BLUEWATERS POWER 2 PTY LTD

Performance Audit & Asset Management System Review Report 2022

ELECTRICITY GENERATION LICENCE – EGL17

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March 2023
Audit Report No: ARBW0123_BW2_EGL17_2

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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.

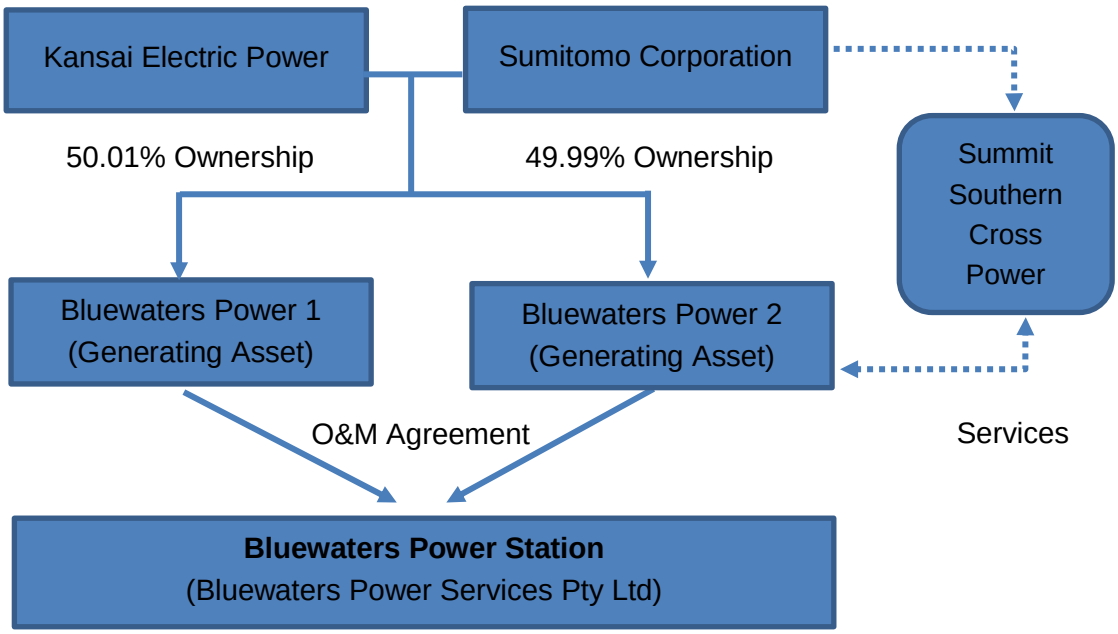
1. EXECUTIVE SUMMARY

The Licensee is Bluewaters Power 2 Pty Ltd (**BW2**).

The Economic Regulation Authority (the **ERA**) has under the provisions of the Electricity Industry Act 2004 (the Act), issued to BW2 the Electricity Generation Licence (**EGL17**) (the Licence).

Bluewaters Power 2 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 2 Pty Ltd will be referred to as "BW2" throughout this document.

Figure 1 – Bluewaters Power Station Operational Schematic



Bluewaters Power 2 Pty Ltd holds an Electricity Generation Licence (**EGL17**) 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
  - Raw Water Treatment
  - Waste Water Treatment & Disposal
  - Cooling Water Treatment
  - Coal Handling
  - Fuel Oil Storage
- Process Inputs
  - Coal
  - Fuel Oil
  - Process Chemicals
- Infrastructure
  - 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 Bluewaters Power 1 Pty Ltd (**BW1**) & 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
A	Adequate controls – no improvement needed	1	Compliant
B	Generally adequate controls – improvement needed	2	Non-Compliant – minor impact on customers or third parties
C	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**):

TABLE 2 Summary of Performance Audit Non-Compliance Ratings included in 2017 PAIP

Ref	Licence Obligation	Control Adequacy	Compliance Rating
01/2018	***Obligation 124*** *Electricity Industry Act, section 11* 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.	B	2
03/2018	***Obligation 105*** *Economic Regulation Authority (Licensing Funding) Regulations 2014* 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	B	2
04/2018	***Obligation 106*** *Electricity Industry Act, section 31(3)* A licensee must take reasonable steps to minimise the extent, or duration, of any interruption, suspension or restriction of the supply of electricity due to an accident, emergency, potential danger or other unavoidable cause.	B	2

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).

TABLE 3 Rating Scale Reviews - Process & Policy and Performance

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

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 2 Pty Ltd (**EGL17**) 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 EGL17.

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.

TABLE 4 Compliance and Controls Ratings Summary Table

		Compliance Rating					
		1	**2**	**3**	**4**	**N/R**	**TOTAL**
Controls Rating	**A**	1	-	-	-	-	**1**
	B	1	3	-	-	-	**4**
	C	-	-	-	-	-	-
	D	-	-	-	-	-	-
	N/P	10	-	-	-	18	**28**
	TOTAL	**12**	**3**	-	-	**18**	**33**

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.

TABLE 5 Summary of Asset Management Process Overall Rating

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

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 BW2. (Refer to recommendation 02/2018 of the previous audit report and approved PRIP.) *Recommendation 01/2022* - 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	***Electricity Industry Act, section 31(3)*** 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. *Refer recommendation: 06/2022* (Appendix 2 – Ref 2.5)

REF	OBLIGATION / ASSET MANAGEMENT CRITERIA DESCRIPTION	NON-COMPLIANCE/AMS DEFICIENCY & RECOMMENDED CORRECTIVE ACTION
124*	***Electricity Industry Act, section 11*** 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. *Recommendation 03/2022*: 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. *Recommendation 04/2022*: 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 BW2 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. *Recommendation 06/2022:* 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. *Refer recommendation 06/2022* (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. *Recommendation 01/2022* (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. *Refer recommendation 06/2022* (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. *Refer recommendation 06/2022* (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 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 *Recommendation 12/2022:* 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 BW2 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, 9th and 28th 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 EGL17
- 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 EGL17 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, BW2 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 EGL17

- 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 **EGL4** 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 EGL17 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 EGL17 that have been excluded (Refer Table 8) as they are not applicable to BW2 operations. There were no Type 1 reporting requirements applicable to EGL17. Excluded compliance obligations were detailed in the approved Audit Plan.

TABLE 8 Obligations Excluded from the Audit Report

REF No.*	OBLIGATIONS UNDER LICENCE CONDITION	INCLUSION/EXCLUSION OF OBLIGAITON IN THE SCOPE OF THE PERFORMANCE AUDIT
120	**Electricity Industry Act, section 11** A licensee must comply with any individual performance standards prescribed by the ERA.	Not Applicable – Individual performance standards have not been prescribed by the Authority.
364	**Electricity Industry Metering Code, clause 3.27** A person must not install a metering installation on a network unless the person is the network operator or a registered metering installation provider for the network operator doing the type of work authorised by its registration.	Not Applicable to Generators (Obligation removed for Generation Licences in the Electricity Compliance Reporting Manual – June 2020)
401	**Electricity Industry Metering Code, clause 5.16** If a user collects or receives energy data from a metering installation, then the user must provide the network operator with the energy data (in accordance with the communication rules) within the timeframes prescribed.	Not Applicable – the clause relates to a user's obligations to a network operator. Western Power is the network operator and BW2 does not operate as a user of any other network.
402	**Electricity Industry Metering Code, clause 5.17(1)** A user must provide standing data and validated, and where necessary substituted or estimated, energy data to the user's customer to which that information relates where the user is required by an enactment or an agreement to do so for billing purposes or for the purpose of providing metering services to the customer.	Not Applicable to Generators (Obligation removed for Generation Licences in the Electricity Compliance Reporting Manual – February 2022)
405	**Electricity Industry Metering Code, clause 5.18** If a user collects or receives information regarding a change in the energisation status of a metering point then the user must provide the network operator with the prescribed information, including the stated attributes, within the timeframes prescribed.	Not Applicable – the clause relates to a user's obligations to a network operator. Western Power is the network operator and BW2 does not operate as a user of any other network.
406	**Electricity Industry Metering Code, clause 5.19(1)** A user must, when requested by the network operator acting in accordance with good electricity industry practice, use reasonable endeavours to collect information from customers, if any, that assists the network operator in meeting its obligations described in the Code and elsewhere, and provide that information to the network operator.	Not Applicable to Generators (Obligation removed for Generation Licences in the Electricity Compliance Reporting Manual – February 2022)

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 *Electricity Industry (Metering) Amendment Code 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

Compliance Obligation Reference No.	Licence Reference	Audit Priority	Adequacy of Controls Rating					Compliance Rating				
			A	B	C	D	NP	1	2	3	4	NR
SECTION 8: TYPE 1 REPORTING REQUIREMENTS												
THERE ARE NO TYPE 1 REPORTING REQUIREMENTS APPLICABLE TO EGL17												
SECTION 12: ELECTRICITY INDUSTRY ACT - LICENCE CONDITIONS AND OBLIGATIONS												
101*Δ♦⊗	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		B					2			
104*Δ♦⊗	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		B					2			
107	Electricity Industry Act section 41(6) EGL, condition 4.1.1	4					NP					NR
SECTION 13: ELECTRICITY LICENCES - LICENCE CONDITIONS AND OBLIGATIONS												
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		B				1				
124*⊗	Electricity Industry Act section 11 EGL, condition 4.5.1	4		B					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: ELECTRICITY INDUSTRY METERING CODE - LICENCE CONDITIONS AND OBLIGATIONS												
PART 3 – METERS AND METERING INSTALLATIONS												
324	Electricity Industry Metering Code Cl 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 Cl 4.4(1)	5					NP					NR
372	Electricity Industry Metering Code Cl 4.5(1)	5					NP	1				

373	Electricity Industry Metering Code Cl 4.5(2)	4					NP					NR
PART 5 - METERING SERVICES												
388	Electricity Industry Metering Code Cl 5.4(2)	4					NP					NR
416	Electricity Industry Metering Code Cl 5.21(5)	4					NP					NR
417	Electricity Industry Metering Code Cl 5.21(6)	4					NP					NR
PART 6	**DOCUMENTATION**											
448	Electricity Industry Metering Code, Cl 6.1(2)	4					NP	1				
PART 7 - NOTICES AND CONFIDENTIAL INFORMATION												
451	Electricity Industry Metering Code Cl 7.2(1)	5					NP	1				
453	Electricity Industry Metering Code Cl 7.2(4)	4					NP					NR
454	Electricity Industry Metering Code Cl 7.2(5)	4					NP					NR
455	Electricity Industry Metering Code Cl 7.5	4					NP					NR
456	Electricity Industry Metering Code Cl 7.6(1)	4					NP					NR
PART 8 - DISPUTE RESOLUTION												
457	Electricity Industry Metering Code Cl 8.1(1)	5					NP					NR
458	Electricity Industry Metering Code Cl 8.1(2)	5					NP					NR
459	Electricity Industry Metering Code Cl 8.1(3)	5					NP					NR
460	Electricity Industry Metering Code Cl 8.1(4)	4					NP					NR
461	Electricity Industry Metering Code Cl 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.

Δ 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 EGL17 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** ▪ ***Electricity Industry Act, section 31(3)*** ▪ **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** ▪ **B2** ▪ ***Electricity Industry Act, section 11*** ▪ **Generation Licence, condition 4.2.1** ▪ 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 2014 & 2015 Compliance Report were submitted after the specified date and has been noted in the 2016 Compliance Report.	Ensure there is a Compliance Process established to ensure ongoing compliance. Could be linked to current project described by GM of HR to link accountabilities to performance review.	Undetermined	Yes Licensee has only partially addressed the recommendation with the development of the Compliance Register. A review and/or accountability process has not been established. Refer to Recommendation 01/2022 (Refer Appendix 1 – 103) ERA Updates up until 2019 were sighted.
03/2018	▪ **105** ▪ **B2** ▪ ***Economic Regulation Authority (Licensing Funding) Regulations 2014*** ▪ **Generation Licence, condition 4.5.1** ▪ 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 ▪ Late payment of the Standing Charges was noted on 2 occasions during the audit period.	Ensure payment of and scheduling of payment for licence fees is captured in compliance or accounting systems.	Undetermined	No Effective resolution. Note: compliance was achieved in all licence payments for audit period 1 January 2018-31 December 2022. ERA Updates up until 2019 were sighted.

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 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 & Action Taken by the Licensee**	**Auditors Comments**

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

B Unresolved during the 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**	**Auditors Comments**
01/2022	▪ **103** ▪ **B2** ▪ ***Electricity Industry Act, section 14(1)(b)*** ▪ **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 BW2. (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)*** ▪ 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	Refer recommendation 06/2022 (Appendix 2 – Ref 2.5)	Refer 2022 PAIP

	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	▪ **124** ▪ **B2** ▪ **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 ensure the integrity of data report. Additionally, training requirements should be reviewed to ensure understanding and awareness of the legislative requirements relating to EGL17. 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.	Refer 2022 PAIP

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 EGL17
- 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 BW2 AMS in relation to EGL17 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 BW2 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.

