Western Energy Pty Ltd

Electricity Generation Licence (EGL19)

2024 Asset Management System Review

Final report

7 February 2025

ASSURANCE ADVISORY GROUP

Level 11, 251 Adelaide Terrace
PERTH WA 6000

7 February 2025

Jay McCashney
Asset Manager – Kwinana and Somerton
Western Energy Pty Ltd
c/- AGL | Perth Energy
PO Box 7971, Cloisters Square WA 6850

Dear Jay

Electricity Generation Licence (EGL19) – 2024 Asset Management System review report

We have completed the Electricity Generation Licence Asset Management System Review for Western Energy Pty Ltd for the period 1 October 2019 to 30 September 2024 and are pleased to submit our report to you.

I confirm that this report is an accurate presentation of the findings and conclusions from our audit procedures.

If you have any questions or wish to discuss anything raised in the report, please contact Andrew Baldwin at abaldwin@assuranceadvisory.com.au or myself at slinden@assuranceadvisory.com.au.

Yours sincerely
Assurance Advisory Group

[redacted]

Stephen Linden
Director
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Table of Contents

1. Independent assurance practitioner's report

Conclusion

We have undertaken a limited assurance engagement on the effectiveness of Western Energy Pty Ltd's (**Western Energy**) Asset Management System (**AMS**), relating to its Electricity Generation Licence (EGL19) (the **Licence**) for the period 1 October 2019 to 30 September 2024 (**review period**).

In our opinion, based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that Western Energy has not established and maintained, in all material respects, an effective AMS for assets subject to the Licence, as measured by the effectiveness criteria in the March 2019 issue of the *Audit and Review Guidelines: Electricity and Gas Licences* (**the Guidelines**) issued by the Economic Regulation Authority (the **ERA**).

We conducted our engagement in accordance with Standard on Assurance Engagements ASAE 3500 *Performance Engagements* (**ASAE 3500**) issued by the Auditing and Assurance Standards Board.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

Western Energy's responsibility for the AMS

Western Energy is responsible for ensuring that it has:

- Complied in all material respects with the requirements of the Licence as specified by the Review Guidelines
- Established and maintained an effective AMS for assets subject to the Licence, as measured by the effectiveness criteria detailed in the Guidelines.

Our independence and quality control

We have complied with the independence and other relevant ethical requirements relating to assurance engagements, which are founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour. We applied Auditing Standard ASQC 1 *Quality Control for Firms that Perform Audits and Reviews of Financial Reports and Other Financial Information, and Other Assurance Engagements* in undertaking this assurance engagement.

Our responsibilities

Our responsibility is to express a limited assurance conclusion on the effectiveness of Western Energy's AMS for assets subject to the Licence for the period from 1 October 2019 to 30 September 2024 . ASAE 3500 requires that we plan and perform our procedures to obtain limited assurance about whether Western Energy has established and maintained, in all material respects, an effective AMS for assets subject to the Licence, as measured by the effectiveness criteria in the Guidelines.

A limited assurance engagement in accordance with ASAE 3500, to report on the effectiveness of Western Energy's AMS for assets subject to the Licence involves performing procedures to obtain evidence about processes and controls designed and implemented within Western Energy's AMS for assets subject to the Licence. The procedures selected depend on our judgement, including the identification and assessment of risks of Western Energy's AMS for assets subject to a Licence being materially ineffective.

Our procedures included:

- Utilising the Review Guidelines as a guide for development of a risk assessment, which involved discussions with key staff and review of documents to perform a preliminary controls assessment
- Development of a Review Plan for approval by the ERA, and an associated work program
- Interviews with and representations from Western Energy representatives and key operational and administrative staff to gain an understanding of the development and maintenance of policies and procedural type documentation. A full list of staff engaged has been provided at Appendix B
- Examination of documented policies and procedures for key functional requirements and consideration of their relevance to Western Energy 's AMS requirements and standards
- Physical visit to operations located at Kwinana
- Consideration of reports and references evidencing activity
- Consideration of activities performed by Western Energy that relate to operation of the assets.

Inherent Limitations

Because of the inherent limitations of an assurance engagement, together with the inherent limitation of any system of controls it is possible that fraud, error or non-compliance with the requirements of the Guidelines may occur and not be detected.

A limited assurance engagement relating to the period from 1 October 2019 to 30 September 2024 does not provide assurance on whether the effectiveness of Western Energy's AMS for assets subject to the Licence will continue in the future.

Restricted use

This report has been prepared for use by Western Energy for the purpose of satisfying its obligation under Section 14 of the Electricity Industry Act 2004. We disclaim any assumption of responsibility for any reliance on this report to any person other than Western Energy, or for any other purpose other than that for which it was prepared. We understand that a copy of the report will be provided to the ERA for the purpose of reporting on the effectiveness of Western Energy's AMS. We agree that a copy of this report will be given to the ERA in connection with this purpose, however we accept no responsibility to the ERA or to anyone who is provided with or obtains a copy of our report.

Assurance Advisory Group

Stephen Linden
Director

7 February 2025

2. Executive Summary

2.1 Introduction and Background

The Economic Regulation Authority (the **ERA**) has under the provisions of the Electricity Industry Act 2004 (the **Act**), issued to Western Energy Pty Ltd (**Western Energy**) an Electricity Generation Licence (EGL19) (the **Licence**).

The Licence relates to Western Energy operating the Kwinana Swift Power Station (**KSPS**), a dual-fuel 120 MW peaking station located in Kwinana, 40km south of Perth. Western Energy is a fully owned entity of AGL Energy Limited (**AGL**). KSPS consists of four 30MW gas turbines connected to two common generators and operates as an open cycle peaking station that can be fired on natural gas or ultra-low sulphur diesel or both. Western Energy has contracted Worley Power Services Ltd (**Worley**) to undertake the major operations and maintenance work required for KSPS. Other sub-contractors are used for specified works.

Section 14 of the Act requires Western Energy to provide to the ERA an asset management system review (the **review**) report conducted by an independent expert acceptable to the ERA not less than once in every 24-month period unless otherwise approved by the ERA. With the ERA's approval, Assurance Advisory Group (**AAG**) has been appointed to conduct the review for the period 1 October 2019 to 30 September 2024 (**review period**).

The review has been conducted in accordance with the ERA's March 2019 issue of the *Audit and Review Guidelines: Electricity and Gas Licences* (**Review Guidelines**), which set out 12 key processes in the asset management life-cycle.

2.2 Findings

In considering Western Energy's internal control procedures, structure and environment, compliance arrangements and information systems specifically relevant to those effectiveness criteria subject to review, we observed that:

- During the period subject to review, Western Energy had maintained a largely appropriate suite of procedures and controls for the effective operation of the KSPS assets
- Western Energy staff (AGL appointed representatives and contracted Worley site personnel) demonstrated a working understanding of their roles relevant to the asset management processes within their area of responsibility
- There is evidence of improvements applied to Western Energy's asset management processes and practices throughout the period subject to review
- There are several further opportunities for Western Energy to improve elements of its asset management processes and practices (where criteria are rated as "B" or "2"). The majority of those opportunities are known to Western Energy as they relate to:
  - (i) Known asset performance issues
  - (ii) Some roles and responsibilities that have not yet been fully defined for site personnel, leading to inefficiencies in works management
  - (iii) The facility's ongoing transition to the full suite of AGL asset management processes and practices (supplemented by Worley operations and maintenance processes and practices), with a recognised need for more engineering support, maintenance systems (e.g. through SAP Work Management System improvements) and other technical support for the KSPS site team – which AGL has been progressively introducing.

  For those instances/opportunities where Western Energy had not already recognised and/or taken action to address the issue or opportunity, we raised the potential improvement opportunity with Western Energy staff.

This review assessed that, of the 58 elements of Western Energy's AMS:

- For the asset management process and policy definition ratings:
  - 40 are rated as "Adequately defined"
  - 6 are rated as "Requires some improvement"
  - 12 are not rated.
- For the asset management performance ratings:
  - 36 are rated as "Performing effectively"
  - 10 are rated as "Improvement required"
  - 12 are not rated.

2.3 Western Energy's response to previous review recommendations

There were no recommendations from the previous review.

2.4 Recommendations to address current asset system deficiencies

A. Resolved during current review period

B. Unresolved at end of current review period

Not applicable – this review does not make any recommendations to address asset system deficiencies.

2.5 Scope and objectives

We have conducted a limited assurance engagement in order to state whether, in our opinion, based on our procedures, Western Energy has established and maintained, in all material respects, an effective AMS for assets subject to the Licence during the period 1 October 2019 to 30 September 2024, as measured by the effectiveness criteria in the Guidelines

Our engagement was conducted in accordance with Australian Standard on Assurance Engagements ASAE 3500 Performance Engagements, issued by the Australian Auditing and Assurance Standards Board and provides reasonable assurance as defined in ASAE 3500. The procedures we performed are described in more detail in section 2.7 below.

A limited assurance engagement in accordance with ASAE 3500, to report on the effectiveness of Western Energy's AMS for assets subject to the Licence involves performing procedures to obtain evidence about processes and controls designed and implemented within Western Energy's AMS for assets subject to the Licence. The procedures selected depend on our judgement, including the identification and assessment of risks of Western Energy's AMS for assets subject to a Licence being materially ineffective.

ASAE 3500 also requires us to comply with the relevant ethical requirements of the Australian professional accounting bodies.

In accordance with the Review Guidelines, the review considered the effectiveness of Western Energy's existing control procedures within the following 12 key processes in the asset management life cycle:

Key processes	Effectiveness criteria
1. Asset Planning	1.1 Asset management plan covers the processes in this table 1.2 Planning processes and objectives reflect the needs of all stakeholders and are integrated with business planning 1.3 Service levels are defined in the asset management plan 1.4 Non-asset operations (e.g. demand management) are considered 1.5 Lifecycle costs of owning and operating assets are assessed 1.6 Funding options are evaluated 1.7 Costs are justified and cost drivers identified 1.8 Likelihood and consequences of asset failure are predicted 1.9 Asset management plan is regularly reviewed and updated.
2. Asset creation and acquisition	2.1 Full project evaluations are undertaken for new assets, including comparative assessment of non-asset options 2.2 Evaluations include all life-cycle costs 2.3 Projects reflect sound engineering and business decisions 2.4 Commissioning tests are documented and completed 2.5 Ongoing legal / environmental / safety obligations of the asset owner are assigned and understood
3. Asset disposal	3.1 Under-utilised and under-performing assets are identified as part of a regular systematic review process 3.2 The reasons for under-utilisation or poor performance are critically examined and corrective action or disposal undertaken 3.3 Disposal alternatives are evaluated 3.4 There is a replacement strategy for assets
4. Environmental analysis	4.1 Opportunities and threats in the asset management system environment are assessed 4.2 Performance standards (availability of service, capacity, continuity, emergency response, etc.) are measured and achieved 4.3 Compliance with statutory and regulatory requirements 4.4 Service standard (customer service levels etc) are measured and achieved.
5. Asset operations	5.1 Operational policies and procedures are documented and linked to service levels required 5.2 Risk management is applied to prioritise operations tasks 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 5.4 Accounting data is documented for assets 5.5 Operational costs are measured and monitored 5.6 Staff resources are adequate and staff receive training commensurate with their responsibilities

Key processes	Effectiveness criteria
6. Asset maintenance	6.1 Maintenance policies and procedures are documented and linked to service levels required 6.2 Regular inspections are undertaken of asset performance and condition 6.3 Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule 6.4 Failures are analysed and operational/maintenance plans adjusted where necessary 6.5 Risk management is applied to prioritise maintenance tasks 6.6 Maintenance costs are measured and monitored
7. Asset management information systems	7.1 Adequate system documentation for users and IT operators 7.2 Input controls include suitable verification and validation of data entered into the system 7.3 Security access controls appear adequate, such as passwords 7.4 Physical security access controls appear adequate 7.5 Data backup procedures appear adequate and backups are tested 7.6 Computations for licensee performance reporting are accurate 7.7 Management reports appear adequate for the licensee to monitor licence obligations 7.8 Adequate measures to protect asset management data from unauthorised access or theft by persons outside the organisation
8. Risk management	8.1 Risk management policies and procedures exist and are applied to minimise internal and external risks 8.2 Risks are documented in a risk register and treatment plans are implemented and monitored 8.3 Probability and consequences of asset failure are regularly assessed
9. Contingency planning	9.1 Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks
10. Financial planning	10.1 The financial plan states the financial objectives and identifies strategies and actions to achieve those 10.2 The financial plan identifies the source of funds for capital expenditure and recurrent costs 10.3 The financial plan provides projections of operating statements (profit and loss) and statement of financial position (balance sheets) 10.4 The financial plan provides firm predictions on income for the next five years and reasonable predictions beyond this period 10.5 The financial plan provides for the operations and maintenance, administration and capital expenditure requirements of the services 10.6 Large variances in actual/budget income and expenses are identified and corrective action taken where necessary

Key processes	Effectiveness criteria
11. Capital expenditure planning	11.1 There is a capital expenditure plan covering works to be undertaken, actions proposed, responsibilities and dates 11.2 The capital expenditure plan provides reasons for capital expenditure and timing of expenditure 11.3 The capital expenditure plan is consistent with the asset life and condition identified in the asset management plan 11.4 There is an adequate process to ensure the capital expenditure plan is regularly updated and implemented
12. Review of asset management system	12.1 A review process is in place to ensure the asset management plan and the asset management system described in it remain current 12.2 Independent reviews (e.g. internal audit) are performed of the asset management system

Each key process and effectiveness criterion is applicable to Western Energy's Licence and as such was individually considered as part of the review. The Review Plan, set out at Appendix A, details the risk assessments made for and review priority assigned to each key process and effectiveness criterion.

