenance schedules. 			
	 Maintenance and Engineering reports were prepared weekly and monthly and were also presented to Board quarterly. 			
	 Asset Management Plans and Financial models projected CAPEX projects for the next 5 years on a rolling basis. 			
	 Replacement of asset components were due to condition, wear and tear and obsolescence identified through asset plane 	ning and condition m	onitoring.	
	Recommendation: None		Action: Nil	



3.2	OBLIGATION: The reasons for under-utilisation or poor performance are critically examined and corrective action o disposal undertaken	r Review Priority 4	P&P* Rating: A	Performance Rating: 1
	Finding – During the review period BW1 was being underutilised as a result of the Coal Supply Chain issues and due to BWPS budget availability however its capacity factor was reduced due to the lower utilisation. Given the operating circumstances, BW undertook corrective action.		-	
	Documents/Evidence – 1,3,5,7,9,12,13,33,36,40,43,57,80, 94 and site interviews			
	 Observations: Asset disposal requirements were incorporated into the financial planning on a rolling 5-year basis. Corrective actions were discussed at daily, weekly and monthly meetings between Engineering and Maintenance depart 	rtments.		
	Internal expertise, OEM suppliers and consultants were used for root cause analysis (FMECA) and corrective action.			
	Recommendation: None		Action: Nil	
9.3	OBLIGATION: Disposal alternatives are evaluated	Review Priority 4	P&P* Rating: A	Performance Rating
	Finding Assets that were identified to be removed followed a structured procedure with appropriate delegation sign offs			
	Documents/Evidence – 1,3,5,36 76,80, 110			
	 Observations: The following assets were removed from site and followed the required process: Disposal of Mill rollers, battery and sc 	rap metal.		
	Recommendation: None		Action: Nil	
3.4	OBLIGATION: There is a replacement strategy for assets	Review Priority	P&P* Rating:	Performance Rating
	Finding – There was in place a rolling 5 year Capital Expenditure and Strategic Spares Budget and a 5 year SAMP (from 2019 site and stock levels maintained by onsite personnel. All replacements were made on condition derived from inspection, failure a		A ed all critical spares. Cl	1 ritical spares were held o
	Documents/Evidence – 1,3,5,7,9,12,13,33,40,43,57,80 and 94			



 Observations: During the audit period BWPS constructed a Strategic Spares shed to ensure that spares were secure and if needed, readily available. Weekly and Monthly meetings tracked the availability and delivery of strategic spares for planned work and outages. 	
Recommendation: None	Action: Nil



4. EN\	/IRONMENTAL ANALYSIS		OVERALL EFFECT	IVENESS RATING
 Review achievement of performance and service standards over the review period Investigate any statutory or regulatory breaches and assess corrective action taken Review the adequacy of reporting and monitoring tools 		PROCESS & POLICY RATING*	PERFORMANCE RATING	
-	rocess – Environmental analysis examines the asset management system environment and assesses all external factors affecting the gement system.	asset		
	me – The asset management system regularly assesses external opportunities and threats and identifies corrective action to maintain ements.	performance	В	2
No.	2022 REVIEW REPORT EVIDENCE/ /VERIFICATION/FINDING/ACTION			
4.1	OBLIGATION: Opportunities and threats in the asset management system environment are assessed	Review Priority 2	P&P* Rating: B	Performance Rating:
				3
	Finding – From July 2021 to September 2021 BW1 experienced difficulties in its coal supply chain and utilised its stockpile managem faced major issues in coal supply chain which was resultant in its coal supplier Griffin Coal Mining Company being put into Receive mitigate threats to the strategic planning of their Asset Management System. These included:	•		
	 Coal Conservation Strategy: This primarily involved coal stockpile management. Trading Strategy involving AEMO and utilising third party bi-lateral relationship and wholesale market purchases to ensure Continued reassessments of its maintenance schedules of power plant equipment. 	continual supply of p	oower to customers.	
	In all the measures implemented risk management and assessments have been applied to ensure assets were being well managed weekly cash flow analysis with updates on the implementation of the strategies.	and controlled. In a	addition, the Board and	Management received
	While strategic opportunities and threats were well managed, limitations to the effectives of the AMS for monitoring of risks and co criteria 2.5.	mpliance processes	s have been highlighted	in asset management
	Increased network connection of renewables and potential expiry of current PPA's were recognised as threats by the Board in the interviews. As a result, BW1 were focussed on ensuring compliance with WEM and exploring new opportunities for PPAs with potential explores the second sec	-	ell as being conveyed b	y management during
	Documents/Evidence – 1,3,5,12,13,24,34,39,40,57,58,80 and Perth and interview Executive General Manager – Commercial			
	Observations:			



-	Given the recent Coal Supply issues and the potential expiry of current PPA customers, BW1 has been vigilant in incorpora (Commercial Sensitivity)	ating these into their	5 year and Life cycle fina	ancial models.
-	SAMP, AMP and financial budgets were developed collaboratively developed with inputs of both corporate and site person	nel.		
-	Site and Corporate Risk Registers have included the threat to Coal, Water and Ash supply chain but lacked detailed risk tre 2.5)	eatment mitigation m	neasures (refer in asset	management crite
	Strategic Plans to the Board, presented quarterly provided updates on the changes in the operating environment, addressi	ng coal. water. ash a	and any regulatory matte	rs.
-	It was noted that risk to the business for ash disposal was not contained in the risk register.	3	,,,,,,,,,,,,,,,,,,,,	
Recom	mendation 07/2022: Refer recommendation 06/2022 (Appendix 2 – Ref 2.5)		Action: Refer 2022 PF	RIP
OBLIG/ and acl	ATION: Performance standards (availability of service, capacity, continuity, emergency response, etc.) are measured nieved	Review Priority 2	P&P* Rating: A	Performance Rating: 2
capture BWPS Manage	7. AEMO was also consulted during these matters. KPI's were included in the AMP and all operational and financial reporting d in the annual operations and financial reports. had in place an Emergency Response Plan and Business Continuity and Disaster Recovery Framework (BCDRF). The ement Program and in particular what defined a crisis and how BWPS could manage the Crisis. A debrief workshop was he d actions. Since then, there has been no evidence of any further testing of the BCDRF. There was an ineffective and inefficier	BCDRF was tested eld during that time	in July 2019. This invo but there was no eviden	lved testing the C
Docum				ent Actions and the
	ents/Evidence – 1,3,5,7,9,16,22,24,26,36,40,42,57,58,108, 110 and Perth and Site Interviews.			ent Actions and the
Observ	ents/Evidence – 1,3,5,7,9,16,22,24,26,36,40,42,57,58,108, 110 and Perth and Site Interviews.			
Observ •	ents/Evidence – 1,3,5,7,9,16,22,24,26,36,40,42,57,58,108, 110 and Perth and Site Interviews. ations: All operational, maintenance, health, safety, environmental, governance and trading performance standards were measure	ed and reported weel	kly, monthly and quarterl	
Observ •	ents/Evidence – 1,3,5,7,9,16,22,24,26,36,40,42,57,58,108, 110 and Perth and Site Interviews. ations: All operational, maintenance, health, safety, environmental, governance and trading performance standards were measure management and the Board. The quarterly Board reports did contain performance measures on any incidents and relevant mitigation measures that we	·		y to both the
Observ •	ents/Evidence – 1,3,5,7,9,16,22,24,26,36,40,42,57,58,108, 110 and Perth and Site Interviews. ations: All operational, maintenance, health, safety, environmental, governance and trading performance standards were measure management and the Board. The quarterly Board reports did contain performance measures on any incidents and relevant mitigation measures that we were also reported to the Board in quarterly meetings.	·		y to both the
	ents/Evidence – 1,3,5,7,9,16,22,24,26,36,40,42,57,58,108, 110 and Perth and Site Interviews. ations: All operational, maintenance, health, safety, environmental, governance and trading performance standards were measure management and the Board. The quarterly Board reports did contain performance measures on any incidents and relevant mitigation measures that we	·		y to both the
	 ents/Evidence – 1,3,5,7,9,16,22,24,26,36,40,42,57,58,108, 110 and Perth and Site Interviews. ations: All operational, maintenance, health, safety, environmental, governance and trading performance standards were measure management and the Board. The quarterly Board reports did contain performance measures on any incidents and relevant mitigation measures that we were also reported to the Board in quarterly meetings. Capacity and emissions testing were carried out routinely and reported accordingly. 	·		y to both the

 Bivit did nave in place an Emergency Response Plan however there was no evidence of any scenario simulations and/or drills. During the site that only evacuation drills had been conducted.