TABLE 12 List of Personnel Who Participated in Review

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 AMS Review was conducted during February - March 2023 in conjunction with the Asset Management Review for EGL17 with the site visits on the 7th, 9th and 28th 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 EGL17 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.

TABLE 13 Asset Management Process and Policy Definition Adequacy Ratings

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.
B	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 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	**B**	**2**
1.1 Asset management plan covers the processes in this table	B	3
1.2 Planning processes and objectives reflect the needs of all stakeholders and are integrated with business planning	A	1
1.3 Service levels are defined in the asset management plan	A	2
1.4 Non-asset options (e.g. demand management) are considered	A	1
1.5 Lifecycle costs of owning and operating assets are assessed	A	2
1.6 Funding options are evaluated	A	1
1.7 Costs are justified, and cost drivers identified	A	1
1.8 Likelihood and consequences of asset failure are predicted	B	2
1.9 Asset management plan is regularly reviewed and updated	B	3
2. ASSET CREATION AND ACQUISITION	**A**	**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	A	1
2.3 Projects reflect sound engineering and business decisions	A	1
2.4 Commissioning tests are documented and completed	A	2
2.5 Ongoing legal / environmental / safety obligations of the asset owner are assigned and understood	B	3
3. ASSET DISPOSAL	**A**	**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	A	1

ASSET MANAGEMENT SYSTEM CRITERA	PROCESS & POLICY RATING	PERFORMANCE RATING
3.4 There is a replacement strategy for assets	A	1
4. ENVIRONMENTAL ANALYSIS	**B**	**2**
4.1 Opportunities and threats in the asset management system environment are assessed	B	3
4.2 Performance 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
4.4 Service standard (customer service levels etc) are measured and achieved.	A	1
5. ASSET OPERATIONS	**A**	**2**
5.1 Operational policies and procedures are documented and linked to service levels required	A	1
5.2 Risk management is applied to prioritise operations tasks	A	2
5.3 Assets are documented in an asset register including asset type, location, material, plans of components and an assessment of assets' physical/ structural condition	A	1
5.4 Accounting data is documented for assets	A	1
5.5 Operational costs are measured and monitored	A	1
5.6 Staff resources are adequate, and staff receive training commensurate with their responsibilities.	A	2
6. ASSET MAINTENANCE	**A**	**2**
6.1 Maintenance policies and procedures are documented and linked to service levels required	A	2
6.2 Regular inspections are undertaken of asset performance and condition	A	1
6.3 Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule	A	1
6.4 Failures are analysed, and operational / maintenance plans adjusted where necessary	A	1
6.5 Risk management is applied to prioritise maintenance tasks	A	2
6.6 Maintenance costs are measured and monitored	A	1
7. ASSET MANAGEMENT INFORMATION SYSTEM	**A**	**2**
7.1 Adequate system documentation for users and IT operators	A	2
7.2 Input controls include suitable verification and validation of data entered into the system	A	2
7.3 Security access controls appear adequate such as passwords	B	1
7.4 Physical security access controls appear adequate	A	1
7.5 Data backup procedures appear adequate, and backups are tested	B	1
7.6 Computations for licensee performance reporting are accurate	A	1
7.7 Management reports appear adequate for the licensee to monitor licence obligations	A	1
7.8 Adequate measures to protect asset management data from unauthorised access or theft by persons outside the organisation	A	2
8. RISK MANAGEMENT	**B**	**3**
8.1 Risk management policies and procedures exist and are applied to minimise internal and external risks	B	3
8.2 Risks are documented in a risk register and treatment plans are implemented and monitored	B	3
8.3 Probability and consequences of asset failure are regularly assessed	B	2
9. CONTINGENCY PLANNING	B	**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	B	3
10. FINANCIAL PLANNING	**A**	**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	A	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	**A**	**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	**B**	**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	B	3
12.2 Independent reviews (e.g., internal audit) are performed of the asset management system	B	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 current review period				
Recommendation Reference (no./year)	**Rating** **Asset Management Process and Effectiveness Criterion** **Details of Deficiency** **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)**
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.				

3.6 2022 Asset Management System Recommendations and Action Plans

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** **Asset Management Process and Effectiveness Criterion** **Details of Deficiency** **Details of Inadequate Controls and/or Non-Compliance**	**Action Taken by Licensee**	**Date Resolved**	**Auditor's Comments**
There were no recommendations from the current review that were resolved during the current review period.				

B Unresolved during current review period

Recommendation Reference (no./year)	Rating Asset Management Process and Effectiveness Criterion Details of Deficiency	Auditors Recommendation	Action taken by the Licensee by the end of the review period
04/2022	▪ **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 plan and the asset management system described in it remained current.	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 BW2 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
05/2022	▪ **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 during the review period.	BWPS finalise its development and implementation of the AMPS Platform and its review processes as per the ERA guidelines. Ensure the review processes for the AMS and AMPs are documented and aligned with ISO 55000 as a minimum standard.	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 (only licence renewal and the Performance Audit and AMS Review 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 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 improvement. Refer Appendix 2 – Ref 2.5 for specific detail.	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	▪ **B3** ▪ **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.	Refer recommendation 06/2022 (Appendix 2 – Ref 2.5)	Nil action taken Refer 2022 PRIP
08/2022	▪ **B3** ▪ **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	Recommendation 01/2022 (Refer Appendix 1 – 103)	Nil action taken Refer 2022 PRIP

	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** ▪ 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.	Refer recommendation 06/2022 (Appendix 2 – Ref 2.5)	Nil action taken Refer 2022 PRIP
11/2022	▪ **B3** ▪ **9.1 Contingency plans are documented, understood and tested to**	Review the Contingency Planning process to ensure:	Nil action taken in relation to outstanding Contingency Plans

	confirm their operability and to cover higher risks ▪ The testing of contingency plans to confirm their operability to cover high risks was not evident.	➢ 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)	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 BW2 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 2 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.

Δ 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. Electricity Industry Act – Licence conditions and obligations				
No.	**2022 AUDIT REPORT EVIDENCE/ /VERIFICATION/FINDING/ACTION**			
101Δ♦ Type [2] Δ	**OBLIGATION*: Electricity Generation Licence, condition 5.3.1 / Electricity Industry Act, section 13(1)*** 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).	**Audit Priority** **4**	**Controls Rating:** **NP**	**Compliance Rating:** **1**
	Finding – GES was appointed with the Economic Regulation Authority's (**ERA's**) approval to undertake the Performance Audit for Bluewaters Power 2 Pty Ltd for the period 1 January 2014 to 31 December 2017 and the report was submitted and published to the ERA website. **Documents/Evidence** – ERA Website, 15, 37, 67, 69, 72, 73, 110 **Observations:** • 2018 Performance Audit & 2018 Asset Management Review published to ERA website. (Refer https://www.erawa.com.au/electricity/electricity-licensing/licence-holders#B) • 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 undertaken outside the Audit Period (i.e. 1 January 2018 to 31 December 2022)			
	Recommendation: Nil	**Action: Nil**		

102♦ Type [2]	**OBLIGATION***: Electricity Generation Licence, condition 5.1.1 / Electricity Industry Act, section 14(1)(a)* A licensee must provide for an asset management system	**Audit Priority** **4**	**Controls Rating:** **NP**	**Compliance Rating:** **1**
	Finding – The Licensee provided for an asset management system (**AMS**) for the duration of the Audit Period. Documentation supporting the AMS was reviewed and Bluewaters Power 2 Pty Ltd was noted to have revised their Asset Management Planning processes and moved from a static AMS to a dynamic AMS utilising the Asset Management Planning System (**AMPS**) platform. For the duration of the audit period the Licensee, although in a state of transitional change, maintained and implemented supporting asset management systems and processes (Refer to findings detailed in Appendix 2 Asset Management Process – Asset Planning). **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 the external consultants 5 year Asset Management Cycle where there was no specific SAMP or AMP developed and implemented. Despite this, it was observed that the requirements for the AMS such as the financial requirements of the organization for example the costs including operation, maintenance, CAPEX, site administration, were still carried on a weekly, monthly, quarterly and 5 year basis. These costs became the inputs into the financial models and performed as the current drivers of the SAMP and AMP. Additionally, there were a number of supporting asset management systems and processes that were established and functional, for example SAP, MYOSH and various ancillary systems. It was also understood that although expired the AMP 2017 Live 020317 FY17 was 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 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) • It was noted that BW2 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 Audit Implementation Plan (**PAIP**), and Post Review Implementation Plan (**PRIP**) as published on the ERA website.			
	Recommendation: Nil	**Action: Nil**		
103 Type	**OBLIGATION:** ***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.	**Audit Priority** **4**	**Controls Rating:** **B**	**Compliance Rating:** **2**

[2]	**Finding** – The Licensee confirmed that aside from the transition to the AMPS platform for asset management planning and the development of coal supply contingencies, there have not been any substantial changes to the AMS since the ERA was last advised of the details of the system in accordance with section 14(1) of the Act. 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 BW2. (Refer to recommendation 02/2018 of the previous audit report and approved PRIP). The process to ensure monitoring and implementation of post-audit actions or improvement plans was not effective in capturing this requirement. **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 new asset management system currently being developed by consultants". An Action Plan 02/2018/EGL04developed by the Licensee stated "Bluewaters' would notify the ERA of the new asset management system once complete. Responsible 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 actions.			
	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 2022 PAIP**		
104*Δ♦ Type [2]	**OBLIGATION:** ***Electricity Generation Licence, condition 5.1.4 / Electricity Industry Act, section 14(1)(c)*** 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.	**Audit Priority**	**Controls Rating:**	**Compliance Rating:**
		4	**NP**	**1**
	Finding – GES was appointed with the Economic Regulation Authority's (**ERA's**) approval to undertake the Asset Management Review for Bluewaters Power 2 Pty Ltd for the period 1 January 2014 to 31 December 2017 and the report was submitted and published to the ERA website.			

Documents/Evidence – ERA Website, 15, 37, 67, 69, 72, 73, 106, 110

Observations:

- The 2017 Review Report did not identify any asset management deficiencies. The 2017 Review Report made nine recommendations that were all process improvements, and the Licensee subsequently developed the PRIP.
- Recommendation 04/2018 was completed by the time the post-review implementation plan was received by the ERA. The PRIP stated BW2 intended to address the eight remaining recommendations by 31 March 2019. This timeline was not achieved in all process improvements.
- ERA published notice 20 May 2019

Recommendation: Nil	**Action: Nil**

105⊗ Type [2]	**OBLIGATION:** ***Electricity Generation Licence, condition 4.2.1/ Economic Regulation Authority (Licensing Funding) Regulations 2014*** 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.	**Audit Priority**	**Controls Rating:**	**Compliance Rating:**
		4	**A**	**1**

Finding – The Licensee paid the five Annual Licence charges within one month after the day on which the licence was Granted (i.e. 20 June 2007) and within one month after each anniversary of that day during the audit period (i.e. 20 July annually).

ERA INVOICE #	DATE ISSUED	DUE DATE	DATE PAID	COMPLIANT	NOTES
101554	18/06/2018	20/07/2018	22/06/2018	YES	Due date not specified on invoice but the requirements for payment were specified on the ERA invoice.
102042	14/06/2019	20/07/2019	21/06/2019	YES	
102517	16/6/2020	20/07/2020	26/06/20	YES	Due date not specified on invoice but the requirements for payment were specified on the ERA invoice
1000703	21/06/2021	20/07/2021	21/07/201	YES	Due dated specified on the ERA invoice.
1001913	20/06/2022	20/07/2022	15/07/2022	YES	Due dated specified on the ERA invoice.

Standing Charges were paid within the requirements of *Economic Regulation Authority (Licensing Funding) Regulations 2014 clause 8(2)* for all of the 21 invoices applicable during the audit period. Evidence of effective corrective action following the non-compliance and PAIP from the 2017 Audit.

