

# **Alinta Energy Transmission (Chichester) Pty Ltd**

Electricity Integrated Regional Licence (EIRL10)  
2022 Asset Management System Review

Final report

April 2023



ASSURANCE  
ADVISORY  
GROUP

Level 11, 251 Adelaide Terrace  
PERTH WA 6000

17 April 2023

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Manager WA Retail Regulation  
Alinta Energy  
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Dear Catherine

**Electricity Integrated Regional Licence (EIRL10) – 2022 Asset Management System Review Report**

We have completed the Electricity Integrated Regional Licence Asset Management System Review for Alinta Energy Transmission (Chichester) Pty Ltd for the period 11 October 2018 to 30 September 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](mailto:abaldwin@assuranceadvisory.com.au) or myself at [slinden@assuranceadvisory.com.au](mailto:slinden@assuranceadvisory.com.au).

Yours sincerely

**Assurance Advisory Group**

  
**Stephen Linden**

**Director**

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# 1. Independent assurance practitioner's report

## Modified opinion

We have undertaken a reasonable assurance engagement on the effectiveness of Alinta Energy Transmission (Chichester) Pty Ltd's (**AETC**) Asset Management System (**AMS**), relating to its Electricity Integrated Regional Licence EIRL10 (the **Licence**) for the period 11 October 2018 to 30 September 2022 (**review period**).

In our opinion, based on the procedures we have performed and the evidence we have obtained, except for the effect of the matters described in the 'Basis for qualified opinion' paragraph below, AETC 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 modified opinion

During the period from 11 October 2018 to 30 September 2022, AETC's asset management system had the following deficiencies that require correction or improvement in order to address the effectiveness criteria nominated in the Guidelines:

Key process & effectiveness criteria	Description
<b>4. Environmental analysis</b> 4.2 Performance standards (availability of service, capacity, continuity, emergency response, etc.) are measured and achieved	Throughout the review period, AETC staff had not undertaken key emergency response training and drills.
<b>5. Asset operations</b> 5.6 Staff resources are adequate and staff receive training commensurate with their responsibilities	

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

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

## AETC's responsibility for the AMS

AETC 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 AETC's AMS for assets subject to the Licence for the period to 30 September 2022. ASAE 3500 requires that we plan and perform our procedures to obtain reasonable assurance about whether AETC 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 AETC's AMS for assets subject to the Licence involves performing procedures to obtain evidence about processes and controls designed and implemented within AETC's AMS for assets subject to the Licence. The procedures selected depend on our judgement, including the identification and assessment of risks of AETC'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 AETC 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 AETC's AMS requirements and standards
- Physical visit to operations located in the Pilbara region
- Consideration of reports and references evidencing activity
- Consideration of activities performed by AETC 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 11 October 2018 to 30 September 2022 does not provide assurance on whether the effectiveness of AETC's AMS for assets subject to the Licence will continue in the future.

## **Restricted use**

This report has been prepared for use by AETC 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 AETC, 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 AETC'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**

17 April 2023

## 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 Alinta Energy Transmission (Chichester) Pty Ltd (**AETC**) an Electricity Integrated Regional Licence (EIRL10) (the **Licence**).

The Licence relates to AETC's transmission and distribution activity in relation to its transmission and distribution lines and associated infrastructure for the supply of electricity to Fortescue Metals Group Ltd's Chichester hub mining operations in the Pilbara region of Western Australia. The transmission network commenced operations in November 2021. AETC operates as a subsidiary within the Alinta Group and is supported by the resource and system capabilities of Alinta Energy.

Section 14 of the Act requires AETC 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 11 October 2018 to 30 September 2022 (**review period**).

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

### 2.2 Findings

In considering AETC'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 in November 2021, AETC has maintained a largely appropriate suite of procedures and controls for the effective operation of the transmission assets. AETC is well supported by Alinta Energy's established asset management framework and supporting procedures and practices
- AETC staff appeared to have a good understanding of their roles, particularly displaying an understanding of the asset management processes within their area of responsibility
- Two elements of AETC's asset management practices require improvement (where the criteria's performance rating is "3"). Both elements relate to staff training and awareness of core emergency response requirements. This review makes one recommendation for AETC to determine and implement the necessary corrective action (refer to Recommendation 1/2022)
- AETC also has 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 AETC 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 AETC's AMS:

- For the asset management process and policy definition ratings:
  - 44 is/are rated as "Adequately defined"
  - 3 is rated as "Requires some improvement"
  - 11 are not rated.

- For the asset management performance ratings:
  - 41 are rated as “Performing effectively”
  - 3 are rated as “Improvement required”
  - 2 are rated as “Corrective action required”
  - 12 are not rated.

### 2.3 AETC’s response to previous review recommendations

As this is AETC’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

Reference (no./year)	Process and policy deficiency / Performance deficiency (Rating / Reference number, Asset management process & effectiveness criterion / Details of deficiency)	Auditor’s recommendation	Action taken
1/2022	<p><b>B3</b></p> <p><u>4. Environmental Analysis</u></p> <p><i>4.2 Performance standards (availability of service, capacity, continuity, emergency response, etc.) are measured and achieved</i></p> <p><b>B3</b></p> <p><u>5. Asset Operations</u></p> <p><i>5.6 Staff resources are adequate and staff receive training commensurate with their responsibilities</i></p> <p>At the time of our site visit, AETC’s training matrix showed some overdue training. Of particular note, a significant risk to AETC’s operations relates to the training requirements for site emergency response, which was recorded as overdue for all staff assigned to operations managed from the Newman Power Station (which includes the Chichester Transmission Network). We consider this issue reflects a lack of dedicated effort to ensure training requirements are maintained. Corrective action is required to improve AETC’s performance against the requirements of its emergency response procedures.</p>	<p>AETC:</p> <p>(a) Schedule staff training to clear all overdue requirements with special emphasis given to site-specific emergency response drills</p> <p>(b) Ensure sufficient resources are allocated to maintaining key training requirements and emergency response drills.</p>	n/a

### 2.5 Scope and objectives

We have conducted a reasonable assurance engagement in order to state whether, in our opinion, based on our procedures, AETC has established and maintained, in all material respects, an effective AMS for assets subject to the Licence during the period 11 October 2018 to 20 September 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 AETC’s AMS for assets subject to the Licence involves performing procedures to obtain evidence about processes and controls designed and implemented within AETC’s AMS for assets subject to the EIRL10 – 2022 Asset Management System Review report

Licence. The procedures selected depend on our judgement, including the identification and assessment of risks of AETC'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 AETC's existing control procedures within the following 12 key processes in the asset management life cycle:

Key processes	Effectiveness criteria
1. Asset Planning	1.1 Asset management plan covers the processes in this table 1.2 Planning processes and objectives reflect the needs of all stakeholders and are integrated with business planning 1.3 Service levels are defined in the asset management plan 1.4 Non-asset operations (e.g. demand management) are considered 1.5 Lifecycle costs of owning and operating assets are assessed 1.6 Funding options are evaluated 1.7 Costs are justified and cost drivers identified 1.8 Likelihood and consequences of asset failure are predicted 1.9 Asset management plan is regularly reviewed and updated.
2. Asset creation and acquisition	2.1 Full project evaluations are undertaken for new assets, including comparative assessment of non-asset options 2.2 Evaluations include all life-cycle costs 2.3 Projects reflect sound engineering and business decisions 2.4 Commissioning tests are documented and completed 2.5 Ongoing legal / environmental / safety obligations of the asset owner are assigned and understood
3. Asset disposal	3.1 Under-utilised and under-performing assets are identified as part of a regular systematic review process 3.2 The reasons for under-utilisation or poor performance are critically examined and corrective action or disposal undertaken 3.3 Disposal alternatives are evaluated 3.4 There is a replacement strategy for assets
4. Environmental analysis	4.1 Opportunities and threats in the asset management system environment are assessed 4.2 Performance standards (availability of service, capacity, continuity, emergency response, etc.) are measured and achieved 4.3 Compliance with statutory and regulatory requirements 4.4 Service standard (customer service levels etc) are measured and achieved.
5. Asset operations	5.1 Operational policies and procedures are documented and linked to service levels required 5.2 Risk management is applied to prioritise operations tasks 5.3 Assets are documented in an asset register including asset type, location, material, plans of components, and an assessment of assets' physical/structural condition 5.4 Accounting data is documented for assets [new criteria] 5.5 Operational costs are measured and monitored 5.6 Staff resources are adequate and staff receive training commensurate with their responsibilities