	Recommendation: Nil		Action: Nil	
4.3	OBLIGATION: Compliance with statutory and regulatory requirements	Review Priority 4	P&P* Rating: B	Performance Rating: 3
	Finding – BW1 submitted Compliance Reports to ERA during the Audit report. With respect to its statutory obligations, BWPS did ac process of implementing and fulfilling the requirements of the Privacy Act, WEM Regulations and conducting a Critical Infrastructure Ris assets. Awareness to the compliance requirements and achievement of the compliance out was noted to be attributable primaril necessarily driven by the systemic processes of the AMS.	sk Management Fra	mework for the Register	of Critical infrastructur
	Whilst it was acknowledged the Board were aware of compliance requirements, a deficiency of the AMS was noted with respect to achieving compliance outcomes. The lack of an internal monitoring and audit process was noted to be a deficient aspect of the organ			Compliance Register
	Documents/Evidence 58,69,70,71,72,73,			
	 Observations: BW1, through its governance process had established a process whereby regulatory obligations were identified and impler to the Board. 	mented. These were	then reported in monthl	y and quarterly report
	 BW1, through its governance process had established a process whereby regulatory obligations were identified and impler 	mented. These were	then reported in monthl Action: Refer 2022 P	
.4	 BW1, through its governance process had established a process whereby regulatory obligations were identified and impler to the Board. 	mented. These were Review Priority 4		RIP Performance Rating:
4	BW1, through its governance process had established a process whereby regulatory obligations were identified and impler to the Board. Recommendation 08/2022: Recommendation 01/2022 (Refer Appendix 1 – 103) OBLIGATION: Service standard (customer service levels etc.) are measured and achieved. Finding – Service levels were defined and measured in the customer PPA's. Monthly Operations Reports detail actual and budgeted	Review Priority 4	Action: Refer 2022 P P&P* Rating: A	RIP Performance Rating: 1
4	 BW1, through its governance process had established a process whereby regulatory obligations were identified and impler to the Board. Recommendation 08/2022: Recommendation 01/2022 (Refer Appendix 1 – 103) OBLIGATION: Service standard (customer service levels etc.) are measured and achieved. Finding – Service levels were defined and measured in the customer PPA's. Monthly Operations Reports detail actual and budgeted Documents/Evidence – 57,58,80 	Review Priority 4	Action: Refer 2022 P P&P* Rating: A	RIP Performance Rating: 1
4	 BW1, through its governance process had established a process whereby regulatory obligations were identified and impler to the Board. Recommendation 08/2022: Recommendation 01/2022 (Refer Appendix 1 – 103) OBLIGATION: Service standard (customer service levels etc.) are measured and achieved. Finding – Service levels were defined and measured in the customer PPA's. Monthly Operations Reports detail actual and budgeted Documents/Evidence – 57,58,80 Observations: 	Review Priority 4	Action: Refer 2022 P P&P* Rating: A	RIP Performance Rating: 1
4	 BW1, through its governance process had established a process whereby regulatory obligations were identified and impler to the Board. Recommendation 08/2022: Recommendation 01/2022 (Refer Appendix 1 – 103) OBLIGATION: Service standard (customer service levels etc.) are measured and achieved. Finding – Service levels were defined and measured in the customer PPA's. Monthly Operations Reports detail actual and budgeted Documents/Evidence – 57,58,80 Observations: Service Levels were specified in Power Purchase Agreements (PPA's) 	Review Priority 4	Action: Refer 2022 P P&P* Rating: A	RIP Performance Rating: 1
4	 BW1, through its governance process had established a process whereby regulatory obligations were identified and impler to the Board. Recommendation 08/2022: Recommendation 01/2022 (Refer Appendix 1 – 103) OBLIGATION: Service standard (customer service levels etc.) are measured and achieved. Finding – Service levels were defined and measured in the customer PPA's. Monthly Operations Reports detail actual and budgeted Documents/Evidence – 57,58,80 Observations: Service Levels were specified in Power Purchase Agreements (PPA's) Service levels were well defined in the contracts and reported on weekly, monthly and quarterly to the Board. 	Review Priority 4	Action: Refer 2022 P P&P* Rating: A	RIP Performance Rating: 1
4	 BW1, through its governance process had established a process whereby regulatory obligations were identified and impler to the Board. Recommendation 08/2022: Recommendation 01/2022 (Refer Appendix 1 – 103) OBLIGATION: Service standard (customer service levels etc.) are measured and achieved. Finding – Service levels were defined and measured in the customer PPA's. Monthly Operations Reports detail actual and budgeted Documents/Evidence – 57,58,80 Observations: Service Levels were specified in Power Purchase Agreements (PPA's) 	Review Priority 4	Action: Refer 2022 P P&P* Rating: A	RIP Performance Rating: 1



5. ASS	SET OPERATIONS		OVERALL EFFEC	TIVENESS RATING
□ Ass □ Con analys	ess the adequacy of policies and procedures covering operations functions ess the adequacy of staff resourcing and training firm the policies and procedures have been followed during the review period by examining the asset register, observing opera- sing costs, etc. ess the significance of exceptions identified and whether adequate corrective action has been taken	tional procedures,	PROCESS & POLICY RATING*	PERFORMANCE RATING
Key P	rocess – Asset operations is the day-to-day running of assets (where the asset is used for its intended purpose).		Α	2
	ome – The asset operation plans adequately document the processes and knowledge of staff in the operation of assets so serv stently achieved.	ice levels can be		
No.	2022 REVIEW REPORT EVIDENCE/ /VERIFICATION/FINDING/ACTION		•	
				Derfermence Detine
5.1	OBLIGATION: Operational policies and procedures are documented and linked to service levels required	Review Priority	P&P* Rating:	Performance Rating
5.1	Finding – BW1 operation has been well established and as such has well developed key operational systems, processes a	4 nd documents to ensu	A Ire service levels are ac	1 hieved. The SAMP, AM
5.1		4 nd documents to ensu	A ire service levels are ac utages factored in. OEM	1 hieved. The SAMP, AM
5.1	Finding – BW1 operation has been well established and as such has well developed key operational systems, processes a and Life Cycle Costings Model (LCCM) detailed the operational performance against targeted budget performance with all plan procedures were readily accessible from the intranet. Operating performance levels were monitored and reported regularly in	4 Ind documents to ensu- ned and unplanned o monthly reports by th eam and AEMO. chedule. ng Team. In addition, t	A Irre service levels are ac utages factored in. OEM e Station Manager.	1 hieved. The SAMP, AM manuals and operation
5.1	 Finding – BW1 operation has been well established and as such has well developed key operational systems, processes a and Life Cycle Costings Model (LCCM) detailed the operational performance against targeted budget performance with all plan procedures were readily accessible from the intranet. Operating performance levels were monitored and reported regularly in Documents/Evidence – 1,3,5,30, 33,36,40,57,58,80,106, 110 Observations: Plant availability was monitored daily and concurrently projected for every 2 days in conjunction with the Trading Te Major and Minor CAPEX projects were detailed and assessed in the rolling 5 Year CAPEX and Strategic Spares so Critical alarms listing in SCADA and DCS (P1 and P2) linked to required service levels as determined by the Tradin with AEMO. Daily, Weekly and Monthly reports detailed operational parameters. Weekly and Quarterly reports were presented 	4 Ind documents to ensu- ned and unplanned o monthly reports by th eam and AEMO. chedule. ng Team. In addition, t	A Irre service levels are ac utages factored in. OEM e Station Manager.	1 hieved. The SAMP, AM manuals and operation
5.1	 Finding – BW1 operation has been well established and as such has well developed key operational systems, processes a and Life Cycle Costings Model (LCCM) detailed the operational performance against targeted budget performance with all plan procedures were readily accessible from the intranet. Operating performance levels were monitored and reported regularly in Documents/Evidence – 1,3,5,30, 33,36,40,57,58,80,106, 110 Observations: Plant availability was monitored daily and concurrently projected for every 2 days in conjunction with the Trading Te Major and Minor CAPEX projects were detailed and assessed in the rolling 5 Year CAPEX and Strategic Spares so Critical alarms listing in SCADA and DCS (P1 and P2) linked to required service levels as determined by the Tradin with AEMO. Daily, Weekly and Monthly reports detailed operational parameters. Weekly and Quarterly reports were presented operating parameters. 	4 Ind documents to ensu- ned and unplanned o monthly reports by th eam and AEMO. chedule. ng Team. In addition, t	A Ire service levels are ac utages factored in. OEM e Station Manager. he control room also ha reports also included a 1	1 hieved. The SAMP, AM manuals and operation



	Finding – BW1 Has in place operational process whereby the priorities on the Alarms utilises the BWPS Risk Management Framew the operational priorities, in particular the planning of outages and probable extensions of outages. These established documents, p operational tasks. Onsite operation and maintenance staff were qualified and experienced to understand the operational risks and p practicable and maintain safe and efficient operation of BW1	processes and s	ystems assist BW1 in re	educing the risk of
	Documents/Evidence – 24,33,36,40,108, 110 and Site Interviews			
	Observations:			
	 Approval to Take Unit Offline procedure sighted. This procedure was to change the date of a scheduled outage from Octor this change. Subsequently the delay in outage had an adverse impact on the certification of the Boiler. A complete risk as Boiler Inspector (ALS) and BWPS operational and engineering personal in order to extend the certification from 18 month February). 	ssessment was o	arried out between the	OEM, Independent
	ropriate meetings, that DME Risk Register was vated to the Corporate F	also sighted but lacked		
	Recommendation: None		Action: Nil	
5.3	OBLIGATION: Assets are documented in an asset register including asset type, location, material, plans of components, and an assessment of assets' physical/structural condition	eview Priority 4	P&P* Rating: A	Performance Rating: 1
	Finding – BW1 uses the KKS system which has a unique identifier number for each asset and was recorded in SAP. During the site orders, the history of the asset in terms of its location could be traced. Within SAP, utilizing the KKS number was effective in dia demonstrated via the SAP system, asset KKS numbers could also provide sight of upcoming maintenance works The AMP system provided additional information on the condition of the assets.	lisplaying its ass	et condition and work of	order history. Also it was
	Documents/Evidence – AMP and SAP (viewed on site), 3,5,13 45,80			
	 Observations: New assets are added to SAP. It was noted that the financial asset register and the KKS register were not aligned and this could be an improvement for one Financial Asset register recorded the Life cycle costing of the assets and applicable depreciation. 	opportunity.		
	Recommendation: None		Action: Nil.	



5.4	OBLIGATION: Accounting data is documented for assets	Review Priority	P&P* Rating:	Performance Rating:
		4	A	1
	Finding – Assets were well documented in the accounts and financial reports summarised monthly. Financial reports to Boards asset register detailed acquisition and retirement date, capital costs, depreciation rate and write-off of assets. This was utlised	•		ation contained within the
	Documents/Evidence – 45, 57,58 and 80			
	Observations:			
	Financial information well recorded and reported to Board.			
	Annual audited accounts and accompanying notes detailed accounting information and explanations.			
	Recommendation: None		Action: Nil	
5.5	OBLIGATION: Operational costs are measured and monitored	Review Priority	P&P* Rating:	Performance Rating:
		4	Α	1
	Finding – The Station Manager confirmed daily, Weekly and Monthly Generation reports detailed the generation budgets and captured in this report. These were presented to all management and Board members. The monitoring of the operational costs			this due to outages were
	Documents/Evidence – 36,40,43,57,58,76, 80			
	Observations:			
	• From the operational data, cash flow analysis, including revenue and costs were generated (utilizing QLIK) and prese	ented to Manageme	nt and Boards. These ca	sh flow analysis
	included actual data and projected for 12 weeks.			
	Delegation of Authority processes were established and confirmed during the site visits.			
	Recommendation: None		Action: Nil	
5.6	OBLIGATION: Staff resources are adequate, and staff receive training commensurate with their responsibilities	Review Priority	P&P* Rating:	Performance Rating:



Finding – BWPS utilizes Viking to record all their staff's qualifications, training documentation and required competencies. Training records were maintained, and overdue training followed through. The Station Manager confirmed adequate staff were always available onsite (or on call) to perform the operating, planned maintenance routines and react to corrective requirements. All staff brought on were required to have minimum qualification requirements. The Station Manager did confirm that they have experienced in-house engineering support and have also engaged external resources as required.