Documents/Evidence – ERA Licence Payment Report, 53, 67, 68, 69, 106, 110

	Observations: • Noted the ERA invoices for annual licence fee and Standing Charge payments issued from 2021 and 2022 included a due date on the invoice. • Note extract from the Compliance Register stated annual licence fee for EGL17 was due by 30/06 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 obligation prior to the development of the Annual Compliance Reports.			
	Recommendation: Nil	**Action:** Nil		
106⊗ Type [NR]	**OBLIGATION:** ***Electricity Generation Licence, condition 4.1.1 / Electricity Industry Act, section 31(3)*** 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.	**Audit Priority** **2**	**Controls Rating:** **B**	**Compliance Rating:** **2**
	Finding – The Licensee has undertaken risk assessment which was implemented for the site and corporate risks. The Licensee had taken significant measures to ensure the plant performance both contractually and operationally and has taken reasonable steps to minimise potential disruption to the generation and supply of electricity, for example development of the Coal Conservation Strategy. Corporate Business Continuity and IT Disaster Recovery Plans have been developed. Well established accident and emergency procedures were developed and implemented. However, the Risk Register and Compliance Register were noted to include ineffective controls to support the risk mitigation and compliance processes and ensure the implementation of corrective action and there was limited internal monitoring and review processes established. The control measures were generally non-specific, often reliant on tacit knowledge of personnel involved and were not formally assessed for effectiveness (i.e. subject to independent evaluation). For example, from the BWG Corporate Risk extract, Risk No. 109 Critical System Failure - Plant failure or reduced capacity caused by failure of critical systems listed a number of treatment options including; ▪ Perform equipment performance assessments. ▪ Implement quality management system. ▪ Business continuity plan ▪ Review engagement with key suppliers ▪ Data analytics ▪ Cyber review (DCS) Specifically in relation to Risk No. 109, there was no internal monitoring or assurance processes established to assess the effectiveness of the corrective actions. The Audit Team tested the effectiveness of the controls to mitigate Risk 109 and it was noted the Business Continuity Plan has not been reviewed since 2017, does not address the critical system failure (specifically the Business Continuity Plan provided for review defined the actions to be taken in the event of disaster conditions and other crises such as natural disaster / terrorism / epidemic in Western Australia) and required authority for response to be managed by the CEO or a Board Member the organisation. It was a one page document with little or no value for addressing the risk of critical			

	system failure. Similar assessments were made in relation to other treatment options such as BW2 was not actively implementing quality management system but more accurately an asset management system. Further, there was no clear link to the corrective actions, assessment of their effectiveness or indication of when they were achieved to address risk 109. Risk 109 was identified on 12/1/2017 and appears to have been subject to monthly review. The Licensee confirmed that although the BCP was not effective in addressing the risk there were other process established at a management level that addressed the business continuity requirements. These were not referenced in the AMS. **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, Interview Executive General Manager - Commercial **Observations:** • Note confirmation of completion of recommendation 04/2018 was submitted to the ERA during the audit period as agreed in the 2017 PRIP. • 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 issues • Whilst the RACC was suspended, the Board became much more engaged on the day to day of the business and even though Coal supply was the primary risk that the management and board were focussing on, other risks were actively managed by the board – for example, COVID management, impacts to outage timing due to covid and resources. These were 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.			
	Recommendation 02/2022: Refer recommendation 06/2022 (Appendix 2 – Ref 2.5)	**Action:** Refer 2022 PAIP		
107 Type [2]	**OBLIGATION:** ***Electricity Generation Licence, condition 4.1.1 / Electricity Industry Act, section 41(6)*** A licensee must pay the costs of taking an interest in land or an easement over land.	**Audit Priority** **4**	**Controls Rating:** **NP**	**Compliance Rating:** **NR**
	Finding – The Licensee confirmed that Bluewaters Power Station did not take an interest or an easement over land at the recommendation or direction of the Minister under the Licence during 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 land. ▪ For the duration of the audit period, BW2 leased the land on which the power station was located.			
	Recommendation: Nil	**Action: Nil**		

13 Electricity Licences – Licence Conditions and Obligations

119 Type [2]	**OBLIGATION:** ***Electricity Generation Licence, condition 4.3.1 / Electricity Industry Act, section 11*** 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.	**Audit Priority**	**Controls Rating:**	**Compliance Rating:**
		4	**NP**	**1**
	Finding – For the duration of the audit period, the Bluewaters Power 2 Pty Ltd has maintained financial statements for the financial years ending 31 March and these were audited by independent third party accountants and assessed for compliance with Australian financial reporting standards. **Documents/Evidence** – 37, 55, 57, 76, 80 **Observations:** ▪ BW2 financial statements and signed annual audit reports were provided for review for the years ending 31 March 2018, 2019, 2020, 2021 and 2022 ▪ The Licensee provided Quarterly Bluewaters Power Performance Reports and Half yearly accounts applicable to the audit period			
	Recommendation: Nil	**Action: Nil**		
121 Type [2]	**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**	**Controls Rating:**	**Compliance Rating:**
		4	**NP**	**1**
	Finding – The Licensee engaged the Auditor to undertake the Performance Audit with a Request for Proposal for BW2 and requested the Auditor to comply with the Economic Regulation Authority's 2019 Audit and Review Guidelines. **Documents/Evidence** –Bluewaters Power 2 Pty Ltd Performance Audit and Asset Management Review Plan 2022, GES engagement documents, 67 **Observations:** ▪ Copies of communications received from the Authority relating to audit requirements were sent by Licensee through to Auditor to convey requirements specifically the undertaking of audits in compliance with the 2019 Audit and Review Guidelines – Electricity and Gas Licences			
	Recommendation: Nil	**Action: Nil**		
122 Type	**OBLIGATION: Electricity Generation Licence, condition 5.1.5 / Electricity Industry Act, section 11** A licensee must comply, and must require the licensee's expert to comply, with the relevant aspects of the ERA's standard audit guidelines for an asset management system review.	**Audit Priority**	**Controls Rating:**	**Compliance Rating:**
		4	**NP**	**1**

[2]	**Finding** – The Licensee engaged the Auditor to undertake an Asset Management System Review with a Request for Proposal for BW2 and requested the Auditor to comply with the Economic Regulation Authority's 2019 Audit and Review Guidelines. **Documents/Evidence** – Bluewaters Power 2 Pty Ltd Performance Audit and Asset Management Review Plan 2022, GES engagement documents, 67 **Observations:** ▪ Copies of communications received from the Authority relating to audit requirements were sent by Licensee through to Auditor to convey requirements specifically the undertaking of 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.			
	Recommendation: Nil	**Action: Nil**		
123 Type [2]	**OBLIGATION: Electricity Generation Licence, condition 4.4.1 / Electricity Industry Act, section 11** 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.	**Audit Priority**	**Controls Rating:**	**Compliance Rating:**
		2	**B**	**1**
	Finding – The Licensee confirmed there were no significant changes in the circumstances that EGL17 was granted. **Documents/Evidence** – 37, 53, 57, 58, 67, 69, 80 **Observations:** ▪ The Compliance Register did not specifically reference the requirement. ▪ BW2 was not placed under external administration during the audit period ▪ BW2 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 BW2s ability to meet its Licence obligations. ➢ going concern was assessed by management and external auditors in respect to the Financial Statements of the Company. ➢ the Financial Statements have been signed off by the Board and the external auditors.			
	Recommendation: Nil	**Action: Nil**		
124*⊗ Type	**OBLIGATION: Electricity Generation Licence, condition 4.5.1 / Electricity Industry Act, section 11** 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.	**Audit Priority**	**Controls Rating:**	**Compliance Rating:**
		4	**B**	**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 31st 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

	Documents/Evidence – ERA Licence Payment Report,37, 53, 67, 69, 71, 110 **Observations:** ▪ Electricity Generation Licence required under the *Economic Regulation Authority (Licensing Funding) Regulations 2014* to report electricity generation (MW of generation capacity), electricity retail (i.e. number of customers) for BW2 ▪ There was no internal audit or effectiveness review process implemented to determine compliance with licence obligation prior to the development of the Annual Compliance Reports. ▪ It was noted that the Compliance register did not reference the requirement to submit Annual Compliance Reports by 31 August or the requirement to communication information in 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 21 invoices for standing charges due during the audit period. ▪ Form RFE-01 Request for Execution of a Document was used for the 2018 Annual Compliance Report only.			
	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 EGL17. 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.	**Action:** ▪ Refer 2022 PAIP		
125 Type [2]	**OBLIGATION: Electricity Generation Licence, condition 3.8.1 and 3.8.2 / Electricity Industry Act, section 11** A licensee must publish any information as directed by the ERA to publish, within the timeframes specified.	**Audit Priority**	**Controls Rating:**	**Compliance Rating:**
		4	**NP**	**NR**
	Finding – The Licensee confirmed that other than the annual compliance reports and request for standing data described above, the ERA did not direct Buewaters Power 2 Pty Ltd to publish any other information during the audit period.			

	Documents/Evidence –EGL17, 67 **Observations:** ▪ Nil			
	Recommendation: Nil	**Action: Nil**		
126 Type [2]	**OBLIGATION: Electricity Generation Licence, condition 3.7.1 / Electricity Industry Act, section 11** All notices must be in writing, unless otherwise specified.	**Audit Priority**	**Controls Rating:**	**Compliance Rating:**
		4	**NP**	**1**
	Finding – During the audit period the Licensee maintained records of communication with the Authority, primarily via mail or email communication. All responses were in writing and specific notices in relation to the Electricity Generation Licence were reviewed as part of the audit. **Documents/Evidence** – 67 **Observations:** ▪ Examples of communications provided refer Appendix 3, for example submission of compliance reports, etc.			
	Recommendation: Nil	**Action: Nil**		
15 Electricity Industry Metering Code – Licence Conditions and Obligations				
PART 3 – METERS AND METERING INSTALLATIONS				
324 Type [2]	**OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 3.3B** 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.	**Audit Priority**	**Controls Rating:**	**Compliance Rating:**
		4	**NP**	**NR**
	Finding – During the audit period, the Licensee confirmed that BW2 did not become aware of changes in bi-directional electricity flow in a metering point, which was not previously subject to bi-directional electricity flow and as such was require meet notification requirements. **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 not previously subject to bi-directional electricity flows or any 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 and is responsible for their quality control.			
	Recommendation: Nil	**Action: Nil**		
339+ Type [2]	**OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 3.11(3)** A Code participant who becomes aware of an outage or malfunction of a metering installation must advise the network operator as soon as practicable.	**Audit Priority**	**Controls Rating:**	**Compliance Rating:**
		4	**NP**	**NR**
	Finding – The Licensee confirmed that during the audit period there was no outage or malfunction of the metering installations. **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 malfunctions identified during the audit period. Production staff monitor usage and metering discrepancies could be identified through production calculations.			
	Recommendation: Nil	**Action: Nil**		
PART 4 - THE METERING DATABASE				
371 Type [NR]	**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.	**Audit Priority**	**Controls Rating:**	**Compliance Rating:**
		5	**NP**	**NR**
	Finding – The Licensee confirmed that for the duration of the audit period, there were no discrepancies in metering data. However, should discrepancies arise they would be managed in accordance with the PPA, which had Dispute Resolution provisions. **Documents/Evidence** – MYOSH/Viking, Qlik, 34, 44, 52, 53, 67, 100, 108 **Observations:** ▪ BW2 liaised with its customers and the WPN representation when resolving metering discrepancies or queries.			

	Recommendation: Nil	**Action: Nil**		
372 Type [NR]	**OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 4.5(1)** A Code participant must not knowingly permit the registry to be materially inaccurate.	**Audit Priority**	**Controls Rating:**	**Compliance Rating:**
		5	**NP**	**1**
	Finding – The Licensee confirmed they did not knowingly permit the registry to be materially inaccurate during the audit period. **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 database			
	Recommendation: Nil	**Action: Nil**		
373 Type [2]	**OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 4.5(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.	**Audit Priority**	**Controls Rating:**	**Compliance Rating:**
		4	**NP**	**NR**
	Finding – The Licensee confirmed that for duration of the audit period BW2 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 metering database, and BW2 has no active role in managing standing data or the metering registry. ▪ The Licensee was aware of the no later than 2 business days (or such other time as is specified in the applicable service level agreement). However, it was not formally captured in the Compliance Register.			
	Recommendation: Nil	**Action: Nil**		
PART 5 - METERING SERVICES				
	OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 5.4(2)	**Audit Priority**	**Controls Rating:**	**Compliance Rating:**

388+ Type [2]	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**
	Finding – The Licensee confirmed that during the audit period BW2 were not requested to assist Western Power comply with its obligations and Western Power had access the meters to undertake a meter readings and obtain the energy data. **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 passes validation.			
	Recommendation: Nil	**Action: Nil**		
416+ Type [2]	**OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 5.21(5)**	**Audit Priority**	**Controls Rating:**	**Compliance Rating:**
	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**
	Finding – The Licensee confirmed no tests have been requested during the audit period that would contravene the obligations relating BW2 as a user. **Documents/Evidence** – Qlik, 34, 44, 52, 53, 67, 100, 108 **Observations:** ▪ Under the Metering Code BW2 was a user and any test or audit related to times at which the user was the current user.			
	Recommendation: Nil	**Action: Nil**		
417+ Type [2]	**OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 5.21(6)**	**Audit Priority**	**Controls Rating:**	**Compliance Rating:**
	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**
	Finding – Refer finding 416 **Documents/Evidence** – Qlik, 34, 44, 52, 53, 67, 100, 108			

	Observations: ▪ Under the Metering Code BW2 was a user and any test or audit related to times at which the user was the current user.			
	Recommendation: Nil	**Action: Nil**		
PART 6	**DOCUMENTATION**			
448 Type [NR]	**OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 6.1(2)** A user must, in relation to a network on which it has an access contract, comply with the rules, procedures, agreements and criteria prescribed.	**Audit Priority** **4**	**Controls Rating:** **NP**	**Compliance Rating:** **1**
	Finding – The Licensee has confirmed BW2 does not have a specific SLA in place with Western Power, the Metering Code model SLA provides the most relevant reference for the provision of metering services. **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* Type [NR]	**OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 7.2(1)** Code participants must use reasonable endeavours to ensure that they can send and receive a notice by post, facsimile and electronic communication and must notify the network operator of a telephone number for voice communication in connection with the Code.	**Audit Priority** **5**	**Controls Rating:** **NP**	**Compliance Rating:** **1**
	Finding – The Licensee confirmed obligations relating to notices were specified with the Electricity Transfer Access Contract (ETAC). **Documents/Evidence** – 34, 44, 52, 53, 67, 100, 108			

