Yandin Wind Farm Pty Ltd

Electricity Generation Licence (EGL30)
2022 Asset Management System Review

Final report

16 September 2022

ASSURANCE
ADVISORY
GROUP

Level 11, 251 Adelaide Terrace
PERTH WA 6000

16 September 2022

Catherine Rousch
Manager WA Retail Regulation
Alinta Energy
Level 18 Raine Square, 300 Murray Street
Perth WA 6000

Dear Catherine

Electricity Generation Licence (EGL30) – 2022 Asset Management System Review Report

We have completed the Electricity Generation Licence Asset Management System Review for Yandin Wind Farm Pty Ltd for the period 23 May 2019 to 31 May 2022 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 review 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]

Director
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1. Independent assurance practitioner's report

Opinion

We have undertaken a reasonable assurance engagement on the effectiveness of Yandin Wind Farm Pty Ltd's Asset Management System (**AMS**), relating to its Electricity Generation Licence (EGL30) (the **Licence**) for the period 23 May 2019 to 31 May 2022 (**review period**).

In our opinion, based on the procedures we have performed and the evidence we have obtained, Yandin Wind Farm 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 March 2019 issue of the *Audit and Review Guidelines: Electricity and Gas Licences* (**the Guidelines**) issued by the Economic Regulation Authority (the **ERA**).

Basis for opinion

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 opinion.

Yandin Wind Farm's responsibility for the AMS

Yandin Wind Farm 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 an opinion on the effectiveness of Yandin Wind Farm's AMS for assets subject to the Licence for the period to 31 May 2022. ASAE 3500 requires that we plan and perform our procedures to obtain reasonable assurance about whether Yandin Wind Farm 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 reasonable assurance engagement in accordance with ASAE 3500, to report on the effectiveness of Yandin Wind Farm's AMS for assets subject to the Licence involves performing procedures to obtain evidence about processes and controls designed and implemented within Yandin Wind Farm's AMS for assets subject to the Licence. The procedures selected depend on our judgement, including the identification and assessment of risks of Yandin Wind Farm'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 Yandin Wind Farm 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 Yandin Wind Farm's AMS requirements and standards
- Physical visit to operations located near Dandaragan
- Consideration of reports and references evidencing activity
- Consideration of activities performed by Yandin Wind Farm 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 reasonable assurance engagement relating to the period from 23 May 2019 to 31 May 2022 does not provide assurance on whether the effectiveness of Yandin Wind Farm's AMS for assets subject to the Licence will continue in the future.

Restricted use

This report has been prepared for use by Yandin Wind Farm 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 Yandin Wind Farm, 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 Yandin Wind Farm'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
16 September 2022

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 Yandin Wind Farm Pty Ltd (**Yandin Wind Farm**) an Electricity Generation Licence (EGL 30) (the **Licence**).

Section 14 of the Act requires Yandin Wind Farm 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 23 May 2019 to 31 May 2022 (**review period**).

The Licence relates to the operation of a wind farm located on farmland near the wheatbelt town of Dandaragan, approximately 175 kilometres north of Perth. Yandin Wind Farm is a RATCH/Alinta Energy investment managed by Alinta Energy, using 51 Vestas V150 4.2MW turbines to deliver electricity into the South West Interconnected System (**SWIS**) via a new 10km 330kV transmission line and terminal substation built, owned and operated by Western Power. The wind farm was officially opened by the WA Energy Minister on 19 May 2021 and the facility achieved practical completion on 22 July 2021.

Operation and maintenance of all electricity generation assets and equipment within the Wind Farm Facility is managed by Vestas Australian Wind Technology Pty Ltd (**Vestas**) under a 25 year Operate and Maintain Agreement (**OMA**) signed in February 2019.

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 Yandin Wind Farm's internal control procedures, structure and environment, compliance arrangements and information systems specifically relevant to those effectiveness criteria subject to review, we observed that:

- Since commencement of operations, Yandin Wind Farm has maintained a largely appropriate suite of procedures and controls for the effective operation of the facility's assets. Yandin Wind Farm's contractual arrangements with Vestas provide a high level of confidence that the Wind Farm Facility's assets are to be operated and maintained to a world-class standard and in accordance with Yandin Wind Farm and Alinta Energy expectations
- Yandin Wind Farm and Vestas staff appeared to have an appropriate working understanding of their roles and asset management processes within their area of responsibility
- Yandin Wind Farm has further opportunities to strengthen elements of its asset management practices. For criteria rated by this review as "B" or "2", there is an associated improvement opportunity, which has been raised with Yandin Wind Farm staff for consideration. For the purpose of this review, these matters do not require formal corrective action.

This review assessed that, of the 58 elements of Yandin Wind Farm's AMS:

- For the asset management process and policy definition ratings:
  - 36 are rated as "Adequately defined"
  - 7 are rated as "Requires some improvement"
  - 15 are not rated.

- For the asset management performance ratings:
  - 35 are rated as “Performing effectively”
  - 6 are rated as “Improvement required”
  - 17 are not rated.

2.3 Yandin Wind Farm’s response to previous review recommendations

As this is Yandin Wind Farm’s first asset management system review, there are no previous review recommendations.

2.4 Recommendations to address current asset system deficiencies

A. Resolved during current review period

Not applicable.

B. Unresolved at end of current review period

Not applicable.

2.5 Scope and objectives

We have conducted a reasonable assurance engagement in order to state whether, in our opinion, based on our procedures, Yandin Wind Farm has established and maintained, in all material respects, an effective AMS for assets subject to the Licence during the period 23 May 2019 to 31 May 2022, 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 reasonable assurance engagement in accordance with ASAE 3500, to report on the effectiveness of Yandin Wind Farm’s AMS for assets subject to the Licence involves performing procedures to obtain evidence about processes and controls designed and implemented within Yandin Wind Farm’s AMS for assets subject to the Licence. The procedures selected depend on our judgement, including the identification and assessment of risks of Yandin Wind Farm’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 Yandin Wind Farm’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.

