Quantum Assurance

TEC Hedland Pty Ltd

2022 Performance Audit and Asset Management System Review
Electricity Integrated Regional Licence EIRL9

Report

Economic Regulation Authority
September 2022

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Quantum Management Consulting and Assurance

ABN 83 083 848 168 Liability limited by a scheme approved under Professional Services Legislation

Level 28 AMP Tower, 140 St Georges Terrace, Perth **M.** PO Box 6882, East Perth WA 6892

T. 08 9278 2570 **F.** 08 9278 2571

E. mail@quantumassurance.com.au **W.** www.quantumassurance.com.au

Limitations of this Report

This report was prepared for distribution to the Economic Regulation Authority and TEC Hedland Pty Ltd for the purpose of fulfilling TEC Hedland Pty Ltd's performance audit and asset management system review obligations under its Electricity Integrated Regional Licence. We disclaim any assumption of responsibility for any reliance on this report to any persons or users other than the Economic Regulation Authority and TEC Hedland Pty Ltd or for any purpose other than that for which it was prepared.

Because of the inherent limitations of any internal control environment, it is possible that fraud, error or non-compliance may occur and not be detected. An audit is not designed to detect all instances of non-compliance with the procedures and controls over the licence obligations of the Electricity Integrated Regional Licence, since we do not examine all evidence and every transaction. The audit and review conclusions expressed in this report have been formed on this basis.

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1. Independent Auditor's Report

Scope

TEC Hedland Pty Ltd (TECH) is a subsidiary of TransAlta Energy (Australia) Pty Ltd.

TECH holds an integrated regional licence (EIRL9) under the provisions in the *Electricity Industry Act 2004 ('the Act').* TECH owns and operates a dual fuel (natural gas and diesel) fired facility supplying electricity to Horizon Power and The Pilbara Infrastructure Pty Ltd (a subsidiary of the Fortescue Metals Group) (FMG) on Horizon Power's transmission and distribution network. The electricity generated services FMG's port operations located in Port Hedland and provides additional capacity for the Pilbara to meet the long term electricity requirements of Horizon Power.

TECH's assets are solely located at South Hedland Power Station in the Pilbara Region of Western Australia. This 150 megawatt (MW) combined cycle power station was built by TECH under an engineering, procurement and construction (EPC) contract with IHI Engineering Australia. TECH now owns and operates the power station.

We have performed a reasonable assurance engagement on TECH's compliance, in all material respects, with the conditions of EIRL9 and the *Electricity Industry Act 2004* for the period from 1 November 2018 to 30 June 2022.

Our evaluation was made against the licence obligations listed in the Electricity Compliance Reporting Manual (February 2022 and previous versions June 2020 and July 2018) and in accordance with the ERA's 2019 Audit and Review Guidelines: Electricity and Gas Licences.

The scope of this assurance work relates to assessing TECH's systems and effectiveness of processes and regulatory controls to ensure compliance with the obligations, standards, outputs and outcomes required by the Licence issued under the Act.

Independent Opinion

In our opinion, based on the procedures performed as outlined in the Audit Plan approved by the Economic Regulation Authority and the evidence we have obtained, TECH Hedland Pty Ltd has complied, in all material respects, with its licence conditions and relevant legislative obligations for the period from 1 November 2018 to 30 June 2022.

Basis for opinion

During the period from 1 November 2018 to 30 June 2022, TECH had one non-compliance with minor impact on customers for the following Licence Condition:

Reporting Manual number and Licence obligation		Issue
105	A licensee must pay the prescribed licence fees to the ERA according to clauses 6, 7 and 8 of the *Economic Regulation Authority (Licensing Funding) Regulations 2014.*	As reported in the Compliance Report to the ERA for 2019/20, TECH did not comply with this obligation as payment was later than one month, on three separate occasions covering two invoices issued in June 2018 and one invoice issued in December 2018. TECH has put in place quarterly reminders in the contract management system for the receipt and payment of invoices and changed the email address for invoices to a generic accounts payable email address. Subsequent payments have been made by the due dates. As this issue has been resolved, no further recommendation is made.

We conducted our engagement in accordance with Australian Standard on Assurance Engagements ASAE 3100 Compliance Engagements (ASAE 3100). We believe that the assurance evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

In accordance with ASAE 3100 we have:

- Used our professional judgement to plan our procedures and assess the risks that may cause material non-compliance with each of the compliance requirements to be concluded upon;
- Considered internal controls implemented to meet the compliance requirements; however, we do not express a conclusion on their effectiveness; and
- Ensured that the engagement team possess the appropriate knowledge, skills and professional competencies.

Summary of Procedures

Our procedures consisted primarily of:

- Utilising ERA's 2019 Audit and Review Guidelines: Electricity and Gas Licences ('the Guidelines') to develop a risk assessment;
- Developing an Audit and Review Plan and an associated work program, approved by the ERA on 2 August 2022;
- Interviewing relevant TECH staff to gain an understanding of process controls;
- Onsite visit to the South Hedland Power Station, and conduct various meetings with stakeholders, including corporate services and plant operations management personnel, to determine the effectiveness of systems and procedures in place and to compare actual performance against the licence standards. The on-site visit included our Engineer;
- Assessing documents and performing walkthroughs of processes and controls to support the assessment of compliance and the effectiveness of the control environment in accordance with Licence obligations; and
- Performing procedures and testing based on the procedures listed in the approved Audit and Review Plan.

How We Define Reasonable Assurance and Material Non-Compliance

Reasonable assurance is a high level of assurance but is not a guarantee that it will always detect a material non-compliance with the compliance requirements.

Instances of non-compliance are considered material if, individually or in the aggregate, they could reasonably be expected to influence relevant decisions of the intended users taken on the basis of the Licensee's compliance with the compliance requirements.

Inherent Limitations

Because of the inherent limitations of an assurance engagement, together with the internal control structure it is possible that fraud, error, or non-compliance with the compliance requirements may occur and not be detected.

A reasonable assurance engagement throughout the specified period does not provide assurance on whether compliance with the compliance requirements will continue in the future.

Use of this Assurance Report

This report has been prepared for TECH and the ERA for the purpose of assessing compliance with the requirements of the License and may not be suitable for another purpose.

We understand that a copy of this report will be provided to the ERA for the purpose of reporting on the reasonable assurance engagement for the Licensee. We agree that a copy of this report may be provided to the ERA in connection with this purpose, but only on the basis that we accept no duty, liability or responsibility to the ERA in relation to the report.

We disclaim any assumption of responsibility for any reliance on this report, to any person other than the Licensee and the ERA, or for any other purpose other than that for which it was prepared.