	Observations: ▪ The Licensee had established and evidenced post, electronic and voice communication channels commensurate with the expectations of a major business. The use of facsimile technology has been superseded and was not generally used by code participants.			
	Recommendation: Nil	**Action: Nil**		
453 Type [2]	**OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 7.2(4)** 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.	**Audit Priority** **4**	**Controls Rating:** **NP**	**Compliance Rating:** **NR**
	Finding – During the audit period Western Power did not make any further request for BW2 to provide its contact details. **Documents/Evidence** – 34, 44, 52, 53, 67, 100, 108 **Observations:** ▪ BW2 had satisfied the requirement of notifying Western Power of its contact details			
	Recommendation: Nil	**Action: Nil**		
454 Type [2]	**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** **4**	**Controls Rating:** **NP**	**Compliance Rating:** **NR**
	Finding – During the audit period BW2 did not make any changes to the contact details notified to Western Power. **Documents/Evidence** – 34, 44, 52, 53, 67, 100, 108 **Observations:** ▪ The ETAC detailed communication requirements.			
	Recommendation: Nil	**Action: Nil**		

455 Type [2]	**OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 7.5** 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	**Audit Priority** **4**	**Controls Rating:** **NP**	**Compliance Rating:** **NR**
	Finding – The Licensee confirmed that during the audit period, there has been no disclosure of confidential information and no instance of disclosure of information. Therefore, these obligations cannot be rated for compliance. **Documents/Evidence** – 34, 44, 52, 53, 67, 100, 108 **Observations:** ▪ The PPAs reference confidentiality requirements.			
	Recommendation: Nil	**Action: Nil**		
456 Type [2]	**OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 7.6(1)** A Code participant must disclose or permit the disclosure of confidential information that is required to be disclosed by the Code.	**Audit Priority** **4**	**Controls Rating:** **NP**	**Compliance Rating:** **NR**
	Finding – Refer Obligation 455. **Documents/Evidence** – 34, 44, 52, 53, 67, 100, 108 **Observations:** ▪ The PPAs reference confidentiality requirements.			
	Recommendation: Nil	**Action: Nil**		
PART 8 - DISPUTE RESOLUTION				
457 Type [NR]	**OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 8.1(1)** If any dispute arises between any Code participants, then (subject to subclause 8.2(3)) representatives of disputing parties must meet within 5 business days after a notice given by a disputing party to the other disputing parties and attempt to resolve the dispute by negotiations in good faith.	**Audit Priority** **5**	**Controls Rating:** **NP**	**Compliance Rating:** **NR**

	Finding – The Senior Manager Energy and Retail confirmed that there have been no disputes between code participants regarding metering during the period subject to the audit. Therefore, these obligations cannot be rated for compliance. **Documents/Evidence** – 34, 44, 52, 53, 67, 100, 108 **Observations:** ▪ The PPAs reference dispute resolution processes.			
	Recommendation: Nil	**Action: Nil**		
458 Type [NR]	**OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 8.1(2)** If a dispute is not resolved within 10 business days after the dispute is referred to representative negotiations, the disputing parties must refer the dispute to a senior management officer of each disputing party who must meet and attempt to resolve the dispute by negotiations in good faith.	**Audit Priority**	**Controls Rating:**	**Compliance Rating:**
		5	**NP**	**NR**
	Finding – Refer Obligation 457 **Documents/Evidence** – 34, 44, 52, 53, 67, 100, 108 **Observations: Nil**			
	Recommendation: Nil	**Action: Nil**		
459 Type [NR]	**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**	**Controls Rating:**	**Compliance Rating:**
		5	**NP**	**NR**
	Finding – Refer Obligation 457 **Documents/Evidence** – 34, 44, 52, 53, 67, 100, 108 **Observations: Nil**			

	Recommendation: Nil	**Action: Nil**		
460 Type [2]	**OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 8.1(4)** If the dispute is resolved by representative negotiations, senior management negotiations or CEO negotiations, the disputing parties must prepare a written and signed record of the resolution and adhere to the resolution.	**Audit Priority**	**Controls Rating:**	**Compliance Rating:**
		4	**NP**	**NR**
	Finding – Refer Obligation 457 **Documents/Evidence** – 34, 44, 52, 53, 67, 100, 108 **Observations: Nil**			
	Recommendation: Nil	**Action: Nil**		
461 Type [NR]	**OBLIGATION: Electricity Generation Licence, condition 4.1.1 / Electricity Industry Metering Code, clause 8.3(2)** The disputing parties must at all times conduct themselves in a manner which is directed towards achieving the objective in subclause 8.3(1).	**Audit Priority**	**Controls Rating:**	**Compliance Rating:**
		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 2 PTY LTD ASSET MANAGEMENT REVIEW

MARCH 2023

TABLE 19 Audit Review Ratings and Recommendations

1. ASSET PLANNING 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).* **Outcome** – *Asset planning is integrated into operational or business plans, providing a framework for existing and new assets to be effectively utilised and their service optimised.*			**OVERALL EFFECTIVENESS RATING**	
			PROCESS & POLICY RATING*	**PERFORMANCE RATING**
			B	**2**
No.	**2022 REVIEW REPORT EVIDENCE/ /VERIFICATION/FINDING/ACTION**			
1.1	**OBLIGATION: Asset management plan covers the processes in this table*** *Table 23 of the 2019 Audit and Review Guidelines – Electricity and Gas Licences	**Review Priority** **4**	**P&P* Rating:** **B**	**Performance Rating:** **3**
	Finding – 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. As detailed in the 2017 Review Report and PRIP, during the review period the Licensee commenced redevelopment of its AMS with the assistance of external consultants), as well as a review of the asset management planning cycle to align it with Bluewaters' strategic business planning processes. A management decision was made to not implement the AMS developed by the consultants in the format provided. Instead, a change in direction was taken in relation to Bluewaters' AMS and the AMPS platform initiative was driven by an effort to move the AMPs to a digital system and as such changing the Plant Area AMPs from static (i.e. annually reviewed document) to dynamic/live processes (i.e. up to date AMS software). It was understood aspects of the AMS developed by the consultants have been utilised in the development and population of the AMPS platform. 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 noted) 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 was ongoing at the 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
  - Emergency Response & Crisis Management Processes
  - OEM Recommendations
  - 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 BW2.
- 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 BW2 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 BW2 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 BW2 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 BW2 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 5-year 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. • 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 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 assses 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:	**Action: Refer 2022 PRIP**

	➢ Review and update the AMP and the SAMP with consideration of the requirements of Table 23 (refer Audit Guideline) ➢ Undertake Gap Analysis of BW2 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.			
1.2	**OBLIGATION: Planning processes and objectives reflect the needs of all stakeholders and are integrated with business planning**	**Review Priority** **4**	**P&P* Rating:** **A**	**Performance Rating:** **1**
	Finding – Annually the Strategic Objectives were approved by the Board and set the framework for the Asset Management Plan objectives. The identified the asset objectives for the BW2. The SAMP referenced the role of stakeholders in setting the requirements and expectations for the asset objectives. The SAMP (2019-2024) and the AMP (2022-2023) listed the major stakeholders and scored for each stakeholder with respect to each interest category defining their scope of interest. **Documents/Evidence** – 1,3,5,7,9,12,13,24,33,34,36,39,40,43, 78, 99 and Perth Office and Site Interviews **Observations:** ▪ The high-level obligations of the PPA with Synergy, Water Corporation, BGM and AEMO were captured within the AMP and LCM ▪ Key contracts were referenced in the AMP (i.e. PPAs, Water Supply Agreement and EGL17). ▪ Planning and conducting asset outages of BW2 were conducted in consultation with in-house stakeholder, (i.e the Trading Team and AEMO to limit and control loss of supply). ▪ The Station Manager and the Trading Team confirmed there have been no disputes and/or complaints from their customers during the audit period.			
	Recommendation: None		**Action: Nil**	
1.3	**OBLIGATION: Service levels are defined in the Asset Management Plan**	**Review Priority** **4**	**P&P* Rating:** **A**	**Performance Rating:** **2**

Finding – The PPA's were referenced in the BW2 AMP and the annual forecast of power generation for the next 18 months was also detailed in the financial and management reports. Limited details of specific service levels were defined in the AMP but were evident in the SAMP refer performance summary forecasts, operational controls and demonstrated plant performance. The performance BW2 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.

Inclusion of the service levels in the SAMP was considered appropriate as they were focused on Availability rates and low Forced/Maintenance Outage Factor (**FOF/MOF**) which drove the asset and the financial performance of the business.

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:

- 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,
- 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.
- Copies of the Cash Flow Forecasts (including 12 weekly forecasts) were viewed as these were submitted to the Management Team and the Board on a weekly basis. These reports detailed weekly service levels including BWPS Coal stockpiles, BW2 generation and coal profile, BW2 financial position and any significant incident.

Recommendation: Nil | **Action:** Nil

1.4	**OBLIGATION: Non-asset options (e.g. demand management) are considered**	**Review Priority**	**P&P* Rating:**	**Performance Rating:**
		5	**A**	**1**

Finding – Non-asset options (e.g. demand management) were considered, for example, with the difficulties in the coal supply chain to BW2, the Trading team have implemented contingencies to ensure continual supply of power to their current customers. Weekly reports were submitted to the Management and the Board and were provided for review.

Documents/Evidence – 1,3,5,7,9,12,13,33,34,36,39,40,80, 96 and Perth Office and Site Interviews.

Observations:

- The Trading team had implemented a process of using third party bilateral relationship to ensure continuous supply of power to their customers.
- The Trading team and the Station Manager were in daily contact in the implementation of the Coal Conservation Strategy, and this was reported weekly to the Board.

	Recommendation: None		**Action: Nil**	
1.5	**OBLIGATION: Lifecycle costs of owning and operating assets are assessed**	**Review Priority 4**	**P&P* Rating: A**	**Performance Rating: 2**
	Finding – Lifecycle costs of BW2 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. **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 4**	**P&P* Rating: A**	**Performance Rating: 1**
	Finding – Costs of generation were calculated annually as part of Strategic Planning, AMP and budgeting process with the Board approving the final budgets. Future planned CAPEX and OPEX project cost were included in the calculation and projected for 5 years. **Documents/Evidence** – 57, 58, 80, 83 and Perth Office interviews **Observations:** ▪ All costs pertaining to BW2 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 approval process, (i.e. OME and Finance Workflow).			
	Recommendation: None		**Action: Nil**	
1.7	**OBLIGATION: Costs are justified, and cost drivers identified**	**Review Priority**	**P&P* Rating:**	**Performance Rating:**

		4	**A**	**1**
	Finding – Costs were well identified and justified. Costs and cost drivers were monitored vigilantly and reported all the way to the Board. Variances were identified as part of the process and investigations conducted. **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), trading and market costs, CAPEX (i.e. outage costs), financing costs, total cost of generation ($/MWh), fixed and variable operating and maintenance costs (O&M), fuel costs and tax costs.			
	Recommendation: None		**Action: Nil**	
1.8	**OBLIGATION: Likelihood and consequences of asset failure are predicted**	**Review Priority 4**	**P&P* Rating: B**	**Performance Rating: 2**
	Finding – Asset failure risks at the plant area level were identified and thoroughly investigated utilising FMECA. Any asset failures were recorded in monthly reports and concurrently assigned to the Engineering group for further investigation. Any operative and/or maintenance remedial actions identified were prioritised and scheduled into maintenance plan and future amendments to the Plant Area AMPs. Asset failures were included in the OME Risk register, using VIKING MYOSH. In viewing the OME Risk Register it was identified that in general, risks were inconsistently described, risk mitigation measures were non-specific or measurable and monitoring of the risks needed improvement. It was difficult to assess what controls had been put in place to lower the Inherent Risk Rating. In some 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 basis. It was identified that there has been a fair bit of erosion in the cold section baskets which was causing these blockages. As a result, the engineering submitted an AFE for CAPEX that followed through a well-defined process. ▪ External consultant engaged to perform condition inspection and recommend repair options, notably for the turbine and boilers. ▪ Thorough inspections of assets were undertaken during audit period and detailed asset condition reports including images were presented during the audit. ▪ Critical Spares were identified and to ensure these were well maintained at the required levels and readily available for outages, strategic spares shed was constructed in 2021/2022 with a full CAPEX business cases. ▪ At Site, personnel demonstrated that at daily meetings, when SAP workorders were received it went through a Notification Notice priority process where it was assigned to the appropriate maintenance schedule or FMECA process. ▪ Examples where residual risk determined where controls not implemented include Risk ID critical system failure 109 and the coal supply risks 204, 195 and 115			
	Recommendation: None		**Action: Nil**	