Key processes	Effectiveness criteria
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
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

Key processes	Effectiveness criteria
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
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 that is applicable to Yandin Wind Farm's Licence were 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 June to August 2022:

- 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 Yandin Wind Farm's staff to gain an understanding of process controls in place (see Appendix B for staff involved)
- Site visit to the Dandaragan Facility 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
- Examination of documented policies and procedures for key functional requirements and consideration of their relevance to Yandin Wind Farm's AMS requirements and standards (see Appendix B for reference listing)
- Consideration of the resourcing applied to maintaining those controls and processes
- Reporting of findings to Yandin Wind Farm 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			**B**	**2**
1.1	Asset management plan covers the processes in this table	Priority 4	B	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	B	2
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	A	1
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
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		
2.2	Evaluations include all life-cycle costs	Priority 4		
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		
2.5	Ongoing legal / environmental / safety obligations of the asset owner are assigned and understood	Priority 2		
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		
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		
3.4	There is a replacement strategy for assets	Priority 4		

Ref	Asset management process and effectiveness criteria	Review priority	Ratings	
			Process and policy	Performance
4. Environmental analysis			**B**	**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	B	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	1
5. Asset operations			**A**	**2**
5.1	Operational policies and procedures are documented and linked to service levels required	Priority 4	A	1
5.2	Risk management is applied to prioritise operations tasks	Priority 4	A	1
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	A	1
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	A	2
6. Asset maintenance			**A**	**1**
6.1	Maintenance policies and procedures are documented and linked to service levels required	Priority 4	A	1
6.2	Regular inspections are undertaken of asset performance and condition	Priority 2	A	1
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	1
6.5	Risk management is applied to prioritise maintenance tasks	Priority 4	A	1
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

Ref	Asset management process and effectiveness criteria	Review priority	Ratings	
			Process and policy	Performance
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			**B**	**2**
8.1	Risk management policies and procedures exist and are applied to minimise internal and external risks	Priority 4	B	2
8.2	Risks are documented in a risk register and treatment plans are implemented and monitored	Priority 4	B	2
8.3	Probability and consequences of asset failure are regularly assessed	Priority 2	A	1
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
10.5	The financial plan provides for the operations and maintenance, administration and capital expenditure requirements of the services	Priority 5	A	1
10.6	Large variances in actual/budget income and expenses are identified and corrective action taken where necessary	Priority 5	A	1
11. Capital expenditure planning			**Not rated**	**Not rated**
11.1	There is a capital expenditure plan covering works to be undertaken, actions proposed, responsibilities and dates	Priority 4	Not rated	Not rated
11.2	The capital expenditure plan provides reasons for capital expenditure and timing of expenditure	Priority 5		
11.3	The capital expenditure plan is consistent with the asset life and condition identified in the asset management plan	Priority 5		
11.4	There is an adequate process to ensure the capital expenditure plan is regularly updated and implemented	Priority 5		
12. Review of asset management system			**B**	**Not rated**
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	B	Not rated
12.2	Independent reviews (e.g. internal audit) are performed of the asset management system	Priority 5	B	Not rated

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: Requires some improvement (B) / Improvement required (2)

Effectiveness criteria	Findings	
1.1 Asset management plan covers the processes in this table	Throughout the review period, the following documents accommodated the Yandin Wind Farm Facility's key assets: • Yandin Wind Farm Asset Management Plan (AMP), created in July 2020 to accommodate the expected asset management activities prior to the facility's operations commencing. This plan was most recently updated in May 2021 prior to submission to the ERA • Alinta Energy Strategic Asset Management Plan, which specifies the approach for developing the Yandin Wind Farm AMP • Alinta Energy Asset Management Policy and Framework, which provide direction for Yandin Wind Farm's asset management practices to meet Alinta's asset management system requirements, which in turn align with the International Standard for Asset Management published in the documents ISO 55000:2014, ISO55001:2014 and ISO55002:2014, and the British Publicly Available Specification (PAS) Asset Management Standard PAS 55-1:2008 where relevant • Alinta Energy Strategic Business Plan and supporting Power Generation Business Plan (Yandin Wind Farm sits within the Alinta Energy Power Generation business). The May 2021 version of the AMP provides a broad description of Yandin Wind Farm's asset management framework and practices, including the facility's lifecycle, business objectives, core equipment, asset management strategies and planned outage schedules, plus references to other key plans and documents. However, at the time of this review, the AMP was not complete, with several sections yet to be populated to fully reflect Yandin Wind Farm's asset operations. We acknowledge that a review of the AMP had been undertaken in July 2022, pending approval by the Head of Optimisation, Alinta Energy. That proposed revision intends to address the key elements that require completion or amendment to fully reflect Yandin Wind Farm's asset operations and supporting asset management planning arrangements.	
	Process and Policy Rating: Requires some improvement (B)	**Performance Rating:** Improvement required (2)