Documents/Evidence – 36,40, Training module and register in Viking and Email dated 14th February.

Observations:

- New staff receive job descriptions which include personal KPI's and received a comprehensive induction.
- Training records in Viking.
- Human Resources demonstrated vis Intranet the required training modules specific to BWPS.
- Service Providers and specific expertise were sourced for outages and technical projects as required.
- Viewed training modules on Cyber Security.
- Upcoming training also identified in Monthly Communications Presentation meetings.

Recommendation: None

Action: Nil



			OVERALL EFFE	CTIVENESS RATING	
ConfAsse	ess the adequacy of policies and procedures covering maintenance functions irm the policies and procedures have been followed during the review period by examining maintenance schedules, analysing iss the significance of exceptions identified and whether adequate corrective action has been taken ocess – Asset maintenance is the upkeep of assets.	costs, etc.	PROCESS & POLICY RATING*	PERFORMANCE RATING	
	ne – The asset maintenance plans cover the scheduling and resourcing of the maintenance tasks so work can be done on tirr	ne and on cost.	Α	2	
No.	2022 REVIEW REPORT EVIDENCE//VERIFICATION/FINDING/ACTION	I	I		
6.1	OBLIGATION: Maintenance policies and procedures are documented and linked to service levels required	Review Priority	P&P* Rating:	Performance Rating:	
		4	А	2	
	as per the maintenance schedules.		ut on agreed requenc	y and/or operating hour	
	as per the maintenance schedules. Additional safety procedures such as the Lock Out Tag Out procedures were provided in addition to the monitoring and insp Documents/Evidence – 1,3,5,12,13,22,24,33,34,36,40,94,107 and intranet 'OME"		ut on agreed frequenc	y and/or operating hour	
	Additional safety procedures such as the Lock Out Tag Out procedures were provided in addition to the monitoring and insp	pection procedures.			
	Additional safety procedures such as the Lock Out Tag Out procedures were provided in addition to the monitoring and insp Documents/Evidence – 1,3,5,12,13,22,24,33,34,36,40,94,107 and intranet 'OME" Observations: • Maintenance policies, procedures and activities were primarily based on the OEM's recommendations and varied a	pection procedures. as per the results of condition		,	
	 Additional safety procedures such as the Lock Out Tag Out procedures were provided in addition to the monitoring and insp Documents/Evidence – 1,3,5,12,13,22,24,33,34,36,40,94,107 and intranet 'OME" Observations: Maintenance policies, procedures and activities were primarily based on the OEM's recommendations and varied a with the OEM and operation requirements. 	pection procedures. as per the results of condition er".	n monitoring. This was d	carried out in consultation	
	 Additional safety procedures such as the Lock Out Tag Out procedures were provided in addition to the monitoring and inspective determinance of the second second	pection procedures. as per the results of condition er".	n monitoring. This was d		
	 Additional safety procedures such as the Lock Out Tag Out procedures were provided in addition to the monitoring and inspective of the monitoring and inspective of the monitoring and the monitori	pection procedures. as per the results of condition er".	n monitoring. This was d	carried out in consul	



5.2	OBLIGATION: Regular inspections are undertaken of asset performance and condition	Review Priority 4	P&P* Rating: A	Performance Rating: 1
	Finding – Maintenance plans for regular inspections were contained in SAP and conducted as per frequency determined by results of inspections were documented and saved against SAP work orders. SCADA continuously monitored the performant at daily maintenance meetings and weekly, engineering, and technical meetings.			•
	 Documents/Evidence – 1,3,5,12,13,22,24,33,34,36,40,94,107 and intranet 'OME" Observations: Daily maintenance activities, including condition monitoring and inspections were recorded in SAP. These were maintenance activities were prioritised and further prioritised as per notification Notices. These notices were then 		0	,
ľ	P1 and Ex-quantum were used to analyse the condition monitoring data and trends.			
	Recommendation: None		Action: Nil	
.3	OBLIGATION: Maintenance plans (emergency, corrective and preventative) are documented and completed on	Review Priority	P&P* Rating:	Performance Rating
	schedule	4	А	1
ſ	Finding – Scheduled maintenance performed was performed as per OEM requirements and SAP maintenance schedules.	•	and Daily maintenance	e meetings prioritised
	Notification Notices and these were then implemented and followed. All maintenance activities were reported weekly and me quarterly reports. If there were any deviations from the maintenance schedule, for example delay in outages to perform major out an risk assessment and rescheduled the maintenance activities. For example, delay in outage had an adverse impact or out between the OEM, Independent Boiler Inspector (ALS) and BWPS operational and engineering personal in order to exter email dated 14 th February). This was then documented and rescheduled.	or compliance and/or maint the certification of the Boi	enance schedules, the ler. A complete risk as	e site personnel carried ssessment was carried
	quarterly reports. If there were any deviations from the maintenance schedule, for example delay in outages to perform major out an risk assessment and rescheduled the maintenance activities. For example, delay in outage had an adverse impact or out between the OEM, Independent Boiler Inspector (ALS) and BWPS operational and engineering personal in order to exter	or compliance and/or maint the certification of the Boi and the certification from 18	enance schedules, the ler. A complete risk as	e site personnel carried ssessment was carried
	quarterly reports. If there were any deviations from the maintenance schedule, for example delay in outages to perform major out an risk assessment and rescheduled the maintenance activities. For example, delay in outage had an adverse impact or out between the OEM, Independent Boiler Inspector (ALS) and BWPS operational and engineering personal in order to exter email dated 14 th February). This was then documented and rescheduled.	or compliance and/or maint in the certification of the Boi and the certification from 18 I "OME" intranet. ance Management System	enance schedules, the ler. A complete risk as months to 24 months (CMMS) (SAP) conta	e site personnel carried ssessment was carried s. (Provided separately ir ined a list of maintenanc
	 quarterly reports. If there were any deviations from the maintenance schedule, for example delay in outages to perform main out an risk assessment and rescheduled the maintenance activities. For example, delay in outage had an adverse impact or out between the OEM, Independent Boiler Inspector (ALS) and BWPS operational and engineering personal in order to exteremail dated 14th February). This was then documented and rescheduled. Documents/Evidence – 1,3,5,12,13 16,,22,24,33,34,36,40,42,58,76, 94,107, Site interviews, BWG Document Register and Observations: The SAMP outlined the objectives of maintenance and the AMPs, Asset Area Plans and the Computerised Mainten strategies or requirements from OEMs, licenses and regulations as well as internal requirements based on asset or strategies or requirements from OEMs, licenses and regulations as well as internal requirements based on asset or strategies or requirements from OEMs, licenses and regulations as well as internal requirements based on asset or strategies or requirements from OEMs, licenses and regulations as well as internal requirements based on asset or strategies or requirements from OEMs, licenses and regulations as well as internal requirements based on asset or strategies or requirements from OEMs, licenses and regulations as well as internal requirements based on asset or strategies or requirements from OEMs, licenses and regulations as well as internal requirements based on asset or strategies or requirements from OEMs, licenses and regulations as well as internal requirements based on asset or strategies or requirements from OEMs, licenses and regulations as well as internal requirements based on asset or strategies or requirements from OEMs. 	or compliance and/or maint in the certification of the Boi and the certification from 18 d "OME" intranet. ance Management System condition and performance	enance schedules, the ler. A complete risk as months to 24 months (CMMS) (SAP) conta	e site personnel carried ssessment was carried s. (Provided separately ir ined a list of maintenanc
	 quarterly reports. If there were any deviations from the maintenance schedule, for example delay in outages to perform major out an risk assessment and rescheduled the maintenance activities. For example, delay in outage had an adverse impact or out between the OEM, Independent Boiler Inspector (ALS) and BWPS operational and engineering personal in order to exterem and dated 14th February). This was then documented and rescheduled. Documents/Evidence – 1,3,5,12,13 16,,22,24,33,34,36,40,42,58,76, 94,107, Site interviews, BWG Document Register and Observations: The SAMP outlined the objectives of maintenance and the AMPs, Asset Area Plans and the Computerised Mainten strategies or requirements from OEMs, licenses and regulations as well as internal requirements based on asset or to workshops). 	or compliance and/or maint in the certification of the Boi and the certification from 18 I "OME" intranet. ance Management System condition and performance ahead.	enance schedules, the ler. A complete risk as months to 24 months (CMMS) (SAP) conta	e site personnel carried ssessment was carried s. (Provided separately in ined a list of maintenanc