Management's responsibility

TECH's management are responsible for:

- The compliance activities undertaken to meet the requirements of the Licence;
- Identifying risks that threaten the compliance requirements identified above being met and identifying, designing and implementing controls to enable the compliance requirements to be met and, monitoring ongoing compliance;
- Ensuring that it has complied in all material respects with the requirements of the Licence;
- Establishing and maintaining an effective system of internal control over its systems designed to achieve its compliance with the Licence requirements;
- Implementing processes for assessing its compliance requirements and for reporting its level of compliance to the ERA; and
- Implementing corrective actions for instances of non-compliance (if any).

Our responsibility

Our responsibility is to perform a reasonable assurance engagement in relation to TECH's compliance with its License requirements throughout the period and to issue an assurance report that includes our conclusion.

Our Independence and Quality Control

We have complied with our independence and other relevant ethical requirements of the *Code of Ethics for Professional Accountants* issued by the Australian Professional and Ethical Standards Board and complied with the applicable requirements of Australian Standard on Quality Control 1 to maintain a comprehensive system of quality control.

We confirm that the ERA's 2019 Audit and Review Guidelines: Electricity and Gas Licenses have been complied with in the conduct of this audit/review and the preparation of the report, and that the audit findings reflect our professional opinion.

Quantum Assurance

Geoff White CA
Director

27 September 2022

2. Executive Summary

2.1 Background

TEC Hedland Pty Ltd (TECH) is a subsidiary of TransAlta Energy (Australia) Pty Ltd.

TECH holds an Electricity Integrated Regional Licence (EIRL9) under the provisions in the *Electricity Industry Act 2004.* TECH owns and operates a dual fuel (natural gas and diesel) fired facility supplying electricity to Horizon Power and The Pilbara Infrastructure Pty Ltd (a subsidiary of the Fortescue Metals Group) (FMG) on Horizon Power's transmission and distribution network. The electricity generated services FMG's port operations located in Port Hedland and provides additional capacity for the Pilbara to meet the long term electricity requirements of Horizon Power.

TECH's assets are solely located at South Hedland Power Station in the Pilbara Region of Western Australia. This 150 megawatt (MW) combined cycle power station was built by TECH in 2016 under an engineering, procurement and construction (EPC) contract with IHI Engineering Australia. TECH now owns and operates the power station. There are two Power Purchase Agreements (PPA) governing supply to the two foundation customers, Horizon Power (HP) and FMG. The PPA term for both foundation customers is 25 years.

This audit and review covers the period from 1 November 2018 to 30 June 2022.

2.2 Performance Audit

This audit has been conducted to assess the licensee's level of compliance with the licence.

Through the execution of the Audit Plan and assessment and testing of the control environment, the information system, control procedures and compliance attitude, the audit team members have gained reasonable assurance that TECH has fully complied with its Electricity Integrated Regional Licence obligations except for one minor non-compliance, during the audit period from 1 November 2018 to 30 June 2022.

Out of 38 applicable compliance obligations, the audit found:

- 15 obligations were rated compliant (3 with adequate controls and 12 with controls not reviewed).
- 1 was rated non-compliant – minor impact on customers or third parties (with adequate controls).
- 22 were not rated for compliance, as no relevant activity took place during the audit period (and controls were not assessed).

The control environment is considered to be effective to manage compliance with the licence conditions. The audit also confirmed that TECH has complied with its information reporting obligations for the period 1 November 2018 to 30 June 2022.

2.3 Asset Management System Review

This review has been conducted to assess the effectiveness of the Licensee's asset management system.

Through the execution of the Review Plan and assessment and testing of the control environment, the information system, control procedures and compliance attitude, the audit team members have gained reasonable assurance that TECH has operated the electricity generation plant and transmission in a reliable manner and provided a good level of service to the large use customers.

The review found that TECH has established an adequate control environment for ongoing compliance in respect of the asset management system.

For the review period from 1 November 2018 to 30 June 2022, the electricity supply service provided under the Electricity Integrated Regional Licence is considered to be operated with a professional and comprehensive approach.

Out of 58 effectiveness criteria for the asset management system, the review found:

- 52 criteria were rated as performing effectively (with adequately defined processes).
- 4 were rated as opportunity for improvement (with processes that require some improvement).
- 2 were rated as corrective action required (with processes that require significant improvement).

There were two recommended improvements relating to asset maintenance and contingency planning.

3. Performance Audit

3.1 Introduction

TEC Hedland Pty Ltd ('TECH') is required to comply with the terms and conditions of their license. The licence is for TECH to within the approved operating area of Port Hedland:

- construct and operate generating works or operate existing generating works; and
- sell electricity to customers other than small use customers.

There was one licence version in operation during the audit period being EIRL9 – Version 3 from July 2018 to date.

Under the Act, electricity services' licensees are required to provide reports on a performance audit ('audit') and an effectiveness review of their asset management system ('review') once every 24 months, or another period that has been specified by the ERA.

TECH engaged Quantum Management Consulting and Assurance ('Quantum Assurance'), with the approval of the ERA, to perform an audit and review of TECH's electricity supply services, to comply with the licensing requirements of the ERA. This audit and review covers the period from 1 November 2018 to 30 June 2022.

The audit and review approach is based on the compliance obligations set out in the Licence, applicable legislation, regulatory guidelines (Electricity Compliance Reporting Manual - February 2022 and previous versions June 2020 and July 2018) and the 2019 Audit and Review Guidelines: Electricity and Gas Licences.

3.2 Objectives and Scope

The objective was to provide the ERA with an independent assessment of the Licensee's compliance with relevant obligations under the licence.

The scope of the audit included the adequacy and effectiveness of performance against the requirements of the licence by considering the following:

Scope	Description
Control Environment	The licensee's management philosophy and operating style, organisational structure, assignment of authority and responsibilities, the use of internal audit, the use of information technology and the skills and experience of the relevant staff members.
Information Systems	The suitability of the licensee's information systems to record the information needed to comply with the licence, accuracy of data, security of data and documentation describing the information system.
Control Procedures	The presence of systems and procedures to monitor compliance with the licence or the effectiveness of the licensee's asset management system, and to detect or prevent instances of non-compliance or under-performance.
Compliance Attitude	The action taken by the licensee in response to any previous audit or review recommendations, and an assessment of the licensee's attitude towards compliance.
Outcome Compliance	The actual performance against standards prescribed in the licence throughout the audit or review period.
Integrity of Reporting	The completeness and accuracy of the compliance and performance reports provided to the ERA.
Compliance with individual licence conditions	The requirements imposed on the specific licensee by the ERA or specific issues that are advised by the ERA.