2.6 Approach

Our approach for this review involved the following activities, which were undertaken during the period October to December 2024:

- Utilising the Guidelines, development of a risk assessment, which involved discussions with key staff and review of documents to undertake a preliminary assessment of relevant controls
- Development of a Review Plan (see Appendix A) for approval by the ERA
- Correspondence and interviews with Western Energy and AGL staff to gain an understanding of process controls in place (see Appendix B for staff involved)
- Site visit to the KSPS with a focus on understanding the generation assets, their function, normal mode of operation, age and an assessment of the facilities against the AMS review criteria
- Review of documents, processes and controls to assess the overall effectiveness of Western Energy's AMS (see Appendix B for reference listing)
- Consideration of the resourcing applied to maintaining those controls and processes
- Reporting of findings to Western Energy for review and response.

3. Summary of Ratings

In accordance with the Guidelines, the assessment of both the process and policy definition rating (refer to Table 1) and the performance rating (refer to Table 2) for each of the key AMS processes was performed using the below ratings.

Table 1: Process and policy rating scale

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 or require substantial improvement • Processes and policies do not document the required performance of the assets • 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 2: Performance rating scale

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.

This report provides:

- A breakdown of each function of the AMS into sub-components as described in the Guidelines. This approach is taken to enable a more thorough review of key processes where individual components within a larger process can be of greater risk to the business therefore requiring different review treatment
- A summary of the ratings applied by the review (Table 3) for each of:
  - Asset management process and policy rating
  - Asset management performance rating.
- Detailed findings, including relevant observations and recommendations (Section 4). Descriptions of the effectiveness criteria can be found in section 4 and the Review Plan at Appendix A.

Table 3: AMS effectiveness summary

			Ratings	
Ref	Asset management process and effectiveness criteria	Review priority	Process and policy	Performance
1. Asset Planning			**A**	**1**
1.1	Asset management plan covers the processes in this table	Priority 4	A	2
1.2	Planning processes and objectives reflect the needs of all stakeholders and is integrated with business planning	Priority 4	A	1
1.3	Service levels are defined in the asset management plan	Priority 4	A	1
1.4	Non-asset operations (e.g. demand management) are considered	Priority 5	Not rated	Not rated
1.5	Lifecycle costs of owning and operating assets are assessed	Priority 5	A	1
1.6	Funding options are evaluated	Priority 5	Not rated	Not rated
1.7	Costs are justified and cost drivers identified	Priority 5	A	1
1.8	Likelihood and consequences of asset failure are predicted	Priority 4	A	1
1.9	Asset management plan is regularly reviewed and updated.	Priority 5	A	1

Ref	Asset management process and effectiveness criteria	Review priority	Ratings: Process and policy	Ratings: Performance
2. Asset creation and acquisition			**Not rated**	**Not rated**
2.1	Full project evaluations are undertaken for new assets, including comparative assessment of non-asset options	Priority 4	Not rated	Not rated
2.2	Evaluations include all life-cycle costs	Priority 4	Not rated	Not rated
2.3	Projects reflect sound engineering and business decisions	Priority 4	Not rated	Not rated
2.4	Commissioning tests are documented and completed	Priority 4	Not rated	Not rated
2.5	Ongoing legal / environmental / safety obligations of the asset owner are assigned and understood	Priority 2	Not rated	Not rated
3. Asset disposal			**Not rated**	**Not rated**
3.1	Under-utilised and under-performing assets are identified as part of a regular systematic review process	Priority 4	Not rated	Not rated
3.2	The reasons for under-utilisation or poor performance are critically examined and corrective action or disposal undertaken	Priority 5	Not rated	Not rated
3.3	Disposal alternatives are evaluated	Priority 5	Not rated	Not rated
3.4	There is a replacement strategy for assets	Priority 4	Not rated	Not rated
4. Environmental analysis			**A**	**2**
4.1	Opportunities and threats in the asset management system environment are assessed	Priority 4	A	1
4.2	Performance standards (availability of service, capacity, continuity, emergency response, etc.) are measured and achieved	Priority 4	A	2
4.3	Compliance with statutory and regulatory requirements	Priority 4	A	1
4.4	Service standard (customer service levels etc) are measured and achieved.	Priority 4	A	2
5. Asset operations			**B**	**2**
5.1	Operational policies and procedures are documented and linked to service levels required	Priority 4	B	1
5.2	Risk management is applied to prioritise operations tasks	Priority 4	B	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	Priority 4	B	2
5.4	Accounting data is documented for assets [new criteria]	Priority 4	A	1
5.5	Operational costs are measured and monitored	Priority 4	A	1
5.6	Staff resources are adequate and staff receive training commensurate with their responsibilities	Priority 4	B	2
6. Asset maintenance			**B**	**2**
6.1	Maintenance policies and procedures are documented and linked to service levels required	Priority 4	B	2
6.2	Regular inspections are undertaken of asset performance and condition	Priority 2	A	1

Ref	Asset management process and effectiveness criteria	Review priority	Ratings	
			Process and policy	Performance
6.3	Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule	Priority 2	A	1
6.4	Failures are analysed and operational/maintenance plans adjusted where necessary	Priority 4	A	2
6.5	Risk management is applied to prioritise maintenance tasks	Priority 4	B	2
6.6	Maintenance costs are measured and monitored	Priority 4	A	1
7. Asset management information systems			**A**	**1**
7.1	Adequate system documentation for users and IT operators	Priority 5	A	1
7.2	Input controls include suitable verification and validation of data entered into the system	Priority 4	A	1
7.3	Security access controls appear adequate, such as passwords	Priority 5	A	1
7.4	Physical security access controls appear adequate	Priority 5	A	1
7.5	Data backup procedures appear adequate and backups are tested	Priority 4	A	1
7.6	Computations for licensee performance reporting are accurate	Priority 5	Not rated	Not rated
7.7	Management reports appear adequate for the licensee to monitor licence obligations	Priority 5	A	1
7.8	Adequate measures to protect asset management data from unauthorised access or theft by persons outside the organisation	Priority 4	A	1
8. Risk management			**A**	**2**
8.1	Risk management policies and procedures exist and are applied to minimise internal and external risks	Priority 4	A	1
8.2	Risks are documented in a risk register and treatment plans are implemented and monitored	Priority 4	A	2
8.3	Probability and consequences of asset failure are regularly assessed	Priority 2	A	2
9. Contingency planning			**A**	**1**
9.1	Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks	Priority 2	A	1
10. Financial planning			**A**	**1**
10.1	The financial plan states the financial objectives and identifies strategies and actions to achieve those	Priority 4	A	1
10.2	The financial plan identifies the source of funds for capital expenditure and recurrent costs	Priority 5	A	1
10.3	The financial plan provides projections of operating statements (profit and loss) and statement of financial position (balance sheets)	Priority 5	A	1
10.4	The financial plan provides firm predictions on income for the next five years and reasonable predictions beyond this period	Priority 5	A	1

Ref	Asset management process and effectiveness criteria	Review priority	Ratings	
			Process and policy	Performance
10.5	The financial plan provides for the operations and maintenance, administration and capital expenditure requirements of the services	Priority 4	A	1
10.6	Large variances in actual/budget income and expenses are identified and corrective action taken where necessary	Priority 4	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	Priority 4	A	1
11.2	The capital expenditure plan provides reasons for capital expenditure and timing of expenditure	Priority 5	A	1
11.3	The capital expenditure plan is consistent with the asset life and condition identified in the asset management plan	Priority 4	A	1
11.4	There is an adequate process to ensure the capital expenditure plan is regularly updated and implemented	Priority 5	A	1
12. Review of asset management system			**A**	**1**
12.1	A review process is in place to ensure the asset management plan and the asset management system described in it remain current	Priority 5	A	1
12.2	Independent reviews (e.g. internal audit) are performed of the asset management system	Priority 5	A	1

4. Detailed findings and recommendations

The following tables contain:

- *Findings*: the reviewer's understanding of the process and any issues that have been identified during the review
- *Recommendations (where applicable)*: recommendations for improvement or enhancement of the process or control.

4.1 Asset Planning

Key process: Asset planning strategies are focused on meeting customer needs in the most effective and efficient manner (delivering the right service at the right price)

Expected outcome: Integration of asset strategies into operational or business plans will establish a framework for existing and new assets to be effectively utilised and their service potential optimised

Overall Process and Policy/Performance rating: Adequately defined (A) / Performing effectively (1)

<table>
<tr><th>Effectiveness criteria</th><th colspan="2">Findings</th></tr>
<tr><td rowspan="2">1.1 Asset management plan covers the processes in this table</td><td colspan="2">Through discussion with the Operations Manager – Gas Generation (AGL), Asset Manager – Kwinana and Somerton (AGL) and Supervisor KSPS; examination of the KSPS AMP (FY24 and FY23 versions) and consideration of the Asset Management Planning Framework overseen by the AGL Integrated Energy function, we determined that:
• Western Energy has maintained a suitable AMP for KSPS, which is directed by AGL's Asset Management Policy and Strategic Asset Management Plan, and addresses the following (non-exhaustive):
▪ Operating Strategy, Business Context, Contracting Strategy and Lifecycle Strategy
▪ Asset Objectives
▪ Asset and Equipment Performance (historical and target) and Condition
▪ Key Risks, Issues and Opportunities
▪ Compliance requirements, including environmental considerations
▪ Maintenance strategy
▪ Major actions and improvement initiatives
▪ Funding Summary.
The FY24 AMP was prepared by the AGL Integrated Energy function, with input (peer review) performed by several AGL staff across relevant AGL functions. The FY23 AMP was prepared by Worley as part of its obligations under its contract with AGL Energy for provision of an Operations Plan and Maintenance Plan. We observed the following two opportunities for further improving the document and raised those opportunities with Western Energy staff:
(i) The FY24 KSPS AMP v3 we examined contains open comments which suggest it was not completely finalised
(ii) The FY23 AMP contains additional detail on operating strategies, maintenance strategies, assumptions, risks and improvement actions specific to asset classes such as Fuel Supply (Liquid/Diesel and Gas), HV Yard and Emergency Diesel Generator. The FY24 AMP does not reference those asset classes. The next review of the AMP could consider including that additional level of detail to recognise those key asset classes.</td></tr>
<tr><td>Process and Policy Rating: Adequately defined (A)</td><td>Performance Rating: Improvement required (2)</td></tr>
</table>