	Changes to maintenance plans were documented as per the condition monitoring and any FMECA outcomes.			
	Boiler inspections have been scheduled for April 2023.			
	• Strategic spares were well identified in a rolling 5-year CAPEX and Strategic Spares Budget starting 2019.			
	• In SAP, financial authority delegation was defined, and purchase orders released. These were assigned to Depa process. Outage budgets were approved 2 years in advance.	artmental managers and the	en followed through th	e OME finance Workflor
	BW1 had in place Business Continuity and Disaster Recovery Plan, Emergency Evacuation plans, Rescue plans in pumps, primary and Secondary Air Fan and Duct	for fly ash and water contan	nination, Boiler, Main	Switchboard, Cooler Fee
	Recommendation: None		Action: Nil	
		Deview Drievity		Derfermence Beting
6.4	OBLIGATION: Failures are analysed, and operational/maintenance plans adjusted where necessary	Review Priority	P&P* Rating:	Performance Rating
.4	Finding – BW1 and the site personnel has established processes for the capture and analysis of failures and the amendme a root cause analysis and improvement cycle to failures was evident where defects, inspection results were fed into SAP ar	4 ent to operational and maint nd were identified to ongoin	A enance plans where r g outage plans to ass	1 required. Using FMECA, ist in identifying
.4	Finding – BW1 and the site personnel has established processes for the capture and analysis of failures and the amendment	4 ent to operational and maint nd were identified to ongoin	A enance plans where r g outage plans to ass	1 required. Using FMECA, ist in identifying
.4	Finding – BW1 and the site personnel has established processes for the capture and analysis of failures and the amendme a root cause analysis and improvement cycle to failures was evident where defects, inspection results were fed into SAP ar operational and/or maintenance risks and any subsequent additional maintenance activities. Budget approval was sought a Documents/Evidence – 1,3,5,12,13,22,24,33,36,34,40,43,57,80,94,107, Site interviews and "OME" intranet.	4 ent to operational and maint nd were identified to ongoin	A enance plans where r g outage plans to ass	1 required. Using FMECA, ist in identifying
.4	Finding – BW1 and the site personnel has established processes for the capture and analysis of failures and the amendme a root cause analysis and improvement cycle to failures was evident where defects, inspection results were fed into SAP ar operational and/or maintenance risks and any subsequent additional maintenance activities. Budget approval was sought a	4 ent to operational and maint nd were identified to ongoin and accordingly adjustment	A enance plans where in g outage plans to ass made to operational a	1 required. Using FMECA, ist in identifying nd maintenance plans.
.4	 Finding – BW1 and the site personnel has established processes for the capture and analysis of failures and the amendme a root cause analysis and improvement cycle to failures was evident where defects, inspection results were fed into SAP ar operational and/or maintenance risks and any subsequent additional maintenance activities. Budget approval was sought a Documents/Evidence – 1,3,5,12,13,22,24,33,36,34,40,43,57,80,94,107, Site interviews and "OME" intranet. Observations: Failures are analysed and responded to and reported in the monthly and quarterly reports by the engineering dependence. 	4 ent to operational and maint nd were identified to ongoing and accordingly adjustment in partment and in consultation	A eenance plans where is g outage plans to ass made to operational a with OEM as needed.	1 required. Using FMECA, ist in identifying nd maintenance plans.
5.4	 Finding – BW1 and the site personnel has established processes for the capture and analysis of failures and the amendme a root cause analysis and improvement cycle to failures was evident where defects, inspection results were fed into SAP ar operational and/or maintenance risks and any subsequent additional maintenance activities. Budget approval was sought a Documents/Evidence – 1,3,5,12,13,22,24,33,36,34,40,43,57,80,94,107, Site interviews and "OME" intranet. Observations: Failures are analysed and responded to and reported in the monthly and quarterly reports by the engineering deproded Case baskets, Mill gear box. During the audit interview the site personnel informed the auditors that they were in the process of aligning the term 	4 ent to operational and maint nd were identified to ongoing and accordingly adjustment in partment and in consultation	A eenance plans where is g outage plans to ass made to operational a with OEM as needed.	1 required. Using FMECA, ist in identifying nd maintenance plans.
5.4	 Finding – BW1 and the site personnel has established processes for the capture and analysis of failures and the amendme a root cause analysis and improvement cycle to failures was evident where defects, inspection results were fed into SAP ar operational and/or maintenance risks and any subsequent additional maintenance activities. Budget approval was sought a Documents/Evidence – 1,3,5,12,13,22,24,33,36,34,40,43,57,80,94,107, Site interviews and "OME" intranet. Observations: Failures are analysed and responded to and reported in the monthly and quarterly reports by the engineering deproded Case baskets, Mill gear box. During the audit interview the site personnel informed the auditors that they were in the process of aligning the foreign of Content Manager. 	4 ent to operational and maint nd were identified to ongoing and accordingly adjustment in partment and in consultation	A eenance plans where is g outage plans to ass made to operational a with OEM as needed.	Tequired. Using FMECA, ist in identifying nd maintenance plans.



Finding - The Licensee had applied risk management to maintenance tasks, and it was evident that priority was given to maintenance of critical equipment. Major works were raised, assessed through Risk Assessment process. The prioritisation was carried out in SAP and then proceeded to the Daily meeting, where after discussion a Notification Notice was assigned. The risk assessment utilised was based on the risk appetite evident in Viking and entered into the OME Risk Register. If the risk was assessed to high then it was automatically assigned to the Corporate Risk Register. Documents/Evidence - 1,3,5,12,13,22,24,33,34,36,40,43,57,58,80,81, 94,107, Site interviews and "OME" intranet. **Observations:** Critical equipment was identified in the AMP and Asset Area Plans and critical maintenance was given a shorter timeframe for date deviations. The assets were continually monitored and inspected with a comprehensive maintenance programme via CMMS called SAP. The findings from these inspections were saved to the closure of the WO Routine day to day maintenance tasks were programmed and monitored via SAP and Log Book Handover. Daily meetings discussed the outcomes of the routines and through Notification Notice process, tasks were assigned either scheduled maintenance opportunities and/or planned outages. If there was to be unplanned outage, maintenance and engineering reviewed upcoming works and scheduled, if possible, to carry out the remedial works. Maintenance risks that were on the OME Risk Register, via Viking, was also included into planned maintenance activities, for example the Cold Case baskets. However, the OME Risk Register did not show informative Risk Treatment Plans. **Recommendation: None** Action: Nil 6.6 **OBLIGATION:** Maintenance costs are measured and monitored **Review Priority** P&P* Rating: Performance Rating: 4 Α 1 Finding - The Station Manager and the Finance department confirmed daily, Weekly and Monthly Generation reports detailed the maintenance budgets and actual performance levels. Any variations to this due to outages were captured in this report. These were presented to all management and Board members. The monitoring of the maintenance costs was extensive and in-depth. Outage budgets were approved 2 years in advance with rolling 5 year CAPEX and Strategic Spares reports. Maintenance costs were viewed in life cycle costing models of BW1. Documents/Evidence - 1.3.5.12.13.22.24.33.34.36.40.43.57.58. 76. 80.81. 94.107. Site interviews and "OME" intranet. **Observations:** Delegations of Authority were established for the approval of both OPEX and CAPEX costs. Strategic Spares were well costed and planned for. Recommendation: None Action: Nil



□ Ass	SET MANAGEMENT INFORMATION SYSTEM	de management	OVERALL EFFEC	CTIVENESS RATING
🗆 Con	nation on compliance with service standards / licence obligations nfirm management reports on service standards / licence obligations are reviewed and substantial exceptions to service standa romptly followed up and implemented	ards / licence obligations	PROCESS & POLICY RATING*	PERFORMANCE RATING
Key P	Process – An asset management information system is a combination of processes, data and software supporting the asset m	anagement functions.		
	ome – The asset management information system provides authorised, complete and accurate information for the day-to-day i gement system. The focus of the review is the accuracy of performance information used by the licensee to monitor and report	U	A	1
No.	2022 REVIEW REPORT EVIDENCE/ /VERIFICATION/FINDING/ACTION		-	-
	OBLIGATION: Adequate system documentation for users and IT operators	Review Priority	P&P* Rating:	Performance Rating:
7.1			•	-
7.1	Finding – The AMS system was made of the following system: SAP (CMMS), MYOSH Viking (HSE and Risk Register), A Gallagher (Site Access Control), QLIK and Content Manager (Document Control System). These systems were viewed on intra and was available to everyone with appropriate assigned access. It was also specific to Business Units (included sub-system)	5 AMPS (SAMP, AMP and A ranet. The intranet web por	tal was the main platform	n to access all e-platforms
7.1	Finding – The AMS system was made of the following system: SAP (CMMS), MYOSH Viking (HSE and Risk Register), A Gallagher (Site Access Control), QLIK and Content Manager (Document Control System). These systems were viewed on intro	5 AMPS (SAMP, AMP and A ranet. The intranet web por	Asset Area Plans), SAGI tal was the main platform	E e-Pass (PTW System), n to access all e-platforms
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	Finding – The Licensee has established robust data verification and data validations processes, for example with respect to improvement system called QLIK was utilised to ensure that operational, financial and maintenance information was collate addition, Bluewater commenced the implementation of the Budgeting Tool "Work Day Adaptive". It was a new system that a analysis. This was integral for better decision-making.	d to accurately represent th	e overall asset informati	on to all stakeholders. In
	Documents/Evidence – Viewed IT system on site and 78, 106			
	 Observations: The Work Day Adaptive System went live November 2022. QLIK was managed by an in-house development team who had heavily configured the off-shelf product for BWPS Information System Policies, rules, procedures and forma were well established. 	5.		
	Recommendation: None	_	Action: Nil	
7.3	OBLIGATION: Security access controls appear adequate, such as passwords	Review Priority	P&P* Rating:	Performance Rating:
		4	В	1
	Finding – Computer access was limited to staff and passwords were in place which was automatically regenerated every areas and documents were provided in consultation with the correct delegations of authority, that is the Line Manager. The acquisition system have tiered access protection and some checks to ensure validity of data entry. BW 1 and BW 2 DCS's was shared. Firewalls and virus protection were in place and BWPS had also in place cyber security controls and had provided in the provided in the correct of the place and BWPS had also in place cyber security controls and had provided in the place and BWPS had also in place cyber security controls and had provided in the place and BWPS had also in place cyber security controls and had provided in the place and BWPS had also in place cyber security controls and had provided in the place and BWPS had also in place cyber security controls and had provided in the place and BWPS had also in place cyber security controls and had provided in the place and BWPS had also in place cyber security controls and had provided in the place and BWPS had also in place cyber security controls and had provided in the place and BWPS had also in place cyber security controls and had provided in the place and BWPS had also in place cyber security controls and had provided in the place and BWPS had also in place cyber security controls and had provided in the place and BWPS had also in place cyber security controls and had provided in the place and BWPS had also in place cyber security controls and had provided in the place and BWPS had also in place cyber security controls and had provided in the place and BWPS had also in place cyber security controls and had place and BWPS had also in the place and BWPS had also be place and BWPS had als	power station control room are separate, both displaye	was manned continuous ed in the control room, b	ly. The DCS and its data
	Documents/Evidence – 13,5,22, 24, 27, 28,36, 40, 58, 76, 106, and web portal on the Intranet.			
	 Observations: BWPS have commenced implementing a cybersecurity framework using the AESCSF guidelines. Training had oc The Cyber Security Rule model addressed compliance with the Privacy Act and since BW1 was registered as a c of Critical Infrastructure Act. It was in the implementation process which was also presented to the Board on a quarterial security for the security of the security for the security f	ritical infrastructure, BWPS	were following the requi	rements of the Security
	Recommendation: None		Action: Nil	
7.4	OBLIGATION: Physical security access controls appear adequate	Review Priority	P&P* Rating:	Performance Rating:
		4	Α	1