Effectiveness criteria	Findings	
1.2 Planning processes and objectives reflect the needs of all stakeholders and is integrated with business planning	Through consideration of Yandin Wind Farm's business planning processes, we observed that: • Yandin Wind Farm's Annual Business Plan presents a consolidated reference to the business' operations plans, asset management strategy and plans, and operations and maintenance budgets • Yandin Wind Farm's business model and resources specifically accommodate the operation and maintenance of the wind farm facility in order to meet Yandin Wind Farm's primary purpose of generating electricity from the wind farm and the sale of such energy into the WEM.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)
1.3 Service levels are defined in the asset management plan	Yandin Wind Farm's availability and performance requirements (service levels) are clearly outlined in its contractual arrangements, however at the time of this review, those service levels were not explicitly defined in Yandin Wind Farm's AMP (May 2021 version). The AMP can be updated to include a clear reference to the Facility's current business objectives and defined service levels. *We raised this matter with Yandin Wind Farm staff as a potential improvement opportunity*.	
	Process and Policy Rating: Requires some improvement (B)	**Performance Rating:** Improvement required (2)
1.4 Non-asset operations (e.g. demand management) are considered	As the primary purpose of the Yandin Wind Farm Facility is to supply electricity to the South West Integrated Network, there is no requirement or opportunity for Yandin Wind Farm 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	Through consideration of Yandin Wind Farm's business planning and budgeting processes, we observed that Yandin Wind Farm adequately assesses lifecycle costs of owning and operating its assets through: • Yandin Wind Farm owners' execution of their asset investment strategy • Inclusion of operating and maintenance costs in the annual budgeting process. As all costs related to the asset are expected to be covered in operating and maintenance activities, with no expectation for any asset addition, replacement or refurbishment requiring capital expenditure planning.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)
1.6 Funding options are evaluated	Through consideration of Yandin Wind Farm's business planning and budgeting processes, we observed that: • Yandin Wind Farm's current operating model and budget funds all site operations and maintenance activities • As there is no plan for any asset addition, replacement or refurbishment, there is no further requirement to consider alternate funding options for capital expenditure.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)

Effectiveness criteria	Findings	
1.7 Costs are justified and cost drivers identified	Through consideration of Yandin Wind Farm's business planning and budgeting processes, we observed that operating and maintenance costs are appropriately identified and built into Yandin Wind Farm'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 Engineer and Acting Head of Optimisation, Alinta Energy, consideration of Yandin Wind Farm's risk management practices and examination of supporting documentation, we observed that Yandin Wind Farm has applied the following mechanisms for predicting the consequences and likelihood of asset failure: • The Yandin Wind Farm risk register considers the failure or unavailability of major items of equipment • Scheduled preventative maintenance provides for regular assessment of asset performance • WTG assets are monitored on a continuous basis (including condition monitoring techniques) by Vestas' Global operations • 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	The Yandin Wind Farm AMP was created in July 2020 and subsequently updated in May 2021. Also note that at the time of this review, the AMP was due for further review. That review had been initiated and was awaiting approval.	
	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, Yandin Wind Farm had not undertaken or contemplated any material asset creation and acquisition activities beyond the initial creation of the Wind Farm Facility and minor improvement projects. Over the next three to five years, Yandin Wind Farm expects to continue to operate and maintain its existing assets and equipment (i.e. with no new or replacement assets), with the primary objective of maximising availability and energy production. Accordingly, Yandin Wind Farm is not expected to require an asset creation and acquisition process in the foreseeable future.

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: The Yandin Wind Farm Facility remains in the early phase of its life-cycle. No plans have been made to dispose of any of the facility's assets and there is a low likelihood of Yandin Wind Farm disposing of these assets in the short-term.

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: Requires some improvement (B) / Improvement Required (2)

Effectiveness criteria	Findings
4.1 Opportunities and threats in the asset management system environment are assessed	Through discussion with the Yandin Wind Farm Asset Engineer and Vestas Site Management Team, and examination of relevant supporting documentation, we observed that: • In preparation for the Facility's construction and operation, Yandin Wind Farm undertook several assessments and studies in order to understand and manage environmental and other external threats to the effective operation of the facility. Those assessments and studies covered topics such as flora and vegetation, bushfires, drainage and erosion, noise monitoring and other environmental management issues • Yandin Wind Farm has achieved clearance of relevant conditions imposed by the Shire of Dandaragan's Development Approval, including environmental conditions (e.g. noise compliance) • In the Vestas Yandin Wind Farm Environmental Management Plan and Yandin Wind Farm's risk register, Yandin Wind Farm has recognised and captured a range of threats to its asset management system, including fire events, weather events, traffic incidents, failures and incidents (internal and external), other external events and emergencies, and resource constraints • In relation to the management of noise: ▪ Yandin Wind Farm had addressed it noise management obligations to the point of handover from construction to operations. In particular: ▪ In obtaining clearance for condition 18 of the Shire of Dandaragan's Development Approval, which required Yandin Wind Farm to "*implement necessary strategies to mitigate any future noise non-compliance that may arise from the construction or operation of the Wind Farm*", Yandin Wind Farm advised that it had prepared a Noise Emissions Management Plan for "various scenarios" ▪ A Post-construction Noise Assessment completed in December 2021 concluded that "*noise levels from Yandin Wind Farm are compliant with the applicable noise criteria set forth in the Development Approval*", enabling clearance of other noise related conditions of the Development Approval. That assessment set the baseline for noise monitoring ▪ In June 2022 (outside of the review period), Yandin Wind Farm received a noise complaint from a local resident and at the time of this review, was in the process of investigating the complaint

Effectiveness criteria	Findings	
	(continued) ▪ Yandin Wind Farm has no obligation under its licence or Development Approval to perform routine noise monitoring activities, other than through any strategies required by Development Approval condition 18 ▪ In conjunction with its investigation of the noise complaint, there is a future potential for Yandin Wind Farm to consider the benefits of establishing a regular noise monitoring program. This matter falls outside the scope of this review period and should be considered by the next AMS Review.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)
4.2 Performance standards (availability of service, capacity, continuity, emergency response, etc.) are measured and achieved	Through discussion with the Yandin Wind Farm Asset Engineer, Head of Optimisation - Alinta Energy and Vestas Site Management Team, and consideration of relevant supporting documentation, we observed that: • Yandin Wind Farm's business model and resources specifically accommodate the operation and maintenance of the Facility in accordance with Good Operating and Maintenance Practice and OEM Instructions • Yandin Wind Farm's performance standards relate to availability, resource utilisation, safety and environment. Those performance standards are measured and reported on a monthly, quarterly and annual basis, enabling Yandin Wind Farm to ensure it either achieves those standards, or appropriately responds to any instance where a performance standard is not achieved. With the following exception, Yandin Wind Farm has reported a high level of performance during the audit period: ▪ The availability of generation assets has been below the required guarantees since commencement of full operations, due to planned service activity and a series of wind turbine breakdowns. Yandin Wind Farm has reviewed all availability events and is satisfied that: ▪ The series of wind turbine breakdowns that has impacted availability is normal for the start-up and first year operations of its wind turbines ▪ Action that has been taken or is planned will improve availability to the target level over the course of the next twelve months. Importantly, Vestas is contractually incentivised to improve availability ▪ Although Yandin Wind Farm has reviewed all availability events, the root cause of the low availability has not been explicitly captured in Yandin Wind Farm's reporting and planning material. *We raised this matter with Yandin Wind Farm staff as a potential improvement opportunity* • On behalf of Yandin Wind Farm, Vestas staff otherwise manage and monitor environmental performance in accordance with established environmental and emergency response management plans.	
	Process and Policy Rating: Requires some improvement (B)	**Performance Rating:** Improvement required (2)