Effectiveness criteria	Findings	
1.2 Planning processes and objectives reflect the needs of all stakeholders and is integrated with business planning	We observed that Western Energy's KSPS AMP and related business planning activity recognise the needs of relevant stakeholders, which include: • The primary value of the Power Station in its availability in the Capacity Market, for which AGL receives payments for the Capacity Credits assigned to KSPS • KSPS plays a crucial role in providing System Restart Services to the Southwest Interconnected System (**SWIS**). This service ensures the ability to restart the system in the event of a blackout or other disruptions • KSPS serves as a physical hedge for the AGL/Perth Energy electricity retail portfolio Noting this strategic position in the Capacity Market and as a black start facility, a high level of availability of KSPS is paramount.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)
1.3 Service levels are defined in the asset management plan	We observed that Western Energy's KSPS service levels and contractual requirements are defined in the KSPS AMP and associated documents.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)
1.4 Non-asset operations (e.g. demand management) are considered	As the primary purpose of Western Energy's KSPS is to maintain availability in the Capacity Market, provide System Restart Services to the SWIS and serve as a physical hedge for the AGL/Perth Energy electricity retail portfolio, there is no requirement or opportunity for Western Energy to consider non-asset options.	
	Process and Policy Rating: Not rated	**Performance Rating:** Not rated
1.5 Lifecycle costs of owning and operating assets are assessed	We observed that: • Operating and maintenance costs are appropriately identified and built into Western Energy's annual budgeting process • Capital expenditure provisions are incorporated into the annual budget on an as-needed basis • Western Energy's current business assumption and Whole of Life (WOL) Plan reflects operations through to FY 2035 based on finance depreciation and amortisation.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)
1.6 Funding options are evaluated	We observed that Western Energy's KSPS operating and capital expenditure requirements are fully funded by AGL through the annual budgeting process. Other funding options are not relevant to Western Energy's operations.	
	Process and Policy Rating: Not rated	**Performance Rating:** Not rated

Effectiveness criteria	Findings	
1.7 Costs are justified and cost drivers identified	We observed that Western Energy's KSPS operating and maintenance costs are appropriately identified and built into Western Energy's annual budgeting process, which is designed to ensure that forecast costs are justified.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)
1.8 Likelihood and consequences of asset failure are predicted	Through discussion with the Asset Manager – Kwinana and Somerton (AGL) and Supervisor, Kwinana Swift Power Station; consideration of Western Energy's risk management practices and examination of supporting documentation, we observed that Western Energy has applied the following mechanisms for predicting the consequences and likelihood of the facility's failure: • The KSPS operational risk register considers the failure or unavailability of major items of equipment • Regular testing and checks reduces the risk of failure or unavailability of major items of equipment • Regular preventative maintenance provides for regular assessment of asset performance • A high level of priority is accorded to minimising instances of asset failure and the duration of any such failure to ensure availability targets are achieved	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)
1.9 Asset management plan is regularly reviewed and updated.	We observed that Western Energy's KSPS AMP has been reviewed during the audit period and is now scheduled to be reviewed and updated on an annual basis.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)

4.2 Asset creation and acquisition

Key process: Asset creation/acquisition is the provision or improvement of assets

Expected 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 Process and Policy/Performance rating: Not rated

Findings: For the period subject to this review, Western Energy had not undertaken (or planned for) for any material asset creation and acquisition activities beyond minor upgrade or repair projects. The design life for the power station is 25 years with 10 years remaining. Accordingly, consideration has not yet been given to an asset creation and acquisition process relevant to the Power Station's ongoing operations.

Although we have not rated the Process and Policy criteria, we recommend that in the event that Western Energy commences planning for any material asset creation and acquisition activities, it reviews the effectiveness criteria for the asset creation and acquisition process of the asset management life cycle listed in the ERA's Review Guidelines (summarised at section 2.5 of this report).

4.3 Asset disposal

Key process: Asset disposal is the consideration of alternatives for the disposal of surplus, obsolete, under-performing or unserviceable assets

Expected outcome: The asset management framework minimises holdings of surplus and underperforming assets and lowers service costs. The cost-benefits of disposal options are evaluated

Overall Process and Policy/Performance rating: Not rated

Findings: For the period subject to this review, Western Energy had not undertaken (or planned for) for any material asset disposal activities. As the design life for the power station is 25 years with 10 years remaining, there is a low likelihood of Western Energy disposing of any power station assets in the short-term, with the intent for any underperforming assets/equipment to be repaired or refurbished rather than being disposed of. Accordingly, consideration has not yet been given to an asset disposal process relevant to the Power Station's ongoing operations.

Although we have not rated the Process and Policy criteria, we recommend that in the event that Western Energy commences planning for the disposal of surplus, obsolete, under-performing or unserviceable assets, it reviews the effectiveness criteria for the asset disposal process of the asset management life cycle listed in the ERA's Review Guidelines (summarised at section 2.5 of this report).

4.4 Environmental analysis

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

Expected outcome: The asset management system regularly assesses external opportunities and threats and identifies corrective action to maintain performance requirements

Overall Process and Policy/Performance rating: Adequately defined (A) / Improvement required (2)

Effectiveness criteria	Findings	
4.1 Opportunities and threats in the asset management system environment are assessed	Through discussion with the Operations Manager – Gas Generation (AGL), Asset Manager – Kwinana and Somerton (AGL) and Supervisor KSPS; and consideration of relevant supporting documentation, we observed that: • Western Energy has contracted Worley to undertake the major operations and maintenance work required for KSPS. In accordance with its contractual obligations, Worley has implemented a KSPS Environmental Management Plan (EMP) to provide the framework for identifying environmental risks and developing, implementing, monitoring and reviewing environmental objectives and actions to meet Environmental Policy commitments and manage associated risks • The KSPS EMP details: ▪ All legislative regulatory obligations relevant to KSPS operations. ▪ Key environmental risks and controls to mitigate the potential risks • Western Energy's KSPS AMP is integral to the achievement of KSPS organisational objectives. The AMP outlines key risks, issues, opportunities and compliance requirements, including environmental considerations.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)

Effectiveness criteria	Findings	
4.2 Performance standards (availability of service, capacity, continuity, emergency response, etc.) are measured and achieved	Through discussion with the KSPS Supervisor and consideration of relevant supporting documentation, we observed that: • The KSPS Emergency Response and Evacuation Plan 6167-HS-PLN-0002 REV03 is up-to-date and quite detailed and comprehensive • 6-monthly Emergency drill reports were reviewed and checked to ensure findings from the drills were actioned and closed out in a timely manner • Actual Waste tonnage from site is measured on a monthly basis and compared with the previous month. Note that we did not observe any KPIs with regards to the targeted waste tonnage • Monthly reports outline HSE, Environmental, Operational and Maintenance statistics that have been tracked. We note that operational and maintenance targets have not always been achieved due to inherent engine issues experienced since 2019 • Following gas generators being sent overseas for overhaul, start reliability issues on gas fuel and other equipment issues impacted on the Refund Exempt Planned Outage (REPO) count for the power station. Despite the gas generators being overhauled and put in service, they continue to experience poor start reliability and availability issues due to various other reasons as outlined in the detailed AMP dated 3 May 2023 • As the asset owner and manager, AGL monitors the power station's performance, undertakes assessments and makes decisions to address performance issues in line with KSPS organisational objectives.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Improvement required (2)
4.3 Compliance with statutory and regulatory requirements	Through discussion with the KSPS Supervisor and consideration of relevant supporting documentation, we observed that: • The facility operates under DWER Electric Power Generation Licence (L8471/2010/2), issued to Western Energy Pty Ltd, dated 3 September 2015. It also holds Effluent services Agreement with Water Corporation dated 17 February 2010 • The KSPS EMP outlines all necessary environmental risks and control measures for the power station including Air Quality and Noise Management Plans • Any breaches to the environmental compliance and regulatory requirements are reported on a monthly basis • KSPS has met with all statutory and regulatory requirements for the audit period with no reported breaches.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)

Effectiveness criteria	Findings	
4.4 Service standard (customer service levels etc) are measured and achieved	Through discussion with the KSPS Supervisor and consideration of relevant supporting documentation, we observed that: • The primary source of revenue for KSPS is capacity credits paid based on the capacity certification and availability of the plant. KSPS is certified for 109 MW of capacity credits on liquid fuel. Twice a year the station is required to demonstrate that the certified capacity can be achieved on liquid fuel • KSPS electricity generation is also bid into the WEM when forecast prices are suitable to generate a profit • Accordingly, Start Reliability and Plant Availability are critical KPIs that are measured and tracked on monthly and annual basis • The facility's Refund Exempt Planned Outage count (REPO) is calculated as a rolling average over the previous 1,000 trading days. As KSPS operates close to the limits of both REPO count and outage rate (due to previous plant outage issues), Western Energy aims to avoid any potential unplanned or long outages • Monthly reports prepared by Worley show occasions where the power station has experienced start reliability and availability challenges • A Root Cause Analysis using a Cause and Effect Chart has highlighted a range of issues which indicate the need for further technical resources and equipment.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Improvement required (2)

4.5 Asset operations

Key process: Asset operations is the day-to-day running of assets (where the asset is used for its intended purpose)

Expected 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

Overall Process and Policy/Performance rating: Requires some improvement (B) / Improvement required (2)

<table>
<tr><th>Effectiveness criteria</th><th colspan="2">Findings</th></tr>
<tr><td rowspan="2">5.1 Operational policies and procedures are documented and linked to service levels required</td><td colspan="2">Through discussion with the KSPS Supervisor and consideration of relevant supporting documentation, we observed that:
Control and operation of the KSPS is dictated by AEMO and Western Power requirements for the generation and supply of electricity into the network and market, in accordance with contractual arrangements
Western Energy has developed a comprehensive list of documented procedures and work instructions
Several plans are created at the site level rather than the correct level within the hierarchy, which is non-compliant to master data standards and provides no level of detail. Also, a number of work routines are currently inactive due to the current asset condition and site operational requirements, which require a revised work approach. Routines that are currently inactive should be reviewed to determine whether they are redundant, whether they should be revised or replaced, or whether they are due to be reactivated to match any change to the asset condition and site operational requirements. We raised this matter with Western Energy staff as an improvement opportunity.</td></tr>
<tr><td>Process and Policy Rating: Requires some improvement (B)</td><td>Performance Rating: Performing effectively (1)</td></tr>
</table>

Effectiveness criteria	Findings	
5.2 Risk management is applied to prioritise operations tasks	Through discussion with the Asset Manager – Kwinana and Somerton (AGL) and KSPS Supervisor and consideration of Western Energy's risk management and reporting framework and its records of material, operational and asset specific risks, we observed that: • AGL's Risk Management Standard has been applied to Western Energy's operations to enable Western Energy to make risk based decisions in relation to operational matters • Operations and maintenance activities are expected to be based on a risk management approach, whereby the operations and maintenance tasks addressing higher risk issues are performed first in order, followed by lower priority tasks • Preventative maintenance tasks have been developed in order to targets areas of higher risk and priority • There are the following opportunities to further improve Western Energy's practices for applying a risk-based approach to prioritising operations and maintenance tasks: ▪ The May 2024 Works Management site visit undertaken by the AGL Asset Services Team found that while site works management KPI's appear to be good, the majority of work performed was scheduled as bucket work orders for Technician Routines and weekly meetings (i.e. without clear evidence of risk-based prioritisation) ▪ The KSPS Planning and Scheduling role is currently engaged for 12 hours per week and is limited to planning and scheduling, with no input to system improvement. System improvements are considered by AGL's principal engineering team ▪ A significant piece of work would be required to review, adjust and set-up ISO risk based preventative maintenance and risk assess OEM routines in order to fully implement the required KSPS operating strategies ▪ Work order management is currently all calendar based and could potentially be optimised for an operation based strategy better utilising resources and minimising down time. *We raised these matters with Western Energy staff as an improvement opportunity.*	
	Process and Policy Rating: Requires some improvement (B)	**Performance Rating:** Improvement required (2)