Finding - During the site visit it was confirmed access to power station site was restricted through security over entrance points and monitored through an alarm system and a continuous CCTV system. Restricted access to the power station was ensured through perimeter fencing, signage and gates with password access controls. During the site visit viewed the upgrade of the fence rear of the consolidated stockpile. Documents/Evidence – 22 and Site visits Observations: • The servers were located in East Perth, and an independent server at the Perth Office and on site with secure access by IT personnel. **Recommendation: None** Action: Nil 7.5 OBLIGATION: Data backup procedures appear adequate, and backups are tested **Review Priority** P&P* Rating: Performance Rating: В 4 1 Finding - The IT department confirmed that backup procedures were in place and tested. IT utilised Commvault e-platform as commercial backup systems. During the audit period only SAP VM testing occurred. Cyber security and IT controls were managed by head office IT and this included the one server to SAP, and independent servers in Perth and Site. Data centre located in East Perth backed critical systems such as SAP, Oracle, File services and Viking in iCloud. The intranet web portal was backed on iCloud. The IT Manager confirmed backups occurred daily. Documents/Evidence – 22,24, 28, 110 email dated 14th February, BWG Document Register, Site Interviews Observations: Records of the testing of the SAP were provided. • No other testing of the backup procedures was provided for review, confirmation was verbal by IT Department. IT Disaster Recovery Plan was documented but not tested. Awareness to the Australian Energy Sector Cyber Security Framework (AESCSF) and Privacy Act was also noted. . Monthly reports generated by the Monthly help desk to IT to raise and IT addressed issues. Risks were also included in OME and Corporate Risk Registers. ٠ IT carried out backups daily, weekly and monthly, from disc to disc and kept off-site with swaps occurring between Site and Perth Office. There was redundancy in the server structure. Action: Nil **Recommendation: None Review Priority** Performance Rating: 7.6 **OBLIGATION:** Computations for licensee performance reporting are accurate P&P* Rating: 4 Α 1



	Finding – The Licensee confirmed for the duration of the review period, BW1 was not required to publish or submit licence standing data charges.	performance reporting data	other than standing data	a for the calculation of the
	Documents/Evidence – 13,5,22, 24,28,36, 40, 58, 106 and IT web portal on the Intranet.			
	 Observations: Western Power metering was maintained by Western Power, generation Sent Out instrumentation monitored by one of the calibration of data input instrumentation was monitored through CalStation (calibration software system). Calibration checked. 		•	
	Recommendation: None		Action: Nil	
7.7	OBLIGATION: Management reports appear adequate for the licensee to monitor licence obligations	Review Priority	P&P* Rating:	Performance Rating:
		4	А	1
	 Finding – Bluewaters provided monthly and quarterly reports to the management and board respectively and provided in Board report identified current and impending legislation that Bluewaters will need to fulfil. Documents/Evidence – 3,5,24,40,57, 58 Observations: Monitoring of all license conditions were monitored by Governance and software licenses by the IT departments. While on site viewed evidence of Bluewaters program to fulfil AESCSF, Privacy Act and WEM legislative requirements. 			
	Recommendation: None		Action: Nil	1
7.8	OBLIGATION: Adequate measures to protect asset management data from unauthorised access or theft by persons outside the organisation	Review Priority 4	P&P* Rating: A	Performance Rating: 2
	Finding – The Licensee has established policies, systems and procedures relating to access to Bluewaters data system departments that had in place processes to ensure appropriate delegation was approved prior to access being provided. D			
	Documents/Evidence – 24,28,58, 106 and Perth and Site office interviews.			
	Observations:			



Recommendation: None	Action: Nil
The licensee confirmed they did have in place cyber security control, back ups and server independence and a compulsory annual cyber trait	ning.
reported to the Board and included the OME and Corporate Risk registers.	
The licensee was aware of Australian Energy Sector Cyber Security Framework (AESCSF) and actively implemented measures to improve of the security of the	cyber security during the review period. This was



8. RIS	KMANAGEMENT		OVERALL EFFE	CTIVENESS RATING
□ Ass □ Ass	ess whether the risks that most affect the management and performance of the assets have been identified ass the adequacy of policies and procedures covering risk management ass whether the risk management policies and procedures have been applied in practice ass the adequacy of staff understanding and training on risk management		PROCESS & POLICY RATING*	PERFORMANCE RATING
Key P	ocess – Risk management involves the identification of risks and their management within an acceptable level of risk.		P	•
Outco	me – The risk management framework effectively manages the risk that the licensee does not maintain effective service standards		В	3
No.	2022 REVIEW REPORT EVIDENCE/ /VERIFICATION/FINDING/ACTION			
8.1	OBLIGATION: Risk management policies and procedures exist and are applied to minimise internal and external risks	Review Priority	P&P* Rating:	Performance Rating:
		4	В	3
	Finding – Risks management framework, policy, procedure, Rules and risk scoring guidelines were in place. As recent as October incorporated into Environmental, Social and Governance (ESG) Framework. These were evidenced during the site visit and demont the main platform utilized to record all risks across all Bluewaters business units. Bluewaters transitioned from a spreadsheet bas used across all business units to minimize the consequence or likelihood of any identified risks. OME risks to the operation of the Corporate Risk Register. This process was not automatic and was dependent on the Management Team. However, the process the	nstration of the prima sed risk process to be Power Station we	ary software, MYOSH/\ MYOSH Viking during ere captured and High	/iking. MYOSH/Viking was the audit period. This was risks were elevated to the

both corporate and operational level were in place and what was being proposed to further reduce the risks if required. The SAMP, AMP and Asset Area plans (integral but separate to the process through use of FMECA) acknowledged the necessity of conducting risk assessments of assets as per its risk management framework. There was no assessment or critical monitoring of risks for effectiveness of controls, only an automated risk review process which only required a review date to be recorded.

It was also noted that during the audit period, the Risk Audit and Compliance Committee (RACC) did not meet during 2022. The organization indicated this was due to resources being allocated to the Coal Supply issues and whilst the RACC did not convene, the Board became more engaged in the week to week risks, for example coal supply issues, COVID management, impacts to outage timing due to covid and resources. Additionally, it was evident at the operational level staff continued to utilize risks management framework and assigned responsible persons continued to monitor their area of risk.

Whilst it was recognized there was oversight and delegatory signoff of risks such as Coal Supply. Overall, the reporting of new risks and monitoring of risks (i.e. effectiveness of their controls) required improvement. During the site visit, the auditors were informed that the RACC had been reconvened, as per the Board approved documents on October 2022 and its first meeting was scheduled for February 13th 2023.

Issues associated with the Risk Register have been raised in asset management criteria 2.5,

Documents/Evidence - 1, 3,5,7,9,24,36,40,57,58,80,108, 110 BWG Document Register, MYOSH Viking and Perth and Site interviews.