Effectiveness criteria	Findings	
4.3 Compliance with statutory and regulatory requirements	Through discussion with the Yandin Wind Farm Asset Coordinator and Vestas Site Management Team, and examination of relevant supporting information, we determined that: • Yandin Wind Farm has designed its processes and practices to operate and monitor its performance in accordance with the following statutory legislation and licences: ▪ Occupational Health and Safety Act and associated regulations ▪ Environmental Protection Act ▪ Aboriginal Heritage Act ▪ Waste Avoidance and Resource Recovery Act and subordinate legislation • Yandin Wind Farm monitors and reports on its compliance with regulatory requirements on a regular basis • To date, no significant incidents or breaches have been recognised and reported.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)
4.4 Service standard (customer service levels etc) are measured and achieved	Through discussion with the Yandin Wind Farm Asset Engineer and consideration of Yandin Wind Farm's business management processes, we observed that: • Control and operation of the Yandin Wind Farm Wind Farm Facility is undertaken in accordance with Yandin Wind Farm's contractual arrangements • Yandin Wind Farm monitors and reports on its electricity production in accordance with its market obligations and any operational requirements of Western Power.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)

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: Adequately defined (A) / 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 Yandin Wind Farm Asset Coordinator and Vestas Site Management Team, and consideration of relevant supporting documentation, we observed that:
Control and operation of the Yandin Wind Farm Facility is undertaken in accordance with Yandin's contractual obligations
Vestas has developed a comprehensive list of documented procedures, based on OEM documentation, to cover tasks required to operate and maintain the Facility's wind turbine generators (WTG) and balance of plant (BOP) assets in a safe manner
Key operational policies and procedures link to performance standards (i.e. service levels) and include:
Relevant operating and maintenance principles and procedures, covering elements such as safety, plant control, performance monitoring, management of alerts and faults, WTG braking and restart, met mast lifting, management of work orders and maintenance strategies
Operating instructions for all WTG and BOP operations
SAP for SCADA Management with 24/7 off-site condition monitoring provided by Vestas' resources in India.</td></tr>
<tr><td>Process and Policy Rating: Adequately defined (A)</td><td>Performance Rating: Performing effectively (1)</td></tr>
<tr><td rowspan="2">5.2 Risk management is applied to prioritise operations tasks</td><td colspan="2">Through discussion with the Yandin Wind Farm Asset Coordinator and Vestas Site Management Team, and consideration of relevant supporting documentation, we observed that Yandin Wind Farm's operational processes include:
A comprehensive risk register
Application of a risk management approach to corrective maintenance activities, whereby the maintenance tasks addressing higher risk issues are performed first in order, followed by lower priority tasks
A designated Vestas team to manage all operational activity for Yandin Wind Farm's assets, including response to alerts, faults and incidents
Daily site-meetings to review performance and to plan for upcoming tasks.</td></tr>
<tr><td>Process and Policy Rating: Adequately defined (A)</td><td>Performance Rating: Performing effectively (1)</td></tr>
</table>

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 Vestas Site Manager and Operations Manager and consideration of Yandin Wind Farm's asset management systems and records, we observed that: • The Vestas SAP system acts as Yandin Wind Farm's asset register for all WTG and BOP assets • Details of each WTG's condition are also documented in supporting Vestas systems • An appropriate level of detail is documented for each asset, including links/references to maintenance activity relevant to each asset.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)
5.4 Accounting data is documented for assets	We observed that Yandin Wind Farm's asset register and corporate records capture appropriate accounting data, including: • Purchase date • Acquisition cost • Depreciation rates and costs • Written down values.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)
5.5 Operational costs are measured and monitored	Through discussion with the Yandin Wind Farm Asset Engineer, Alinta Energy Head of Optimisation and Vestas Site Management Team, and consideration of Yandin Wind Farm's information systems and relevant supporting documentation such as SAP records and monthly reports, we observed that: • Yandin Wind Farm tracks and reports operational costs on a monthly basis. Costs measured and monitored against budget include salaries and wages, contractors, materials, lease payments and other utilities and services • As Yandin Wind Farm pays a fixed fee for its full O&M services provided by Vestas, with Vestas required to close-out all remaining construction punch list items separately to day-to-day site operational work orders, Yandin Wind Farm understands its full operational costs.	
	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 Site Manager and Operations Manager of Vestas, and consideration of relevant supporting documentation, we observed that: • Staff in attendance demonstrated sufficient knowledge of the site operational requirements • Up to 8 designated Vestas staff , providing 7/365 coverage from 7am to 5pm are allocated to the operation of the Yandin Wind Farm Facility. Call-out arrangements providing 24 hours coverage are also in place • Vestas staff also provide designated Off-site Administration and Continuous Remote Monitoring of the WTG assets • Vestas provides corporate support from its Australian operations, plus enables sharing of information from its broader Regional and Australia-wide wind farm operations • We sighted an appropriate skills and training matrix for Vestas staff, however noted that scheduled dates have been missed and need to be addressed. *We raised this matter with Yandin Wind Farm staff as an improvement opportunity.*	
	Process and Policy Rating: Adequately defined (A)	**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: Adequately defined (A) / Performing effectively (1)