Effectiveness criteria	Findings	
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	Through discussion with the Asset Manager – Kwinana and Somerton (AGL) and KSPS Supervisor and consideration of relevant supporting documentation, we observed that: • Western Energy uses a combination of the SAP system, its KSPS AMP and the site inventory register to record relevant details of its assets, including asset condition assessments. There are opportunities for the SAP system to capture a deeper level of detail • AGL's May 2024 Works Management site visit observed that: ▪ The majority of the site's assets have not been configured to a level of detail that would support proper use for maintenance or reliability within SAP. Approximately 84% had a base category 'General' Assigned. This provides no visibility of critical equipment and results in difficulty in data analysis ▪ All technical objects on site have been configured as Functional locations, these represent the areas maintenance is performed representing static physical objects or abstract locations ▪ There had been no Equipment created to represent tooling or components that may be transferred between locations or replaced such as pumps, valves, or motors. Western Energy is still working through the recommended suite of actions to address the observations of the May 2024 Works Management site visit. We note that the site visit report plus additional work performed by AGL's Asset Integrity team is intended to result in a greater level of support from AGL's engineering, data and business system functions. • As spares are captured in the site inventory register, including sourcing history, critical spares are not identified or managed efficiently within the SAP system. MRP (automated stock levelling) is not operating for restocking, this is manually carried out by the site personnel • The KSPS AMP has documented the current assets' physical/structural condition however as there is not a direct link to "current condition", SAP should reflect defects etc and will assist planning repairs or inspection.	
	Process and Policy Rating: Requires some improvement (B)	**Performance Rating:** Improvement required (2)
5.4 Accounting data is documented for assets	Through discussion with the Asset Manager – Kwinana and Somerton (AGL), we observed that AGL maintains corporate records to capture appropriate accounting data for Western Energy's assets, including relevant costs, values and dates/periods.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)
5.5 Operational costs are measured and monitored	Through consideration of Western Energy's information systems and relevant supporting documentation such as monthly reports, we observed that Western Energy tracks and reports operational costs on a monthly and annual basis.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)

Effectiveness criteria	Findings	
5.6 Staff resources are adequate and staff receive training commensurate with their responsibilities	Through discussion with the Asset Manager – Kwinana and Somerton (AGL) and KSPS Supervisor and consideration of relevant supporting documentation, we observed that: • Western Energy utilises the Rapid Global Training Matrix to meet the key objective, which is to define the minimum requirements for ensuring the Health, Safety and Environmental (HSE) competency of personnel such that personnel are competent to complete the work that they are tasked to complete safely, as well as work they undertake where permitted without direct tasking • There are the following opportunities to further improve Western Energy's practices for ensuring staff receive training commensurate with their responsibilities: ▪ It appears there will be value in repeating a needs analysis and assessment of on-the-job training requirements, particularly for roles and responsibilities that personnel are not fully familiar with ▪ The May 2024 Works Management site visit performed by AGL's Asset Services Reliability Performance Specialist identified a gap in the full implementation of the CMMS SAP. This gap can impact the Work Order Management of KSPS site ▪ The May 2024 Works Management site visit also identified that there is no site assigned master data resource ▪ There is limited Planning and Scheduling SAP capability on site leading to work prioritisation not always being captured in SAP ▪ There is a significant body of work to bring the KSPS site into full compliance with AGL standards. *We raised these matters with Western Energy staff as improvement opportunities.*	
	Process and Policy Rating: Requires some improvement (B)	**Performance Rating:** Improvement required (2)

4.6 Asset maintenance

Key process: Asset maintenance is the upkeep of assets

Expected outcome: The asset maintenance plans cover the scheduling and resourcing of the maintenance tasks so work can be done on time and on cost

Overall Process and Policy/Performance rating: Requires some improvement (B) / Improvement required (2)

<table>
<tr><th>Effectiveness criteria</th><th colspan="2">Findings</th></tr>
<tr><td rowspan="2">6.1 Maintenance policies and procedures are documented and linked to service levels required</td><td colspan="2">Through discussion with the KSPS Supervisor and consideration of relevant supporting documentation, we observed that:
Western Energy has some documented procedures and work instructions in place to cover maintenance tasks that are of routine nature and fall within preventative maintenance tasks
The KSPS AMP v3 provides a summary of maintenance KPIs and performance in meeting these KPIs
The AMP also provides detailed asset condition data, however there appears to be some gaps in the list of procedures and work instructions that are available to address the current asset conditions
Currently the site process for identifying maintenance instructions for corrective maintenance tasks involves printing work scopes from an OEM manual. SAP work instructions for routines or corrective work are not currently well utilised and on investigation they are not well developed, lacking any real content.
We raised these matters with Western Energy staff as improvement opportunities.</td></tr>
<tr><td>Process and Policy Rating: Requires some improvement (B)</td><td>Performance Rating: Improvement required (2)</td></tr>
<tr><td rowspan="2">6.2 Regular inspections are undertaken of asset performance and condition</td><td colspan="2">Through discussion with the KSPS Supervisor, consideration of relevant supporting documentation, and sample testing of evidence of inspections and maintenance activity, we determined that:
Worley Site Personnel undertake routine inspections and report asset performance and condition on a monthly basis via monthly reports to AGL.</td></tr>
<tr><td>Process and Policy Rating: Adequately defined (A)</td><td>Performance Rating: Performing effectively (1)</td></tr>
</table>

Effectiveness criteria	Findings	
6.3 Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule	Through discussion with the KSPS Supervisor, consideration of relevant supporting documentation and sample testing of evidence of inspections and maintenance activity, we determined that: • Although the operations of KSPS has evolved from standby operating philosophy in year 2010 to more of a peaking plant philosophy to capitalise on the availability of higher prices in the market, there is no evidence of a change in preventative maintenance philosophy • Given the historical and forecast market conditions, it could be assumed that the power station will run 500 to 1,000 hours per year, with approximately 100 to 200 starts per year. Based on this level of operation, preventative maintenance will be carried out when time/outages permit • In late 2019, when all gas generators began experiencing breather pressure issues due to GG carbon seal degradation leading to unit overhauls, the extended planned outage has resulted in a high REPO count and combined outage rate • As KSPS operates close to the limits of both REPO count and outage rate (due to previous plant outage issues), Western Energy aims to avoid any potential unplanned or long outages • The KSPS maintenance strategy is designed to mitigate the known risks to contractual obligations. The strategy addresses the separate categories of corrective maintenance and preventative maintenance • The KSPS AMP v3 outlines: ▪ The current asset condition in detail ▪ Asset performance KPIs ▪ Preventative Maintenance Activities and all known Corrective Maintenance Activities • Monthly reports prepared by Worley detail Asset performance KPIs and all maintenance tasks undertaken.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)
6.4 Failures are analysed and operational/maintenance plans adjusted where necessary	Through discussion with the KSPS Supervisor, consideration of relevant supporting documentation and sample testing of evidence of inspections and maintenance activity, we observed that: • Start reliability of the KSPS on gas fuel has been an issue. The performance KPIs for Start Reliability and Plant Availability meet AGL's minimum requirements • There is evidence of failures being analysed, however subsequent adjustments have not been made to operational and [preventative maintenance plans. It may be beneficial to incorporate the results of failure analyses into the next review of the KSPS operational and preventative maintenance plans.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Improvement required (2)

Effectiveness criteria	Findings	
6.5 Risk management is applied to prioritise maintenance tasks	Through discussion with the Asset Manager – Kwinana and Somerton (AGL) and KSPS Supervisor and consideration of Western Energy's risk management and reporting framework and its records of material, operational and asset specific risks, we observed that: • AGL's Risk Management Standard is applicable to Western Energy's operations to enable Western Energy to make risk based decisions in relation to operational matters • Operations and maintenance activities are expected to be based on a risk management approach, whereby the operations and maintenance tasks addressing higher risk issues are performed first in order, followed by lower priority tasks. In practice however, it is not always evident that the allocation and completion of maintenance activities is prioritised based on assessed risks • There are the following opportunities to further improve Western Energy's practices for applying a risk-based approach to prioritising maintenance tasks: ▪ External Services for routine inspections are not being created from Work Orders (which would enable a greater level of prioritisation), instead they are generated as free text requisitions direct to a Cost Centre ▪ The KSPS Maintenance Strategy could be enhanced by including the condition assessment of the combustion chambers of all four units and high breather pressure due to bearings seals failure ▪ AGL's Asset Management Planning standard could be explicitly applied to the design of critical maintenance tasks identified for KSPS assets. *We raised these matters with Western Energy staff as an improvement opportunity.*	
	Process and Policy Rating: Requires some improvement (B)	**Performance Rating:** Improvement required (2)
6.6 Maintenance costs are measured and monitored	Through consideration of Western Energy's information systems and relevant supporting documentation such as monthly reports, we observed that Western Energy tracks and reports operations and maintenance costs on a monthly and annual basis.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)

4.7 Asset management information systems

Key process: An asset management information system is a combination of processes, data and software supporting the asset management functions

Expected 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

Overall Process and Policy/Performance rating: Adequately defined (A) / Performing effectively (1)

Effectiveness criteria	Findings	
7.1 Adequate system documentation for users and IT operators	Through discussions with the Asset Manager – Kwinana and Somerton (AGL) and consideration of relevant system documentation, we observed that: • Western Energy utilises the SAP asset operations and maintenance application and monitors live plant performance through the Motherwell Integrated Control and Management System • Western Energy (through AGL) maintains an appropriate suite of technical documentation for its core SAP and Motherwell applications, with that documentation readily available to Western Energy's KSPS staff.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)
7.2 Input controls include suitable verification and validation of data entered into the system	Through discussion with the Asset Manager – Kwinana and Somerton (AGL) and KSPS Supervisor, consideration of relevant system documentation and walkthrough of a sample of functions managed by the SAP asset operations and maintenance system, we observed that Western Energy's core systems maintained appropriate data verification and validation controls and techniques.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)
7.3 Security access controls appear adequate, such as passwords	Through discussions with the Asset Manager – Kwinana and Somerton (AGL) and KSPS Supervisor and consideration of relevant supporting documentation, we observed that Western Energy has established and maintained procedures and controls which enable all key system access and permissions (including remote access) to be managed in accordance with AGL IT standards, policies and procedures.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)

Effectiveness criteria	Findings	
7.4 Physical security access controls appear adequate	Through discussions with the Asset Manager – Kwinana and Somerton (AGL) and KSPS Supervisor and consideration of relevant supporting documentation, we observed that Western Energy has established and maintained appropriate processes and procedures relating to the access of facilities and the physical protection of information assets and systems. Specifically in the context of access to computer server rooms and other control systems on site, we observed that: • Access to the site operations building, main control room and key plant control facilities is via locked door, with all keys managed by the KSPS Supervisor or nominated delegate • All visitors and contractors are required to report to and be accompanied by the KSPS Site Lead or another designated Western Energy representative.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)
7.5 Data backup procedures appear adequate and backups are tested	Through discussions with the Asset Manager – Kwinana and Somerton (AGL) and consideration of relevant supporting documentation, we observed that: • Procedures for managing data backup and data restore of Western Energy's KSPS servers have been established and maintained with AGL IT standards, and with the support of expert consultants • AGL procedures provide for regular backups of all key data in accordance with accepted industry practice, with regular testing of back-ups performed • AGL IT staff provide full support for Western Energy staff, including management of backups for data maintained on AGL's central servers.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)
7.6 Computations for licensee performance reporting are accurate	For the purpose of Western Energy's licence performance reporting to the ERA in accordance with its Licence requirements, Western Energy does not directly extract data from its SAP and Motherwell systems and is not directly reliant on computations from those systems.	
	Process and Policy Rating: Not rated	**Performance Rating:** Not rated
7.7 Management reports appear adequate for the licensee to monitor licence obligations	Through discussion with the Asset Manager – Kwinana and Somerton (AGL) and consideration of relevant supporting documentation and management reporting procedures, we determined that: • Western Energy's SAP and Motherwell systems are capable of generating a substantial variety of reports • Management reports relating to the operation and performance of the facility are produced on a scheduled basis and can also be produced on request.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)