The process did not appear to be fully understood by staff.							
 Risks were not accurately described and assessments on mitigation measures were not specifically defined and were in many circumstances reliant on tacit knowledge of the 							
responsible personnel (i.e not measurable by an independent party) Fo		-		-			
surveillance of operations and Risk ID 175 referenced monitoring and re	-			• • •			
period.	5 5	,		5			
 There were 28 High or Critical Risks identified in the Risk Register as per 	er the Risk Management Framework an	d of these 6 were n	ot mitigated (Note this	s number included all			
business unit risks)	-						
 The Residual Risk was determined utilising proposed measures that we 	re not yet implemented.						
 Although the staff across both sites were aware of the risk system, MYC 	SH Viking, they required further trainin	g to better utilise the	e software to maximis	e its benefits.			
The Risk Register listed both the current and proposed mitigation strategies in the	same list making it difficult to interpret	as to what is in plac	e and what is to be in	plemented.			
Reconvening of the of the RACC to fulfil the RACC Charter was intended to comm							
Recommendation 09/2022: Refer recommendation 06/2022			Action: Refer 2022	PRIP			
OBLIGATION: Risks are documented in a risk register and treatment plans are implem	ented and monitored	Review Priority	P&P* Rating:	Performance Ratin			
				_			
Finding – Risks were identified, documented and the risk assessment process was docume of the risk treatment plans. Although automatic electronic reminders were sent to relevant re				-			
of the risk treatment plans. Although automatic electronic reminders were sent to relevant re audit/critical assessment of the effectiveness of the controls) was lacking. Mitigation measure	sponsible persons when risk reviews so as proposed were not specific to enable	egies) were listed ho ome were noted to b e independent asse	wever it was difficult be overdue, and overa	to follow through the det all monitoring (i.e. intern			
of the risk treatment plans. Although automatic electronic reminders were sent to relevant re audit/critical assessment of the effectiveness of the controls) was lacking. Mitigation measure Documents/Evidence – 1, 3,5,7,9,22,24,33,36,40,43,57,58,80,83,108, BWG Document Rem	sponsible persons when risk reviews so as proposed were not specific to enable	egies) were listed ho ome were noted to b e independent asse	wever it was difficult be overdue, and overa	to follow through the det all monitoring (i.e. interna			
of the risk treatment plans. Although automatic electronic reminders were sent to relevant re audit/critical assessment of the effectiveness of the controls) was lacking. Mitigation measure Documents/Evidence – 1, 3,5,7,9,22,24,33,36,40,43,57,58,80,83,108, BWG Document Rep Observations:	sponsible persons when risk reviews se es proposed were not specific to enable gister, MYOSH Viking and Perth and S	egies) were listed ho ome were noted to t e independent asse ite interviews.	owever it was difficult be overdue, and overa ssment in most instan	to follow through the def all monitoring (i.e. interna ices.			
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	4	В	_
		6	2
- As per the asset management Planning cycle, risk reviews were carried out annually as was one of the inputs into the fo annual and 5-year OPEX and CAPEX plans. The probability and consequences were reviewed in addition to the curre the power stations operation via condition monitoring, planned maintenance inspections and where identified, output from	nt condition of the a	assets. Site personnel	0 1 1
nts/Evidence – 1, 3,5,7,9,24,36,40,57,58,80,107,108, 106, MYOSH Viking and Perth and Site interviews.			
ions:			
	iis was reviewed at t	he site level only and h	nigh risks were escalat
FMECA outcomes of any asset failures was also used to assess probability and consequences of asset failures and resu	Iltant mitigation mea	sures.	
Risk assessments were an integral component of all CAPEX and OPEX expenditure approval process.			
endation: None		Action: Nil	
t	the power stations operation via condition monitoring, planned maintenance inspections and where identified, output from hts/Evidence – 1, 3,5,7,9,24,36,40,57,58,80,107,108, 106, MYOSH Viking and Perth and Site interviews. tions: Site personnel utilised SAP and MYOSH Viking to assess asset failure(s) and included these in the OME risk register. The by the Station Manager to the Corporate level.	the power stations operation via condition monitoring, planned maintenance inspections and where identified, output from FMECA of any potents/Evidence – 1, 3,5,7,9,24,36,40,57,58,80,107,108, 106, MYOSH Viking and Perth and Site interviews. tions: Site personnel utilised SAP and MYOSH Viking to assess asset failure(s) and included these in the OME risk register. This was reviewed at the by the Station Manager to the Corporate level. FMECA outcomes of any asset failures was also used to assess probability and consequences of asset failures and resultant mitigation means Risk assessments were an integral component of all CAPEX and OPEX expenditure approval process.	It the power stations operation via condition monitoring, planned maintenance inspections and where identified, output from FMECA of any potential failures. Ints/Evidence – 1, 3,5,7,9,24,36,40,57,58,80,107,108, 106, MYOSH Viking and Perth and Site interviews. Itions: Site personnel utilised SAP and MYOSH Viking to assess asset failure(s) and included these in the OME risk register. This was reviewed at the site level only and hey the Station Manager to the Corporate level. FMECA outcomes of any asset failures was also used to assess probability and consequences of asset failures and resultant mitigation measures. Risk assessments were an integral component of all CAPEX and OPEX expenditure approval process.



9. COI	ITINGENCY PLANNING		OVERALL EFFEC	FIVENESS RATING
Dete	rmine whether contingency plans have been developed and are current rmine whether contingency plans have been tested. If so, review the results to confirm any improvements identified have been imp	lemented.	PROCESS & POLICY RATING*	PERFORMANCE RATING
•	rocess – Contingency plans document the steps to deal with the unexpected failure of an asset. me – Contingency plans have been developed and tested to minimise any major disruptions to service standards.		В	3
о.	2022 REVIEW REPORT EVIDENCE/ /VERIFICATION/FINDING/ACTION			
9.1	OBLIGATION: Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks	Review Priority 2	P&P* Rating: B	Performance Rating: 3
	disposal and ash disposal) The development of an overarching document was also recommended. During the audit period, Framework (BCDRF) and maintained its Business Continuity Plan (BCP). The BCDRF provided a roadmap for implementing an monitoring status and driving continual improvement. The BCDRF also detailed the relationship to the Risk Management Prov established and tested during the audit period. A workshop was facilitated by external experts (July 2019) in relation to the simu However, Contingency Plans were not established for all high risks and the process effectiveness reviews were performed irreg between high risks and contingency plan development and testing and more specifically the assessment of the effectiveness of water disposal and water supply risks referenced development of a continency plan, but these have not been updated to cu Executive General Manager – Commercial it was understood that in practice these process may in fact be established but we mitigation or control in the risk register.	nd navigating throug cess (Refer Section lation of potential c ularly. A critical revi f the corrective acti irrent controls and	h the business continuity 1.3 BCDRF). A coal suppoal supply curtailment. ew of the risk register did on was not evidenced. It wa appear outstanding. Throu	process and a means fo oly contingency was wel not clearly define the link was noted that the saline ugh discussions with the
	Contingency plans addressing high-risk activities other than Coal Supply were not evidenced, for example Ash Disposal (not ref Water Supply (Risk ID 111). It was noted for the duration of the audit period, Saline Water and Water Supply were in the risk re testing was not evidenced.		•	• • • •
	A Contingency Plan was developed for potential Coal Supply Chain issues. Bluewaters implemented the following measures:			
	 Coal Conservation Strategy: This primarily involved coal stockpile management. Trading Strategy involving AEMO and utilising third party bi-lateral relationship and wholesale market purchases to en Continued reassessments of its maintenance schedules of power plant equipment. Outputs from a Business Continuity exercise undertaken in 2019 were provided for review. This was a simulation of p 			



Additio	ally, the Licensee has developed Business Recovery Plan which encompassed:	
>	Emergency Response Plan	
>	IT Disaster Recovery	
>	Cyber Incident Response Plan	
Again,	no evidence was provided to the testing of these plans.	
Docum	ents/Evidence – 3,5,16, 42, 40,58, 106, 110 and Interviews Executive General Manager - Commercial	
Observ	ations:	
•	Contingency Planning was the asset management component that was rated deficient (B3) in the 2017 Asset Management Review by th	e previous auditor. Although Bluewaters has
	developed the BCDRF and BCP, it is yet to develop a Crisis Management Plan and Business Unit Recovery Plans.	
•	The BCDRF refers to the Crisis management Plan and the Emergency Response Plan.	
•	The BCDRF has not been reviewed since 2019 and is well overdue by its own detailed review process within the document.	
•	The BCP has not been reviewed since 2017 and focussed primarily on events of natural disaster/terrorism/epidemic.	
•	An Emergency Response Plan was provided (reviewed March 2022).	
•	The Crisis management Testing, although evident, showed no follows of the recommendations as a result of a debrief workshop.	
•	The reporting of the Coal Supply Chain measures were well documented and presented to the Board weekly, monthly and quarterly.	
•	The Licensee confirmed IT Disaster recovery Plan and Cyber Incident Response Plan were developed but no evidence of testing	
•	Noted testing undertaken Crisis management in July 2019. (Please refer to Element 4.2).	
•	Ash disposal was not detailed within the Risk Register and no documented contingency plan was established, although confirmed the Bo business.	ard had considered the potential impacts to the
•	Also noted Risk ID 185 Water Supply and disposal was not consistent with risks 111 and 112 (i.e. no mitigation required reference to AM	Ps was noted but the AMPs Platform – Asset Area
	Plan – Water Supply and Disposal did not contain any reference to Contingency Plans)	
Recom	mendation 11/2022: - Review the Contingency Planning process to ensure:	Action: Refer PRIP 2022
~	Risk Register and ensure all High/Critical risks requiring mitigation have accurate contingencies or plant redundancies documented, for example reference the bores for the water supply.	
>	Contingency Plans are consistent with the Strategic Plan	
≻	the AMPS platform is reviewed to ensure all applicable Asset Area Plans to include contingency plans.	
≻	Schedule and carry-out testing and training of each contingency plan.	
≻	Update the BCDRF, BCP and develop the Crisis Management Plan and Business Unit Recovery Plans or capture in the AMPS, where	
	appropriate.	
>	Ensure all personnel listed in the Contingency Plans are trained as per requirements and records reflected in the Training register.	
>	Testing of the contingency plans should form part of an internal monitoring/auditing program (i.e. the review of controls for	
	risks/compliance)	



10. FII	NANCIAL PLANNING		OVERALL EFFE	CTIVENESS RATING
Obta	ain a copy of the financial planning, budgeting and reporting process and assess its effectiveness ain a copy of the current financial plan (including budget/actual) and assess whether the process is followed rocess – Financial brings together the financial elements of the service delivery to ensure its financial viability over the long term		PROCESS & POLICY RATING*	PERFORMANCE RATING
Outco	me – The financial plan is reliable and provides for the long-term financial viability of the services.		Α	1
No.	2022 REVIEW REPORT EVIDENCE/ /VERIFICATION/FINDING/ACTION			
10.1	OBLIGATION: The financial plan states the financial objectives and identifies strategies and actions to achieve those	Review Priority	P&P* Rating:	Performance Rating:
		4	Α	1
	 Observations: The financial planning process was very thorough and reporting of financial report s was done through QLIK. The financial projection considered PPA and merchant period requirements. Strategic and financial updates were provided quarterly. 			
	Recommendation: None		Action: Nil	
10.2	OBLIGATION: The financial plan identifies the source of funds for capital expenditure and recurrent costs	Review Priority	P&P* Rating:	Performance Rating:
		Α	1	
	Finding – The Licensee confirmed that for the duration of the review period, all funds were sourced internally through the Synd	icated Facility Agre	ement.	
	Documents/Evidence – 57,58,80 and Perth & Site Interviews.			