When assessing if a licensee has complied with its licence obligations, the auditor must apply a level of scrutiny that corresponds to a 'reasonable assurance engagement'. A reasonable assurance engagement is:

"An assurance engagement in which the assurance practitioner reduces engagement risk to an acceptably low level in the circumstances of the engagement as the basis for the assurance practitioner's conclusion. The assurance practitioner's conclusion is expressed in a form that conveys the assurance practitioner's opinion on the outcome of the measurement or evaluation of the underlying subject matter against criteria." (ASAE3000)

The highest priority areas (priority 1, 2 or 3) based on inherent risk were:

Priority 2

Type 1 reporting obligation

- Obligations to customers re Priority Restoration Register (obligations 127, 128) *(If applicable)*

The audit was designed to identify any areas where improvement was required and to recommend corrective action as necessary.

In accordance with the ERA Guidelines, recommendations are included in the report only for obligations rated as inadequate controls (C), no controls (D), non-compliant – minor impact (2), non-compliant – moderate impact (3) or non-compliant – major impact (4). Any other improvements identified in the audit are provided direct to the licensee. (refer Ratings Table in section 3.3).

The status of the previous audit recommendations reported in February 2019 was also reviewed. Refer section 3.5.

3.3 Audit Compliance and Controls Rating Scale

The adequacy of controls and compliance with the legislative obligations was assessed using the following ratings.

Adequacy of Controls Rating		Compliance Rating	
Rating	**Description**	**Rating**	**Description**
A	Adequate controls – no improvement needed	1	Compliant
B	Generally adequate controls – improvement needed	2	Non-compliant – minor impact on customers or third parties
C	Inadequate controls – significant improvement required	3	Non-compliant – moderate impact on customers or third parties
D	No controls evident	4	Non-compliant – major impact on customers or third parties
NP	Not performed – controls not assessed in the audit.	NR	Not rated – no activity in current period

3.4 Summary of Audit Ratings of Controls and Compliance

The current audit assessment of the ratings for the adequacy of controls and compliance with the legislative obligations is shown below in the summary table and detailed obligations table. There were 38 applicable licence obligations and 133 that were found during the audit to be not applicable.

Summary of Audit Ratings of Control and Compliance

Controls rating	Compliance Rating							
	Rating	1 Compliant	2 Non-compliant (minor impact)	3 Non-compliant (moderate impact)	4 Non-compliant (major impact)	NR Not rated	N/A Not Applic-able	Total
	A -Adequate	3	1	-	-	-	-	4
	B – Generally adequate	-	-	-	-	-	-	-
	C - Inadequate	-	-	-	-	-	-	--
	D – No controls	-	-	-	-	-	-	-
	NP – Not performed	12	-	-	-	22	133	167
	Total	15	1	-	-	22	133	171

Detailed Audit Ratings of Control and Compliance by Obligation

No.[1]	Brief Description	Legislative Reference	Audit Priority applied (rated 1 = High to 5 = Low)	Adequacy of Controls Rating[2] (A=Adequate, B=Generally adequate, C=Inadequate, D=No controls, NP=Not performed)					Compliance Rating (1=Compliant 2=Non-compliant (minor impact), 3=Non-compliant – moderate impact, 4=Non-compliant - major impact, NR=Not rated)					
				A	B	C	D	NP	1	2	3	4	NR	N/A
Electricity Industry Act 2004														
101	Provide ERA with performance audit	Section 13(1)	4					✓	✓					
102	Asset management system (AMS)	Section 14(1)(a)	4	✓					✓					
103	Notify changes to AMS	Section 14(1)(b)	4					✓					✓	
104	Asset Management System Review report	Section 14(1)(c)	4					✓	✓					
105	Payment of license fees to ERA	ERA (Licencing Funding) Regulations 2014	4	✓						✓				
106	Minimisation of unforeseen effects on electricity supply	Section 31(3)	4	✓					✓					
107	Payment of costs for land	Section 41(6)	4					✓					✓	

[1] The number refers to the Obligation reference in the Electricity Compliance Reporting Manual February 2022 and previous versions June 2020 and July 2018 where applicable.
[2] Refer Controls and Compliance Rating Scales in Section 3.3.

No.[1]	Brief Description	Legislative Reference	Audit Priority applied (rated 1 = High to 5 = Low)	Adequacy of Controls Rating[2] (A=Adequate, B=Generally adequate, C=Inadequate, D=No controls, NP=Not performed)					Compliance Rating (1=Compliant 2=Non-compliant (minor impact), 3=Non-compliant – moderate impact, 4=Non-compliant - major impact, NR=Not rated)					
				A	B	C	D	NP	1	2	3	4	NR	N/A
119	Maintaining accounting records	Section 11	4					✓	✓					
120	Comply with ERA's performance standards	Section 11	4					✓					✓	
121	Comply with ERA's standard audit guidelines	Section 11	4					✓	✓					
122	Comply with ERA's AMS review guidelines	Section 11	4					✓	✓					
123	Notify ERA of external administration or changes in license circumstances	Section 11	4					✓					✓	
124	Providing ERA with any other information	Section 11	4	✓					✓					
125	Timeframe to publish information	Section 11	4					✓					✓	
126	Notices in writing	Section 11	4					✓	✓					
127	Priority Restoration Register	Section 11	4					✓						✓
128	Compliance of Register	Section 11	4					✓						✓
Electricity Industry Metering Code														
Part 2 - Code objectives and arms-length treatment														
317	Treat Associate Code Participants at arms-length	Clause 2.2(1)(a)	4					✓						✓
318	Any benefits to be at arms-length	Clause 2.2(1)(a)	4					✓						✓
Part 3 – Meters and metering installations														
319	Meters to comply with metrology procedure etc.	Clause 2.2(1)(b)	4					✓						✓
320	Display of meter measurements	Clause 3.1	4					✓						✓
321	Compensation payment for not meeting service standards	Clause 3.3(1)	4					✓						✓
322	Communication link to have approved modem and isolation device	Clause 3.3(3)	4					✓						✓
323	No bi-directional flows unless separated by meter	Clause 3.3A(1)	4					✓						✓
324	User becomes aware of bi-directional electricity flow	Clause 3.3B	4					✓						✓
325	Accumulation meter to record net production and consumption	Clause 3.3C	4					✓						✓
326	Metering installation at each connection point	Clause 3.5(1) & (2)	4					✓						✓
327	Maintain metering installation	Clause 3.5(3)	4					✓						✓
328	Metering point to be located at connection point	Clause 3.5(4)	4					✓						✓