<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 Yandin Wind Farm Asset Coordinator and Vestas Site Management Team, and consideration of relevant supporting documentation, we observed that:
Vestas maintains a comprehensive suite of documented policies, procedures and work instructions to cover tasks required to maintain all of Yandin Wind Farm's assets in accordance with the O&M Agreement
Key maintenance procedures link to performance standards (i.e. service levels) and include relevant operating and maintenance principles and procedures, covering elements such as safety, performance monitoring, management of alerts and faults, management of work orders and maintenance strategies
Vestas maintains other supporting documentation such as schedules for maintenance and management of spare parts
Procedures for the scope and frequency of routine maintenance of equipment have been developed based on Vestas OEM documentation
Checklists and sign-off sheets are completed by Vestas staff upon completion of any service order that aligns with the work instruction for that task
Weekly, monthly and quarterly checklists are maintained to document completion of service orders.</td></tr>
<tr><td>Process and Policy Rating: Adequately defined (A)</td><td>Performance Rating: Performing effectively (1)</td></tr>
</table>

Effectiveness criteria	Findings	
6.2 Regular inspections are undertaken of asset performance and condition	Through discussion with the Yandin Wind Farm Asset Coordinator and Vestas Site Management Team, consideration of relevant supporting documentation and sample testing of evidence of inspections and maintenance activity, we determined that: • In accordance with its O&M Agreement with Yandin Wind Farm, Vestas performs a combination of scheduled annual inspections and other site inspections on an as needed basis, with maintenance service orders identified either through Vestas's continuous monitoring (performed remotely) to provide full coverage of asset/equipment operations, performance and condition, or through the local SCADA Control System monitoring of alarms and faults • Site inspections generate corrective maintenance requirements, which are captured and monitored within the supporting Vestas systems, including SAP. When attending a WTG or other assets for planned or unplanned work, technicians may identify items for repair or replacement • Appropriate prioritisation regimes are built into Vestas systems. We examined several examples of inspections, defects/faults identified and resulting work orders completed.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)

Effectiveness criteria	Findings	

6.3 Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule	Through discussion with the Yandin Wind Farm Asset Coordinator, Vestas Site Management Team and Vestas Service Planner, consideration of relevant supporting documentation and sample testing of evidence of inspections and maintenance activity, we determined that:
	• In accordance with its O&M Agreement with Yandin Wind Farm, Vestas:
	  ▪ Has established maintenance plans to perform scheduled maintenance tasks on a combination of yearly, four yearly and 10 yearly basis
	  ▪ Used a separate service inspection form for inspecting wind turbines after the first three months of operation
	  ▪ Accommodates unscheduled maintenance requirements, which are identified through a combination of Vestas' continuous monitoring and identification of events/conditions and equipment faults resulting in defects requiring action
	• Vestas' SAP system is used to record all work schedules and service orders, which are tracked on a daily basis and used to guide maintenance tasks. We examined examples of completed Service Reports
	• Daily meetings are held on site for all Vestas staff on duty, to discuss production and execution of maintenance work, and to determine priorities
	• Completion of maintenance service orders are managed by the Yandin Wind Farm Site Manager
	• Overdue service orders are flagged and a listing of outstanding service orders can be extracted from the SAP system. We examined an example of an overdue service order report.	

	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)

Effectiveness criteria	Findings	
6.4 Failures are analysed and operational/maintenance plans adjusted where necessary	Through discussion with Yandin Wind Farm Asset Coordinator and Vestas Site Management Team, and consideration of relevant supporting documentation, we observed that: • Defects identified through Vestas' continuous monitoring are logged for investigation, root cause analysis and action by Vestas staff on site in accordance with their criticality to achieve asset protection, performance guarantees and performance availability • Unplanned faults that result in loss of production require formal investigation to determine the cause. Depending on the nature of the root cause, a more detailed report and investigation may be undertaken including detailed technical reports • Vestas maintains a Component Inspection Report Database to record all major equipment breakdowns with inspection or failure/repair reports. We examined an example of a gearbox torque arm failure report • It is one of Yandin Wind Farm's primary interests to ensure the Facility is operating efficiently (for potentially increased electricity production) and at target availability levels. Accordingly, it focusses on investigating failures and determining actions to prevent reoccurrence.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)
6.5 Risk management is applied to prioritise maintenance tasks	Through discussion with Yandin Wind Farm Asset Coordinator and Vestas Site Management Team, and consideration of relevant supporting documentation, we observed that Yandin Wind Farm's maintenance processes include: • A designated Yandin Wind Farm facility risk register, based on Alinta Energy's group risk management standards • Application of a risk management approach to corrective maintenance activities, whereby the maintenance tasks addressing higher risk issues are performed first in order, followed by lower priority tasks • A designated Vestas team to manage all maintenance activity for Yandin Wind Farm's assets, including prioritised response to alerts, faults and incidents • Daily site-meetings to review performance and plan for upcoming tasks.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)