1.9	**OBLIGATION: Asset management plan is regularly reviewed and updated**	**Review Priority**	**P&P* Rating:**	**Performance Rating:**
		4	**B**	**3**
	Finding – 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 develop and implement the AMPS platform for Plant Area AMPs. An AMP for the period 2022-2023 was developed in December 2022. The Power Station Manager indicated that the Plant Area AMPs were reviewed as part of the Asset Management Planning Cycle (refer S2.3 of the SAMP 2019-2024), however, these reviews were not documented. As detailed previously, the SAMP and the AMP have not been regularly reviewed and updated or audited for accuracy (i.e. internally or externally). **Documents/Evidence** – 1,3,5, email dated 28th February and Perth and Site interviews. **Observations:** ▪ During the previous audit period the AMP was reviewed annually due to changes in strategic direction this process did not continue in the 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 with respect to RACI requirements.			
	Recommendation 05/2022: BWPS finalise its development and implementation of the AMPS Platform and its review processes as per the ERA guidelines. Ensure the review processes for the AMS and AMPs are documented and aligned with ISO 55000 or similar as a minimum standard.		**Action:** Refer PRIP 2022	

2. ASSET CREATION AND ACQUISITION Assess the adequacy of policies and procedures covering the creation and acquisition of assets Select a sample of asset creations/ acquisitions over the review period and confirm adequate procedures have been followed and actual costs are as predicted **Key Process** – *Asset creation/acquisition is the provision or improvement of assets.* **Outcome** – *The asset acquisition framework is economic, efficient and cost-effective; it reduces demand for new assets, lowers service costs and improves service delivery.*			**OVERALL EFFECTIVENESS RATING**	
			PROCESS & POLICY RATING*	**PERFORMANCE RATING**
			A	**2**
No.	**2022 REVIEW REPORT EVIDENCE/ /VERIFICATION/FINDING/ACTION**			
2.1	**OBLIGATION: Full project evaluations are undertaken for new assets, including comparative assessment of non-asset options**	**Review Priority** **4**	**P&P* Rating:** **A**	**Performance Rating:** **1**
	Finding – BW2 Life cycle costings model had full project evaluation to end of life, including CAPEX, OPEX and Asset Disposal. For each project that required significant expenditure, as per the Delegations and Financial rules, it was assessed with its own business case and full financial analysis was undertaken. The projects costs were integrated into the yearly financial budgeting plus further 4 years. **Documents/Evidence** – 1,3,5,7,8,9,12,33,36,40,43,76, 80 **Observations:** . ▪ BW2 had in place a full project evaluation process and financial model. The project business case addressed financial details, source of funding supplier details, engineering particulars and a complete risk assessment. This then followed through the OME finance and procurement workflow procedure with appropriate sign – offs as per the approved delegation. ▪ Asset procurement process of the Gas Air Heater Cold Baskets and Strategic Spares Shed was viewed.			
	Recommendation: None		**Action: Nil**	
2.2	**OBLIGATION: Evaluations include all life-cycle costs**	**Review Priority** **4**	**P&P* Rating:** **A**	**Performance Rating:** **1**
	Finding – CAPEX projects were evaluated for its operational life expectancy. These projects were included into lifecycle costings of the plant, that is depreciation and subsequently into its annual externally audited financial statements. **Documents/Evidence** – 1,3,5,7,8,9,12,33,40,43,58,80 and Perth and Site interviews			

	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 2024.			
	Recommendation: None		**Action: Nil**	
2.3	**OBLIGATION: Projects reflect sound engineering and business decisions**	**Review Priority** **4**	**P&P* Rating:** **A**	**Performance Rating:** **1**
	Finding – Based on the CAPEX evaluations forms projects implemented on site, such as the SAP Trading Infrastructure, Mill Gear Box and Shotts to Bluewaters pipeline, projects were evaluated in terms of engineering, business risk assessments and cost/benefit analysis. As appropriate external vendors (OEMs) were involved in the final design and implementation of project deliverables. **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:** • BW2 had in place Boiler Feed Pump and Cooling Tower Fan commissioning protocols on the BWPS intranet and SAP. • BWPS had in place Decommissioning Plans for BW2 (Dated 2006)			
	Recommendation: None		**Action: Nil**	

2.5	**OBLIGATION: Ongoing legal / environmental / safety obligations of the asset owner are assigned and understood**	**Review Priority**	**P&P* Rating:**	**Performance Rating:**
		4	**B**	**3**

Finding – The Licensee has established Risk and Compliance processes to address some legal obligations, however these were not consistently utilised. A critical review of the compliance and risk processes highlighted inclusion of EGL4 renewal, the AMS and Performance Audit only. It was noted there was the absence of other compliance requirements in the register (for example, EGL04 Obligation 124 reporting of annual compliance report by 31 August, annual reporting standing data), 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 (for specific example refer to Risk No. 109 detailed in Obligation 106 – Appendix 1).

Whilst it was noted the Risk Management Process considered compliance obligations as part of the risk assessment matrix, interrogation of the risk treatment plans against the compliance obligations did not demonstrate this was well implemented (refer examples risk 109 detailed in Obligation 106 and the coal supply risks 204, 195 and 115 detailed below). The monitoring of controls/treatment 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 and automatically sent reminders to Responsible Person until completed. Corporate compliance requirements were also prompted as such however these, depending on their risk assessment, were also elevated to the Board.

Compliance was dependent on the identification of the compliance obligation, the inclusion of the requirement within the appropriate system, the quality of detail of the process established to ensure its legal requirement was fulfilled and the training and awareness of the employees to ensure statutory tasks were not archived. Note SAP was not always used to convey the legal requirement of a task, for example statutory inspection.

Another example identified was related to the coal supply issue and the subsequent development of the Coal Conservation Strategy which was a key focus for the organisation in relation mitigating financial risks and legal obligations during the review period. It was understood that due to limited resources the RACC was suspended for 2022 to allow specialised projects to be established to mitigate the potential coal supply risks. It was noted that the Risk Register referenced the Coal Supply Issues (refer Doc No 204, 195 and 115) but both risks 204 and 195 appeared to only have been included in the Risk Register in December 2022 and January 2023 and risk 115 was which addressed Coal Supply Constraints was identified in September 2018. Evidence was provided to demonstrate the consideration of coal supply issues and associated risks and a potential glitch in the Viking system was suggested as leading to inaccurate reflection of dates identified. It was noted the Compliance Register does not reference the Coal Supply requirements.

This may be attributable to compliance being driven by the tacit knowledge and expertise of employees, the disconnect between corporate and site operations, the limitations of quality of the information (refer obligation 106 as an example) contained within the primary systems to achieve compliance (i.e the Risk Register and Compliance Register).

Documents/Evidence – 1,2,5,7,8,9,18,22,24,36,40,57,58,69, 110 and Perth and interview Executive General Manager - Commercial

	Observations: ▪ 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 general attributable to tacit knowledge of the employees and not specifically the strength of the systems and the controls applied. Refer example in obligation 106 (Appendix 1). ▪ On a quarterly basis the Management presented to the Board health, safety, environmental, Regulatory, Strategic and Governance obligations, for example WEM Regulatory updates, OSH Act, privacy Act and AEMO legal requirements. ▪ Risk Audit and Compliance Committee (RACC) was reinstated by the Board in October 2022. It was originally established in 2019 and monitored all risks across BWPS and reported to the Board. Board Directors form members of this Committee. The RACC was suspended during 2022 as Board oversight through the quarterly RACC meeting was replaced by active board and lender involvement in the business on a weekly basis. Evidence of Board involvement from documented confidential processes was demonstrated to the Audit Team. ▪ BWPS does have in place Health and Safety Policy and Environmental Policy ▪ Safety meetings were held on site monthly.	
	Recommendation 06/2022 : It is recommended that the organisation undertake a review of the Compliance Register (refer recommendation 01/2022) and also review the risk management processes to ensure the risk register is: ➢ Fit for purpose ➢ Contains accurate information ➢ Is complete (i.e. fields that are required are not left empty, refer examples observed:) - Active/Inactive, - 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? - 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) ➢ Is included in an audit program (i.e. monitored for effectiveness) ➢ Is communicated and users trained in its use ➢ Reviews and amendments to risks are tracked	**Action: Refer 2022 PRIP**

	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. ASSET DISPOSAL	OVERALL EFFECTIVENESS 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 **Key Process** – *Asset disposal is the consideration of alternatives for the disposal of surplus, obsolete, under-performing or unserviceable assets.* **Outcome** – *The asset management framework minimises holdings of surplus and underperforming assets and lowers service costs.* *The cost-benefits of disposal options are evaluated.*	**PROCESS & POLICY RATING***	**PERFORMANCE RATING**
	A	**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** **4**	**P&P* Rating:** **A**	**Performance Rating:** **1**
	Finding – Systematic inspections and reviews of any incidents of the power station were reported in SAP and discussed at Daily Log Book Handover and Daily Maintenance meetings. At these meetings any underperforming assets were prioritised and Notification Notice produced either for the Maintenance and/or Engineering Department. Accordingly, Maintenance schedules were revised. **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 planning and condition monitoring.			
	Recommendation: None		**Action: Nil**	

3.2	**OBLIGATION: The reasons for under-utilisation or poor performance are critically examined and corrective action or disposal undertaken**	**Review Priority 4**	**P&P* Rating: A**	**Performance Rating: 1**
	Finding – During the review period BW2 was being underutilised as a result of the Coal Supply Chain issues and due to BWPS implementation of a coal management strategy. BW2 achieved above budget availability however its capacity factor was reduced due to the lower utilisation. Given the operating circumstances, BW2 continued to monitor performance of all its assets and as appropriate 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 departments. ▪ Internal expertise, OEM suppliers and consultants were used for root cause analysis (FMECA) and corrective action.			
	Recommendation: None		**Action: Nil**	
3.3	**OBLIGATION: Disposal alternatives are evaluated**	**Review Priority 4**	**P&P* Rating: A**	**Performance Rating: 1**
	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 scrap metal.			
	Recommendation: None		**Action: Nil**	
3.4	**OBLIGATION: There is a replacement strategy for assets**	**Review Priority 4**	**P&P* Rating: A**	**Performance Rating: 1**
	Finding – There was in place a rolling 5 year Capital Expenditure and Strategic Spares Budget and a 5 year SAMP (from 2019 to 2024) which identified all critical spares. Critical spares were held on site and stock levels maintained by onsite personnel. All replacements were made on condition derived from inspection, failure and or FMECA. **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. ENVIRONMENTAL ANALYSIS	OVERALL EFFECTIVENESS 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 **Key Process** – *Environmental analysis examines the asset management system environment and assesses all external factors affecting the asset management system.* **Outcome** – *The asset management system regularly assesses external opportunities and threats and identifies corrective action to maintain performance requirements.*	**PROCESS & POLICY RATING***	**PERFORMANCE RATING**
	B	**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 BW2 experienced difficulties in its coal supply chain and utilised its stockpile management strategies to maintain production. Since July 2022, BW2 again faced major issues in coal supply chain which was resultant in its coal supplier Griffin Coal Mining Company being put into Receivership and Liquidation. BW2 implemented strategies measures to 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 continual supply of power to customers.
- Continued reassessments of its maintenance schedules of power plant equipment.

In all the measures implemented risk management and assessments have been applied to ensure assets were being well managed and controlled. In addition, the Board and Management received weekly cash flow analysis with updates on the implementation of the strategies.

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.

Increased network connection of renewables and potential expiry of current PPA's were recognised as threats by the Board in the Strategic Plan, as well as being conveyed by management during interviews. As a result, BW2 were focussed on ensuring compliance with WEM and exploring new opportunities for PPAs with potential customers.

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, BW2 has been vigilant in incorporating these into their 5 year and Life cycle financial models. (Commercial Sensitivity)
- SAMP, AMP and financial budgets were developed collaboratively developed with inputs of both corporate and site personnel.
- Site and Corporate Risk Registers have included the threat to Coal, Water and Ash supply chain but lacked detailed risk treatment mitigation measures (refer in asset management criteria 2.5)
- Strategic Plans to the Board, presented quarterly provided updates on the changes in the operating environment, addressing coal, water, ash and any regulatory matters.
- It was noted that risk to the business for ash disposal was not contained in the risk register.

Recommendation 07/2022: Refer recommendation 06/2022 (Appendix 2 – Ref 2.5)

Action: Refer 2022 PRIP

4.2	**OBLIGATION: Performance standards (availability of service, capacity, continuity, emergency response, etc.) are measured and achieved**	**Review Priority** **2**	**P&P* Rating:** **A**	**Performance Rating:** **2**

Finding – The Station Manager confirmed during the audit period BW2 performance standards were achieved in terms of its annual availability and capacity factor prior to July 2022 including planned and unplanned outages. From July 2022. since the issues of Coal supply chain, BWI has met its availability, but its capacity factor has been reduced due to the implementation of the Coal Conservation Strategy. AEMO was also consulted during these matters. KPI's were included in the AMP and all operational and financial reporting to management and the Board. Performance measures were also captured in the annual operations and financial reports.