Effectiveness criteria	Findings	
7.8 Adequate measures to protect asset management data from unauthorised access or theft by persons outside the organisation	Through discussions with the Asset Manager – Kwinana and Somerton (AGL) and KSPS Supervisor and consideration of relevant supporting documentation, we observed that Western Energy has established and maintained appropriate processes and procedures relating to the protection of information assets and systems, including: • Comprehensive user access controls, including user permissions and remote access • Contemporary cyber security processes and procedures.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)

4.8 Risk management

Key process: Risk management involves the identification of risks and their management within an acceptable level of risk

Expected outcome: The risk management framework effectively manages the risk that the licensee does not maintain effective service standards

Overall Process and Policy/Performance rating: Adequately defined (A) / Improvement required (2)

<table>
<tr><th>Effectiveness criteria</th><th colspan="2">Findings</th></tr>
<tr><td rowspan="2">8.1 Risk management policies and procedures exist and are applied to minimise internal and external risks</td><td colspan="2">Through discussion with the Asset Manager – Kwinana and Somerton (AGL) and KSPS Supervisor; consideration of Western Energy's risk management practices and examination of supporting documentation, we observed that:
Western Energy maintains a combination of the AGL business-wide risk management approach and Worley operational risk management processes
From an operational perspective, Western Energy incorporates risk management as a fundamental aspect of its decision making process to support and enhance its business activities. In particular:
Risk-based policies and procedures are applied to Western Energy's operational and maintenance activities performed by Worley, including asset condition assessments. We sighted several examples of risk based practices being applied to Western Energy's monitoring of power station operations, and in its asset planning process
Western Energy staff displayed an understanding of known operational risks and issues, with evidence of tasks being initiated and completed to address those risks and issues
Western Energy maintains appropriate records of those activities
There is evidence of risk status and risk treatment plans being monitored, plus evidence of actions being scheduled and completed as a work order.
We sighted evidence of risk-based decision making and instructions relevant to management of the KSPS assets during the review period, including resulting amendments to asset planning.
Based on our examination of the risk management processes in place, we determined that Western Energy uses a well-established and consistent system for identifying and managing risks, including formal supporting procedural documentation.</td></tr>
<tr><td>Process and Policy Rating: Adequately defined (A)</td><td>Performance Rating: Performing effectively (1)</td></tr>
</table>

Effectiveness criteria	Findings	
8.2 Risks are documented in a risk register and treatment plans are implemented and monitored	Through discussion with the Asset Manager – Kwinana and Somerton (AGL) and KSPS Supervisor; consideration of Western Energy's risk management practices and examination of supporting documentation, we observed that: • Western Energy has maintained a KSPS FIRM Risk Register within the Periscope system, consistent with AGL's Risk Management Standard and risk register structure, and other facilities within the AGL Energy group: ▪ The KSPS FIRM Risk Register covers a broad range of operational risk types, with a total of 57 risks recorded as at 11 October 2024. We note that 4 of those risks that were first raised between February 2021 and October 2023 have not been fully assessed in order to assign risk ratings and any relevant risk treatment. A further 5 risks raised since September 2024 had also yet to be fully assessed. As some of those risks appear to have a potentially high impact and severity, additional attention in fully using the risk register to identify, implement and monitor risk mitigations/treatments is suggested ▪ Risks captured in the risk register are subject to review on an annual basis in line with scheduled review dates, with any relevant updates made to the register. As those risks without a full assessment do not have review dates assigned, they may not be recognised for the risk owner's attention ▪ Although the monthly reports include a standing item for identifying new operational risks and related corrective action activity, they are included within the HSE section of the report. Management of operational risks could be elevated by specifically addressing them in the Operations section of the report *We raised these matters with Western Energy staff as an improvement opportunity.* • Worley also maintains a KPSPS WHS risk register on behalf of Western Energy: ▪ The HSE risk register includes Top 16 HSE Risks plus additional site risks ▪ Monthly reports prepared by Worley include a standing item for identifying new HSE risks and related corrective action activity • There is evidence of risk status and risk treatment plans being monitored, plus evidence of actions being scheduled and completed as a work order.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Improvement required (2)

<table>
<tr><th>Effectiveness criteria</th><th colspan="2">Findings</th></tr>
<tr><td rowspan="2">8.3 Probability and consequences of asset failure are regularly assessed</td><td colspan="2">Through discussion with the Asset Manager – Kwinana and Somerton (AGL) and KSPS Supervisor; consideration of Western Energy's risk management practices and examination of supporting documentation, we observed that Western Energy has applied the following mechanisms for identifying and assessing the consequences and likelihood of power station asset failure:
The KSPS operational risk register considers the failure or unavailability of major items of equipment
Regular testing and checks reduces the risk of failure or unavailability of major items of equipment
Condition monitoring techniques are employed to identify defects
Regular preventative maintenance provides for regular assessment of asset performance
A high level of priority is accorded to minimising instances of asset failure and the duration of any such failure to ensure availability targets are achieved.
Although those mechanisms and processes are designed to support Western Energy in assessing the probability and consequences of asset failure, in practice Western Energy has not applied a full risk-based approach to consider options for improvement (such as changes to operational and preventative maintenance plans) once failures have been assessed/analysed. For example, the analysis of gas start reliability issues that could be incorporated into the next review of the KSPS operational and preventative maintenance plans. We raised this matter with Western Energy staff as an improvement opportunity.</td></tr>
<tr><td>Process and Policy Rating: Adequately defined (A)</td><td>Performance Rating: Improvement required (2)</td></tr>
</table>

4.9 Contingency planning

Key process: Contingency plans document the steps to deal with the unexpected failure of an asset

Expected outcome: Contingency plans have been developed and tested to minimise any major disruptions to service standards

Overall Process and Policy/Performance rating: Adequately defined (A) / Performing effectively (1)

<table>
<tr><th>Effectiveness criteria</th><th colspan="2">Findings</th></tr>
<tr><td rowspan="2">9.1 Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks</td><td colspan="2">Through discussion with the Asset Manager – Kwinana and Somerton (AGL) and KSPS Supervisor, and examination of Western Energy’s emergency response and contingency planning mechanisms, we determined that:
Western Energy has developed a suite of emergency response procedures and management plans, such as:
KSPS Emergency Response and Evacuation Plan (September 2024)
KSPS EMP (September 2022)
KSPS Dangerous Goods Emergency Response Plan (February 2022)
AGL Operational Technology Cyber Security Incidence Response Plan – tailored to KSPS (December 2022)
The KSPS FIRM risk register and key risks detailed in the KSPS AMP capture higher risk areas, which may result in major disruptions to asset operations. Western Energy’s risk management activities play an effective role in assisting Western Energy to recognise the need for contingency and response planning to effectively minimise any major disruption to asset operations
Western Energy has implemented a schedule for testing the effectiveness of its emergency response plans. We sighted evidence of the planning and reporting for 6-monthly Evacuation drills
Scenarios for testing emergency response plans are scheduled as a recurring, annual work orders
AGL undertook a Cyber Exercise Scenario in May 2024, with several positive observations and potential opportunities for improvement identified.</td></tr>
<tr><td>Process and Policy Rating: Adequately defined (A)</td><td>Performance Rating: Performing effectively (1)</td></tr>
</table>

4.10 Financial planning

Key process: Financial brings together the financial elements of the service delivery to ensure its financial viability over the long term

Expected outcome: The financial plan is reliable and provides for the long-term financial viability of the services

Overall Process and Policy/Performance rating: Adequately defined (A) / Performing effectively (1)

Effectiveness criteria	Findings	
10.1 The financial plan states the financial objectives and identifies strategies and actions to achieve those	Through discussion with the Operations Manager – Gas Generation (AGL), Asset Manager – Kwinana and Somerton (AGL) and consideration of Western Energy's financial planning mechanisms, we observed that: • The KSPS financial plan takes the form of an annual budget with 5 year forecasts, prepared to reflect Western Energy's financial objectives and contractual agreements • The KSPS AMP outlines the power station's operating strategy, contracting strategy and business context, plus the funding (cost budget) provided to deliver against those strategies and plans.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)
10.2 The financial plan identifies the source of funds for capital expenditure and recurrent costs	Through consideration of Western Energy's financial planning mechanisms, we observed that the KSPS annual operating and capital expenditure budget is aligned with Western Energy's overall business plans and is to be fully funded through contributions made by AGL.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)
10.3 The financial plan provides projections of operating statements (profit and loss) and statement of financial position (balance sheets)	Through consideration of Western Energy's financial planning mechanisms, we observed that: • The KSPS annual budget: ▪ Is comprised of a summary of forecast operating and capital expenses relating to the operation and maintenance of the power station to meet its availability and production objectives ▪ Provides projections of costs that are attributable to the power station. • Western Energy is part of AGL's Integrated Energy group, which operates AGL's power generation portfolio. AGL prepares consolidated financial plans, which provide for projections of operating statements and statements of financial position.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)

Effectiveness criteria	Findings	
10.4 The financial plan provides firm predictions on income for the next five years and reasonable predictions beyond this period	Through consideration of Western Energy's financial planning mechanisms, we observed that for AGL's fleet of finite life generation assets (including Western Energy / KSPS), cash flow forecasts are based on discrete and long-term cash flow forecasts that reflect the life of the assets. The long-term modelling reflects AGL's view of the cash flows anticipated from operations, factoring in known events such as planned outages and expectations, and allows for quantification of sensitivities and scenarios.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)
10.5 The financial plan provides for the operations and maintenance, administration and capital expenditure requirements of the services	Through consideration of Western Energy's annual financial plans and budgets, we observed that those plans: • Provide a sufficient level of detail relating to forecast operational, maintenance and administrative costs. i.e. operations maintenance and administration expenses on a rolling five year basis • Include a summary of current and planned capital expenditure projects over the following three years.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)
10.6 Large variances in actual/budget income and expenses are identified and corrective action taken where necessary	Through consideration of Western Energy's financial budgeting and reporting processes, we observed that actual versus budgeted expenditure is monitored and reported on a monthly basis, with variances identified and investigated where required to determine whether corrective action is required.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)

4.11 Capital expenditure planning

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

Expected 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

Overall Process and Policy/Performance rating: Adequately defined (A) / Performing effectively (1)

Effectiveness criteria	Findings	
11.1 There is a capital expenditure plan covering works to be undertaken, actions proposed, responsibilities and dates	Through discussion with the Operations Manager – Gas Generation (AGL), Asset Manager – Kwinana and Somerton (AGL) and consideration of Western Energy's capital planning processes, we observed that: • A capital expenditure plan is incorporated into the KSPS annual financial budget • AGL's Asset Management Framework outlines the steps and timeframes involved in proposing, ranking and approving capital expenditure projects • Capital expenditure planning is undertaken on a rolling five year basis • The capital expenditure budget includes the amount and purpose of the budgeted capital expenditure, and is supported by: ▪ Justification for the expenditure, in relation to the objectives of the KSPS ▪ Approvals in accordance with AGL's structures CAPEX Project Stage Gate Review process • The KSPS AMP outlines the capital expenditure plans for approved projects, with forecast costs of up to five years.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)
11.2 The capital expenditure plan provides reasons for capital expenditure and timing of expenditure	Through consideration of Western Energy's capital planning processes, we observed that KSPS capital expenditure plans require the reasons for the capital expenditure and the financial year in which the capital expenditure amount is planned.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)
11.3 The capital expenditure plan is consistent with the asset life and condition identified in the asset management plan	Through consideration of Western Energy's asset planning processes, we observed that: • AGL's Asset Management Framework requires asset whole of life plans to inform capital expenditure planning • The KSPS AMP provides a high-level overview of Kwinana gas turbine condition and strategies to manage them • Those strategies include projects requiring capital expenditure, which are captured in Western Energy's capital expenditure plans and budgets.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)