	Observations: • The Group consolidated financial statements for the year ending 31 March 2018-2021 were provided for review and • Financial plans and financial reports detailing Syndicated Funding arrangements were Commercial in confidence.	external audit opinio	ns were unqualified.	
	Recommendation: None		Action: Nil	
10.3	OBLIGATION: The financial plan provides projections of operating statements (profit and loss) and statement of financial position (balance sheets)	Review Priority 4	P&P* Rating: A	Performance Rating: 1
	Finding – Projections of statements of Profit and Loss and Balance sheets were reported annually, rolling 2 and 5 year basis using a combination of actuals and forecast revenue and costs.	and life cycle cost m	odels updated during the	e audit period. It was updated
	Documents/Evidence – –57,58,80 and Perth & Site Interviews			
	 Observations: Annual Financial Reports audited and prepared by independent third party. Bluewaters financial statements and signed annual audit reports were provided for review for the years ending 31 M 	larch 2018, 2019, 20	20 and 2021	
	Recommendation: None		Action: Nil	
10.4	OBLIGATION: The financial plan provides firm predictions on income for the next five years and reasonable	Review Priority	P&P* Rating:	Performance Rating:
	predictions beyond this period	4	A	1
	Finding – Every week the finance team carried out a weekly cash flow reports that were projected to 12 weeks and then for eac on a rolling 5-year basis. The Lifecycle Cost Model demonstrated generation for the power station revised annually and budget f by the licensee for 40 years to 2049.			
	Documents/Evidence – 57,58,80 and Perth & Site Interviews			
	 Observations: The Licensee was actively look at future revenue sources following the expiration of the current PPA. 			



10.5	OBLIGATION: The financial plan provides for the operations and maintenance, administration and capital expenditure requirements of the services	Review Priority 4	P&P* Rating: A	Performance Rating:
	Finding – Financial plans including weekly, monthly, quarterly, annual, 2 yearly and rolling 5 year included all costs associate CAPEX. Life cycle costings of these sot types were projected to 2049.	ed with corporate ov	erheads, operations, ma	aintenance of the assets and
	Documents/Evidence – 1,3,5,13,33,40,43,57,58, 76, 80 and Perth & Site interviews.			
	 Observations: The annual strategic planning process included the annual review and update of the financial plans and projections v Delegation of authority was in place, adjustments made and approved by the Board. 	vith respect to reven	ue, OPEX and CAPEX.	
	Recommendation: None		Action: Nil	
10.6	OBLIGATION: Large variances in actual/budget income and expenses are identified and corrective action taken where necessary	Review Priority 4	P&P* Rating: A	Performance Rating: 1
	Finding – The Licensee confirmed during the review period, financials identified variances and comparisons were made against b weekly, monthly and quarterly.	oudget where require	Led. Reports were made to	the Board and management
	Documents/Evidence – 1,3,5,13,33,40,43,57,58,80 and Perth & Site interviews			
	 Observations: Comprehensive financial reporting via QLIK reports to the Board and management. 			
	Recommendation: None		Action: Nil	



11. CAI	PITAL EXPENDITURE PLANNING		OVERALL EFFE	CTIVENESS RATING				
Obtain Key Pro- expende expected Outcom	rstand the capital expenditure planning process and assess its effectiveness n a copy of the capital expenditure plan for the current year and assess whether the process is being followed pcess – The capital expenditure plan provides a schedule of new works, rehabilitation and replacement works, together with es iture for these works over the next five or more years. Since capital investments tend to be large and lumpy, projections would red to cover at least 10 years, preferably longer. Projections over the next five years would usually be based on firm estimates. ne – The capital expenditure plan provides reliable forward estimates of capital expenditure and asset disposal income. Reason the evaluation of alternatives and options are documented.	normally be	PROCESS & POLICY RATING*	PERFORMANCE RATING 1				
No.	2022 REVIEW REPORT EVIDENCE/ /VERIFICATION/FINDING/ACTION							
11.1	OBLIGATION: There is a capital expenditure plan covering works to be undertaken, actions proposed, responsibilities and dates	Review Priority 4	ority P&P* Rating: Performance I A 1					
	 Finding – The Licensee confirmed that there was a rolling 5-year plan that listed all CAPEX activities that needed to occur a order to secure strategic spares. The CAPEX financial plan included planned and unplanned outages and half-life plant refur Documents/Evidence – 3,5,12,13,24,33,36,40,43,57,58,80,83, 106, and Perth & Site Interviews Observations: CAPEX was recognised in the annually financial audits. CAPEX was projected in life cycle costing models. 	-	Board approval was sou	gnt for first two years in				
	Recommendation: None		Action: Nil					
11.2	OBLIGATION: The capital expenditure plan provides reasons for capital expenditure and timing of expenditure	P&P* Rating: A	Performance Rating: 1					
	Findings – Capital Expenditure was identified from operating conditions, maintenance routines and activities, condition moni from deterioration of equipment condition, obsolescence of equipment or improvements to provide redundancy or backup systematical expenditure requirements.							



	Documents/Evidence – 3,5,12,13,24,33,36,40,43,57,58,80,83 106, and Perth & Site Interviews									
	 Observations: The financial statements for the years 2018-2021 were provided for review. Half-life refurbishments and on-going CAPEX, including its timing were included in life cycle costing model. 									
	Recommendation: None	Action: Nil								
11.3	OBLIGATION: The capital expenditure plan is consistent with the asset life and condition identified in the asset management plan	Review Priority 4	P&P* Rating: A	Performance Rating: 1						
	Finding – Capital Expenditure was included in the Life Cycle Models and included in the forecast budgets for the preceding y	ears. This also includ	ed Half Life refurbishme	nt cost to 2049.						
	Documents/Evidence 3,5,12,13,24,33,36,40,43,57,58,80,83 106 and Perth & Site Interviews Observations: • Asset lifecycle model provided an overview and analysis on all forecast capital expenditure requirements up until F	/ 49								
	Recommendation: None Action: Nil									
			Action: Nil							
11.4	OBLIGATION: There is an adequate process to ensure the capital expenditure plan is regularly updated and implemented	Review Priority 4	Action: Nil P&P* Rating: A	Performance Rating: 1						
11.4	OBLIGATION: There is an adequate process to ensure the capital expenditure plan is regularly updated and	4	P&P* Rating: A	1						
11.4	OBLIGATION: There is an adequate process to ensure the capital expenditure plan is regularly updated and implemented Finding – CAPEX Budgets were prepared and reported in monthly and quarterly reports with variances and response. CAPE	4	P&P* Rating: A	1						
11.4	OBLIGATION: There is an adequate process to ensure the capital expenditure plan is regularly updated and implemented Finding – CAPEX Budgets were prepared and reported in monthly and quarterly reports with variances and response. CAPE procurement of strategic spares. CAPEX was updated and projected quarterly.	4 X budgets were Board	P&P* Rating: A	1						



12. RE	EVIEW OF AMS		OVERALL EFFEC	TIVENESS RATING
Dete	ermine when the asset management plan was last updated and assess whether any substantial changes have occurred ermine whether any independent reviews have been performed. If so, review the results and action taken sider the need to update the asset management plan based on the results of this review ermine when the asset management system was last reviewed.		PROCESS & POLICY RATING*	PERFORMANCE RATING
Key P	rocess – The asset management system is regularly reviewed and updated.		В	3
Outco	me – The asset management system is regularly reviewed and updated.			
No.	2022 REVIEW REPORT EVIDENCE/ /VERIFICATION/FINDING/ACTION			
12.1	OBLIGATION: A review process is in place to ensure the asset management plan and the asset management system described in it remain current	Review Priority	P&P* Rating:	Performance Rating:
		4	В	3
	Finding – For the duration of the review period there have been no internal AMS Review or third party reviews, for the AMS of 2019, however the decision was made not to implement the AMS and a review of the effectiveness of the AMS has not occur input into the AMPS platform.		-	-
	It was noted the SAMP specified annual AMS Review and Compliance Audit (third party) every 3 years.			
	Documents/Evidence – 1,3,5, 24, 53, 110 and email dated 28 th February from Senior Manager Energy & Retail			
	 Observations: The 2022/2023 AMP was the first instance that Bluewaters' utilised "AMPS" to develop and implement the annual AM 	MP and the draft Pla	nt Area Asset Managemen	t Plans.
	• SAMP, AMP and AMS specified that they were to be reviewed on an annual basis and updated accordingly.			
	Not determined whether the review frequency was included in SAP or other compliance processes.			
	Recommendation 12/2022: A review process to ensure the AMP and the AMS remain current is required. It was noted that dynamic AMS should support this requirement moving forward. However, the quality of the information contained within the reviewed to ensure they are effective. As such a formalised process to ensure independent reviews (e.g. internal or third party automatic) and the transmission of the information of the transmission of transmission of the transmission of	ne AMP should be	Action: Refer 2022 PRI	Þ



OBLIG	GATION: Independent reviews (e.g., internal audit) are performed of the asset management system	Review Priority	P&P* Rating:	Performance Ratir
		4	В	3
Findin	ng – For the duration of the review period there has not been a process established for independent reviews of the A	sset Management System	۱.	
	e routine independent reviews was not implemented. Additionally, the 2017 PRIP developed by the Licensee p	proposed Bluewaters sho	uld work with the cons	ultants to make continu
improv an ong	vements to the asset management system. The recommended process improvement to ensure there would be focus going basis has been implemented during the review period (i.e. implementation of AMPS as a dynamic AMS).			
improv an ong Docur	vements to the asset management system. The recommended process improvement to ensure there would be focus			
improv an ong Docur	vements to the asset management system. The recommended process improvement to ensure there would be focus going basis has been implemented during the review period (i.e. implementation of AMPS as a dynamic AMS). ments/Evidence – 1,3,5, 24, 53, 110 and email dated 28 th February from Senior Manager Energy & Retail	on developing the asset i	nanagement system so	
improv an ong Docur	 vements to the asset management system. The recommended process improvement to ensure there would be focus going basis has been implemented during the review period (i.e. implementation of AMPS as a dynamic AMS). ments/Evidence – 1,3,5, 24, 53, 110 and email dated 28th February from Senior Manager Energy & Retail rvations: It was noted that the SAMP, AMP and AMS have only been "live" since 2022 there have been no internal audits No third-party independent audits were carried out on the AMS during the audit period. 	on developing the asset in undertaken by the Licens	nanagement system so ee for the AMS.	that it can be maintained
improv an ong Docur	We ments to the asset management system. The recommended process improvement to ensure there would be focus going basis has been implemented during the review period (i.e. implementation of AMPS as a dynamic AMS). ments/Evidence – 1,3,5, 24, 53, 110 and email dated 28 th February from Senior Manager Energy & Retail truations: It was noted that the SAMP, AMP and AMS have only been "live" since 2022 there have been no internal audits No third-party independent audits were carried out on the AMS during the audit period. The RACC was not active for the 2022 calendar year. The management team indicated that this was attributable	on developing the asset i undertaken by the Licens	nanagement system so ee for the AMS. ement to focus resource	that it can be maintained
improv an ong Docur	 vements to the asset management system. The recommended process improvement to ensure there would be focus going basis has been implemented during the review period (i.e. implementation of AMPS as a dynamic AMS). ments/Evidence – 1,3,5, 24, 53, 110 and email dated 28th February from Senior Manager Energy & Retail rvations: It was noted that the SAMP, AMP and AMS have only been "live" since 2022 there have been no internal audits No third-party independent audits were carried out on the AMS during the audit period. 	on developing the asset i undertaken by the Licens to COVID and the requir d even though Coal supply	nanagement system so ee for the AMS. ement to focus resource y was the main risk that	that it can be maintaine es on the coal supply iss the management and be