Key processes	Effectiveness criteria
6. Asset maintenance	<p>6.1 Maintenance policies and procedures are documented and linked to service levels required</p> <p>6.2 Regular inspections are undertaken of asset performance and condition</p> <p>6.3 Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule</p> <p>6.4 Failures are analysed and operational/maintenance plans adjusted where necessary</p> <p>6.5 Risk management is applied to prioritise maintenance tasks</p> <p>6.6 Maintenance costs are measured and monitored</p>
7. Asset management information systems	<p>7.1 Adequate system documentation for users and IT operators</p> <p>7.2 Input controls include suitable verification and validation of data entered into the system</p> <p>7.3 Security access controls appear adequate, such as passwords</p> <p>7.4 Physical security access controls appear adequate</p> <p>7.5 Data backup procedures appear adequate and backups are tested</p> <p>7.6 Computations for licensee performance reporting are accurate</p> <p>7.7 Management reports appear adequate for the licensee to monitor licence obligations</p> <p>7.8 Adequate measures to protect asset management data from unauthorised access or theft by persons outside the organisation [new criteria]</p>
8. Risk management	<p>8.1 Risk management policies and procedures exist and are applied to minimise internal and external risks</p> <p>8.2 Risks are documented in a risk register and treatment plans are implemented and monitored</p> <p>8.3 Probability and consequences of asset failure are regularly assessed</p>
9. Contingency planning	<p>9.1 Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks</p>
10. Financial planning	<p>10.1 The financial plan states the financial objectives and identifies strategies and actions to achieve those</p> <p>10.2 The financial plan identifies the source of funds for capital expenditure and recurrent costs</p> <p>10.3 The financial plan provides projections of operating statements (profit and loss) and statement of financial position (balance sheets)</p> <p>10.4 The financial plan provides firm predictions on income for the next five years and reasonable predictions beyond this period</p> <p>10.5 The financial plan provides for the operations and maintenance, administration and capital expenditure requirements of the services</p> <p>10.6 Large variances in actual/budget income and expenses are identified and corrective action taken where necessary</p>
11. Capital expenditure planning	<p>11.1 There is a capital expenditure plan covering works to be undertaken, actions proposed, responsibilities and dates</p> <p>11.2 The capital expenditure plan provides reasons for capital expenditure and timing of expenditure</p> <p>11.3 The capital expenditure plan is consistent with the asset life and condition identified in the asset management plan</p> <p>11.4 There is an adequate process to ensure the capital expenditure plan is regularly updated and implemented</p>

Key processes	Effectiveness criteria
12. Review of asset management system	12.1 A review process is in place to ensure the asset management plan and the asset management system described in it remain current 12.2 Independent reviews (e.g. internal audit) are performed of the asset management system

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

## 2.6 Approach

Our approach for this review involved the following activities, which were undertaken during the period November 2022 to February 2023:

- 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 AETC staff to gain an understanding of process controls in place (see Appendix B for staff involved)
- Site visit to the transmission network facilities and supporting Newman operations in the East Pilbara with a focus on understanding the transmission 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 AETC'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 AETC 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	<ul style="list-style-type: none"> <li>Processes and policies are documented</li> <li>Processes and policies adequately document the required performance of the assets</li> <li>Processes and policies are subject to regular reviews, and updated where necessary</li> <li>The asset management information system(s) are adequate in relation to the assets being managed</li> </ul>
B	Requires some improvement	<ul style="list-style-type: none"> <li>Processes and policies require improvement</li> <li>Processes and policies do not adequately document the required performance of the assets</li> <li>Reviews of processes and policies are not conducted regularly enough</li> <li>The asset management information system(s) requires minor improvements (taking into consideration the assets being managed)</li> </ul>
C	Requires substantial improvement	<ul style="list-style-type: none"> <li>Processes and policies are incomplete or require substantial improvement</li> <li>Processes and policies do not document the required performance of the assets</li> <li>Processes and policies are considerably out of date</li> <li>The asset management information system(s) requires substantial improvements (taking into consideration the assets being managed)</li> </ul>
D	Inadequate	<ul style="list-style-type: none"> <li>Processes and policies are not documented</li> <li>The asset management information system(s) is not fit for purpose (taking into consideration the assets being managed).</li> </ul>

**Table 2: Performance rating scale**

Rating	Description	Criteria
1	Performing effectively	<ul style="list-style-type: none"> <li>The performance of the process meets or exceeds the required levels of performance</li> <li>Process effectiveness is regularly assessed and corrective action taken where necessary</li> </ul>
2	Improvement required	<ul style="list-style-type: none"> <li>The performance of the process requires some improvement to meet the required level</li> <li>Process effectiveness reviews are not performed regularly enough</li> <li>Recommended process improvements are not implemented</li> </ul>
3	Corrective action required	<ul style="list-style-type: none"> <li>The performance of the process requires substantial improvement to meet the required level</li> <li>Process effectiveness reviews are performed irregularly, or not at all</li> <li>Recommended process improvements are not implemented</li> </ul>
4	Serious action required	<ul style="list-style-type: none"> <li>Process is not performed, or the performance is so poor the process is considered to be ineffective.</li> </ul>

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**

Ref	Asset management process and effectiveness criteria	Review priority	Ratings	
			Process and policy	Performance
<b>1. Asset Planning</b>			<b>A</b>	<b>1</b>
1.1	Asset management plan covers the processes in this table	Priority 4	A	1
1.2	Planning processes and objectives reflect the needs of all stakeholders and is integrated with business planning	Priority 4	A	1
1.3	Service levels are defined in the asset management plan	Priority 4	A	1
1.4	Non-asset operations (e.g. demand management) are considered	Priority 5	Not rated	Not rated
1.5	Lifecycle costs of owning and operating assets are assessed	Priority 5	A	1
1.6	Funding options are evaluated	Priority 5	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 2	A	1
1.9	Asset management plan is regularly reviewed and updated.	Priority 5	A	Not rated
<b>2. Asset creation and acquisition</b>			<b>Not rated</b>	<b>Not rated</b>
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		
<b>3. Asset disposal</b>			<b>Not rated</b>	<b>Not rated</b>
3.1	Under-utilised and under-performing assets are identified as part of a regular systematic review process	Priority 5		
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
<b>4. Environmental analysis</b>			<b>A</b>	<b>2</b>
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	3
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
<b>5. Asset operations</b>			<b>A</b>	<b>2</b>
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	B	3
<b>6. Asset maintenance</b>			<b>A</b>	<b>1</b>
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 2	A	1
6.5	Risk management is applied to prioritise maintenance tasks	Priority 2	A	1
6.6	Maintenance costs are measured and monitored	Priority 4	A	1
<b>7. Asset management information systems</b>			<b>A</b>	<b>1</b>
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 5	A	1
<b>8. Risk management</b>			<b>B</b>	<b>2</b>
8.1	Risk management policies and procedures exist and are applied to minimise internal and external risks	Priority 4	A	1
8.2	Risks are documented in a risk register and treatment plans are implemented and monitored	Priority 4	B	2
8.3	Probability and consequences of asset failure are regularly assessed	Priority 2	A	1
<b>9. Contingency planning</b>			<b>A</b>	<b>2</b>
9.1	Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks	Priority 2	A	2
<b>10. Financial planning</b>			<b>A</b>	<b>1</b>
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
<b>11. Capital expenditure planning</b>			<b>A</b>	<b>1</b>
11.1	There is a capital expenditure plan covering works to be undertaken, actions proposed, responsibilities and dates	Priority 4	A	1
11.2	The capital expenditure plan provides reasons for capital expenditure and timing of expenditure	Priority 5	A	1
11.3	The capital expenditure plan is consistent with the asset life and condition identified in the asset management plan	Priority 5	A	1
11.4	There is an adequate process to ensure the capital expenditure plan is regularly updated and implemented	Priority 5	A	1
<b>12. Review of asset management system</b>			<b>A</b>	<b>2</b>
12.1	A review process is in place to ensure the asset management plan and the asset management system described in it remain current	Priority 5	A	1
12.2	Independent reviews (e.g. internal audit) are performed of the asset management system	Priority 5	A	2