No.[1]	Brief Description	Legislative Reference	Audit Priority applied (rated 1 = High to 5 = Low)	Adequacy of Controls Rating[2] (A=Adequate, B=Generally adequate, C=Inadequate, D=No controls, NP=Not performed)					Compliance Rating (1=Compliant 2=Non-compliant (minor impact), 3=Non-compliant – moderate impact, 4=Non-compliant - major impact, NR=Not rated)					
				A	B	C	D	NP	1	2	3	4	NR	N/A
329	Meter charges in accordance with service level agreement	Clause 3.5(6)	4					✓						✓
330	Advise affected parties of any non-compliance	Clause 3.5(9)	4					✓						✓
331	All devices compatible with telecommunication network etc.	Clause 3.7	4					✓						✓
332	Secure meter from unauthorised access	Clause 3.8	4					✓						✓
333	Metering installation to meet Code specifications	Clause 3.9(3)	4					✓						✓
334	Accuracy requirements re supply above 1000 volts with VT and annual consumption below 750MWh	Clause 3.9(7)	4					✓						✓
335	Metering error as close to zero as practicable	Clause 3.9(8)	4					✓						✓
336	Programmable settings to comply with metrology procedure etc.	Clause 3.10	4					✓						✓
337	Consistent measurement and recording of data each year	Clause 3.11(1)	4					✓						✓
338	Outage repairs in accordance with service level agreement	Clause 3.11(2)	4					✓						✓
339	Code participant to advise operator of outage or malfunction of metering installation	Clause 3.11(3)	4					✓						✓
340	Meters to be sampled and tested for accuracy	Clause 3.11A(1)	4					✓						✓
341	“Population” of failed meters to be removed	Clause 3.11A(2)	4					✓						✓
342	Metering installation to comply with prescribed design	Clause 3.12(1)	4					✓						✓
343	Compliance of instruments transferring metering data	Clause 3.12(2)	4					✓						✓
344	Isolation facilities to be provided	Clause 3.12(3)	4					✓						✓
345	Maintain drawings and information	Clause 3.12(4)	4					✓						✓
346	Procure user to install check metering installation	Clause 3.13(1)	4					✓						✓
347	Partial check metering installation physical arrangement	Clause 3.13(3)(c)	4					✓						✓
348	Check metering installation compliance	Clause 3.13(4)	4					✓						✓
349	Metering installation using class CTs and VTs that do not comply with Code	Clause 3.16(1)	4					✓						✓
355	Request for enhanced technology features	Clause 3.20(1)	4					✓						✓

No.[1]	Brief Description	Legislative Reference	Audit Priority applied (rated 1 = High to 5 = Low)	Adequacy of Controls Rating[2] (A=Adequate, B=Generally adequate, C=Inadequate, D=No controls, NP=Not performed)					Compliance Rating (1=Compliant 2=Non-compliant (minor impact), 3=Non-compliant – moderate impact, 4=Non-compliant - major impact, NR=Not rated)					
				A	B	C	D	NP	1	2	3	4	NR	N/A
356	Charges to be in accordance with service level agreement	Clause 3.20(3)	4					✓						✓
357	Accurate internal real time clock measured over 1 month	Clause 3.21(1)	3					✓						✓
358	Storage onsite of internal data logger data	Clause 3.21(2)	4					✓						✓
359	Enhanced technology metering software licensed and programmable	Clause 3.22	4					✓						✓
360	Signals from meter to be isolated to prevent damage to meter	Clause 3.23(a)	4					✓						✓
361	Signals from meter for user to be compliant	Clause 3.23(b)	4					✓						✓
362	Prepayment meter to comply with Code	Clause 3.24A(1)	4					✓						✓
363	Replacement of prepayment meter	Clause 3.24B(1)	4					✓						✓
364	Metering installation only by registered operator	Clause 3.27	4					✓						✓
365	Publish list of registering metering installation providers annually	Clause 3.29	4					✓						✓
Part 4 – The metering database														
366	Maintain metering database for each metering point	Clause 4.1(1)	4					✓						✓
367	Metering database to be secure	Clause 4.1(2)	4					✓						✓
368	Disaster Recovery Plan to rebuild metering database within 2 days	Clause 4.1(3)	4					✓						✓
369	Registry to comply with the Code and market rules	Clause 4.2(1)	4					✓						✓
370	Standing data requirements	Clause 4.3(1)	4					✓						✓
371	Discrepancy between data in meter and database	Clause 4.4(1)	4					✓					✓	
372	Not knowingly permit the registry to be materially inaccurate.	Clause 4.5(1)	4					✓					✓	
373	Notify network operator of any inaccuracy in standing data	Clause 4.5(2)	4					✓					✓	
374	Notification by Code participant of standing data change to registry	Clause 4.6(1)	4					✓						✓
375	Other notification of standing data change to registry	Clause 4.6(2)	4					✓						✓
376	Notify user within 2 business days of any update to registry	Clause 4.7(1)	4					✓						✓
377	User being retailer or generator to have remote access to energy data	Clause 4.8(3)	4					✓						✓

No.[1]	Brief Description	Legislative Reference	Audit Priority applied (rated 1 = High to 5 = Low)	Adequacy of Controls Rating[2] (A=Adequate, B=Generally adequate, C=Inadequate, D=No controls, NP=Not performed)					Compliance Rating (1=Compliant 2=Non-compliant (minor impact), 3=Non-compliant – moderate impact, 4=Non-compliant - major impact, NR=Not rated)					
				A	B	C	D	NP	1	2	3	4	NR	N/A
378	User being retailer or generator to have remote access to metering database	Clause 4.8(3A)	4					✓						✓
379	Energy data to be secure	Clause 4.8(4)(a)	4					✓						✓
380	Metering database to be secure	Clause 4.8(4((b)	4					✓						✓
381	Security of passwords	Clause 4.8(5)	4					✓						✓
382	Retention of energy data	Clause 4.9	4					✓						✓
Part 5 – Metering services														
383	Code participant's requirement to obtain a metering service	Clause 5.1(1)	4					✓						✓
384	Request for service level agreement	Clause 5.1(2)	4					✓						✓
385	Transfer energy data into metering database within 2 business days	Clause 5.3(1)	4					✓						✓
386	Validation of meter reading at least every 12 months	Clause 5.4(1)	4					✓						✓
387	Meter reading by skilled operator	Clause 5.4(1A)	4					✓						✓
388	Assist network operator to comply with their obligations	Clause 5.4(2)	4					✓						✓
389	Charge for provision of energy data	Clause 5.5(2)	4					✓						✓
390	No charge if other enactment prohibits	Clause 5.5(2A)	4					✓						✓
391	Provide validated or estimated data within prescribed timeframes	Clause 5.6(1)	4					✓						✓
391A	Provide energy data to AEMO	Clause 5.6(3)	4					✓						✓
392	Provide replacement energy data to user	Clause 5.7	4					✓						✓
393	Provide user with any data to enable user to comply with Code	Clause 5.8	4					✓						✓
394	Provide standing data to users where required	Clause 5.9	4					✓						✓
395	Provide subset of standing data to retailer	Clause 5.10	4					✓						✓
396	Transfer of user at connection point	Clause 5.11	4					✓						✓
397	Energy data request from user	Clause 5.12(1)	4					✓						✓
398	Standing data request from user	Clause 5.13	4					✓						✓
399	Bulk standing data request from user	Clause 5.14(3)	4					✓						✓
400	Provide date of meter reading	Clause 5.15	4					✓						✓
401	Provide energy data to network operator within timeframe	Clause 5.16	4					✓	✓					