APPENDIX 3 – AUDIT & REVIEW DOCUMENT LISTING

Documents Reviewed



TABLE 20 Documents Reviewed

Number	DOCUMENT NAME * Provided for audit plan development # Document/System verified during site visit or confirmed by Licensee RED – document requested not provided	ASSET PLANNING	ASSET CREATION & AQUISITION	ASSET DISPOSAL	ENVIRONENTAL ANALYSIS	ASSET OPERATIONS	ASSET MAINTENANCE	A M INFORMATION SYSTEM	RISK MANAGEMENT	CONTINGENCY PLLANNING	FINANCIAL PLANNING	CAPITAL EXPENDITURE PLANNING	REVIEW OF AMS	PERFORMANCE AUDIT
*1	Licensee Asset Management Policy	Х	Х	Х	Х	Х	Х		Х		Х		Х	Х
*2	Contractor Asset Management Policy – NOT USED													
*3	Licensee Asset Management System/ Strategic Asset Management Plan	х	х	Х	Х	Х	х	х	Х	Х	х	Х	х	Х
*4	Contractor Asset Management System/ Strategic Asset Management Plan – NOT USED													
*5	Licensee Asset Management Plan	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
*6	Contractor Asset Management Plan – NOT USED													
*7	Operational Schematic	Х	Х	Х					Х					Х
*8	Schematic of the Contracts supporting Licensee													Х
*9	Licensee Organisational Structure	Х	Х	Х					Х					Х
*10	Contractor Organisational Structure – NOT USED													
*11	Contractor Annual Maintenance Schedule – NOT USED													
*12	Licensee Annual Maintenance Schedule	Х	Х	Х	Х		Х				Х	Х		Х
*13	Description of Licensee Maintenance System	Х		Х	Х	Х	Х	Х			Х	Х		
*14	Description of Contractor Maintenance System – NOT USED													
15	Electricity Generation License													Х
16	Licensee Emergency Response Plan				Х		Х			Х				Х
17	Contractor Emergency Response Plan – NOT USED													
18	Licensee Environment Compliance Plan		Х											Х
19	Contractor Environment Compliance Plan – NOT USED													
20	Licensee Health and Safety Plan													Х
21	Contractor Health and Safety Plan – NOT USED													
22	Licensee Workplace Health & Safety System		Х		Х		Х	Х	Х					Х
23	Contractor Workplace Health & Safety System – NOT USED													
*24	Licensee Site Risk Register	Х	Х		Х	Х	Х	Х	Х			Х	Х	Х
*25	Contractor Site Risk Register – NOT USED													
26	MOU with FESA etc				Х									Х
27	Licensee Computer & Information Management Plan #							Х						Х
28	Licensee Cyber Security							Х						Х
29	Contractor Cyber Security – NOT USED													
30	Licensee Standard Operating Procedure Listing #					Х								Х



Number	DOCUMENT NAME * Provided for audit plan development # Document/System verified during site visit or confirmed by Licensee RED – document requested not provided	ASSET PLANNING	ASSET CREATION & AQUISITION	ASSET DISPOSAL	ENVIRONENTAL ANALYSIS	ASSET OPERATIONS	ASSET MAINTENANCE	A M INFORMATION SYSTEM	RISK MANAGEMENT	CONTINGENCY PLLANNING	FINANCIAL PLANNING	CAPITAL EXPENDITURE PLANNING	REVIEW OF AMS	PERFORMANCE AUDIT
31	Contractor Standard Operating Procedure Listing – NOT USED													
32	Asset Management Agreement with Contractor – Applicable to Audit Period – NOT USED													
33	Licensee Outage Management Procedure	Х	Х	Х		Х	Х		Х	Х	Х	Х		
*34	РРА	Х			Х		Х				Х			Х
35	Overview of internal/external reporting processes #													
*36	O&M Agreement	Х	Х	Х	Х	Х	Х	Х	Х		Х	Х		
37	Licensee Management Reports – Applicable to Audit Period													Х
38	Asset Management Agreement Operational Reports – Applicable to Audit Period -Refer 36													
39	Operating Protocol	Х			Х						Х			
40	Licensee Monthly/Weekly/Daily Meeting Minutes	Х	Х	Х	Х	Х	Х	Х	Х		Х	Х		
41	Contractor Monthly/Weekly/Daily Meeting Minutes – NOT USED													
42	Licensee Business Continuity Plan				Х		Х			Х				
43	Licensee Procurement procedure	Х	Х	Х		Х			Х		Х	Х		
44	ETAC													Х
45	Licensee – Asset Register (Including Financial/Physical Asset) Note: may be separate processes #					х								
46	Leases													Х
47	Plant Modification Process		Х											
48	Change Management- Refer 47													
49	Customer Contracts/Contract management processes –Refer 34													
50	Practical Completion Documentation (if applicable) – NOT USED													
51	Training Register #					Х								Х
52	Competency & Awareness Processes #													Х
53	Compliance Schedule/Register		Х										Х	Х
54	Breach Register – Refer VIKING SYSTEM	Х	Х	Х	Х	Х	Х	Х	Х	Х			Х	Х
55	OPEX&CAPEX Process #													Х
56	Company Reports						Х							
*57	Financial Statements (Audited) – Applicable to Audit Period	Х	Х	Х	Х	Х			Х		Х	Х		Х
58	Board Reports	Х	Х		Х	Х		Х	Х	Х	Х	Х		Х
*67	ERA Correspondence – Applicable to Audit Period													Х

Performance Audit and Asset Management System Review Report Audit & Review Period: 1 January 2018 to 31 December 2022 Bluewaters Power 1 Pty Ltd – EGL4



Number	DOCUMENT NAME * Provided for audit plan development # Document/System verified during site visit or confirmed by Licensee RED – document requested not provided	ASSET PLANNING	ASSET CREATION & AQUISITION	ASSET DISPOSAL	ENVIRONENTAL ANALYSIS	ASSET OPERATIONS	ASSET MAINTENANCE	A M INFORMATION SYSTEM	RISK MANAGEMENT	CONTINGENCY PLLANNING	FINANCIAL PLANNING	CAPITAL EXPENDITURE PLANNING	REVIEW OF AMS	PERFORMANCE AUDIT
68	ERA Generation & Retail Annual License Payment – Applicable to Audit Period													Х
*69	ERA Annual Compliance Reports Signed – Applicable to Audit Period		х		X X									х
*70	ERA Communication of Standing Charges Data #													Х
*71	ERA Standing Charges License Invoices & Payments – Applicable to Audit Period				х									Х
*72	ERA Letter - Commencement of 2022 performance audit and asset management system review				х									Х
*73	ERA Letter - Approval of auditor – 2022 performance audit and asset management system review				х									х
74	Licensee Business Plan - Refer 58													
75	Licensee Policy manual													Х
76	Delegation of Authority #		Х	Х		Х	Х				Х			Х
77	Non Financial Delegation of Authority – Refer 58													
78	Stakeholder Communication Processes/Policy	Х						Х						Х
79	Lifecycle Costing – If not included in the asset management plan													
*80	Budgets	Х	Х	Х	Х	Х			Х		Х	Х		Х
81	Condition Monitoring Processes						Х							Х
82	Preventative Maintenance													Х
83	Critical Spares	Х							Х			Х		Х
84	Other Regulatory Licenses – If Applicable													Х
93	Other Regulatory Reports – If Applicable													Х
94	Maintenance Checklists	Х	Х	Х			Х							Х
*96	Licensee Operational Contingency Plans # Refer 24 and 42													
*97	Contractor Operational Contingency Plans – NOT USED													
98	Dispute Resolution Processes #													Х
*99	Coal Supply Agreement	Х									Х			Х
*100	Network Access Agreement													Х
101	Retail Licence Documentation													Х
102	Bluewaters I and II Decomissioning Plan		Х											Х
103	Asset Disposal													Х
104	Electricity Licence compliance procedure Refer 53													
106	Document Control					Х		Х	Х	Х		Х		Х

E.



Number	DOCUMENT NAME * Provided for audit plan development # Document/System verified during site visit or confirmed by Licensee RED – document requested not provided	ASSET PLANNING	ASSET CREATION & AQUISITION	ASSET DISPOSAL	ENVIRONENTAL ANALYSIS	ASSET OPERATIONS	ASSET MAINTENANCE	A M INFORMATION SYSTEM	RISK MANAGEMENT	CONTINGENCY PLLANNING	FINANCIAL PLANNING	CAPITAL EXPENDITURE PLANNING	REVIEW OF AMS	PERFORMANCE AUDIT
107	Engineering Management Plan	Х					Х		Х					
*108	Operational Incidents Register				Х	Х			Х					Х
109	Metering Check Process and calculations # Refer 101													
110	ERA Post Audit/Review Implementation Plan Updates	Х	Х	Х	Х	Х		Х	Х	Х			Х	Х