## 4. Detailed findings and recommendations

The following tables contain:

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

## 4.1 Asset Planning

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

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

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

Effectiveness criteria	Findings	
1.1 Asset management plan covers the processes in this table	<p>Through discussion with the Head of Operations, Alinta Energy and Operations Manager, Pilbara; consideration of AETC's business planning processes, and examination of Alinta Energy's Asset Management Policy, Alinta Energy's Asset Management Framework and AETC's 220kV Transmission Line FY2023 Asset Management Plan (<b>AMP</b>), we determined that:</p> <ul style="list-style-type: none"> <li>• AETC's business planning model accommodates its operation and maintenance of the Chichester Transmission Network in accordance with its contracted power purchase arrangements</li> <li>• AETC's FY2023 AMP:               <ul style="list-style-type: none"> <li>○ Covers the entire Alinta Energy transmission network connecting the Newman Power Station, Chichester Solar Facility and related customer facilities in the Roy Hill and Chichester areas. AETC has an interconnection agreement with Alinta Energy Transmission (Roy Hill) Pty Ltd, being the second entity involved in managing the designated portion of that network</li> <li>○ Is consistent with Alinta Energy's company-wide Asset Management Framework, which is designed to align with ISO55000:2014, ISO 55001:2014 and ISO 55002:2014 and the British Publicly Available Specification (PAS) Asset Management Standard PAS 55-1:2008</li> <li>○ Provides guidance between the day-to-day activities within the facility and Alinta Energy's asset management strategy, including an overview of the major elements of the transmission network assets</li> <li>○ Sufficiently reflect each of the elements outlined in the rest of this Asset Planning process</li> <li>○ Was last revised in June 2022 (although it formally remained in draft). Alinta Energy's Asset Management Framework provides for annual review of all of its AMPs.</li> </ul> </li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)



Effectiveness criteria	Findings	
1.2 Planning processes and objectives reflect the needs of all stakeholders and is integrated with business planning	<p>Through discussion with the Head of Operations, Alinta Energy and Operations Manager, Pilbara and consideration of AETC's business planning processes, we determined that:</p> <ul style="list-style-type: none"> <li>• AETC's business planning model accommodates its operation and maintenance of the Chichester Transmission Network assets considering its contractual arrangements and regulatory requirements</li> <li>• From a business planning perspective, ATEC's asset management processes and mechanisms incorporate the requirements of its various stakeholders. In particular, we observed that AETC has: <ul style="list-style-type: none"> <li>○ Developed and maintained an appropriate AMP for operating and maintaining the various components of the transmission network to achieve performance over the life of the facility's assets. The AMP defines AETC's short to medium term plans, which are subject to review on an annual basis</li> <li>○ Established Interconnection Agreements with related entities Alinta Energy Transmission (Roy Hill) Pty Ltd, and Alinta Energy (Chichester) Pty Ltd outlining AETC's responsibilities for operating the transmission network assets</li> </ul> </li> <li>• A formal delegation of authority framework across the stakeholder functions (operations, finance, and compliance) is integrated into its SharePoint information storage portal for project task and expenditure approval.</li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)
1.3 Service levels are defined in the asset management plan	<p>Through discussion with the Head of Operations, Alinta Energy and Operations Manager, Pilbara and examination of AETC's AMP and contractual documentation, we determined that the transmission network's required service levels have been:</p> <ul style="list-style-type: none"> <li>• Summarised in the AMP, which are updated on a periodic basis to facilitate any changes of those service levels. The AMP references relevant operational information for each key item of equipment</li> <li>• Defined in AETC's maintenance standards maintained on SharePoint and integrated into the maintenance management system</li> <li>• Programmed into the Ellipse computerised maintenance management system to track routine maintenance requirements across all asset components.</li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)
1.4 Non-asset operations (e.g. demand management) are considered	<p>As the primary purpose of the Chichester Transmission Network is to provide a dedicated power supply to Alinta Energy (Chichester) Pty Ltd customers, there is no requirement or opportunity for AETC to consider non-asset options.</p>	
	<b>Process and Policy Rating:</b> Not rated	<b>Performance Rating:</b> Not rated

Effectiveness criteria	Findings	
1.5 Lifecycle costs of owning and operating assets are assessed	<p>Through discussion with the Head of Operations, Alinta Energy and Operations Manager, Pilbara and consideration of AETC's AMP and finance models, we determined that assessment of lifecycle costs of owning and operating the transmission network assets is reflected in the AMP, which addresses each major equipment component and provides specific details, including:</p> <ul style="list-style-type: none"> <li>• Operating and maintaining philosophy</li> <li>• Key life cycle issues and how they are addressed</li> <li>• Life cycle plan and critical outages</li> <li>• Performance improvement opportunities</li> <li>• Critical reinvestments</li> <li>• Retirement/disposal consideration at end of asset life</li> <li>• Capex and Opex forecast for a five-year period.</li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)
1.6 Funding options are evaluated	<p>Through discussion with the Head of Operations, Alinta Energy and Operations Manager, Pilbara; and examination of AETC's AMP and contractual documentation, we determined that:</p> <ul style="list-style-type: none"> <li>• Day-to-day operating expenses are funded from operating cash flows</li> <li>• Funding options are considered and evaluated using the Alinta Energy 'Request for Commitment' process within a dedicated Expenditure Project Delivery SharePoint Site</li> <li>• A Delegated Financial Authority matrix and automated workflow system within the Alinta Energy 'Request for Commitment' approval process helps ensure that fund requests above specified levels are required to be authorised by the appropriate level of management.</li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)
1.7 Costs are justified and cost drivers identified	<p>Through discussions with the Head of Operations and consideration of AETC's AMP strategy and model, we determined:</p> <ul style="list-style-type: none"> <li>• AETC's AMP includes detailed life cycle plans that identify and assess all life cycle costs and cost drivers associated with the transmission network</li> <li>• The transmission network's assets are managed using Ellipse, which records maintenance tasks and associated costs. Financial reporting is generated from Ellipse with budget vs actual analysis performed quarterly.</li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)

Effectiveness criteria	Findings	
1.8 Likelihood and consequences of asset failure are predicted	<p>Through discussion with the Head of Operations, Alinta Energy and Operations Manager, Pilbara; and examination of AETC's AMP and relevant supporting documentation, we determined the AMP is a tool used for predicting the likelihood and consequences of asset failure. Specifically, we determined that:</p> <ul style="list-style-type: none"> <li>• AETC's AMP details the operational and maintenance strategy, and risk mitigation actions for each key asset</li> <li>• Scheduled preventative maintenance provides for regular assessment of asset performance</li> <li>• A high level of priority is accorded to minimising instances of asset failure and the duration of any such failure to ensure performance targets are achieved.</li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)
1.9 Asset management plan is regularly reviewed and updated.	<p>AETC's AMP was first created in June 2022 in accordance with Alinta Energy's Asset Management Policy and Framework. Although we note the current AMP remains in draft form, it provides a comprehensive description of AETC's assets and plans for operating and maintaining those assets. Further changes (e.g. updated risk profile) are flagged to be made in the next version of the AMP, scheduled to be developed in June 2023.</p>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Not rated

## 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, AETC had not undertaken or contemplated any material asset creation and acquisition activities beyond the initial creation of the transmission network and minor improvements. Over the next three to five years, AETC expects to continue to operate and maintain its existing assets and equipment (i.e. with no new or replacement assets) to meet existing power supply requirements. Accordingly, AETC 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 AETC transmission network remains in the early phase of its life-cycle. No plans have been made to dispose of any of the network assets and there is a low likelihood of AETC 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:** [Adequately defined \(A\)](#) / [Improvement required \(2\)](#)