BWPS had in place an Emergency Response Plan and Business Continuity and Disaster Recovery Framework (BCDRF). The BCDRF was tested in July 2019. This involved testing the Crisis Management Program and in particular what defined a crisis and how BWPS could manage the Crisis. A debrief workshop was held during that time but there was no evidence on the follow up of identified actions. Since then, there has been no evidence of any further testing of the BCDRF. There was an ineffective and inefficient link between the desktop Crisis Management Actions and the risk register.

Documents/Evidence – 1,3,5,7,9,16,22,24,26,36,40,42,57,58,108, 110 and Perth and Site Interviews.

Observations:

- All operational, maintenance, health, safety, environmental, governance and trading performance standards were measured and reported weekly, monthly and quarterly to both the management and the Board.
- The quarterly Board reports did contain performance measures on any incidents and relevant mitigation measures that were implemented and if required, future actions planned. Updates were also reported to the Board in quarterly meetings.
- Capacity and emissions testing were carried out routinely and reported accordingly.
- BWPS has am MoU with FESA. BWPS does participate in the regional Collie Emergency Response Activities.
- In October 2020, BW2 conducted a desktop exercise for COVID measures.
- BW2 did have in place an Emergency Response Plan however there was no evidence of any scenario simulations and/or drills. During the site interview the Station Manager did stipulate 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 – BW2 submitted Compliance Reports to ERA during the Audit report. With respect to its statutory obligations, BWPS did address the requirements of the Modern Slavery Act and were in the process of implementing and fulfilling the requirements of the Privacy Act, WEM Regulations and conducting a Critical Infrastructure Risk Management Framework for the Register of Critical infrastructure assets. Awareness to the compliance requirements and achievement of the compliance out was noted to be attributable primarily to the expertise and tacit knowledge of the employees and not necessarily driven by the systemic processes of the AMS. Whilst it was acknowledged the Board were aware of compliance requirements, a deficiency of the AMS was noted with respect to limitations as 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. **Documents/Evidence** 58,69,70,71,72,73, **Observations:** ▪ BW2, through its governance process had established a process whereby regulatory obligations were identified and implemented. These were then reported in monthly and quarterly reports to the Board.			
	Recommendation 08/2022: Recommendation 01/2022 (Refer Appendix 1 – 103)		**Action:** Refer 2022 PRIP	
4.4	**OBLIGATION: Service standard (customer service levels etc.) are measured and achieved.**	**Review Priority** **4**	**P&P* Rating:** **A**	**Performance Rating:** **1**
	Finding – Service levels were defined and measured in the customer PPA's. Monthly Operations Reports detail actual and budgeted generation which is derived from per PPA and market demands. **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. ▪ During the audit period no PPA customer complaints were recorded. ▪ Market demands also influenced service standards.			
	Recommendation: None		**Action: Nil**	

5. ASSET OPERATIONS	OVERALL EFFECTIVENESS RATING	
Assess the adequacy of policies and procedures covering operations functions Assess the adequacy of staff resourcing and training Confirm the policies and procedures have been followed during the review period by examining the asset register, observing operational procedures, analysing costs, etc. Assess the significance of exceptions identified and whether adequate corrective action has been taken **Key Process** – *Asset operations is the day-to-day running of assets (where the asset is used for its intended purpose).* **Outcome** – *The asset operation plans adequately document the processes and knowledge of staff in the operation of assets so service levels can be consistently achieved.*	**PROCESS & POLICY RATING***	**PERFORMANCE RATING**
	A	**2**

No.	2022 REVIEW REPORT EVIDENCE/ /VERIFICATION/FINDING/ACTION			
5.1	**OBLIGATION: Operational policies and procedures are documented and linked to service levels required**	**Review Priority 4**	**P&P* Rating: A**	**Performance Rating: 1**
	Finding – BW2 operation has been well established and as such has well developed key operational systems, processes and documents to ensure service levels are achieved. The SAMP, AMP and Life Cycle Costings Model (LCCM) detailed the operational performance against targeted budget performance with all planned and unplanned outages factored in. OEM manuals and operational procedures were readily accessible from the intranet. Operating performance levels were monitored and reported regularly in monthly reports by the Station Manager. **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 Team and AEMO. • Major and Minor CAPEX projects were detailed and assessed in the rolling 5 Year CAPEX and Strategic Spares schedule. • Critical alarms listing in SCADA and DCS (P1 and P2) linked to required service levels as determined by the Trading Team. In addition, the control room also had direct communication with AEMO. • Daily, Weekly and Monthly reports detailed operational parameters. Weekly and Quarterly reports were presented to the Board. Weekly reports also included a 12-week projection on operating parameters.			
	Recommendation: None		**Action: Nil**	
5.2	**OBLIGATION: Risk management is applied to prioritise operations tasks**	**Review Priority 4**	**P&P* Rating: A**	**Performance Rating: 2**

	Finding – BW2 Has in place operational process whereby the priorities on the Alarms utilises the BWPS Risk Management Framework, VIKING MYOSH and the defined risk appetite to determine the operational priorities, in particular the planning of outages and probable extensions of outages. These established documents, processes and systems assist BW2 in reducing the risk of operational tasks. Onsite operation and maintenance staff were qualified and experienced to understand the operational risks and prioritized the tasks to mitigate or reduce these to as low as practicable and maintain safe and efficient operation of BW2 **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 October 2022 to April 2023 to formally accept the risk based with this change. Subsequently the delay in outage had an adverse impact on the certification of the Boiler. A complete risk assessment was carried out between the OEM, Independent Boiler Inspector (ALS) and BWPS operational and engineering personal in order to extend the certification from 18 months to 24 months. (Provided separately in email dated 14th February). ▪ Risks associated with the safe operation of the unit was reported in daily logs handover, reported in Viking MYOSH and discussed at appropriate meetings, that is daily, weekly, safety, technical, engineering and reported to the Station manager. The Operational Incidents Risk register Jan 2018 to Nov 2022 was sighted. OME Risk Register was also sighted but lacked well defined risk descriptions, specific details of inherent controls and risk treatment plans. Risks categorised as High or Critical were elevated to the Corporate Risk Register.			
	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**	**Review Priority** **4**	**P&P* Rating:** **A**	**Performance Rating:** **1**
	Finding – BW2 uses the KKS system which has a unique identifier number for each asset and was recorded in SAP. During the site demonstration, utilizing the AMP system module and SAP work orders, the history of the asset in terms of its location could be traced. Within SAP, utilizing the KKS number was effective in displaying its asset condition and work order history. Also it was demonstrated via the SAP system, asset KKS numbers could also provide sight of upcoming maintenance works The AMP system also showed the main asset groups Asset Area Plans which provided additional information on the condition of the assets. **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 opportunity. • Financial Asset register recorded the Life cycle costing of the assets and applicable depreciation.			
	Recommendation: None		**Action: Nil**.	

5.4	**OBLIGATION: Accounting data is documented for assets**	**Review Priority 4**	**P&P* Rating: A**	**Performance Rating: 1**
	Finding – Assets were well documented in the accounts and financial reports summarised monthly. Financial reports to Boards and externally audited. The financial information contained within the asset register detailed acquisition and retirement date, capital costs, depreciation rate and write-off of assets. This was utlised in BW2's life cycle costing. **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 4**	**P&P* Rating: A**	**Performance Rating: 1**
	Finding – The Station Manager confirmed daily, Weekly and Monthly Generation reports detailed the generation 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 operational costs was extensive and in-depth. **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 presented to Management and Boards. These cash 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 4**	**P&P* Rating: A**	**Performance Rating: 2**

	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**

6. ASSET MAINTENANCE			OVERALL EFFECTIVENESS RATING	
Assess the adequacy of policies and procedures covering maintenance functions Confirm the policies and procedures have been followed during the review period by examining maintenance schedules, analysing costs, etc. Assess the significance of exceptions identified and whether adequate corrective action has been taken **Key Process** – *Asset maintenance is the upkeep of assets.* **Outcome** – *The asset maintenance plans cover the scheduling and resourcing of the maintenance tasks so work can be done on time and on cost.*			PROCESS & POLICY RATING* **A**	PERFORMANCE RATING **2**
No.	**2022 REVIEW REPORT EVIDENCE/ /VERIFICATION/FINDING/ACTION**			
6.1	**OBLIGATION: Maintenance policies and procedures are documented and linked to service levels required**	**Review Priority** **4**	**P&P* Rating:** **A**	**Performance Rating:** **2**
	Finding – Maintenance plans and procedures were based on OEM recommendations, condition monitoring, engineering investigation as a result of FMECA and were collated in SAP. The maintenance procedures were also available on the intranet under "OEM". For the turbines, service agreements were in place with GE. Maintenance was carried out on agreed frequency and/or operating hours as per the maintenance schedules. Additional safety procedures such as the Lock Out Tag Out procedures were provided in addition to the monitoring and inspection procedures. **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 as per the results of condition monitoring. This was carried out in consultation with the OEM and operation requirements. • Maintenance procedures were available on Intranet, SAP and controlled via document control in 'Content Manager". • The Asset Area Plans showed asset information, performance levels, that is the required service levels, maintenance strategy and activity. It also included any Failure Mode analysis information. • Within the AMP reference was made to appropriate maintenance manuals and SAP planning documentation.			
	Recommendation: None		**Action: Nil**	

6.2	**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 OEM recommendations and the outcomes of condition monitoring. The results of inspections were documented and saved against SAP work orders. SCADA continuously monitored the performance of the plant. Outcomes from the maintenance routines were discussed 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 discussed at daily meetings where the outcomes and/or any further maintenance activities were prioritised and further prioritised as per notification Notices. These notices were then assigned to operations or maintenance or outages for remedial actions. • P1 and Ex-quantum were used to analyse the condition monitoring data and trends.			
	Recommendation: None		**Action: Nil**	
6.3	**OBLIGATION: Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule**	**Review Priority** **4**	**P&P* Rating:** **A**	**Performance Rating:** **1**
	Finding – Scheduled maintenance performed was performed as per OEM requirements and SAP maintenance schedules. Log Book Handover Logs and Daily maintenance meetings prioritised Notification Notices and these were then implemented and followed. All maintenance activities were reported weekly and monthly. Major maintenance activities were also presented to the Board in quarterly reports. If there were any deviations from the maintenance schedule, for example delay in outages to perform major compliance and/or maintenance schedules, the site personnel carried out an risk assessment and rescheduled the maintenance activities. For example, delay in outage had an adverse impact on the certification of the Boiler. A complete risk assessment was carried out between the OEM, Independent Boiler Inspector (ALS) and BWPS operational and engineering personal in order to extend the certification from 18 months to 24 months. (Provided separately in email 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 "OME" intranet. **Observations:** • The SAMP outlined the objectives of maintenance and the AMPs, Asset Area Plans and the Computerised Maintenance Management System (**CMMS**) (SAP) contained a list of maintenance strategies or requirements from OEMs, licenses and regulations as well as internal requirements based on asset condition and performance (risk based), and operator experience (i.e. input to workshops). • Preventative Maintenance Plans were loaded into SAP (CMMS) and the WOs were available a week and month ahead. • Corrective Maintenance was entered into SAP (CMMS) as required and dependent on risk subject to defects reporting procedure. • Site personnel had daily meetings to review and plan the schedules for completion each day.			