No.[1]	Brief Description	Legislative Reference	Audit Priority applied (rated 1 = High to 5 = Low)	Adequacy of Controls Rating[2] (A=Adequate, B=Generally adequate, C=Inadequate, D=No controls, NP=Not performed)					Compliance Rating (1=Compliant 2=Non-compliant (minor impact), 3=Non-compliant – moderate impact, 4=Non-compliant - major impact, NR=Not rated)					
				A	B	C	D	NP	1	2	3	4	NR	N/A
402	Provide standing data or energy data to customers as required	Clause 5.17(1)	4					✓	✓					
403	Provide metering data to a person associated with customer	Clause 5.17A(1)	4					✓						✓
404	Provide data within timeframe	Clause 5.17A(3)	4					✓						✓
405	Change in the energisation status of a metering point	Clause 5.18	4					✓					✓	
406	Act with network operator in accordance with good electricity industry practice	Clause 5.19(1)	4					✓					✓	
407	Record prescribed information in relation to the site of each connection point	Clause 5.19(2)	4					✓	✓					
408	Notify network operator of any changes within 1 day	Clause 5.19(3)	4					✓					✓	
409	Notice to user of receipt of customer attributes	Clause 5.19(5)	4					✓						✓
410	Do not notify network operator if change due to information provided by network operator	Clause 5.19(6)	4					✓	✓					
411	Develop an Energy Data Verification Request Form	Clause 5.20(1)	4					✓						✓
412	Form to require Code participant to provide information	Clause 5.20(2)	4					✓						✓
413	Request from Code participant for verification of energy data	Clause 5.20(4)	4					✓						✓
414	Network operator to comply with any reasonable request	Clause 5.21(2)	4					✓						✓
415	Test or audit as per metrology procedure and service level agreement	Clause 5.21(4)	4					✓						✓
416	Request for meter test or audit only if licensee was the user at the time	Clause 5.21(5)	4					✓					✓	
417	Any request must be consistent with any access arrangement or agreement.	Clause 5.21(6)	4					✓					✓	
418	Meter testing or auditing charge as per service level agreement (SLA)	Clause 5.21(8)	4					✓						✓
419	SLA to include no charge for testing if non-compliance	Clause 5.21(9)	4					✓						✓
420	Action if test shows accuracy of meter does not comply with Code	Clause 5.21(11)	4					✓						✓
421	Original stored error data must not be altered except during accuracy testing or calibration	Clause 5.21(12)	4					✓						✓

No.[1]	Brief Description	Legislative Reference	Audit Priority applied (rated 1 = High to 5 = Low)	Adequacy of Controls Rating[2] (A=Adequate, B=Generally adequate, C=Inadequate, D=No controls, NP=Not performed)					Compliance Rating (1=Compliant 2=Non-compliant (minor impact), 3=Non-compliant – moderate impact, 4=Non-compliant - major impact, NR=Not rated)					
				A	B	C	D	NP	1	2	3	4	NR	N/A
422	Validate energy data in accordance with the Code	Clause 5.22(1)	4					✓						✓
423	Use check metering data	Clause 5.22(2)	4					✓						✓
424	If check metering data not available or energy data cannot be recovered	Clause 5.22(3)	4					✓						✓
425	Notify participants within 24 hours of loss of or error in data	Clause 5.22(4)	4					✓						✓
426	Substitution or estimation of energy data	Clause 5.22(5)	4					✓						✓
427	Review validation failures before substitution	Clause 5.22(6)	4					✓						✓
428	If actual value cannot be determined	Clause 5.23(1)	4					✓						✓
429	Repair or replace meter or component if actual value deemed	Clause 5.23(3)	4					✓						✓
430	Replace actual value with better quality actual or deemed value if available	Clause 5.24(1)	4					✓						✓
431	Replace deemed value with better quality actual or deemed value if available	Clause 5.24(2)	4					✓						✓
432	Replace estimated value with better quality actual, deemed or estimated value if available	Clause 5.24(3)	4					✓						✓
433	Request for estimated or substituted value	Clause 5.24(4)	4					✓						✓
434	Accuracy of estimated energy data	Clause 5.25	4					✓						✓
435	Provide network operator with customer attribute information that is missing or incorrect within the timeframes.	Clause 5.27	4					✓						✓
439	Notification of non-compliant meter	Clause 5.31(2)	4					✓						✓
440	Costs recovered may not exceed amount prescribed	Clause 5.34(2)	4					✓						✓
Part 6 – Documentation														
447	Network operator compliance with agreements, rules, etc.	Clause 6.1(1)	4					✓						✓
448	User with access contract must comply with rules, procedures, agreements.	Clause 6.1(2)	4					✓					✓	
448A	Submit prescribed documents to ERA	Clause 6.2	4					✓						✓
448B	Publish document within 10 business days of approval by ERA	Clause 6.18	4					✓						✓
448C	Publish communication rules	Clause 6.19A(1)	4					✓						✓