Effectiveness criteria	Findings	
6.6 Maintenance costs are measured and monitored	Through discussion with the Yandin Wind Farm Asset Engineer, Alinta Energy Head of Optimisation and Vestas Site Management Team, and consideration of Yandin Wind Farm's information systems and relevant supporting documentation such as SAP records and monthly reports, we observed that: • Maintenance costs are a significant element of Yandin Wind Farm's monthly tracking and reporting of operational costs. Costs measured and monitored against budget include salaries and wages, contractors, materials and other services allocated to maintenance activities • As Yandin Wind Farm pays a fixed fee for its full O&M services provided by Vestas, with Vestas required to close-out all remaining construction punch list items separately to day-to-day site operations and maintenance work orders, Yandin Wind Farm understands its full operations and maintenance costs.	
	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 Yandin Wind Farm and Vestas staff, and consideration of relevant system documentation, we observed that: • Yandin Wind Farm maintains an appropriate suite of system documentation for its key control systems, network and infrastructure • That documentation includes technical documentation for Vestas' application of its SAP, SCADA and other supporting systems, which is maintained and updated in accordance with Vestas' IT standards.	
	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 Yandin Wind Farm staff and the Vestas Site Management Team, consideration of relevant system documentation and walkthrough of a sample of functions managed by the SAP system, we observed that Yandin Wind Farm'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 Yandin Wind Farm and Vestas staff and consideration of relevant supporting documentation, we observed that Yandin Wind Farm has established and maintained procedures and controls which enable all key system access and permissions (including remote access) to be managed in accordance with each of Alinta Energy and Vestas 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 Yandin Wind Farm and Vestas Site Management Team and consideration of relevant supporting documentation, we observed that Yandin Wind Farm 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 designated Vestas duty personnel • All visitors and contractors are required to report to and be accompanied by Yandin Wind Farm or Vestas duty personnel.	
	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 Yandin Wind Farm and Vestas staff and consideration of relevant supporting documentation, we observed that: • Procedures for managing data backup and data restore of Yandin Wind Farm servers have been established and maintained in accordance with Alinta Energy and Vestas IT standards • Yandin Wind Farm's and Vestas' procedures provide for regular backups of all key data in accordance with accepted industry practice, with regular testing of back-ups recommended • Vestas IT staff provide full support for Vestas' operations at Yandin Wind Farm, including management of backups for data maintained on Vestas facilities.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)
7.6 Computations for licensee performance reporting are accurate	Yandin Wind Farm's asset management information systems do not directly provide data used in any computation related to Yandin Wind Farm's performance reporting.	
	Process and Policy Rating: Not rated	**Performance Rating:** Not rated
7.7 Management reports appear adequate for the licensee to monitor licence obligations	Through discussions with Yandin Wind Farm and Vestas staff and consideration of relevant supporting documentation and management reporting procedures, we determined that: • Yandin Wind Farm's SAP (Vestas) system is 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 • Collectively, these reports appear adequate to enable Yandin Wind Farm to monitor its licence obligations.	
	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 Yandin Wind Farm and Vestas staff and consideration of relevant supporting documentation, we observed that with the support of Vestas staff and resources, Yandin Wind Farm 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 information and 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: Requires some improvement (B) / 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

8.2 Risks are documented in a risk register and treatment plans are implemented and monitored</td><td colspan="2">8.1 and 8.2
Through discussion with the Yandin Wind Farm Asset Engineer, Alinta Energy Acting Head of Optimisation and Vestas Site Management Team, consideration of Yandin Wind Farm's risk management practices and examination of supporting documentation, we observed that:
Yandin Wind Farm applies Alinta Energy's established risk management framework and processes, with support from Vestas operational risk management processes
Yandin Wind Farm and Vestas staff displayed a good understanding of known operational risks and issue, with evidence of tasks being initiated and completed to address those risks and issues
From an operational perspective, Yandin Wind Farm incorporates risk management as a fundamental aspect of its decision making process to support and enhance its operations. In particular, risk-based policies and procedures are applied to Yandin Wind Farm's operational and maintenance activities performed by Vestas, including asset condition assessments. We sighted several examples of risk based practices being applied to Yandin Wind Farm's monitoring of the Facility's operations, and in its responses to alarms, faults and incidents. Yandin Wind Farm maintains appropriate records of those activities
Yandin Wind Farm has established a Risk Register specific to its Facility. The Risk Register covers a broad range of risk types and has been subject to regular review and update. While the register appears to be current and offering value to Yandin Wind Farm, it can be further tidied (to remove unused columns and references) and further strengthened by including target risk ratings and risk treatments/mitigations to achieve those targets
There is little evidence of risk status and risk treatment plans being monitored e.g. management of risks is not consistently featured in operational reporting. Yandin Wind Farm can make better use of its understanding of the Facility's risk profile, to assist with oversight and decision making. We raised this matter with Yandin Wind Farm staff as an improvement opportunity.</td></tr>
<tr><td>Process and Policy Rating: Requires some improvement (B)</td><td>Performance Rating: Improvement required (2)</td></tr>
</table>

Effectiveness criteria	Findings	
8.3 Probability and consequences of asset failure are regularly assessed	Through discussion with the Yandin Wind Farm Asset Coordinator and Vestas Site Manager, consideration of Yandin Wind Farm's risk management practices and examination of supporting documentation, we observed that Yandin Wind Farm has applied the following mechanisms for identifying and assessing the consequences and likelihood of the facility's failure: • Regular corrective maintenance and plans for an increasing level of preventative maintenance • The Yandin Wind Farm risk register considers major items of equipment and provides details of the O&M strategy to be applied • A forward maintenance program has been developed in accordance with OEM requirements. The management structures, skills and resources assigned to Yandin Wind Farm's asset management processes appear to be appropriate for enabling the regular assessment of the probability and consequences of asset failure.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)