	• 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 Departmental managers and then followed through the OME finance Workflow process. Outage budgets were approved 2 years in advance. • BW2 had in place Business Continuity and Disaster Recovery Plan, Emergency Evacuation plans, Rescue plans for fly ash and water contamination, Boiler, Main Switchboard, Cooler Feed pumps, primary and Secondary Air Fan and Duct			
	Recommendation: None		**Action: Nil**	
6.4	**OBLIGATION: Failures are analysed, and operational/maintenance plans adjusted where necessary**	**Review Priority** **4**	**P&P* Rating:** **A**	**Performance Rating:** **1**
	Finding – BW2 and the site personnel has established processes for the capture and analysis of failures and the amendment to operational and maintenance plans where required. Using FMECA, a root cause analysis and improvement cycle to failures was evident where defects, inspection results were fed into SAP and were identified to ongoing outage plans to assist in identifying operational and/or maintenance risks and any subsequent additional maintenance activities. Budget approval was sought and accordingly adjustment made to operational and maintenance plans. **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 department and in consultation with OEM as needed. For example, Bluewaters Cold Case baskets, Mill gear box. • During the audit interview the site personnel informed the auditors that they were in the process of aligning the following processes: FMECA, SAP, AMP, Viking with the base documents registered in Content Manager.			
	Recommendation: None		**Action: Nil**	
6.5	**OBLIGATION: Risk management is applied to prioritise maintenance tasks**	**Review Priority** **4**	**P&P* Rating:** **A**	**Performance Rating:** **2**

	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** **4**	**P&P* Rating:** **A**	**Performance Rating:** **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 BW2. **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**	

7. ASSET MANAGEMENT INFORMATION SYSTEM	OVERALL EFFECTIVENESS RATING	
Assess the adequacy of policies and procedures covering the general control and security of the computer systems used to provide management information on compliance with service standards / licence obligations Confirm management reports on service standards / licence obligations are reviewed and substantial exceptions to service standards / licence obligations are promptly followed up and implemented **Key Process** – *An asset management information system is a combination of processes, data and software supporting the asset management functions.* **Outcome** – *The asset management information system provides authorised, complete and accurate information for the day-to-day running of the asset management system. The focus of the review is the accuracy of performance information used by the licensee to monitor and report on service standards.*	**PROCESS & POLICY RATING***	**PERFORMANCE RATING**
	A	**1**

No.	2022 REVIEW REPORT EVIDENCE/ /VERIFICATION/FINDING/ACTION			
7.1	**OBLIGATION: Adequate system documentation for users and IT operators**	**Review Priority** **5**	**P&P* Rating:** **A**	**Performance Rating:** **2**
	Finding – The AMS system was made of the following system: SAP (CMMS), MYOSH Viking (HSE and Risk Register), AMPS (SAMP, AMP and Asset Area Plans), SAGE e-Pass (PTW System), Gallagher (Site Access Control), QLIK and Content Manager (Document Control System). These systems were viewed on intranet. The intranet web portal was the main platform to access all e-platforms and was available to everyone with appropriate assigned access. It was also specific to Business Units (included sub-system), for example Finance could load up documents relevant to them and have controlled access. Within each sub-system there were operating manuals and training modules. **Documents/Evidence** – 3,5,13,22, 110 Intranet web Portal, 106 and Perth and interview with IT Manager **Observations:** • There was system documentation for the use on the intranet web portal. Documentation was maintained in Content Manager to enable version tracking. • Bluewaters has in place Information System Polices and associated IT rules, procedures and forms. • Intrinsic details of the IT systems were under the mantle of certain individuals and limited documentation in this regard was provided to the Audit Team for review. • Assessment of compliance was undertaken through observations of system access and use as well as confirmation of processes by site, Perth office and IT personnel.			
	Recommendation: None		**Action: Nil**	
7.2	**OBLIGATION: Input controls include suitable verification and validation of data entered into the system**	**Review Priority** **4**	**P&P* Rating:** **A**	**Performance Rating:** **2**

	Finding – The Licensee has established robust data verification and data validations processes, for example with respect to the weekly, monthly and quarterly presentation of the information, a business improvement system called QLIK was utilised to ensure that operational, financial and maintenance information was collated to accurately represent the overall asset information to all stakeholders. In addition, Bluewater commenced the implementation of the Budgeting Tool "Work Day Adaptive". It was a new system that allowed efficient reporting, thereby reducing human error and providing quick analysis. This was integral for better decision-making. **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.			
	Recommendation: None		**Action: Nil**	
7.3	**OBLIGATION: Security access controls appear adequate, such as passwords**	**Review Priority** **4**	**P&P* Rating:** **B**	**Performance Rating:** **1**
	Finding – Computer access was limited to staff and passwords were in place which was automatically regenerated every 30 days. HR/IT Administrator ensured that appropriate access to relevant areas and documents were provided in consultation with the correct delegations of authority, that is the Line Manager. The power station control room was manned continuously. The DCS and its data acquisition system have tiered access protection and some checks to ensure validity of data entry. BW 1 and BW 2 DCS's are separate, both displayed in the control room, but some balance of plant was shared. Firewalls and virus protection were in place and BWPS had also in place cyber security controls and had provided cyber training to staff in late 2022. **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 occurred. • The Cyber Security Rule model addressed compliance with the Privacy Act and since BW2 was registered as a critical infrastructure, BWPS were following the requirements of the Security of Critical Infrastructure Act. It was in the implementation process which was also presented to the Board on a quarterly basis.			
	Recommendation: None		**Action: Nil**	
7.4	**OBLIGATION: Physical security access controls appear adequate**	**Review Priority** **4**	**P&P* Rating:** **A**	**Performance Rating:** **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** **4**	**P&P* Rating:** **B**	**Performance Rating:** **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. • 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.			
	Recommendation: None		**Action: Nil**	
7.6	**OBLIGATION: Computations for licensee performance reporting are accurate**	**Review Priority** **4**	**P&P* Rating:** **A**	**Performance Rating:** **1**

	Finding – The Licensee confirmed for the duration of the review period, BW2 was not required to publish or submit licence performance reporting data other than standing data for the calculation of the standing data charges. **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 control staff was understood to be from separate instrumentation. • Calibration of data input instrumentation was monitored through CalStation (calibration software system). Calibration certificates were maintained. SAP data entry (eg WO closing history) was checked.			
	Recommendation: None		**Action: Nil**	
7.7	**OBLIGATION: Management reports appear adequate for the licensee to monitor licence obligations**	**Review Priority** **4**	**P&P* Rating:** **A**	**Performance Rating:** **1**
	Finding – Bluewaters provided monthly and quarterly reports to the management and board respectively and provided in meeting their license obligations. In addition, the Governance section of the 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**	
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 systems to ensure it was limited. This was implemented and controlled by the IT departments that had in place processes to ensure appropriate delegation was approved prior to access being provided. During 2022 the licensee commenced cyber security protocols and measures. **Documents/Evidence** – 24,28,58, 106 and Perth and Site office interviews. **Observations:**			

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

8. RISK MANAGEMENT	OVERALL EFFECTIVENESS RATING	
Assess whether the risks that most affect the management and performance of the assets have been identified Assess the adequacy of policies and procedures covering risk management Assess whether the risk management policies and procedures have been applied in practice Assess the adequacy of staff understanding and training on risk management **Key Process** – *Risk management involves the identification of risks and their management within an acceptable level of risk.* **Outcome** – *The risk management framework effectively manages the risk that the licensee does not maintain effective service standards*	**PROCESS & POLICY RATING***	**PERFORMANCE RATING**
	B	**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** **4**	**P&P* Rating:** **B**	**Performance Rating:** **3**
	Finding – Risks management framework, policy, procedure, Rules and risk scoring guidelines were in place. As recent as October 2022, the Board endorsed for the Risk management framework to be incorporated into Environmental, Social and Governance (ESG) Framework. These were evidenced during the site visit and demonstration of the primary software, MYOSH/Viking. MYOSH/Viking was the main platform utilized to record all risks across all Bluewaters business units. Bluewaters transitioned from a spreadsheet based risk process to MYOSH Viking during the audit period. This was used across all business units to minimize the consequence or likelihood of any identified risks. OME risks to the operation of the Power Station were captured and High risks were elevated to the Corporate Risk Register. This process was not automatic and was dependent on the Management Team. However, the process becomes unclear in determining what specific mitigation strategies at 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.			

Observations:

- 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) For example risk ID 112 referenced review of Synergy saline water disposal pipeline contingency plan and surveillance of operations and Risk ID 175 referenced monitoring and review of the Risk Management Program, however this was not undertaken or verifiable during the audit period.
  - There were 28 High or Critical Risks identified in the Risk Register as per the Risk Management Framework and of these 6 were not mitigated (Note this number included all business unit risks)
  - The Residual Risk was determined utilising proposed measures that were not yet implemented.
  - Although the staff across both sites were aware of the risk system, MYOSH Viking, they required further training to better utilise the software to maximise 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 place and what is to be implemented.
- Reconvening of the of the RACC to fulfil the RACC Charter was intended to commence February 2023

Recommendation 09/2022: Refer recommendation 06/2022		**Action:** Refer 2022 PRIP

8.2	**OBLIGATION: Risks are documented in a risk register and treatment plans are implemented and monitored**	**Review Priority**	**P&P* Rating:**	**Performance Rating:**
		4	**B**	**3**

Finding – 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.

Documents/Evidence – 1, 3,5,7,9,22,24,33,36,40,43,57,58,80,83,108, BWG Document Register, MYOSH Viking and Perth and Site interviews.

Observations:

- Identified Risks were assessed, likelihood of occurrence agreed for each quantitative and qualitative consequences to calculate inherent risk. All mitigations (in place and proposed) were then listed with a resultant residual risk. The highest residual risks were further reviewed for OPEX and CAPEX improvements and automatically elevated to the Corporate Risk register.
- OPEX or CAPEX identified under went a request for expenditure proposal and approved by relevant delegatory authorities and incorporated into respective budgets.
- Management of HSE process detailed in HSE Management Plan
- Environmental Risks Management in place to control Environmental Risks.
- There were 134 active risks in the risk register and approximately 20% were not reviewed by the review end date. However, there were no high or critical risks (as defined by the Risk Management Standard) included in the overdue risks

Recommendation 10/2022: Refer recommendation 06/2022	**Action: Nil**

8.3	**OBLIGATION: Probability and consequences of asset failure are regularly assessed**	**Review Priority** 4	**P&P* Rating:** B	**Performance Rating:** 2
	Finding – As per the asset management Planning cycle, risk reviews were carried out annually as was one of the inputs into the formulation of the Strategic Plan and operating plans and subsequently built into annual and 5-year OPEX and CAPEX plans. The probability and consequences were reviewed in addition to the current condition of the assets. Site personnel continually monitored and assessed the power stations operation via condition monitoring, planned maintenance inspections and where identified, output from FMECA of any potential failures. **Documents/Evidence** – 1, 3,5,7,9,24,36,40,57,58,80,107,108, 106, MYOSH Viking and Perth and Site interviews. **Observations:** • 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 high risks were escalated 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 measures. • Risk assessments were an integral component of all CAPEX and OPEX expenditure approval process.			
	Recommendation: None		**Action: Nil**	

9. CONTINGENCY PLANNING	OVERALL EFFECTIVENESS RATING	
Determine whether contingency plans have been developed and are current Determine whether contingency plans have been tested. If so, review the results to confirm any improvements identified have been implemented. **Key Process** – *Contingency plans document the steps to deal with the unexpected failure of an asset.* **Outcome** – *Contingency plans have been developed and tested to minimise any major disruptions to service standards.*	**PROCESS & POLICY RATING***	**PERFORMANCE RATING**
	B	**3**

No.	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**

Finding – The 2017 AMS Review Report recommended that Contingency Plans be developed for all key risks to BW2 operations and availability (such as coal supply, water supply, saline water disposal and ash disposal) The development of an overarching document was also recommended. During the audit period, Bluewater's developed a Business Continuity and Disaster Recovery Framework (**BCDRF**) and maintained its Business Continuity Plan (**BCP**). The BCDRF provided a roadmap for implementing and navigating through the business continuity process and a means for monitoring status and driving continual improvement. The BCDRF also detailed the relationship to the Risk Management Process (Refer Section 1.3 BCDRF). A coal supply contingency was well established and tested during the audit period. A workshop was facilitated by external experts (July 2019) in relation to the simulation of potential coal supply curtailment.

However, Contingency Plans were not established for all high risks and the process effectiveness reviews were performed irregularly. A critical review of the risk register did not clearly define the link between high risks and contingency plan development and testing and more specifically the assessment of the effectiveness of the corrective action was not evidenced. It was noted that the saline water disposal and water supply risks referenced development of a continency plan, but these have not been updated to current controls and appear outstanding. Through discussions with the Executive General Manager – Commercial it was understood that in practice these process may in fact be established but were captured within the AMS and referenced in a specific measurable mitigation or control in the risk register.

Contingency plans addressing high-risk activities other than Coal Supply were not evidenced, for example Ash Disposal (not referenced in the Risk Register), Saline Water Disposal (Risk ID 112) and Water Supply (Risk ID 111). It was noted for the duration of the audit period, Saline Water and Water Supply were in the risk register and the Strategic Plan, however, specific contingency plans and 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 ensure continual supply of power to customers.
- 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 potential coal supply curtailments.