No.[1]	Brief Description	Legislative Reference	Audit Priority applied (rated 1 = High to 5 = Low)	Adequacy of Controls Rating[2] (A=Adequate, B=Generally adequate, C=Inadequate, D=No controls, NP=Not performed)					Compliance Rating (1=Compliant 2=Non-compliant (minor impact), 3=Non-compliant – moderate impact, 4=Non-compliant - major impact, NR=Not rated)					
				A	B	C	D	NP	1	2	3	4	NR	N/A
448D	Amendment of communication rules	Clause 6.19B(1)	4					✓						✓
449	Amend document in accordance with ERA's final recommendation	Clause 6.20(4)	4					✓						✓
450	Publish amended document	Clause 6.20(5)	4					✓						✓
Part 7 – Notes and confidential information														
451	Ensure Code participant can send and receive a notice by post, facsimile and electronic communication and must notify the network operator of a telephone number.	Clause 7.2(1)	4					✓	✓					
453	Notify contact details to a network operator within 3 business days after the request.	Clause 7.2(4)	4					✓					✓	
454	Notify network operator of any change to the contact details at least 3 business days before the change.	Clause 7.2(5)	4					✓					✓	
455	Protection of confidential information	Clause 7.5	4					✓	✓					
456	Comply with any disclosure required by the Code.	Clause 7.6(1)	4					✓					✓	
Part 8 – Dispute resolution														
457	Aim to resolve any dispute with Code Participants within 5 business days.	Clause 8.1(1)	4					✓					✓	
458	If a dispute is not resolved within 10 business days, refer dispute to senior management to meet and resolve	Clause 8.1(2)	4					✓					✓	
459	If the dispute is not resolved within a further 10 business days, refer to senior executive officer of each party to meet and resolve.	Clause 8.1(3)	4					✓					✓	
460	If resolved, prepare a written and signed record of the resolution and adhere to the resolution.	Clause 8.1(4)	4					✓					✓	
461	The disputing parties must at all times conduct themselves in a manner which is directed towards achieving the objective in subclause 8.3(1).	Clause 8.3(2)	4					✓					✓	
Electricity Industry Network Quality and Reliability of Supply Code														
462	Electrical supply to customer complies with standards	Clause 5(1)	4					✓						✓
463	Disconnection of supply	Clause 8	4					✓						✓
464	Maintain supply and minimise interruptions	Clause 9	4					✓						✓

No.[1]	Brief Description	Legislative Reference	Audit Priority applied (rated 1 = High to 5 = Low)	Adequacy of Controls Rating[2] (A=Adequate, B=Generally adequate, C=Inadequate, D=No controls, NP=Not performed)					Compliance Rating (1=Compliant 2=Non-compliant (minor impact), 3=Non-compliant – moderate impact, 4=Non-compliant - major impact, NR=Not rated)					
				A	B	C	D	NP	1	2	3	4	NR	N/A
465	Reduce effect of interruption on customer	Clause 10(1)	4					✓						✓
466	Alternative means of supply	Clause 10(2)	4					✓						✓
468	Minimise interruptions in certain areas	Clause 13(2)	4					✓						✓
469	Calculation of average total length of supply interruptions	Clause 13(3)	4					✓						✓
470	Provide affected customer free copy of any instrument issued by Minister or under the Code	Clause 14(8)	4					✓						✓
471	Modification of customer agreement	Clause 15(2)	4					✓						✓
472	Payment to customer for failure to give notice of planned interruption	Clause 18	4					✓						✓
473	Payment to customer if supply interruption exceeds 12 hours	Clause 19	4					✓						✓
474	Customer information about applying for payments for failure to meet the Code	Clause 21(1)	4					✓						✓
475	Provide written notice to eligible customers about payments available	Clause 21(2)	4					✓						✓
476	Provide written notice at least once every financial year	Clause 21(3)	4					✓						✓
477	Monitor operation of network to ensure compliance	Clause 23(1)	4					✓						✓
478	Keep records of compliance information	Clause 23(2)	4					✓						✓
479	Complete quality investigation requested by customer	Clause 24(3)	4					✓						✓
480	Report results of investigation to customer	Clause 24(4)	4					✓						✓
482	Complaint handling process must contain the specified information	Clause 25(3)	4					✓						✓

3.5 Status of Previous Audit Recommendations

The previous audit covered the period from commencement of the licence on 15 October 2014 to 31 October 2018 and was reported in February 2019. The status of the previous recommendation is stated below.

Reference (no./year)	Previously Assessed Non-Compliance/Controls Improvement	Previous Auditor's Recommendation and *Action Taken*	Date Resolved	Further action required
A. Resolved before end of previous audit				
	Nil			
B. Resolved during current audit period				
1/2019	**Payment of Licence Fees** Obligation 105 *"A licensee must pay the prescribed licence fees to the ERA according to clauses 6, 7 and 8 of the Economic Regulation Authority (Licensing Funding) Regulations 2014."* The invoice issued in November 2017 was not paid within the 30 days required.	We recommend that TECH improves its risk mitigation measures for this obligation, including having in place an independent alert via its contract management system each quarter to check whether invoices have been received and processed. **Status: Completed** TECH has put in place quarterly reminders in the contract management system for the receipt and payment of invoices and changed the email address for invoices from the ERA to a generic accounts payable email address. Subsequent payments have been made by the due dates.	March 2019	Nil

3.6 Detailed Audit Observations

SUMMARY OF COMPLIANCE OBLIGATIONS	
LEGISLATION	
ELECTRICITY INDUSTRY ACT 2004	Refer Compliance Obligations 101 to 128 as applicable.
CODES	
ELECTRICITY INDUSTRY METERING CODE	Refer Compliance Obligations 317 to 461 as applicable.
ELECTRICITY INDUSTRY NETWORK QUALITY AND RELIABILITY OF SUPPLY CODE	Refer Compliance Obligations 462 to 480 as applicable.

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
ELECTRICITY INDUSTRY ACT 2004							
101	Condition 5.3.1	Section 13(1)	A licensee must provide the ERA with a performance audit conducted by an independent expert acceptable to the ERA, not less than once every 24 months.	4	The auditor confirmed the previous performance audit report has been provided to the ERA in 2019. This audit report will also be provided to the ERA.	NP	1
102	Condition 5.1.1	Section 14(1)(a)	A licensee must provide for an asset management system.	4	This audit confirmed the licensee has an asset management system (AMS). This obligation is documented in the South Hedland Power Station – Strategic Asset Management Plan (AMP).	A	1
103	Condition 5.1.2	Section 14(1)(b)	A licensee must notify details of the asset management system and any substantial changes to it to the ERA.	4	The auditor confirmed with the Plant Manager and field observations that no substantial changes have been made to the Asset Management System (AMS) during the audit period.	NP	NR
104	Condition 5.1.4	Section 14(1)(c)	A licensee must provide the ERA with a report by an independent expert about the effectiveness of its asset management system every 24 months, or such longer period as determined by the ERA.	4	The auditor confirmed the previous asset management system review report has been provided to the ERA in 2019. This review report will also be provided to the ERA.	NP	1

[3] The number refers to the item reference in the Electricity Compliance Reporting Manual ERA – February 2022 (and previous versions July 2020 and June 2018).
[4] The highest priority areas (priority 1, 2 or 3) based on inherent risk and expected controls/processes are highlighted in RED.
[5] Controls Rating Scale: A=Adequate, B=Generally adequate, C=Inadequate, D=No controls, NP=Not performed.
[6] Compliance Rating Scale: 1=Compliant, 2=Non-compliant (minor impact), 3=Non-compliant – moderate impact, 4=Non-compliant - major impact, NR=Not rated.