Effectiveness criteria	Findings	
4.1 Opportunities and threats in the asset management system environment are assessed	<p>Through discussion with the Head of Operations, Alinta Energy and Operations Manager, Pilbara; and consideration of relevant supporting documentation, we determined that AETC identifies and assesses opportunities and threats within its AMS through records of:</p> <ul style="list-style-type: none"> <li>• Applicable legal and regulatory obligations as documented in the 200kV Transmission Line AMP under the Regulatory Compliance Summary</li> <li>• Risks and threats to the asset's operations in the AMP</li> <li>• For the Chichester Transmission line (as well as the related Newman to Roy Hill transmission line), a significant part of Asset Management is and will continue to be, based on risk management and reduction. The primary focus of AETC's risk reviews is personnel safety, plant safety, process safety, environment safety and revenue loss minimisation</li> <li>• Environmental and safety related risks and incidents are captured in the Alinta Group InControl incident reporting system.</li> <li>• Regular vegetation removal and spraying programs around towers and guy-wires are expected to lessen the risk of damage from bushfires. Vegetation removal under the transmission line conductors will be undertaken to ensure minimum safe distances between the conductor and foliage and reduce the impact of bushfires. This will be completed on a two-yearly basis along with basic road maintenance.</li> <li>• A range of threats considered within the asset management system are fire events, weather events, traffic incidents, failures and incidents (internal and external), other external events and emergencies, and resource constraints.</li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)

Effectiveness criteria	Findings	
<p>4.2 Performance standards (availability of service, capacity, continuity, emergency response, etc.) are measured and achieved</p>	<p>Through discussion with the Head of Operations, Alinta Energy and Operations Manager, Pilbara; and consideration of relevant supporting documentation, we observed that:</p> <ul style="list-style-type: none"> <li>• The tracking of work orders and performance KPIs is controlled through Ellipse, which reports on the key performance aspects of the overall Alinta network, which includes the Chichester Solar Farm, Newman Power Station, Newman to Roy Hill transmission line assets and the Chichester Transmission line assets. Weekly Dashboards and Monthly reports are prepared that include aspects such as availability and production losses, maintenance costs and any EOHS incidents. Any deviations from budget or contractual KPIs are highlighted and explained, where appropriate. AETC's business model and resources specifically accommodate the operation and maintenance of the transmission assets in accordance with Good Operating and Maintenance Practice</li> <li>• Availability of the transmission and substation assets is targeted at 99.5%. AETC could consider investing in online condition monitoring techniques to track this KPI as the asset life countdown begins</li> <li>• HV and MV equipment, roads, land, easements and leases, and equipment life are to be operated and maintained in line with Alinta Energy maintenance standards and are to be coordinated through the Ellipse system</li> <li>• The typical major failures of transmission lines are tower, insulator and conductor connection failure. Although rare, other failure modes that could lead to significant downtime include: <ul style="list-style-type: none"> <li>○ Tower failure resulting from very intense winds that are extreme compared to the normal winds have been reported to cause the collapse of individual or multiple towers</li> <li>○ Conductor annealing results from the operation of the transmission line at temperatures beyond the design temperature or where a wildfire passing under an operating transmission line leads to embrittlement of the conductor</li> </ul> </li> <li>• The lightning performance of the line has exceeded the design basis of 1.5 outages from lightning strikes p.a.</li> <li>• Condition monitoring is a preferred method of maintenance and asset management for the transmission lines of which tracking of Transmission losses should form an important KPI. This was not evident in the current reporting structure of the weekly dashboards. <i>We raised this matter with AETC staff as a potential improvement opportunity</i></li> <li>• AETC manages and monitors environmental performance in accordance with established environmental and emergency response management plans</li> <li>• AETC relies on the emergency response processes developed for the Newman Power Station (per the Emergency Response Plan (ERP) version 2.8 dated March 2022) in which Site Managers are responsible for the investigation and analysis of environmental incidents. AETC has not planned or undertaken emergency response training and drills in accordance with the ERP. <i>Refer to Recommendation 1/2022 at Section 5.6 for further detail of this matter and the corrective action required.</i></li> </ul>	
	<p><b>Process and Policy Rating:</b> Requires some improvement (B)</p>	<p><b>Performance Rating:</b> Corrective action required (3)</p>

Effectiveness criteria	Findings	
4.3 Compliance with statutory and regulatory requirements	<p>Through discussion with the Head of Operations, Alinta Energy and Operations Manager, Pilbara; and examination of relevant supporting information, we determined that:</p> <ul style="list-style-type: none"> <li>• AETC has designed its processes and practices to operate and monitor its performance in accordance with the following statutory legislation and licences: <ul style="list-style-type: none"> <li>○ Occupational Health and Safety Act and associated regulations</li> <li>○ Environmental Protection Act</li> <li>○ Aboriginal Heritage Act</li> <li>○ Waste Avoidance and Resource Recovery Act and subordinate legislation</li> </ul> </li> <li>• AETC monitors and reports on its compliance with regulatory requirements on a regular basis.</li> </ul> <p>To date, no significant incidents or breaches have been recognised and reported.</p>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)
4.4 Service standard (customer service levels etc) are measured and achieved	<p>Through discussion with the Head of Operations, Alinta Energy and consideration of AETC's interconnection agreements, we determined that:</p> <ul style="list-style-type: none"> <li>• AETC's customer service levels and performance requirements are defined in the interconnection agreements. Service levels are monitored via weekly performance dashboards and monthly performance reports that are provided to management for the entire Alinta network, including the Chichester Transmission Line</li> <li>• The Transmission Lines were constructed under a range of landowner agreements and ongoing compliance with these agreements is critical to the future operations of the assets</li> <li>• In relation to community obligations, AETC operates and monitors its operations in accordance with 4.3 above.</li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> 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)

Effectiveness criteria	Findings	
5.1 Operational policies and procedures are documented and linked to service levels required	<p>Through discussion with the Head of Operations, Alinta Energy and Operations Manager, Pilbara; inspection of relevant documentation and observations during our site visit, we determined that:</p> <ul style="list-style-type: none"> <li>• The following assumptions are the basis for the Operations and Maintenance (O&amp;M) Program used for Alinta Energy's 220kV Transmission Lines:               <ul style="list-style-type: none"> <li>○ Nominal 40-year asset life</li> <li>○ Five-year asset planning horizon</li> <li>○ Underpinning Opex &amp; Capex budgets approved</li> <li>○ Maintenance routines for the transformers to be based on the Alinta Energy Transformer Standard</li> </ul> </li> <li>• Operational policies and procedures are documented collectively through AETC's AMP and supporting operational plans</li> <li>• AETC's service level requirements are either defined explicitly or derived from interconnection agreements and documented in the AMP</li> <li>• Operational procedures and manuals are kept on site as well as on the shared drive</li> <li>• Reliability and maintenance requirements are also set up in the AMP</li> <li>• Reporting dashboards are used to provide a weekly summary of the entire Alinta network, including metrics for the Transmission Lines and Substations in the network.</li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)