Effectiveness criteria	Findings	
11.4 There is an adequate process to ensure the capital expenditure plan is regularly updated and implemented	Through consideration of Western Energy's capital planning processes, we observed that: • The capital plan is reviewed and updated annually to ensure a continuing alignment with business plans • The capital expenditure budget is tracked on a monthly basis • The annual financial and capital expenditure planning process takes account of all asset risks, assigned treatments and requirements.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)

4.12 Review of asset management system

Key process: The asset management system is regularly reviewed and updated

Expected outcome: The asset management system is regularly reviewed and updated

Overall Process and Policy/Performance rating: Requires Adequately defined (A) / Performing effectively (1)

<table>
<tr><th>Effectiveness criteria</th><th colspan="2">Findings</th></tr>
<tr><td>12.1 A review process is in place to ensure the asset management plan and the asset management system described in it remain current</td><td colspan="2" rowspan="2">Through discussion with the Asset Manager – Kwinana and Somerton (AGL) and consideration of AGL’s Asset Management Planning Standard, we observed that:
Western Energy’s KSPS AMP, which is the main reference to Western Energy’s AMS, has been reviewed and updated on an annual basis. With the support of with a range of relevant AGL staff, the AGL Integrated Energy Lead Engineer Asset Strategy and Risk has the primary responsibility for that annual review, with the AGL Head of Engineering & Projects Gas & Renewables responsible for reviewing and approving the revised version
AGL’s Asset Management Planning Standard provides for asset management activities to be subject to performance assessment and continuous improvement. Provision is made for independent audits and reviews to be conducted either internally or through third parties
An independent, bowtie review of AGL’s asset management systems was conducted in conjunction with Uniper across AGL’s dispatchable assets in 2021. That review assessed the alignment of AGL’s asset management framework to its asset management policy, plus AGL’s compliance with that asset management framework. Recommendations made by that review have since been implemented and are incorporated into AGL’s asset management framework.</td></tr>
<tr><td>12.2 Independent reviews (e.g. internal audit) are performed of the asset management system</td></tr>
<tr><td></td><td>Process and Policy Rating: Adequately defined (A)</td><td>Performance Rating: Performing effectively (1)</td></tr>
</table>

5. Status of recommendations addressing asset system deficiencies from the previous review

Reference (no./year)	**Process and policy deficiency / Performance deficiency** (Rating / Reference number, Asset management process & effectiveness criterion / Details of deficiency)	Reviewer's recommendation or action planned	Date resolved	**Details of further action required** (including current recommendation **Further action required** (Yes/No/Not Applicable) reference, if applicable)
A. Resolved during current review period				
B. Unresolved at end of current review period				
Not applicable – there were no recommendations addressing asset system deficiencies from the previous 2019 review.				

Appendix A - Review Plan

ASSURANCE ADVISORY GROUP

Western Energy Pty Ltd

Electricity Generation Licence (EGL19)

2024 Asset Management System Review

Review Plan

October 2024

Table of Contents

Introduction

Overview

The Economic Regulation Authority (the **ERA**) has under the provisions of the Electricity Industry Act 2004 (the **Act**), issued to Western Energy Pty Ltd (**Western Energy**) an Electricity Generation Licence (**EGL19**) (the **Licence**).

Section 14 of the Act requires Western Energy to provide to the ERA an asset management system review (the **review**) report conducted by an independent expert acceptable to the ERA not less than once in every 24-month period unless otherwise approved by the ERA. With the ERA's approval, Assurance Advisory Group (**AAG**) has been appointed to conduct the review for the period 1 October 2019 to 30 September 2024 (**review period**).

The Licence relates to Western Energy operating the Kwinana Swift Power Station (**KSPS**), a dual-fuel 120 MW peaking station located in Kwinana, 40km south of Perth. KSPS consists of four 30MW gas turbines connected to two common generators and operates as an open cycle peaking station that can be fired on natural gas or ultra-low sulphur diesel or both. KSPS is operated and maintained by Western Energy using sub-contractors for major maintenance. Western Energy is owned by AGL Energy Limited (**AGL**).

The review will be conducted in accordance with the ERA's March 2019 issue of the *Audit and Review Guidelines: Electricity and Gas Licences* (**Review Guidelines**). In accordance with the Review Guidelines this document represents the Review Plan (the **Plan**) that is to be agreed upon by AAG and Western Energy and presented to the ERA for approval.

Objective

The objective of the review is to independently examine the effectiveness and performance of the asset management system established for assets subject to Western Energy's Licence during the review period.

Scope

In accordance with the Review Guidelines, the review will consider the effectiveness of Western Energy's existing control procedures within the 12 key processes in the asset management life cycle as outlined below at Table 1. Each key process and effectiveness criteria is applicable to Western Energy's Licence and as such will be individually considered in this review.

Table 1 – Asset management system key processes and effectiveness criteria

Key processes	Effectiveness criteria
1. Asset Planning	1.1 Asset management plan covers the processes in this table 1.2 Planning processes and objectives reflect the needs of all stakeholders and is integrated with business planning 1.3 Service levels are defined in the asset management plan 1.4 Non-asset operations (e.g. demand management) are considered 1.5 Lifecycle costs of owning and operating assets are assessed 1.6 Funding options are evaluated 1.7 Costs are justified and cost drivers identified 1.8 Likelihood and consequences of asset failure are predicted 1.9 Asset management plan is regularly reviewed and updated.
2. Asset creation and acquisition	2.1 Full project evaluations are undertaken for new assets, including comparative assessment of non-asset options 2.2 Evaluations include all life-cycle costs 2.3 Projects reflect sound engineering and business decisions 2.4 Commissioning tests are documented and completed 2.5 Ongoing legal / environmental / safety obligations of the asset owner are assigned and understood

Key processes	Effectiveness criteria
3. Asset disposal	3.1 Under-utilised and under-performing assets are identified as part of a regular systematic review process 3.2 The reasons for under-utilisation or poor performance are critically examined and corrective action or disposal undertaken 3.3 Disposal alternatives are evaluated 3.4 There is a replacement strategy for assets
4. Environmental analysis	4.1 Opportunities and threats in the asset management system environment are assessed 4.2 Performance standards (availability of service, capacity, continuity, emergency response, etc.) are measured and achieved 4.3 Compliance with statutory and regulatory requirements 4.4 Service standard (customer service levels etc) are measured and achieved.
5. Asset operations	5.1 Operational policies and procedures are documented and linked to service levels required 5.2 Risk management is applied to prioritise operations tasks 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 5.4 Accounting data is documented for assets [new criteria] 5.5 Operational costs are measured and monitored 5.6 Staff resources are adequate and staff receive training commensurate with their responsibilities
6. Asset maintenance	6.1 Maintenance policies and procedures are documented and linked to service levels required 6.2 Regular inspections are undertaken of asset performance and condition 6.3 Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule 6.4 Failures are analysed and operational/maintenance plans adjusted where necessary 6.5 Risk management is applied to prioritise maintenance tasks 6.6 Maintenance costs are measured and monitored
7. Asset management information systems	7.1 Adequate system documentation for users and IT operators 7.2 Input controls include suitable verification and validation of data entered into the system 7.3 Security access controls appear adequate, such as passwords 7.4 Physical security access controls appear adequate 7.5 Data backup procedures appear adequate and backups are tested 7.6 Computations for licensee performance reporting are accurate 7.7 Management reports appear adequate for the licensee to monitor licence obligations 7.8 Adequate measures to protect asset management data from unauthorised access or theft by persons outside the organisation
8. Risk management	8.1 Risk management policies and procedures exist and are applied to minimise internal and external risks 8.2 Risks are documented in a risk register and treatment plans are implemented and monitored 8.3 Probability and consequences of asset failure are regularly assessed
9. Contingency planning	9.1 Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks

Key processes	Effectiveness criteria
10. Financial planning	10.1 The financial plan states the financial objectives and identifies strategies and actions to achieve those 10.2 The financial plan identifies the source of funds for capital expenditure and recurrent costs 10.3 The financial plan provides projections of operating statements (profit and loss) and statement of financial position (balance sheets) 10.4 The financial plan provides firm predictions on income for the next five years and reasonable predictions beyond this period 10.5 The financial plan provides for the operations and maintenance, administration and capital expenditure requirements of the services 10.6 Large variances in actual/budget income and expenses are identified and corrective action taken where necessary
11. Capital expenditure planning	11.1 There is a capital expenditure plan covering works to be undertaken, actions proposed, responsibilities and dates 11.2 The capital expenditure plan provides reasons for capital expenditure and timing of expenditure 11.3 The capital expenditure plan is consistent with the asset life and condition identified in the asset management plan 11.4 There is an adequate process to ensure the capital expenditure plan is regularly updated and implemented
12. Review of asset management system	12.1 A review process is in place to ensure the asset management plan and the asset management system described in it remain current 12.2 Independent reviews (e.g. internal audit) are performed of the asset management system

Western Energy's responsibility for maintaining an effective asset management system

Western Energy is responsible for putting in place policies, procedures and controls, which are designed to provide for an effective asset management system for assets subject to the Licence.

AAG's responsibility

Our responsibility is to express a limited assurance conclusion on whether, based on the procedures performed and the evidence obtained, anything has come to our attention that causes us to believe that Western Energy's AMS for assets subject to its Licence has not been established and maintained, in all material respects, in accordance with the Licence as measured by the effectiveness criteria in the Guidelines for the period from 1 October 2019 to 30 September 2024 . The review will be conducted in accordance with Australian Standard on Assurance Engagements ASAE 3500 Performance Engagements (**ASAE 3500**), issued by the Australian Auditing and Assurance Standards Board.

ASAE 3500 requires that we plan and perform the review to obtain assurance about whether the AMS for assets subject to the Licence is materially ineffective. A limited assurance engagement conducted in accordance with ASAE 3500 involves identifying areas where the AMS for assets subject to a Licence is likely to be materially ineffective, addressing the areas identified and considering the process used to prepare the AMS for assets subject to the Licence. 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 risk.

Limitations of use

Our report will be produced solely for the information and internal use of Western Energy and is not intended to be and should not be used by any other person or entity. No other person or entity is entitled to rely, in any manner or for any purpose, on our report.

We understand that a copy of our report will be provided to the ERA for the purpose of meeting Western Energy's reporting requirements of section 14 of the Act. We agree that a copy of our report may be provided to the ERA for its information in connection with this purpose, however we accept no responsibility to the ERA or to anyone who is provided with or obtains a copy of our reports.

This plan is intended solely for the use of Western Energy for the purpose of its reporting requirements under section 14 of the Act.

Inherent limitations

A review consists primarily of making enquiries, primarily of persons responsible for the management of assets, applying analytical and other review procedures, and examination of evidence for a small number of transactions or events. A review is substantially less in scope than a reasonable assurance "audit" conducted in accordance with ASAEs. Accordingly, we will not express an audit opinion in the asset management system review report.

An assurance engagement relating to the period from 1 October 2019 to 30 September 2024 will not provide assurance on whether the AMS for assets subject to the Licence will remain effective in the future.

Independence

In conducting our engagement, we will comply with the independence requirements of the Australian professional accounting bodies.

Approach

The review will be conducted in three distinct phases, being a risk assessment, system analysis/policy and procedure review and examination of performance. From the review results, a report will be produced to outline findings, overall assessments and recommendations for improvement in line with the Review Guidelines. Each step of the review is discussed in detail below.

Risk assessment

The review will focus on identifying or assessing those activities and management control systems to be examined and the matters subject to review. Therefore, the purpose of conducting the risk assessment as a preliminary phase enables the reviewer to focus on pertinent/high risk areas of Western Energy's asset management systems established for the assets subject to Western Energy's licence. The risk assessment considers changes to Western Energy's relevant systems and processes and any matters of significance raised by the ERA and/or Western Energy. The level of risk and materiality of the process determine the level of review required i.e. the greater the materiality and the higher the risk, the more effort will be applied.