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
105	Condition 4.2.1	ERA (Licensing Funding) Regulations 2014	A licensee must pay the prescribed licence fees to the ERA according to clauses 6, 7 and 8 of the *Economic Regulation Authority (Licensing Funding) Regulations 2014.*	4	As reported in the Compliance Report to the ERA for 2019/20, TECH did not comply with this obligation as payment was later than one month, on three separate occasions covering two invoices issued in June 2018 and one invoice issued in December 2018. TECH has put in place quarterly reminders in the contract management system for the receipt and payment of invoices and changed the email address for invoices to a generic accounts payable email address. Subsequent payments have been made by the due dates. As this issue has been resolved, no further recommendation is made.	A	2
106	Condition 4.1.1	Section 31(3)	A licensee must take reasonable steps to minimise the extent, or duration, of any interruption, suspension or restriction of the supply of electricity due to an accident, emergency, potential danger or other unavoidable cause.	4	Through review of TECH's Emergency Response Plans, Business Continuity Plans and the Operations Communication Protocol with its customers, the auditor confirmed that TECH maintains emergency response, incident response and business continuity management systems, which support TECH's commitment to its two customers for maintaining continuity of supply and safe and secure operations The Plant Manager confirmed that TECH managers are notified of significant disruptions as and when they occur. This obligation is documented in the Business Continuity and Emergency Response Plans.	A	1

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
107	Condition 4.1.1	Section 41(6)	A licensee must pay the costs of taking an interest in land or an easement over land.	4	The Commercial Manager confirmed TECH did not acquire additional interest in land or easement over the audit period.	NP	NR
119	Condition 4.3.1	Section 11	A licensee and any related body corporate must maintain accounting records that comply with the Australian Accounting Standards Board Standards or equivalent International Accounting Standards.	4	Through review of TECH's Financial Statements for 2019, 2020 and 2021, the auditor noted that the audit opinion confirmed the statements: • Are prepared in accordance with the requirements of the Corporations Act 2001, Australian Accounting Standards and other authoritative statements. • Use the pronouncements of the Australian Accounting Standards Board (AASB) • Adopt all new and amended Accounting Standards and Interpretations issued by the AASB that are relevant to the operations of TECH and the effective reporting periods.	NP	1
120	Condition 5.2.4	Section 11	A licensee must comply with any individual performance standards prescribed by the ERA.	4	The auditor confirmed by review of the licence that no individual performance standards were prescribed over the audit period. Quantum has performed the audit in accordance with the Audit and Review Guidelines Electricity and Gas Licenses (March 2019).	NP	NR
121	Condition 5.3.2	Section 11	A licensee must comply, and require its auditor to comply, with the ERA's standard audit guidelines for a performance audit.	4	Quantum was appointed with the ERA's approval to complete the performance audit for TECH for the period 1 November 2018 to 30 June 2022.	NP	1

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
122	Condition 5.1.5	Section 11	A licensee must comply, and must require the licensee's expert to comply, with the relevant aspects of the ERA's standard audit guidelines for an asset management system review.	4	Quantum was appointed with the ERA's approval to complete the asset management system review for TECH for the period 1 November 2018 to 30 June 2022.	NP	1
123	Condition 4.4.1	Section 11	In the manner prescribed, a licensee must notify the ERA, if it is under external administration or if there is a significant change in the circumstances that the licence was granted which may affect the licensee's ability to meet its obligations.	4	The Commercial Manager confirmed that TECH was not placed under external administration during the audit period nor were there any circumstances that affected the company's ability to meet its licence obligations.	NP	NR
124	Condition 4.5.1	Section 11	A licensee must provide the ERA, in the manner prescribed, with any information that the ERA requires in connection with its functions under the Electricity Industry Act.	4	Through discussion with the Senior Contracts Specialist and review of TECH's Annual Compliance Reports for 2018/19, 2019/20 and 2020/21, the auditor confirmed that TECH had prepared reports in the manner and form as required by section 11 of the Electricity Industry Act for the period subject to audit. Through review of the Annual Compliance Reports for 2018/19, 2019/20 and 2020/21, the auditor confirmed that TECH had submitted the reports to the ERA by the 31 August due date. This obligation is included in the Compliance Register.	A	1
125	Condition s 3.8.1 and 3.8.2	Section 11	A licensee must publish any information as directed by the ERA to publish, within the timeframes specified.	4	The Commercial Manager confirmed that TECH was not required by the ERA to publish any information during the audit period.	NP	NR

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
126	Condition 3.7.1	Section 11	All notices must be in writing, unless otherwise specified.	4	The Senior Contracts Specialist confirmed that TECH maintains manual and scanned records to evidence formal communications with the ERA, which have been made via post or email and are stored on TECH's system. The auditor sighted examples of correspondence with the ERA.	NP	1
127	Condition 6.9.1	Section 11	A distributor must create and maintain a Priority Restoration Register.	2	TECH is not required by the licence to maintain a Priority Restoration Register.	NP	N/A
128	Condition 6.9.3	Section 11	The Priority Restoration Register must comply with any criteria determined by the Minister.	2	As per obligation 127.	NP	N/A
ELECTRICITY INDUSTRY METERING CODE							
		Part 2	**Code objectives and arms-length treatment**				
317	Condition 6.3.1	Clause 2.2(1)(a)	A network operator must treat all Code participants that are its associates on an arms-length basis.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
318	Condition 6.3.1	Clause 2.2(1)(b)	A network operator must ensure that no Code participant that is its associate receives a benefit in respect of the Code, unless the benefit is attributable to an arm's length application of the Code or is also made available to all other Code participants on the same terms and conditions.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
		Part 3	**Meters and metering installations**				
319	Condition 6.3.1	Clause 3.1	A network operator must ensure that its meters meet the requirements specified in the applicable metrology procedure and comply with any applicable specifications or guidelines, including any transitional arrangements, specified by the National Measurement Institute under the National Measurement Act.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
320	Condition 6.3.1	Clause 3.2(1)	An accumulation meter must at least conform to the requirements specified in the applicable metrology procedure and display or permit access to a display of the measurements that are specified in subclauses 3.2(1)(a)(b) using dials, a cyclometer, an illuminated display panel or some other visual means.	4	TECH is not a network operator. Horizon Power operate their own meter on their side of the network. Therefore, this obligation has been rated as not applicable.	NP	N/A
321	Condition 6.3.1	Clause 3.3(1)	An interval meter must at least have an interface to allow the interval energy data to be downloaded in the manner prescribed using an interface compatible with the requirements specified in the applicable metrology procedure.	4	TECH is not a network operator. Horizon Power operate their own meter on their side of the network. Therefore, this obligation has been rated as not applicable.	NP	N/A
322	Condition 6.3.1	Clause 3.3(3)	If a metering installation is required to include a communications link, the link must, where necessary, include a modem and isolation device approved under the relevant telecommunications	4	TECH is not a network operator. Horizon Power operate their own meter on their side of the network. Therefore, this obligation has been rated as not applicable.	NP	N/A