Effectiveness criteria	Findings	
5.2 Risk management is applied to prioritise operations tasks	<p>Through discussion with the Head of Operations, Alinta Energy, Operations Manager, Pilbara and Chichester Solar Plant Supervisor; inspection of relevant documentation and observations during our site visit, we determined that:</p> <ul style="list-style-type: none"> <li>• AETC has maintained an established risk management framework and process that is applied prior to initiating changes in management of change, planned outages, as well as lower level (work order level) execution</li> <li>• AETC’s operational risk profile is used to guide operational decisions e.g. dispatching, or any changes initiated through management of change</li> <li>• AETC’s Maintenance Work Process Manual document defines how operations and maintenance tasks are given priority ratings, whereby tasks addressing higher risk issues are performed first in order, followed by lower priority tasks. The timelines defined for task priorities are: <ul style="list-style-type: none"> <li>○ Priority 1 (Extreme - Starts Immediately - Breaks Daily Schedule)</li> <li>○ Priority 2 (High - Starts within 1 week - Breaks Weekly Schedule and Finishes within 2 weeks of start)</li> <li>○ Priority 3 (Medium - Starts within 3 weeks - Finishes within 4 weeks of start)</li> <li>○ Priority 4 (Low - Starts within 7 weeks - Finishes within 20 weeks of start)</li> <li>○ Priority 5 (Planned Outage Activity included in the scope of work)</li> </ul> </li> <li>• The asset strategy applied to the Transmission Lines and substations in this network has a significant focus on regular visual, thermographic and acoustic monitoring of the assets</li> <li>• Maintenance strategies and operational risks are to be reviewed and updated annually to ensure practices are optimised to meet changing operational conditions.</li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (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	<p>Through discussion with the Head of Operations, Alinta Energy and Operations Manager, Pilbara; inspection of relevant documentation and observations during our site visit, we determined that:</p> <ul style="list-style-type: none"> <li>• Chichester Transmission Lines assets and all related Substation assets are registered in a fixed assets and equipment register in Ellipse, which holds detailed information for each major component of plant (under an asset hierarchy layout, such as assets’ unique asset identifier details, operational history, equipment condition, cost/financial data, and maintenance intervals)</li> <li>• The physical and structural condition of those assets are recorded in a plant condition dashboard</li> <li>• A three weekly review meeting is held involving heads of operations, engineering, planning and finance, for capital projects and asset condition review.</li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)

Effectiveness criteria	Findings	
5.4 Accounting data is documented for assets	<p>Through discussion with the Head of Operations, Alinta Energy and Operations Manager, Pilbara; and consideration of AETC's asset accounting practices, we determined that AETC's asset register and corporate records capture relevant information for accounting purposes, including:</p> <ul style="list-style-type: none"> <li>• Acquisition and retirement date</li> <li>• Original, historic and current capital cost</li> <li>• Depreciation rates and written down values.</li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)
5.5 Operational costs are measured and monitored	<p>Through discussion with the Head of Operations, Alinta Energy and Operations Manager, Pilbara; examination of relevant documentation and observations during our site visit, we determined that AETC applies processes to measure and monitor operational costs, which include:</p> <ul style="list-style-type: none"> <li>• Monthly profit and loss extracts provided to the Head of Operations, Alinta Energy, with analysis on total operational costs and variances between budgeted costs and actuals</li> <li>• Automatically assignment of costs against assets based on allocated work orders, with external costs charged to associated cost centres</li> <li>• Recording operational spend in Ellipse.</li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)

Effectiveness criteria	Findings
<p>5.6 Staff resources are adequate and staff receive training commensurate with their responsibilities</p>	<p>Through discussion with the Head of Operations, Alinta Energy and Operations Manager, Pilbara; examination of relevant documentation and observations during our site visit, we determined that:</p> <ul style="list-style-type: none"> <li>• The Chichester Transmission Lines assets are integrated with the Newman Power Station and Newman to Roy Hill Transmission Lines assets for the purpose of resourcing and training</li> <li>• Staff have detailed job descriptions with defined responsibilities</li> <li>• Staff mandatory training is registered in a skills/training matrix. We observed that the training matrix at the time of our site-visit showed several overdue training requirements (refer to further details below)</li> <li>• Contractor training and competence is managed using Rapid Global system</li> <li>• Records are maintained for the induction of personnel and contractors, as appropriate to their role on site. For example, a maintenance contractor is required to undergo a more detailed induction than an escorted visitor to ensure they understand the procedures for working on site, such as work permit procedures</li> <li>• The training officer plans the training together with the plant manager</li> <li>• Non-mandatory training is registered in staff personal development plans and KPIs.</li> </ul> <p><b>Staff training and emergency response drills</b></p> <p>At the time of our site visit, AETC's training matrix showed some overdue training. Of particular note, a significant risk to AETC's operations relates to the training requirements for site emergency response, which was recorded as overdue for all staff assigned to operations managed from the Newman Power Station (which includes the Transmission Lines in the Alinta network). We consider this issue reflects a lack of dedicated effort to ensure training requirements are maintained. Corrective action is required to improve AETC's performance against the requirements of its emergency response procedures.</p> <p><b>Recommendation 1/2022 (B3 Rating)</b></p> <p><i>AETC:</i></p> <p><i>(a) Schedule staff training to clear all overdue requirements with special emphasis given to site-specific emergency response drills</i></p> <p><i>(b) Ensure sufficient resources are allocated to maintaining key training requirements and emergency response drills.</i></p> <p><u>Potential improvement opportunity</u></p> <p>We also observed during our site-visit that there was no dedicated Health and Safety Officer at the Newman site, whose job-description would include maintaining the training matrix up-to-date and ensuring all aspects of staff training and skills are covered for provision of site access, emergency services and medical services. This may have contributed to the extent of overdue training. <i>This matter was discussed with AETC staff as a potential improvement opportunity.</i></p>
	<p><b>Process and Policy Rating:</b> Requires some improvement (B)      <b>Performance Rating:</b> Corrective action required (3)</p>

## 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)

Effectiveness criteria	Findings	
6.1 Maintenance policies and procedures are documented and linked to service levels required	<p>Through discussion with the Head of Operations, Alinta Energy and Operations Manager, Pilbara; examination of relevant documentation and observations during our site visit, we determined that:</p> <ul style="list-style-type: none"> <li>• The asset strategy applied to Alinta Energy’s 220kV Transmission Lines aligns with the existing Alinta Energy HV and transformer maintenance standard. These standards have a significant skew towards regular visual, thermographic and acoustic monitoring of the assets</li> <li>• AETC maintains a comprehensive suite of documented policies, procedures and work instructions to cover tasks required to maintain these assets</li> <li>• 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</li> <li>• AETC maintains other supporting documentation such as schedules for maintenance and management of spare parts</li> <li>• Procedures for the scope and frequency of routine maintenance of equipment have been developed based on OEM documentation</li> <li>• Checklists and sign-off sheets are completed by AETC staff upon completion of any service order that aligns with the work instruction for that task</li> <li>• Weekly, monthly and quarterly checklists are maintained to document completion of service orders.</li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)

Effectiveness criteria	Findings	
6.2 Regular inspections are undertaken of asset performance and condition	<p>Through discussion with the Head of Operations, Alinta Energy and Operations Manager, Pilbara; examination of relevant documentation and observations during our site visit, we determined that:</p> <ul style="list-style-type: none"> <li>• The asset strategy applied for management of Transmission Lines on this network has a significant focus on regular visual, thermographic and acoustic monitoring of the assets</li> <li>• Regular inspections are carried out in forms of daily rounds, statutory inspections and planned outages</li> <li>• Any changes required on the inspections are implemented in the maintenance standards</li> <li>• Condition-based inspection are carried out</li> <li>• Regular reviews of plant/asset conditions are carried out and the plant condition dashboard updated.</li> </ul> <p>We sighted the plant outages spreadsheet, which reference planned and forced outages being completed.</p>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)
6.3 Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule	<p>Through discussion with the Head of Operations, Alinta Energy and Operations Manager, Pilbara; and examination of records of asset/equipment failures during the review period, we determined that:</p> <ul style="list-style-type: none"> <li>• AETC has established maintenance plans to perform scheduled maintenance tasks as outlined in the AMP</li> <li>• For all core equipment and assets, the Ellipse system contains plans for scheduled maintenance as well as required emergency and corrective works</li> <li>• All maintenance work undertaken is recorded in the Ellipse system</li> <li>• Critical spares to be held are continuously reviewed by the operations, asset management, and engineering teams and decisions to hold certain parts as critical spares are subject to cost-benefit analysis or recommended where parts are expected to be superseded or no longer supported by OEMs. At this stage, no critical spare parts are currently being held for the transmission lines on this network by AETC</li> <li>• No non-compliances have been raised within the review period through the Transmission lines and Substation operations that may have impacted the Reliability factors in this network.</li> </ul> <p>We sighted evidence of:</p> <ul style="list-style-type: none"> <li>• Scheduled maintenance plans being effectively executed through examination of a sample of inspections, field service reports and Weekly Performance Dashboards</li> <li>• Emergency maintenance required to address forced outages from lightning strikes.</li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)