The first step of the risk assessment is the rating of the potential consequences of Western Energy not effectively maintaining an asset management system for the assets subject to its licence, in the absence of mitigating controls. The consequence classification descriptions listed at Table 1 of the Reporting Manual, provides the risk assessment with context to enable the appropriate consequence rating to be applied to each component of the asset management system subject to review.

Once the consequence has been determined, the likelihood of Western Energy not effectively maintaining an asset management system for the assets subject to its licence (with reference to the defined effectiveness criteria) is assessed using the likelihood rating listed at Table 17 of the Review Guidelines (refer to Appendix 1). The assessment of likelihood is based on the expected frequency of non-performance against the defined criteria, over a period of time.

Table 2 below (sourced from the Review Guidelines) outlines the combination of consequence and likelihood ratings to determine the level of inherent risk associated with each individual effectiveness criteria

Table 2: Inherent risk rating

	Consequence		
Likelihood	Minor	Moderate	Major
Likely	Medium	High	High
Probable	Low	Medium	High
Unlikely	Low	Medium	High

Once the level of inherent risk has been determined, the adequacy of existing controls is assessed in order to determine the level of control risk. Controls are assessed and prioritised as weak, moderate or strong dependant on their suitability to mitigate the risks identified. The control adequacy ratings used by this risk assessment are aligned to the ratings specified in the Audit Guidelines (refer to Appendix 1-3). Once inherent risks and control risks are established, the audit priority can then be determined using the matrix specified in the Audit Guidelines (refer to Table 3 below). Essentially, the higher the level of risk the more substantive testing is required.

Table 3: Assessment of Review Priority

	Preliminary adequacy of existing controls		
Inherent Risk	Weak	Moderate	Strong
High	Review priority 1	Review Priority 2	
Medium	Review priority 3	Review Priority 4	
Low	Review Priority 5		

The following table outlines the review requirement for each level of review priority. Testing can range from extensive substantive testing around the controls and activities of particular processes (including physical inspection of asset infrastructure, which will be given greater attention for those processes with a review priority of 1, 2 or 3) to confirming the existence of controls through discussions with relevant staff.

Table 4: Review Priority Table

Priority rating	Audit requirement
Review Priority 1	• Via interview and walkthrough, understand relevant processes and controls as they apply to each asset management system effectiveness criteria • Examine relevant documents, registers and reports as they apply to each asset management system effectiveness criteria • Obtain evidence of policies, procedures and controls being in place and working effectively • Controls testing and extensive substantive testing of activities and/or transactions as they apply to each asset management system effectiveness criteria, including physical inspection of applicable asset infrastructure • Follow-up and if necessary, re-test matters previously reported.
Review Priority 2	• Via interview and walkthrough, understand relevant processes and controls as they apply to each asset management system effectiveness criteria • Examine relevant documents, registers and reports as they apply to each asset management system effectiveness criteria • Obtain evidence of policies, procedures and controls being in place and working effectively • Controls testing and moderate substantive testing of activities and/or transactions as they apply to each asset management system effectiveness criteria, including physical inspection of applicable asset infrastructure • Follow-up and if necessary, re-test matters previously reported.
Review Priority 3	• Via interview and walkthrough, understand relevant processes and controls as they apply to each asset management system effectiveness criteria • Examine relevant documents, registers and reports as they apply to each asset management system effectiveness criteria • Limited controls testing (moderate sample size) of activities and/or transactions as they apply to each asset management system effectiveness criteria, including physical inspection of applicable asset infrastructure. Only substantively test transactions if further control weakness found • Follow-up of matters previously reported.
Review Priority 4	• Confirmation of existing controls via walk through of key processes and examination of key documents including policies and procedures, compliance/breach registers and reports • Follow-up of matters previously reported.
Review Priority 5	• Confirmation of existing controls via observation, discussions with key staff and/or reliance on key references including policies and procedures, compliance/breach registers and reports (“desktop review”).

The risk assessment has been discussed with Western Energy representatives to gain their input as to the appropriateness and factual accuracy of risk and control ratings and associated explanations. The key sources considered in reaching our preliminary assessment of the risk and control ratings were based on:

- Our understanding of Western Energy Pty Ltd's assets and internal processes
- Any other factors that may influence the level or strength of controls.
- Consideration of relevant circumstances and activity that trigger specific performance issues.

At this stage, the risk assessment can only be a preliminary assessment based on reading of documentation and interviews by the auditors. It is possible that the ratings and risk assessment comments may be revised as we conduct our work and new evidence comes to light. The risk assessment is attached at Appendix 2.

System analysis / policy and procedure review

The level of policy and procedure review required will be determined utilising the priority scale. Once the priority level has been defined, the review will consist of:

- Interviewing Western Energy or appropriate representatives and key operational and administrative staff responsible for the development and maintenance of policies and procedural type documentation
- Examination of documented policies and procedures for key functional requirements and consideration of their relevance to Western Energy's asset management system requirements and standards.

The policy and procedure definition element of the asset management system review will be performed to provide a rating as defined under Table 5 (refer below).

Key documents which may be subject to review are not specifically disclosed in this plan. A list of documents examined will be included in the review report.

Examination of performance

The actual performance of the relevant controls and processes in place will then be examined via:

- Consideration of reports and references evidencing activity
- Interviews with Western Energy representatives and key operational and administrative staff
- Physical visit to the facility's site at Kwinana
- Consideration of the facility's function, normal modes of operation and age.

A full work program will be completed to record the specific aspects of our review and examination of the performance of each asset management system key process. This work program will be based on:

- The review priority determined by the risk assessment to be applicable to each effectiveness criteria
- The results of the policy and procedure review, as described above
- The location of personnel and activity to be tested.

Review fieldwork will include a visit to the KSPS facility in Kwinana, plus meetings with AGL staff who are located at various offices throughout Australia.

The performance effectiveness element of the asset management system review will be performed to provide a rating as defined under Table 6 (refer below).

Reporting

The review report will also be structured to address all of the minimum contents specified in section 5 of the Review Guidelines.

In accordance with the Review Guidelines, the reviewer must provide an assessment of both the process and policy definition rating (refer to Table 5 below and Table 8 of the Guidelines) and the performance rating (refer to Table 6 below and Table 9 of the Guidelines) for each of the key processes in Western Energy's asset management system.

Western Energy is responsible for providing a separate post review implementation plan, if required.

Table 5: Process and policy rating scale

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 that are being managed
B	Requires some improvement	• Process and policy documentation requires improvement • Processes and policies do not adequately document the required performance of the assets • Reviews of processes and policies are not conducted regularly enough • The asset management information system(s) require minor improvements (taking into consideration the assets that are being managed)
C	Requires significant improvement	• Process and policy documentation is incomplete or requires significant improvement • Processes and policies do not document the required performance of the assets • Processes and policies are significantly out of date • The asset management information system(s) require significant improvements (taking into consideration the assets that are being managed)
D	Inadequate	• Processes and policies are not documented • The asset management information system(s) is not fit for purpose (taking into consideration the assets that are being managed).

Table 6: Performance rating scale

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.

Resources and team

Key Western Energy contacts

The key contacts for this audit are:

- Operations Manager – Gas Generation (AGL)
- Supervisor, Kwinana Swift Power Station
- AGL Manager Health Safety and Environment – Gas Assets
- AGL Finance representative
- AGL Engineering representative.

AAG Staff

AAG staff who will be involved with this assignment are:

- Andrew Baldwin Executive Director
- Tanuja Sanders Senior Engineer
- Margaret-Mary Gauci Consultant
- Stephen Linden Director (QA review).

Resumes for key AAG staff are outlined in the proposal accepted by Western Energy and subsequently presented to the ERA.

Timing

The initial risk assessment phase was completed on 11 October 2024, after which the draft review plan and risk assessment were presented to Western Energy for comment prior to submission to the ERA for review and approval.

The remainder of the fieldwork phase is scheduled to be performed over the period October to mid-November 2024, enabling draft and final reports to be submitted to the ERA by the due dates of 29 November 2024 and 31 December 2024 respectively.

AAG time and staff commitment to the completion of the review is outlined in the proposal accepted by Western Energy. In summary, the estimated time allocated to each activity is as follows:

- Planning (including risk assessment): 11.5 hours
- Fieldwork (including system analysis/walkthrough and testing/review): 57.5 hours
- Reporting: 31 hours.

Appendix 1 - Risk assessment key

1-1 Criteria for classification of consequence of ineffective performance

Source: Modified from Electricity Compliance Reporting Manual February 2023

Classification	Criteria for classification
Major	Classified on the basis that: • The consequences of ineffective performance would cause major damage, loss or disruption to customers; or • The consequences of ineffective performance would endanger or threaten to endanger the safety or health of a person.
Moderate	Classified on the basis that the consequences of ineffective performance affect the efficiency and effectiveness of the licensee's operations or service provision, but do not cause major damage, loss or disruption to customers.
Minor	Classified on the basis that: • The consequences of ineffective performance are relatively minor – i.e. ineffective performance will have minimal effect on the licensee's operations or service provision and do not cause damage, loss or disruption to customers; • Assessment of performance against the obligation is immeasurable; • The matter of ineffective performance is identified by a party other than the licensee; or • The licensee only needs to use its reasonable or best endeavours to demonstrate effective performance, or where the obligation does not otherwise impose a firm obligation on the licensee.

1-2 Likelihood ratings

Source: Review Guidelines: Electricity and Gas Licences March 2019

	Level	Criteria
A	Likely	Ineffective process or performance is expected to occur at least once or twice a year
B	Probable	Ineffective process or performance is expected to occur every three years
C	Unlikely	Ineffective process or performance is expected to occur at least once every 10 years or longer

1-3 Preliminary adequacy ratings for existing controls

Source: Review Guidelines: Electricity and Gas Licences March 2019

Level	Description
Strong	Controls mitigate the identified risks to a suitable level
Moderate	Controls only cover significant risks; improvement required
Weak	Controls are weak or non-existent and do little to mitigate the risks

Appendix 2 - Risk assessment

1. Asset Planning	
Key process	Asset planning strategies focus 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

Ref	Effectiveness criteria	Consequence	Likelihood	Inherent risk rating	Controls assessment	Review priority
1.1	Asset management plan covers the processes in this table	Moderate	Probable	Medium	Moderate	Priority 4
1.2	Planning process and objectives reflect the needs of all stakeholders and are integrated with business planning	Moderate	Probable	Medium	Moderate	Priority 4
1.3	Service levels are defined in the asset management plan	Moderate	Unlikely	Medium	Moderate	Priority 4
1.4	Non-asset options (e.g. demand management) are considered	Minor	Probable	Low	Moderate	Priority 5
1.5	Lifecycle costs of owning and operating assets are assessed	Minor	Probable	Low	Moderate	Priority 5
1.6	Funding options are evaluated	Minor	Probable	Low	Moderate	Priority 5
1.7	Costs are justified and cost drivers identified	Minor	Probable	Low	Moderate	Priority 5
1.8	Likelihood and consequences of asset failure are predicted	Moderate	Probable	Medium	Moderate	Priority 4
1.9	Asset management plan is regularly reviewed and updated	Minor	Probable	Low	Moderate	Priority 5

2. Asset creation and acquisition						
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					
Ref	**Effectiveness criteria**	**Consequence**	**Likelihood**	**Inherent risk rating**	**Controls assessment**	**Review priority**
2.1	Full project evaluations are undertaken for new assets, including comparative assessment of non-asset options	Moderate	Probable	Medium	Moderate	Priority 4
2.2	Evaluations include all life-cycle costs	Moderate	Probable	Medium	Moderate	Priority 4
2.3	Projects reflect sound engineering and business decisions	Moderate	Probable	Medium	Moderate	Priority 4
2.4	Commissioning tests are documented and completed	Moderate	Probable	Medium	Moderate	Priority 4
2.5	Ongoing legal / environmental / safety obligations of the asset owner are assigned and understood	Major	Probable	High	Moderate	Priority 2