	Additionally, 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. **Documents/Evidence** – 3,5,16, 42, 40,58, 106, 110 and Interviews Executive General Manager - Commercial **Observations:** • Contingency Planning was the asset management component that was rated deficient (B3) in the 2017 Asset Management Review by the 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 Board had considered the potential impacts to the business. • Also noted Risk ID 185 Water Supply and disposal was not consistent with risks 111 and 112 (i.e. no mitigation required reference to AMPs was noted but the AMPs Platform – Asset Area Plan – Water Supply and Disposal did not contain any reference to Contingency Plans)	
	Recommendation 11/2022: - 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. ➢ Testing of the contingency plans should form part of an internal monitoring/auditing program (i.e. the review of controls for risks/compliance)	**Action:** Refer PRIP 2022

10. FINANCIAL PLANNING			OVERALL EFFECTIVENESS RATING	
Obtain a copy of the financial planning, budgeting and reporting process and assess its effectiveness Obtain a copy of the current financial plan (including budget/actual) and assess whether the process is followed **Key Process** – *Financial brings together the financial elements of the service delivery to ensure its financial viability over the long term.* **Outcome** – *The financial plan is reliable and provides for the long-term financial viability of the services.*			PROCESS & POLICY RATING* **A**	PERFORMANCE RATING **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** **4**	**P&P* Rating:** **A**	**Performance Rating:** **1**
	Finding – Finance had in place finance workflow which integrated with OME workflow and budget cycles. Financial procedures and rules were in place. Financial budget prepared annually with a forward budget based on rolling 5 years forecast including all OPEX and CAPEX. **Documents/Evidence** – 3,5,12,13,33,34,36, 39,43,57,58,80,99 and Perth & Site interviews **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** **4**	**P&P* Rating:** **A**	**Performance Rating:** **1**
	Finding – The Licensee confirmed that for the duration of the review period, all funds were sourced internally through the Syndicated Facility Agreement. **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 external audit opinions were unqualified. • Financial plans and financial reports detailing Syndicated Funding arrangements were Commercial in confidence.			
	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 and life cycle cost models updated during the audit period. It was updated using a combination of actuals and forecast revenue and costs. **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 March 2018, 2019, 2020 and 2021			
	Recommendation: None		**Action: Nil**	
10.4	**OBLIGATION: The financial plan provides firm predictions on income for the next five years and reasonable predictions beyond this period**	**Review Priority** **4**	**P&P* Rating:** **A**	**Performance Rating:** **1**
	Finding – Every week the finance team carried out a weekly cash flow reports that were projected to 12 weeks and then for each month. This was then used as the basis to provide cash flow projections on a rolling 5-year basis. The Lifecycle Cost Model demonstrated generation for the power station revised annually and budget forecast for life cycle of assets. Detailed financial modelling was undertaken 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.			
	Recommendation: None		**Action: Nil**	

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:** **1**
	Finding – Financial plans including weekly, monthly, quarterly, annual, 2 yearly and rolling 5 year included all costs associated with corporate overheads, operations, maintenance of the assets and CAPEX. Life cycle costings of these sot types were projected to 2049. **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 with respect to revenue, OPEX and CAPEX. • Delegation of authority was in place, adjustments made and approved by the Board.			
	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 budget where required. Reports were made to the Board and management weekly, monthly and quarterly. **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. CAPITAL EXPENDITURE PLANNING	**OVERALL EFFECTIVENESS RATING**	
Understand the capital expenditure planning process and assess its effectiveness Obtain a copy of the capital expenditure plan for the current year and assess whether the process is being followed **Key Process** – *The capital expenditure plan provides a schedule of new works, rehabilitation and replacement works, together with estimated annual expenditure for these works over the next five or more years. Since capital investments tend to be large and lumpy, projections would normally be expected to cover at least 10 years, preferably longer. Projections over the next five years would usually be based on firm estimates.* **Outcome** – *The capital expenditure plan provides reliable forward estimates of capital expenditure and asset disposal income. Reasons for the decisions and for the evaluation of alternatives and options are documented.*	**PROCESS & POLICY RATING***	**PERFORMANCE RATING**
	A	**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**	**P&P* Rating:** **A**	**Performance Rating:** **1**
	Finding – The Licensee confirmed that there was a rolling 5-year plan that listed all CAPEX activities that needed to occur and was budgeted for. Board approval was sought for first two years in order to secure strategic spares. The CAPEX financial plan included planned and unplanned outages and half-life plant refurbishments. **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.			
	Recommendation: None		**Action: Nil**	
11.2	**OBLIGATION: The capital expenditure plan provides reasons for capital expenditure and timing of expenditure**	**Review Priority** **4**	**P&P* Rating:** **A**	**Performance Rating:** **1**
	Findings – Capital Expenditure was identified from operating conditions, maintenance routines and activities, condition monitoring, FMECA and inclusive of risk assessments. Risks were noted be from deterioration of equipment condition, obsolescence of equipment or improvements to provide redundancy or backup systems. Additionally, the 2022 2023 AMPs and Asset Area Plans outlined capital 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 years. This also included Half Life refurbishment 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 FY49			
	Recommendation: None		**Action: Nil**	
11.4	**OBLIGATION: There is an adequate process to ensure the capital expenditure plan is regularly updated and implemented**	**Review Priority** **4**	**P&P* Rating:** **A**	**Performance Rating:** **1**
	Finding – CAPEX Budgets were prepared and reported in monthly and quarterly reports with variances and response. CAPEX budgets were Board approved for the first two years to permit procurement of strategic spares. CAPEX was updated and projected quarterly. **Documents/Evidence** – 3,5,12,13,24,33,36,40,43,57,58,80,83 106, and Perth & Site Interviews **Observations:** • Annual updates of the CAPEX budgets with rolling 5 year projections were undertaken in conjunction with the strategic planning cycle.			
	Recommendation: None		**Action: Nil**	

12. REVIEW OF AMS			**OVERALL EFFECTIVENESS RATING**	
Determine when the asset management plan was last updated and assess whether any substantial changes have occurred Determine whether any independent reviews have been performed. If so, review the results and action taken Consider the need to update the asset management plan based on the results of this review Determine when the asset management system was last reviewed. **Key Process** – *The asset management system is regularly reviewed and updated.* **Outcome** – *The asset management system is regularly reviewed and updated.*			**PROCESS & POLICY RATING***	**PERFORMANCE RATING**
			B	**3**
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** **4**	**P&P* Rating:** **B**	**Performance Rating:** **3**
	Finding – For the duration of the review period there have been no internal AMS Review or third party reviews, for the AMS or the AMPs. An external consultant was engaged to develop an AMS in 2019, however the decision was made not to implement the AMS and a review of the effectiveness of the AMS has not occurred. It was understood that the external consultant's AMS was a primary 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 28th 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 AMP and the draft Plant Area Asset Management 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 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		**Action:** Refer 2022 PRIP	

	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 BW2 to demonstrate the approved AMP in place at any point in time.			
12.2	**OBLIGATION: Independent reviews (e.g., internal audit) are performed of the asset management system**	**Review Priority** **4**	**P&P* Rating:** **B**	**Performance Rating:** **3**
	Finding – For the duration of the review period there has not been a process established for independent reviews of the Asset Management System. It was noted that the 2017 Review Finding 09/2018 which recommended as an Opportunity for Improvement (**OFI**) that following the revision of the AMS by external consultants that the AMS should include routine independent reviews was not implemented. Additionally, the 2017 PRIP developed by the Licensee proposed Bluewaters should work with the consultants to make continuous improvements to the asset management system. The recommended process improvement to ensure there would be focus on developing the asset management system so that it can be maintained on an ongoing basis has been implemented during the review period (i.e. implementation of AMPS as a dynamic AMS). **Documents/Evidence** – 1,3,5, 24, 53, 110 and email dated 28th February from Senior Manager Energy & Retail **Observations:** • It was noted that the SAMP, AMP and AMS have only been "live" since 2022 there have been no internal audits undertaken by the Licensee for the AMS. • 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 to COVID and the requirement to focus resources on the coal supply issues. • Whilst the RACC was suspended, the Board became much more engaged on the day to day of the business and even though Coal supply was the main risk that the management and board were working on, other risks were actively managed by the board – for example, COVID management, impacts to outage timing due to covid and resources, etc. This process was outside the AMS, however, confidential documentation, supporting this was shown to the Audit Team.			
	Recommendation 13/2022: Refer 12.1 Recommendation 12/2022		**Action:** Refer 2022 PRIP	

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	X	X	X	X	X	X		X		X		X	X
*2	Contractor Asset Management Policy – NOT USED													
*3	Licensee Asset Management System/ Strategic Asset Management Plan	X	X	X	X	X	X	X	X	X	X	X	X	X
*4	Contractor Asset Management System/ Strategic Asset Management Plan – NOT USED													
*5	Licensee Asset Management Plan	X	X	X	X	X	X	X	X	X	X	X	X	X
*6	Contractor Asset Management Plan – NOT USED													
*7	Operational Schematic	X	X	X					X					X
*8	Schematic of the Contracts supporting Licensee													X
*9	Licensee Organisational Structure	X	X	X					X					X
*10	Contractor Organisational Structure – NOT USED													
*11	Contractor Annual Maintenance Schedule – NOT USED													
*12	Licensee Annual Maintenance Schedule	X	X	X	X		X				X	X		X
*13	Description of Licensee Maintenance System	X		X	X	X	X	X			X	X		
*14	Description of Contractor Maintenance System – NOT USED													
15	Electricity Generation License													X
16	Licensee Emergency Response Plan				X		X			X				X
17	Contractor Emergency Response Plan – NOT USED													
18	Licensee Environment Compliance Plan		X											X
19	Contractor Environment Compliance Plan – NOT USED													
20	Licensee Health and Safety Plan													X
21	Contractor Health and Safety Plan – NOT USED													
22	Licensee Workplace Health & Safety System		X		X		X	X	X					X
23	Contractor Workplace Health & Safety System – NOT USED													
*24	Licensee Site Risk Register	X	X		X	X	X	X	X			X	X	X
*25	Contractor Site Risk Register – NOT USED													
26	MOU with FESA etc				X									X
27	Licensee Computer & Information Management Plan #							X						X
28	Licensee Cyber Security							X						X
29	Contractor Cyber Security – NOT USED													
30	Licensee Standard Operating Procedure Listing #					X								X

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 PLANNING	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	X	X	X		X	X		X	X	X	X		
*34	PPA	X			X		X				X			X
35	Overview of internal/external reporting processes #													
*36	O&M Agreement	X	X	X	X	X	X	X	X		X	X		
37	Licensee Management Reports – Applicable to Audit Period													X
38	Asset Management Agreement Operational Reports – Applicable to Audit Period -Refer 36													
39	Operating Protocol	X			X						X			
40	Licensee Monthly/Weekly/Daily Meeting Minutes	X	X	X	X	X	X	X	X		X	X		
41	Contractor Monthly/Weekly/Daily Meeting Minutes – NOT USED													
42	Licensee Business Continuity Plan				X		X			X				
43	Licensee Procurement procedure	X	X	X		X			X		X	X		
44	ETAC													X
45	Licensee – Asset Register (Including Financial/Physical Asset) Note: may be separate processes #					X								
46	Leases													X
47	Plant Modification Process		X											
48	Change Management- Refer 47													
49	Customer Contracts/Contract management processes –Refer 34													
50	Practical Completion Documentation (if applicable) – NOT USED													
51	Training Register #					X								X
52	Competency & Awareness Processes #													X
53	Compliance Schedule/Register		X										X	X
54	Breach Register – Refer VIKING SYSTEM	X	X	X	X	X	X	X	X	X			X	X
55	OPEX&CAPEX Process #													X
56	Company Reports						X							
*57	Financial Statements (Audited) – Applicable to Audit Period	X	X	X	X	X			X		X	X		X
58	Board Reports	X	X		X	X		X	X	X	X	X		X
*67	ERA Correspondence – Applicable to Audit Period													X

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 PLANNING	FINANCIAL PLANNING	CAPITAL EXPENDITURE PLANNING	REVIEW OF AMS	PERFORMANCE AUDIT
68	ERA Generation & Retail Annual License Payment – Applicable to Audit Period													X
*69	ERA Annual Compliance Reports Signed – Applicable to Audit Period		X		X X									X
*70	ERA Communication of Standing Charges Data #													X
*71	ERA Standing Charges License Invoices & Payments – Applicable to Audit Period				X									X
*72	ERA Letter - Commencement of 2022 performance audit and asset management system review				X									X
*73	ERA Letter - Approval of auditor – 2022 performance audit and asset management system review				X									X
74	Licensee Business Plan - Refer 58													
75	Licensee Policy manual													X
76	Delegation of Authority #		X	X		X	X				X			X
77	Non Financial Delegation of Authority – Refer 58													
78	Stakeholder Communication Processes/Policy	X						X						X
79	Lifecycle Costing – If not included in the asset management plan													
*80	Budgets	X	X	X	X	X			X		X	X		X
81	Condition Monitoring Processes						X							X
82	Preventative Maintenance													X
83	Critical Spares	X							X			X		X
84	Other Regulatory Licenses – If Applicable													X
93	Other Regulatory Reports – If Applicable													X
94	Maintenance Checklists	X	X	X			X							X
*96	Licensee Operational Contingency Plans # Refer 24 and 42													
*97	Contractor Operational Contingency Plans – NOT USED													
98	Dispute Resolution Processes #													X
*99	Coal Supply Agreement	X									X			X
*100	Network Access Agreement													X
101	Retail Licence Documentation													X
102	Bluewaters I and II Decomissioning Plan		X											X
103	Asset Disposal													X
104	Electricity Licence compliance procedure Refer 53													
106	Document Control					X		X	X	X		X		X

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 PLANNING	FINANCIAL PLANNING	CAPITAL EXPENDITURE PLANNING	REVIEW OF AMS	PERFORMANCE AUDIT
107	Engineering Management Plan	X					X		X					
*108	Operational Incidents Register				X	X			X					X
109	Metering Check Process and calculations # Refer 101													
110	ERA Post Audit/Review Implementation Plan Updates	X	X	X	X	X		X	X	X			X	X