Effectiveness criteria	Findings	
6.4 Failures are analysed and operational/maintenance plans adjusted where necessary	<p>Through discussion with the Head of Operations, Alinta Energy and Operations Manager, Pilbara; and examination of records of asset/equipment failures during the review period, we determined that:</p> <ul style="list-style-type: none"> <li>• AETC’s maintenance procedures provide for: <ul style="list-style-type: none"> <li>○ Failures to be analysed and operational/maintenance plans adjusted to reduce the likelihood of the failure to be repeated</li> <li>○ Emergency and corrective actions to be taken, followed by a root cause analysis of the failure event</li> <li>○ Unplanned outages that result in a loss of availability or production are required to be investigated and reported into AETC’s InControl incident reporting system. The incident report is to include an explanation of the outage and possible causes, and who is responsible for any investigation and what actions are in place to correct the fault. Where appropriate, a work order is to be raised to undertake preventative actions to limit the fault’s recurrence. Incident reports are prepared by the person who found the fault, reviewed by a supervisor, then assigned to the Operations Manager for investigating further corrective actions</li> </ul> </li> <li>• AETC maintains evidence of failures being recognised, analysed and treated/corrected. During the review period, the transmission network experienced the following outages: <ul style="list-style-type: none"> <li>○ Lightning strikes leading to forced outages of the transmission line on three occasions</li> <li>○ One forced outage caused by a line protection trip when de-isolating the Roy Hill sub transformer after maintenance in May 2022</li> <li>○ All other outages were all planned outages.</li> </ul> </li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)

Effectiveness criteria	Findings	
6.5 Risk management is applied to prioritise maintenance tasks	<p>Through discussion with the Head of Operations, Alinta Energy and Operations Manager, Pilbara; examination of relevant documentation and observations during our site visit, we determined that:</p> <ul style="list-style-type: none"> <li>• AETC implemented the following risk management practices (noting the Chichester Transmission Lines are fairly new): <ul style="list-style-type: none"> <li>○ AETC’s Maintenance Work Process Manual document defines how operations and maintenance tasks are given priority ratings, whereby tasks addressing higher risk issues are performed first in order, followed by lower priority tasks. The timelines defined for task priorities are: <ul style="list-style-type: none"> <li>▪ Priority 1 (Extreme - Starts Immediately - Breaks Daily Schedule)</li> <li>▪ Priority 2 (High - Starts within 1 week - Breaks Weekly Schedule and Finishes within 2 weeks of start)</li> <li>▪ Priority 3 (Medium - Starts within 3 weeks - Finishes within 4 weeks of start)</li> <li>▪ Priority 4 (Low - Starts within 7 weeks - Finishes within 20 weeks of start)</li> <li>▪ Priority 5 (Planned Outage Activity included in the scope of work).</li> </ul> </li> <li>○ All projects contain risk assessments</li> <li>○ The Plant condition dashboard is regularly reviewed, updated, and used in planning operations and maintenance activities</li> </ul> </li> <li>• Weekly scheduling meetings are used to set work time frames based on work order prioritisation and scheduled outages.</li> <li>• Maintenance metrics are tracked for the entire Alinta network managed from Newman Power Station facility</li> <li>• No non-compliance to performance targets have been noted for the transmission lines and sub-station assets in this network within this review period.</li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)
6.6 Maintenance costs are measured and monitored	<p>Through discussion with the Head of Operations, Alinta Energy and Operations Manager, Pilbara; and examination of relevant documentation, we determined that AETC has applied processes to measure and monitor maintenance costs, which include:</p> <ul style="list-style-type: none"> <li>• Monthly profit and loss extracts provided to the Head of Operations, Alinta Energy, with analysis on total operational costs and variances between budgeted costs and actuals</li> <li>• Automatically assignment of costs against assets based on allocated work orders, with external costs charged to associated cost centres</li> <li>• Recording operational and maintenance spend in Ellipse</li> <li>• Benchmarking of maintenance costs, although this is yet to occur as the transmission assets are fairly new.</li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> 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 AETC staff and consideration of relevant IT security system documentation, we observed that: <ul style="list-style-type: none"> <li>• AETC utilises the Ellipse computerised maintenance management system and monitors live plant performance through Alinta Energy’s Honeywell Experion software</li> <li>• Alinta Energy maintains technical documentation for the Ellipse and Honeywell Experion applications, with that documentation readily available to AETC</li> <li>• AETC is also supported by Alinta Energy’s Group IT policies and procedures, which are stored on Alinta’s SharePoint site and are readily accessible for all users.</li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)
7.2 Input controls include suitable verification and validation of data entered into the system	Through discussions with AETC staff and consideration of relevant IT security system documentation, we observed that: <ul style="list-style-type: none"> <li>• AETC’s Ellipse system maintains a series of input validation checks</li> <li>• AETC applies a range of data verification and validation controls and techniques (including reconciliations and analyses) to provide additional assurances over the completeness, accuracy and validity of data entered into its core systems.</li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)



Effectiveness criteria	Findings	
7.3 Security access controls appear adequate, such as passwords	<p>Through discussions with AETC staff and consideration of Alinta Energy’s relevant IT security and access management policies, procedures and standards, we observed that in relation to AETC’s Ellipse and Honeywell systems:</p> <ul style="list-style-type: none"> <li>• The process of granting and managing access is undertaken online through Alinta Energy’s IT helpdesk. Access requests are required to be approved by the relevant departmental head prior to being processed by IT</li> <li>• End-users are granted the minimum level of access privileges required to perform their job function and to prevent segregation of duties conflicts</li> <li>• Appropriate password requirements are maintained to authenticate user access to the Alinta network and the Ellipse and Honeywell systems. Additional authentication is required for remote user access</li> <li>• Staff are made aware of the consequences for breach of policy and misuse of user privileges.</li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)
7.4 Physical security access controls appear adequate	<p>Through discussion with the Head of Operations, Alinta Energy and Operations Manager, Pilbara; consideration of Alinta Energy’s relevant IT security and access management policies, procedures and standards and observations during our site visit to the supporting Newman operations site, we observed that AETC has established and maintained appropriate processes and procedures relating to the access of facilities and the physical protection of information assets and systems.</p> <p>Specifically in the context of access to computer server rooms and other control systems on site, we observed that:</p> <ul style="list-style-type: none"> <li>• Access to the Newman site operations building is restricted by security fencing and swipe card entry to each premises</li> <li>• General safety precautions are maintained to contain fire and other damaging events in computer rooms on site</li> <li>• Visitors are required to be registered and be accompanied by AETC staff.</li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)
7.5 Data backup procedures appear adequate and backups are tested	<p>Through discussions with AETC staff and consideration of relevant Alinta Energy IT security system documentation, we observed that procedures for managing data backup and data restore of AETC servers have been established and maintained in accordance with accepted industry practice for :</p> <ul style="list-style-type: none"> <li>• Scheduling and executing daily backups of production data</li> <li>• Secure management of backup data and restoration of data</li> <li>• Testing of data recovery and restoration procedures.</li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)

Effectiveness criteria	Findings	
7.6 Computations for licensee performance reporting are accurate	AETC's asset management information system does not directly provide data used in any computation related to its licence performance reporting.	
	<b>Process and Policy Rating:</b> Not rated	<b>Performance Rating:</b> Not rated
7.7 Management reports appear adequate for the licensee to monitor licence obligations	<p>Through discussions with AETC staff and consideration of relevant supporting documentation and management reporting procedures, we determined that:</p> <ul style="list-style-type: none"> <li>• AETC's Ellipse and Honeywell Experion systems are capable of generating a substantial variety of daily, weekly, monthly and ad hoc reports, including for plant operations, routine and first line intervention maintenance and generation activity</li> <li>• Management reports relating to the operation and performance of the facility are produced on a scheduled basis and can also be produced on request.</li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)
7.8 Adequate measures to protect asset management data from unauthorised access or theft by persons outside the organisation	<p>Through discussions with AETC staff and consideration of Alinta Energy's relevant IT security policies, procedures and standards, we observed that AETC has established and maintained appropriate processes and procedures relating to the protection of information assets and systems, including:</p> <ul style="list-style-type: none"> <li>• Comprehensive user access controls, including user permissions and remote access</li> <li>• Master service agreements and non-disclosure agreements to enable sharing of restricted or confidential data with third parties</li> <li>• Contemporary cyber security processes and procedures.</li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> 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 \(2\)](#)