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 Yandin Wind Farm Asset Coordinator and Vestas Site Management Team; and examination of Yandin Wind Farm's emergency response and contingency planning mechanisms, we determined that:
A key objective of Yandin Wind Farm's operations is to maintain the facility's availability (including for individual turbines) and to maximise the supply of electricity to the extent allowable by the market operator
Yandin Wind Farm's risk register captures higher risks relating to potential major disruption to operations, including equipment failure (particularly single point of failure impacting on critical spares), unavailability of assets or personnel, physical harm to personnel or assets, or other significant incidents
In accordance with its O&M Agreement, Vestas has applied a suite of emergency response procedures and management plans to its Yandin Wind Farm activities, including:
A comprehensive Emergency Response Plan specific for the Yandin Wind Farm Facility, with detailed instructions and references to be used in responding to emergency scenarios
Vestas Crisis Management Policy
Vestas Major Incident Management Procedure
Vestas ASP Cyber Incident Response Plan
We sighted evidence of:
An emergency response scenario performed on site during the review period
Yandin Wind Farm's COVID response arrangements.</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 consideration of Yandin Wind Farm's annual business planning arrangements, we observed that the Yandin Wind Farm Facility's financial plan takes the form of an Annual Business Plan, prepared to reflect its financial objectives and contractual agreements.	
	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 Yandin Wind Farm's annual business planning arrangements, we determined that: • Yandin Wind Farm's annual budget is aligned with its overall business plans and is expected to be fully funded through its operational revenue • The source of funding and related financing costs are clearly accounted for.	
	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 Yandin Wind Farm's annual business planning arrangements, we determined that Yandin Wind Farm's annual budget: • Is comprised of a summary of forecast revenue and expenses relating to the production and dispatch of electricity in accordance with contractual agreements • Provides projections of operating profit and loss financial position attributable to the Facility • Contains projections that are sufficient to cover future operating costs.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)
10.4 The financial plan provides firm predictions on income for the next five years and reasonable predictions beyond this period	Through consideration of Yandin Wind Farm's annual business planning arrangements, we determined that the Yandin Wind Farm annual budget provides projections of income, which can be extended for the duration of the Facility's life and relevant contractual agreements.	
	Process and Policy Rating: Adequately defined (A)	**Performance Rating:** Performing effectively (1)

Effectiveness criteria	Findings	
10.5 The financial plan provides for the operations and maintenance, administration and capital expenditure requirements of the services	Through consideration of Yandin Wind Farm's annual business planning arrangements, we determined that the Yandin Wind Farm annual budget provides a sufficient level of detail relating to forecast operational, maintenance and administrative costs. Other than a nominal provision for maintenance capital expenditure, there are currently no expectations for additional capital expenditure.	
	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 Yandin Wind Farm's business planning and reporting arrangements, we determined that actual versus budgeted expenditure is monitored 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: Not rated

Findings

The majority of costs associated with the operations and maintenance of the Facility are and will be treated as operational costs. Yandin Wind Farm makes only a nominal provision in its Annual Budget for maintenance capital expenditure and there is currently no provision for capital items.

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 some improvement (B) / Not rated

<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">Yandin Wind Farm’s current AMP and asset management system were relatively recently developed, to support commencement of operations in 2021.
At the time of this review, the AMP and system were still being effectively established and finetuned, and had not yet been subject to formal review (a review was performed in July 2022), which is appropriate in the circumstances. However, Yandin Wind Farm’s planning and governance processes do not specifically outline how and when the asset management plan is to be reviewed for currency, and how input from independent staff or consultants will be sought. We raised this matter with Yandin Wind Farm staff as a potential improvement opportunity.</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: Requires some improvement (B)</td><td>Performance Rating: Not rated</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 was no previous review.				

Appendix A – Review Plan

ASSURANCE ADVISORY GROUP

Yandin Wind Farm Pty Ltd

Electricity Generation Licence (EGL30)

2022 Asset Management System Review

Review Plan

July 2022

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 Yandin Wind Farm Pty Ltd (Yandin Wind Farm) an Electricity Generation Licence (EGL 30) (the **Licence**).

Section 14 of the Act requires Yandin Wind Farm 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 23 May 2019 to 31 May 2022 (**review period**).

The Licence relates to the operation of a wind farm located on farmland near the wheatbelt town of Dandaragan, approximately 175 kilometres north of Perth. Yandin Wind Farm is a RATCH/Alinta Energy investment managed by Alinta Energy, using 51 Vestas V150 4.2MW turbines to deliver electricity into the South West Interconnected System (**SWIS**) via a new 10km transmission line and terminal station built, owned and operated by Western Power. The first wind turbine generator commenced generation on 12 July 2020 and the wind farm was officially opened by the WA Energy Minister on 19 May 2021.

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 Yandin Wind Farm 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 the assets subject to Yandin Wind Farm's Licence during the review period.

Scope

In accordance with the Review Guidelines, the review will consider the effectiveness of Yandin Wind Farm'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 Yandin Wind Farm'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.

Key processes	Effectiveness criteria
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
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

Key processes	Effectiveness criteria
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
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

Yandin Wind Farm's responsibility for maintaining an effective asset management system

Yandin Wind Farm 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 reasonable assurance conclusion on whether, based on the procedures performed and the evidence obtained, we believe that Yandin Wind Farm's AMS for assets subject to its Licence have 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 23 May 2019 to 31 May 2022. 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 reasonable 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.

Limitations of use

Our report will be produced solely for the information and internal use of Yandin Wind Farm 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 Yandin Wind Farm'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 Yandin Wind Farm for the purpose of its reporting requirements under section 14 of the Act.

Inherent limitations

Reasonable assurance means a high but not absolute level of assurance. Absolute assurance is very rarely attainable as a result of factors such as: the use of selective testing, the inherent limitations of internal control, the fact that much of the evidence available to us is persuasive rather than conclusive and the use of judgement in gathering and evaluating evidence and forming conclusions based on that evidence.

We cannot, in practice, examine every activity and procedure, nor can we be a substitute for management's responsibility to maintain adequate controls over all levels of operations and their responsibility to prevent and detect irregularities, including fraud.

Accordingly, readers of our report should not rely on the report to identify all potential instances of non-compliance or performance issues which may occur.

An assurance engagement relating to the period from 23 May 2019 to 31 May 2022 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 Yandin Wind Farm's asset management systems established for the assets subject to Yandin Wind Farm's licence. The risk assessment considers changes to Yandin Wind Farm's relevant systems and processes and any matters of significance raised by the ERA and/or Yandin Wind Farm. 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 Yandin Wind Farm 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 Yandin Wind Farm 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 Review 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 Review 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	Review 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 Yandin Wind Farm 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 Yandin Wind Farm 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 Yandin Wind Farm 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 Yandin Wind Farm's asset management system requirements and standards.