3. Asset disposal						
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					
Ref	**Effectiveness criteria**	**Consequence**	**Likelihood**	**Inherent risk rating**	**Controls assessment**	**Review priority**
3.1	Under-utilised and under-performing assets are identified as part of a regular systematic review process	Moderate	Probable	Medium	Moderate	Priority 4
3.2	The reasons for under-utilisation or poor performance are critically examined and corrective action or disposal undertaken	Minor	Probable	Low	Moderate	Priority 5
3.3	Disposal alternatives are evaluated	Minor	Probable	Low	Moderate	Priority 5
3.4	There is a replacement strategy for assets	Moderate	Probable	Medium	Moderate	Priority 4

4. Environmental analysis	
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

Ref	Effectiveness criteria	Consequence	Likelihood	Inherent risk rating	Controls assessment	Review priority
4.1	Opportunities and threats in the asset management system environment are assessed	Moderate	Probable	Medium	Moderate	Priority 4
4.2	Performance standards (availability of service, capacity, continuity, emergency response, etc.) are measured and achieved	Moderate	Probable	Medium	Moderate	Priority 4
4.3	Compliance with statutory and regulatory requirements	Moderate	Probable	Medium	Moderate	Priority 4
4.4	Service standard (customer service levels etc) are measured and achieved.	Moderate	Probable	Medium	Moderate	Priority 4

5. Asset operations	
Key process	Asset operations is the day-today 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

Ref	Effectiveness criteria	Consequence	Likelihood	Inherent risk rating	Controls assessment	Review priority
5.1	Operational policies and procedures are documented and linked to service levels required	Moderate	Probable	Medium	Moderate	Priority 4
5.2	Risk management is applied to prioritise operations tasks	Moderate	Probable	Medium	Moderate	Priority 4
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	Moderate	Probable	Medium	Moderate	Priority 4
5.4	Accounting data is documented for assets	Moderate	Probable	Medium	Moderate	Priority 4
5.5	Operational costs are measured and monitored	Moderate	Probable	Medium	Moderate	Priority 4
5.6	Staff resources are adequate and staff receive training commensurate with their responsibilities	Moderate	Probable	Medium	Moderate	Priority 4

6. Asset maintenance						
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					
Ref	**Effectiveness criteria**	**Consequence**	**Likelihood**	**Inherent risk rating**	**Controls assessment**	**Review priority**
6.1	Maintenance policies and procedures are documented and linked to service levels required	Moderate	Probable	Medium	Moderate	Priority 4
6.2	Regular inspections are undertaken of asset performance and condition	Major	Probable	High	Moderate	Priority 2
6.3	Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule	Major	Probable	High	Moderate	Priority 2
6.4	Failures are analysed and operational/maintenance plans adjusted where necessary	Moderate	Probable	Medium	Moderate	Priority 4
6.5	Risk management is applied to prioritise maintenance tasks	Moderate	Probable	Medium	Moderate	Priority 4
6.6	Maintenance costs are measured and monitored	Moderate	Probable	Medium	Moderate	Priority 4

7. Asset management information systems	
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

Ref	Effectiveness criteria	Consequence	Likelihood	Inherent risk rating	Controls assessment	Review priority
7.1	Adequate system documentation for users and IT operators	Minor	Probable	Low	Moderate	Priority 5
7.2	Input controls include suitable verification and validation of data entered into the system	Moderate	Probable	Medium	Moderate	Priority 4
7.3	Security access controls appear adequate, such as passwords	Minor	Probable	Low	Moderate	Priority 5
7.4	Physical security access controls appear adequate	Minor	Probable	Low	Moderate	Priority 5
7.5	Data backup procedures appear adequate and backups are tested	Moderate	Probable	Medium	Moderate	Priority 4
7.6	Computations for licensee performance reporting are accurate	Minor	Probable	Low	Moderate	Priority 5
7.7	Management reports appear adequate for the licensee to monitor licence obligations	Minor	Probable	Low	Moderate	Priority 5
7.8	Adequate measures to protect asset management data from unauthorised access or theft by persons outside the organisation	Moderate	Probable	Medium	Moderate	Priority 4

8. 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					
Ref	**Effectiveness criteria**	**Consequence**	**Likelihood**	**Inherent risk rating**	**Controls assessment**	**Review priority**
8.1	Risk management policies and procedures exist and are applied to minimise internal and external risks	Moderate	Probable	Medium	Moderate	Priority 4
8.2	Risks are documented in a risk register and treatment plans are implemented and monitored	Moderate	Probable	Medium	Moderate	Priority 4
8.3	Probability and consequences of asset failure are regularly assessed	Major	Probable	High	Moderate	Priority 2

9. Contingency planning						
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.					
Ref	**Effectiveness criteria**	**Consequence**	**Likelihood**	**Inherent risk rating**	**Controls assessment**	**Review priority**
9.1	Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks	Major	Probable	High	Moderate	Priority 2

10. Financial planning						
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					
Ref	**Effectiveness criteria**	**Consequence**	**Likelihood**	**Inherent risk rating**	**Controls assessment**	**Review priority**
10.1	The financial plan states the financial objectives and identifies strategies and actions to achieve those	Moderate	Probable	Medium	Moderate	Priority 4
10.2	The financial plan identifies the source of funds for capital expenditure and recurrent costs	Minor	Probable	Low	Moderate	Priority 5
10.3	The financial plan provides projections of operating statements (profit and loss) and statement of financial position (balance sheets)	Minor	Probable	Low	Moderate	Priority 5
10.4	The financial plan provides firm predictions on income for the next five years and reasonable predictions beyond this period	Minor	Probable	Low	Moderate	Priority 5
10.5	The financial plan provides for the operations and maintenance, administration and capital expenditure requirements of the services	Moderate	Probable	Medium	Moderate	Priority 4
10.6	Large variances in actual/budget income and expenses are identified and corrective action taken where necessary	Moderate	Probable	Medium	Moderate	Priority 4

11. Capital expenditure planning	
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

Ref	Effectiveness criteria	Consequence	Likelihood	Inherent risk rating	Controls assessment	Review priority
11.1	There is a capital expenditure plan covering works to be undertaken, actions proposed, responsibilities and dates	Moderate	Probable	Medium	Moderate	Priority 4
11.2	The capital expenditure plan provides reasons for capital expenditure and timing of expenditure	Minor	Probable	Low	Moderate	Priority 5
11.3	The capital expenditure plan is consistent with the asset life and condition identified in the asset management plan	Moderate	Probable	Medium	Moderate	Priority 4
11.4	There is an adequate process to ensure the capital expenditure plan is regularly updated and implemented	Minor	Probable	Low	Moderate	Priority 5

12. Review of asset management system	
Key process	The asset management system is regularly reviewed and updated
Outcome	The asset management system is regularly reviewed and updated

Ref	Effectiveness criteria	Consequence	Likelihood	Inherent risk rating	Controls assessment	Review priority
12.1	A review process is in place to ensure the asset management plan and the asset management system described in it remain current	Minor	Probable	Low	Moderate	Priority 5
12.2	Independent reviews (e.g. internal audit) are performed of the asset management system	Minor	Probable	Low	Moderate	Priority 5

Appendix 3 - Previous review recommendations

There were no recommendations from the 2019 AMS review.

Appendix B - References

Western Energy representatives participating in the review

- Operations Manager – Gas Generation (AGL)
- Supervisor, Kwinana Swift Power Station
- Asset Manager – Kwinana and Somerton (AGL)
- Head of Gas Assets (AGL)

AAG staff participating in the review		**Hrs**
• Tanuja Sanders	Senior Engineer	36
• Andrew Baldwin	Executive Director	55
• Margaret-Mary Gauci	Consultant	5.5
• Stephen Linden	Director (QA review)	1

Key documents and other information sources examined

- ERA Audit and Review Guidelines: Electricity and Gas Licenses March 2019
- Electricity Generation Licence Western Energy Pty Ltd EGL19, version 5, 1 July 2018
- Western Energy 2019 EGL19 Audit and Review Report
- Kwinana Swift Power Station Asset Management Plan FY23 and FY24 (v3)
- AGL Integrated Energy Asset System Plan – KSPS FY25
- AGL Integrated Energy Operations Asset Management Planning Standard (2021)
- AGL Asset Management Framework – Process Flow (2022)
- AGL Asset Management Plan Review – Process Flow (2024)
- AGL CAPEX Project Management Framework – Process Flow (2024)
- KSPS Planned Outages report – FY25 (10 October 2024)
- KSPS Performance report – FY25 (10 October 2024)
- AGL KSPS Monthly reports – June 2023, August 2023, April 2024, June 2024
- AGL KSPS Environmental Management Plan (2022)
- Worley KSPS Emergency Response and Evacuation Plan (2024)
- Worley KSPS Dangerous Goods Emergency Response Plan
- Worley KSPS Dangerous Goods Manifest and Site Plan (2022)
- KSPS Environmental Risk Register extract (11 October 2024)
- KSPS Environmental Legal Obligations listing (August 2022)
- Listing of KSPS Environment Events 2019 to 2024
- Example EPA notification
- Example Groundwater Monitoring reports (2020 to 2024)
- Example Stack Emission Testing reports (2021 to 2024)
- Worley Field HSE Induction Orientation Indoctrination Standard (October 2024)
- Outage data (2021 to 2024)
- KSPS SAP Functional Locations
- Example KSPS Toolbox Meeting Minutes (2023/24)

- 3 September 2024 Black Start test data and reports
- KSPS Start reliability performance update – FY25
- Example Worley KSPS Permit to Work register (completed 2024)
- Example Worley KSPS Permit to Work sign-off sheets (completed 2024)
- Example Worley KSPS Isolation sign-off sheet (completed 2024)
- Example Clearance for Service form (completed 2024)
- Post GG Installation or GT Maintenance Commissioning Checklist
- KSPS Works Management May 2024 Site Visit draft report
- AGL Work Management User Guide-Maintenance Planner
- AGL Work Management User Guide-Maintenance Supervisor
- AGL Work Management User Guide-Maintenance Technician
- Rapid Global Guidance Notes
- Rapid Induct KSPS Trainee notes
- Rapid Global KSPS Trainee Profiles
- Rapid Global KSPS Trainee Requirements Matrix
- Example KSPS Employees – Expired and Pending Training Report Example
- Worley KSPS Work Instruction Register
- Worley KSPS Inspection Work Instructions (x11)
- Worley KSPS GG Removal and Installation Work Instruction
- Worley KSPS GG Decouple Tuneable Changes Work Instruction
- Worley KSPS Diesel Fuel Sample Procedure
- KSPS Instrument Calibration Sheet
- Example approvals for undertaking corrective works
- Example operations and maintenance work order supporting documentation and system screenshots
- AGL Risk Management Standard (2023)
- KSPS FIRM Risk Register extract (11 October 2024)
- KSPS HSE Risk Register (November 2023)
- AGL KSPS Cyber Exercise Report Draft (May 2024)
- Event Debrief – Evacuation drill using Rapid Global (13 August 2024)
- AGL OT Cybersecurity Incident Response Plan– KSPS (August 2024)
- AGL OT Cybersecurity Incident Response Plan Executive Summary – KSPS (December 2022)
- KSPS Remote Access Security diagram
- AGL Acceptable Use Policy (2024)
- AGL Information Security Policy (2024)
- AGL Application Security Standard (2024)
- AGL Asset and Configuration Management Standard (2024)
- AGL Cybersecurity Management Standard (2024)
- AGL Identity and Access Management Standard (2024)
- AGL Personnel Security Standard (2024)
- AGL Physical Security Standard (2024)

- AGL Privacy and Data Protection Standard (2024)
- AGL Threat and Vulnerability Management Standard (2024)
- Evidence of SAP data backup activity
- FY25-28 KSPS Capex Budget
- Example KSPS O&M annual budgets
- Example KSPS O&M monthly reports
- Representations from Operations Manager – Gas Generation (AGL), Asset Manager – Kwinana and Somerton (AGL) and Supervisor KSPS.