Effectiveness criteria	Findings	
8.1 Risk management policies and procedures exist and are applied to minimise internal and external risks	<p>Through discussion with the Head of Operations, Alinta Energy and Operations Manager, Pilbara; and consideration of AETC's risk management and reporting framework, we determined that:</p> <ul style="list-style-type: none"> <li>Alinta Energy's Enterprise Risk Management Framework applies throughout Alinta Energy's business structure, including AETC's operations. In particular, all maintenance activities are based on AETC's risk management approach, whereby the maintenance tasks addressing higher risk issues are performed first in order, followed by lower priority tasks. We sighted several examples of risk based practices being applied to AETC's monitoring of asset operations, asset condition and incidents. AETC maintains appropriate records of those activities</li> <li>AETC's AMP includes several references to risk assessment and management activities, including material risks, key business risks and key asset risks. Reference is made to development of risk mitigation options and risk reduction recommendations once operational experience is gained</li> </ul> <p>Based on our examination of the risk management processes in place, we determined that AETC has established an appropriate system for identifying and managing risks.</p>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)

Effectiveness criteria	Findings	
8.2 Risks are documented in a risk register and treatment plans are implemented and monitored	<p>Through discussion with the Head of Operations, Alinta Energy and Operations Manager, Pilbara; consideration of AETC's risk management and reporting framework and examination of AETC's risk records, we determined that:</p> <ul style="list-style-type: none"> <li>• AETC uses several references and applications to capture its material and operational risks, including: <ul style="list-style-type: none"> <li>○ Its AMP, which includes several references to risk assessment and management activities, including material risks and risk mitigation options and plans</li> <li>○ A Risk Management SharePoint tool, which rates site, environmental and personnel risks and summarises treatment action and/or requirements. This tool had not been adequately used to capture all key ATEC specific risks during the period to 30 September 2022. AETC acknowledges that work is required to identify, assess and manage risks relevant to AETC's operations, particularly since the network had been operating since November 2021. <i>This matter was discussed with AETC staff as an improvement opportunity</i></li> <li>○ A Plant Condition SharePoint tool, which rates plant condition risks and summarises treatment action and/or requirements.</li> </ul> </li> <li>• 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. AETC can make better use of its understanding of the network's risk profile, to assist with oversight and decision making. <i>This matter was discussed with AETC staff as an improvement opportunity</i></li> <li>• AETC has not maintained a single, clear reference to the complete suite of risk records and registers that make up its risk profile. Accordingly, it can be a challenging task to form a complete view of the network's risk profile at any one point in time. A project is currently being undertaken by Alinta Energy to expand the use of its InControl platform (which is currently used to record hazards, incidents and operational events) as a single risk register for each site. This enhancement should facilitate that more complete view of the network's risk profile at any one point in time. <i>No further recommendation is made by this review in relation to this matter.</i></li> </ul>	
	<b>Process and Policy Rating:</b> Requires some improvement (B)	<b>Performance Rating:</b> Improvement required (2)

Effectiveness criteria	Findings	
8.3 Probability and consequences of asset failure are regularly assessed	<p>Through discussion with the Head of Operations, Alinta Energy and Operations Manager, Pilbara; examination of AETC's AMP and consideration of AETC's asset planning and risk management practices, we determined that AETC has applied the following mechanisms for identifying and assessing the consequence and likelihood of transmission network asset failure:</p> <ul style="list-style-type: none"> <li>• AETC's AMP is a major tool used for predicting the likelihood and consequences of asset failure. The AMP considers each major item of equipment and provides specific details of its operation and maintenance strategy and key lifecycle issues and remedial plans</li> <li>• AETC's maintenance procedures provide for: <ul style="list-style-type: none"> <li>○ Failures to be analysed and operational/maintenance plans adjusted to reduce the likelihood of the failure to be repeated</li> <li>○ Emergency and corrective actions to be taken, followed by a root cause analysis of the failure event</li> <li>○ Unplanned outages that result in a loss of quality or reliability of supply are required to be investigated and reported into AETC's InControl incident reporting system. The incident report is to include an explanation of the outage and possible causes, and who is responsible for any investigation and what actions are in place to correct the fault. Where appropriate, a work order is to be raised to undertake preventative actions to limit the fault's recurrence. Incident reports are prepared by the person who found the fault, reviewed by a supervisor, then assigned to the Operations Manager for investigating further corrective actions</li> <li>○ A high level of priority is accorded to minimising instances of asset failure and the duration of any such failure</li> </ul> </li> <li>• As detailed at item 6.4 of this report, AETC maintains evidence of failures being recognised, analysed and treated/corrected.</li> </ul> <p>The management structures, skills and resources assigned by AETC to the required asset management processes appear to be appropriate for enabling the regular assessment of the probability and consequences of asset failure.</p>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> 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 \(A\)](#) / [Improvement required \(2\)](#)

Effectiveness criteria	Findings	
<p>9.1 Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks</p>	<p>Through discussion with the Head of Operations, Alinta Energy and Operations Manager, Pilbara; and examination of AETC’s emergency response and contingency planning mechanisms, we determined that:</p> <ul style="list-style-type: none"> <li>• A key objective of AETC’s operations is to maintain the network’s quality and reliability of supply</li> <li>• AETC’s risk records capture higher risks relating to potential major disruption to operations, including equipment failure, unavailability of assets or personnel, physical harm to personnel or assets, or other significant incidents</li> <li>• Contingencies are in place for major business operational risks relating to fuel supply and spares</li> <li>• AETC has access to the emergency response processes developed for the Newman Power Station (per the Emergency Response Plan (ERP) version 2.8 dated March 2022), which provides guidance for all probable hazards, with incidents grouped by type and assigned a specific colour code in accordance with Australian Standard AS3745.</li> <li>• As detailed at sections 4.2 and 5.6 above, AETC has not planned or undertaken emergency response training and drills since commencement of operations in November 2021. Although this matter requires correction per Recommendation 1/2022, as it has less impact on AETC’s contingency planning arrangements, a Performance Rating of “Improvement Required (2)” is appropriate</li> <li>• Alinta Energy has a Cybersecurity Business Continuity Management Standard in place.</li> </ul>	
	<p><b>Process and Policy Rating:</b> Adequately defined (A)</p>	<p><b>Performance Rating:</b> Improvement required (2)</p>

#### 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 AETC’s asset and financial planning mechanisms and examination of its AMP, we observed that: <ul style="list-style-type: none"> <li>• AETC’s financial plan takes the form of an annual operational budget, prepared on a rolling five year basis to reflect its financial objectives and strategies that are driven by its contractual agreements for power supply</li> <li>• The financial plan outlines the financial elements of the transmission network’s operations to reflect its financial viability over the long term.</li> <li>• The AMP reflect the business objectives outlined in its business plans.</li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)
10.2 The financial plan identifies the source of funds for capital expenditure and recurrent costs	Through consideration of AETC’s financial planning mechanisms and examination of its AMP, we determined that: <ul style="list-style-type: none"> <li>• The AETC annual budget is aligned with AETC’s overall business plans</li> <li>• Operational cash flows are retained for budgeted maintenance and capital expenditure, based on retained funds or by submission through the Alinta Energy corporate structure for non-budgeted expenditure.</li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> 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 AETC’s financial planning mechanisms, and inspection of AETC’s five-year plan, profit and loss report and its AMP, we determined that: <ul style="list-style-type: none"> <li>• AETC’s financial plan constitutes a summary of budgeted income and expenditure from the supply of electricity under its contractual agreements, which is prepared and updated annually and includes a rolling forecast for the next five years</li> <li>• An income statement and a position statement are prepared as part of consolidated financial statements on a six-monthly and annual basis.</li> <li>• A monthly Profit and Loss report is generated which provides a detailed breakdown of financial projections.</li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)