The policy and procedure 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 Yandin Wind Farm representatives and key operational and administrative staff
- Physical visit to the wind farm site
- 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.

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 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 Yandin Wind Farm's asset management system.

Yandin Wind Farm 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 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 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 Yandin Wind Farm contacts

The key contacts for this review are:

- Stuart Algera — Asset Engineer, Yandin Wind Farm
- Anthony Ravi — Asset Coordinator, Yandin Wind Farm
- Jeff Ey — Acting Head of Optimisation, Alinta Energy
- Catherine Rousch — Manager WA Retail Regulation, Alinta Energy.

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 Yandin Wind Farm and subsequently presented to the ERA.

Timing

The initial risk assessment phase was completed on 23 May 2022, after which the draft review plan and risk assessment were presented to Yandin Wind Farm 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 mid-June to early July 2022, enabling draft and final reports to be submitted to the ERA by the due dates of 31 July 2022 and 31 August 2022 respectively.

AAG time and staff commitment to the completion of the review is outlined in the proposal accepted by Yandin Wind Farm. In summary, the estimated time allocated to each AMS Review activity is as follows:

- Planning (including risk assessment): 9 hours
- Fieldwork (including system analysis/walkthrough and testing/review): 69 hours
- Reporting: 26 hours.

Appendix 1 - Risk assessment key

1-1 Criteria for classification of consequence of ineffective performance

Source: Modified from Electricity Compliance Reporting Manual June 2020

Classification	Criteria for classification
Major	Classified on the bases 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	Unlikely	Medium	Moderate	Priority 4
1.3	Service levels are defined in the asset management plan	Moderate	Probable	Medium	Moderate	Priority 4
1.4	Non-asset options (e.g. demand management) are considered	Minor	Unlikely	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	Unlikely	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	Unlikely	Medium	Moderate	Priority 4
2.2	Evaluations include all life-cycle costs	Moderate	Unlikely	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	Unlikely	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	Unlikely	Medium	Moderate	Priority 4
3.2	The reasons for under-utilisation or poor performance are critically examined and corrective action or disposal undertaken	Minor	Unlikely	Low	Moderate	Priority 5
3.3	Disposal alternatives are evaluated	Minor	Unlikely	Low	Moderate	Priority 5
3.4	There is a replacement strategy for assets	Moderate	Unlikely	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	Unlikely	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	Minor	Probable	Low	Moderate	Priority 5
10.6	Large variances in actual/budget income and expenses are identified and corrective action taken where necessary	Minor	Probable	Low	Moderate	Priority 5

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	Minor	Probable	Low	Moderate	Priority 5
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 B – References

Yandin Wind Farm representatives participating in the review

- Yandin Wind Farm Asset Engineer
- Yandin Wind Farm Asset Coordinator
- Vestas Operations Manager
- Vestas Site Manager, Yandin Wind Farm
- Vestas Service Planner
- Acting Head of Optimisation, Alinta Energy
- Head of Optimisation, Alinta Energy
- Manager WA Retail Regulation, Alinta Energy.

AAG staff participating in the review		**Hrs**
• Tanuja Sanders	Senior Engineer	24
• Margaret-Mary Gauci	Senior Consultant	4
• Andrew Baldwin	Executive Director	62
• Stephen Linden	Director (QA review)	1

Key documents and other information sources examined

- Yandin Wind Farm Asset Management Plan (2021)
- Vestas Operate and Maintain Agreement (2019)
- Electricity Transfer Access Contract (Western Power) (2019)
- Vestas HSE statistics 2021/22
- Vestas HSE CR360 summary records (current)
- Vestas OHSE Manual (2020)
- Vestas Workplace Health and Safety and Environmental Management Plan (2021)
- Yandin Wind Farm Extended Sustainability Risk Register (2022)
- Post-Construction Noise Assessment Report (December 2021)
- Correspondence re Shire of Dandaragan Development Approval conditions
- Low frequency noise complaint records
- Summary of breakdowns and events impacting on wind turbine availability
- Asset Register (SAP) (current)
- Vestas Yandin Staff Training Matrix (current)
- Yandin Wind Farm 2 year service schedule (2022)
- Vestas ANZ Lightening Procedures (2016)
- Vestas ANZ Switching Instruction (2021)
- Vestas Service Order Management framework
- Listing of O&M procedures and work instructions
- Protocols for operation of turbines (e.g. wind speed, lightening, temperature)

- Example Monthly Operating reports
- Daily availability update examples
- Example Toolbox Meeting minutes
- Listing of outstanding Work Orders
- SAP system screenshots
- Example inspection checklists and service inspection forms
- Yandin Wind Farm Component Inspection Report Database
- Vestas Wind Systems A/S Information Security Policy v1.5 (2020)
- Vestas Information Security Classification System (March 2021)
- Yandin Wind Farm Risk Register (including several updates)
- Vestas Emergency Response Plan – Service Wind Farms | Yandin Wind Farm (2021)
- Vestas Wind Systems A/S Crisis Management Plan (2015)
- Vestas Major Incident Management Procedure
- Vestas ASP Cyber Incident Response Plan
- Other example reports
  - Gearbox failure inspection (May 2022)
  - Blade bearing failure inspection (May 2022)
  - Emergency Response Debrief form (November 2021)
  - Cyclone Evacuation Drill (November 2021)
  - Housekeeping Compliance Checklist (May 2022)
- Job Safety & Environmental Analysis / Safe Work Method Statement Form (2021)
- Example Emergency Response Exercise Debrief Form (2021)
- Yandin Wind Farm Annual Plan FY2021 and FY2023
- Representations from Yandin Wind Farm Asset Engineer, Yandin Wind Farm Asset Coordinator, Vestas Site Manager, Vestas Operations Manager and Head of Optimisation, Alinta Energy.