Effectiveness criteria	Findings	
10.4 The financial plan provides firm predictions on income for the next five years and reasonable predictions beyond this period	<p>Through consideration of AETC’s financial planning mechanisms, we determined that AETC’s financial plan:</p> <ul style="list-style-type: none"> <li>• Is prepared on an annual basis and updated for the projections of income and expenses based on five year outage and maintenance schedules</li> <li>• Includes a summary of planned capital expenditure projects for the next five years with a brief description of the intended purpose of the project</li> <li>• Forms part of Alinta Energy’s budgeting and forecasting processes, which assess costs associated with overall fleet asset life.</li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)
10.5 The financial plan provides for the operations and maintenance, administration and capital expenditure requirements of the services	<p>Through consideration of AETC’s annual financial plans, we observed that those plans:</p> <ul style="list-style-type: none"> <li>• Provide a sufficient level of detail relating to forecast operational, maintenance and administrative costs. i.e. operations maintenance and administration expenses on a rolling five year basis</li> <li>• Include a summary of current and planned capital expenditure projects over the following five years, with a brief description of each project’s purpose and assumptions.</li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)
10.6 Large variances in actual/budget income and expenses are identified and corrective action taken where necessary	<p>Through consideration of AETC’s financial planning and monitoring mechanisms, we observed 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.</p>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)



#### 4.11 Capital expenditure planning

**Key process:** The capital expenditure plan provides a schedule of new works, rehabilitation and replacement works, together with estimated annual expenditure for these works over the next five or more years. Since capital investments tend to be large and lumpy, projections would normally be expected to cover at least 10 years, preferably longer. Projections over the next five years would usually be based on firm estimates

**Expected outcome:** The capital expenditure plan provides reliable forward estimates of capital expenditure and asset disposal income. Reasons for the decisions and for the evaluation of alternatives and options are documented

**Overall Process and Policy/Performance rating:** [Adequately defined \(A\)](#) / [Performing effectively \(1\)](#)

Effectiveness criteria	Findings	
11.1 There is a capital expenditure plan covering works to be undertaken, actions proposed, responsibilities and dates	Through discussion with the Head of Operations, Alinta Energy and consideration of AETC's capital planning procedures, and examination of the capital expenditure plan and the AMP we determined that: <ul style="list-style-type: none"> <li>• A capital expenditure plan is included in the annual financial plan</li> <li>• Capital expenditure planning is undertaken along with financial planning on a rolling five year basis</li> <li>• The plan provides information on the amount, purpose and description of budgeted capital expenditure</li> <li>• The plan does not provide information on roles and responsibilities, but they can be found in AETC's business plans and work orders</li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)
11.2 The capital expenditure plan provides reasons for capital expenditure and timing of expenditure	Through consideration of AETC's capital planning procedures, we determined that AETC's capital expenditure plan specifies the reasons for the capital expenditure and the financial year in which the capital expenditure amount is planned.	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)
11.3 The capital expenditure plan is consistent with the asset life and condition identified in the asset management plan	Through consideration of AETC's capital planning procedures, we determined that: <ul style="list-style-type: none"> <li>• AETC's procedures require lifecycle costs of assets to be assessed and recorded in the AMP for each major item of equipment, including key lifecycle issues, critical outages and operating and maintenance philosophy</li> <li>• The capital expenditure plan concurs with the assessed lifecycle costs of the network's assets.</li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)
11.4 There is an adequate process to ensure the capital expenditure plan is regularly updated and implemented	Through consideration of AETC's asset and business planning processes and inspection of AETC's Capital Expenditure Plan and AMP, we determined that AETC's capital expenditure requirements are reviewed and updated where relevant on an annual basis.	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)

## 4.12 Review of asset management system

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

**Expected outcome:** Review of the AMS to ensure the effectiveness of the integration of its components and their currency.

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

Effectiveness criteria	Findings	
12.1 A review process is in place to ensure the asset management plan and the asset management system described in it remain current	<p>Through consideration of Alinta Energy’s Asset Management Policy and Framework and supporting AMS documentation, we observed that:</p> <ul style="list-style-type: none"> <li>• AETC’s AMP, which is the main reference to its Asset Management System, was first prepared in June 2022 (draft version) in accordance with Alinta Energy’s annual review cycle. With the support of designated engineering staff, the Alinta Energy Asset Engineer has the primary responsibility for annual review, with the Operations Manager, Pilbara responsible for reviewing and the Alinta Energy Head of Optimisation responsible for approving revised versions</li> <li>• Although the current AMP remains in draft form, it provides a comprehensive description of AETC’s assets and plans for operating and maintaining those assets. Further changes (e.g. updated risk profile) are flagged to be made in the next version of the AMP, scheduled to be developed in June 2023</li> <li>• Alinta Energy’s Asset Management Framework provides for asset management activities to be subject to performance assessment and continuous improvement. Provision is made for independent audits and reviews to be conducted either internally or through third parties.</li> </ul>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Performing effectively (1)
12.2 Independent reviews (e.g. internal audit) are performed of the asset management system	<p>As noted in section 12.1 above, components of AETC’s asset management system are subject to regular review and update, including by independent consultants from time to time.</p> <p><b>Improvement opportunity</b></p> <p>To assist in demonstrating that its asset management framework and systems are subject to independent review in the appropriate timeframes and circumstances, it may be useful for Alinta Energy assign a schedule or clear criteria for subjecting its asset management framework and systems to independent review. <i>This matter was discussed with AETC staff as a potential improvement opportunity.</i></p>	
	<b>Process and Policy Rating:</b> Adequately defined (A)	<b>Performance Rating:</b> Improvement required (2)

## 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 <b>Further action required</b> (Yes/No/Not Applicable) reference, if applicable)
<b>A. Resolved during current review period</b>				
<b>B. Unresolved at end of current review period</b>				
Not applicable – there was no previous review.				

# Appendix A – Review Plan

## Appendix B – References

### AETC representatives participating in the review

- Operations Manager, Pilbara
- Head of Operations, Alinta Energy
- Manager WA Retail Regulation, Alinta Energy.

### AAG staff participating in the review

#### Hrs

- |                       |                      |      |
|-----------------------|----------------------|------|
| • Margaret-Mary Gauci | Senior Consultant    | 3    |
| • Tanuja Sanders      | Senior Engineer      | 21   |
| • Andrew Baldwin      | Executive Director   | 19.5 |
| • Stephen Linden      | Director (QA review) | 1    |

### Key documents and other information sources examined

- Alinta Energy Asset Management Policy
- Alinta Energy Asset Management Framework
- Alinta Energy 220kV Transmission Line Asset Management Plan
- Interconnection Agreement – Alinta Energy (Chichester) Pty Ltd
- Interconnection Agreement – Alinta Energy Transmission (Roy Hill) Pty Ltd
- Alinta Energy Compliance records specific to AETC
- Emergency Response Plan, Newman Power Station
- Trainee Training Reports
- Chichester Transmission Line Equipment Hierarchy
- Extensive list of Operations & Maintenance Procedures & Strategies
- Planned Outage Schedules
- Sample Ellipse system records of maintenance activity
- Example Condition Dashboards
- Example monthly transmission asset performance reports
- Sample Field Service Reports
- Vegetation Management Plan
- Sample Ellipse Work Order records and screenshots
- Alinta Energy Group IT policies and procedures
- Alinta Energy Risk Management Framework
- Alinta Energy Fleet Risk Summary
- Example Risk Management Tool
- Example InControl Event Reports
- P&L Budget vs Actuals FY22
- Capital Project Forecasts
- Representations from the Head of Operations, Alinta Energy and Operations Manager, Pilbara