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
			regulations that allows the interval energy data to be downloaded in the manner prescribed.				
323	Condition 6.3.1	Clause 3.3A(1)	A network operator must ensure that bi-directional electricity flows do not occur at a metering point unless the metering installation for the metering point is capable of separately measuring and recording electricity flows in each direction.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
324	Condition 4.1.1	Clause 3.3B	If a user is aware of bi-directional electricity flows at a metering point that was not previously subject to a bi-directional flows or any changes in a customer's or user's circumstances in a metering point that will result in bi-directional flows, the user must notify the network operator within 2 business days.	4	TECH is not a network operator. Horizon Power operate their own meter on their side of the network. Therefore, this obligation has been rated as not applicable.	NP	N/A
325	Condition 4.1.1	Clause 3.3C *(Updated Feb.2022)*	An accumulation meter or an interval meter that separately measures and records bi-directional electricity flows at the metering point must record: • the net electricity production transferred into the network. • the net electricity consumption transferred out of the network.	4	TECH is not a network operator. Horizon Power operate their own meter on their side of the network. Therefore, this obligation has been rated as not applicable.	NP	N/A
326	Condition 4.1.1	Clause 3.5(1) and (2)	A network operator must ensure that there is a metering installation at every connection point on its network that is not an unmetered connection point.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
		(Updated Feb.2022)	Unless it is a Type 7 metering installation, the metering installation must meet the functionality requirements prescribed.				
327	Condition 4.1.1	Clause 3.5(3)	For each metering installation on its network, a network operator must provide, install, operate and, subject to subclause 3.7(5), maintain the metering installation in the manner prescribed, unless otherwise agreed.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
328	Condition 4.1.1	Clause 3.5(4)	Except for a Type 7 metering installation, a network operator must ensure that the metering point for a revenue metering installation is located as close as practicable to the connection point in accordance with good electricity industry practice.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
329	Condition 4.1.1	Clause 3.5(6)	A network operator may only impose a charge for providing, installing, operating or maintaining a metering installation in accordance with the applicable service level agreement that it has with the user.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
330	Condition 4.1.1	Clause 3.5(9)	If a network operator becomes aware that a metering installation does not comply with the Code, it must advise affected parties of the non-compliance and arrange for the non-compliance to be corrected as soon as practicable.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
331	Condition 4.1.1	Clause 3.7	All devices that may be connected to a telecommunications network must be compatible with the telecommunications network and comply with all applicable State and Commonwealth enactments.	4	TECH is not a network operator. Horizon Power operate their own meter on their side of the network. Therefore, this obligation has been rated as not applicable.	NP	N/A
332	Condition 4.1.1	Clause 3.8	Subject to clause 3.27, a network operator must ensure that, consistent with the standards of good electricity industry practice, each metering installation on its network is secured by devices or methods that hinder unauthorized access and enable unauthorized access to be detected.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
333	Condition 4.1.1	Clause 3.9(3) *(Updated Feb.2022)*	Subject to subclauses 3.9(4), 3.9(5) and 3.9(7), each metering installation must meet at least the requirements for that type of metering installation as specified in Table 3 in Appendix 1 of the Code for metering installations on the SWIN or in Table 3A in Appendix 1 for metering installations on a network other than the SWIN.	4	TECH is not a network operator. Horizon Power operate their own meter on their side of the network. Therefore, this obligation has been rated as not applicable.	NP	N/A
334	Condition 4.1.1	Clause 3.9(7)	A metering installation used to supply a customer with requirements above 1000 volts that requires a VT and whose annual consumption is below 750MWh must meet the relevant accuracy requirements of a Type 3 metering installation for active energy only.	4	TECH is not a network operator. Horizon Power operate their own meter on their side of the network. Therefore, this obligation has been rated as not applicable.	NP	N/A

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
335	Condition 4.1.1	Clause 3.9(9)	If compensation is carried out within the meter, then the resultant metering system error must be as close as practicable to zero.	4	TECH is not a network operator. Horizon Power operate their own meter on their side of the network. Therefore, this obligation has been rated as not applicable.	NP	N/A
336	Condition 4.1.1	Clause 3.10	A network operator must ensure that any programmable settings in any of its metering installations, data loggers or peripheral devices, which may affect the resolution of displayed or stored data, satisfy the relevant requirements specified in the applicable metrology procedure and comply with any applicable instructions by the National Measurement Institute under the National Measurement Act.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
337	Condition 4.1.1	Clause 3.11(1)	A network operator must ensure that a metering installation on its network is operating consistently with good electricity industry practice to measure and record data and permits the collection of data within the time specified in the applicable service level agreement, for at least the percentages of the year specified.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
338	Condition 4.1.1	Clause 3.11(2)	If an outage or malfunction occurs to a metering installation, the network operator must repair the metering installation in accordance with the applicable service level agreement.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
339	Condition 4.1.1	Clause 3.11(3)	A Code participant who becomes aware of an outage or malfunction of	4	TECH is not a network operator. Horizon Power operate their own meter on their side of the network.	NP	N/A

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
			a metering installation must advise the network operator as soon as practicable.		Therefore, this obligation has been rated as not applicable.		
340	Condition 4.1.1	Clause 3.11A(1)	A network operator must ensure that the meters on its network are systematically sampled and tested for accuracy in accordance with AS 1284.13.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
341	Condition 4.1.1	Clause 3.11A(2)	Subject to clause 3.11A(3), if a "population" of meters is deemed to have failed under AS 1284.13, the network operator must ensure that all of the meters in that population are removed and replaced with new meters within 3 years of the testing of the population.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
342	Condition 4.1.1	Clause 3.12(1)	A network operator must ensure that each metering installation complies with at least the prescribed design requirements.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
343	Condition 4.1.1	Clause 3.12(2)	A network operator must ensure that instrument transformers in its metering installations comply with the relevant requirements of any applicable specifications or guidelines, including any transitional arrangements, specified by the National Measurement Institute under the National Measurement Act and any requirements specified in the applicable metrology procedure.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
344	Condition 4.1.1	Clause 3.12(3)	A network operator must provide isolation facilities of a standard consistent with good electricity industry practice, to facilitate testing and calibration of the metering installation.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
345	Condition 4.1.1	Clause 3.12(4)	A network operator must maintain drawings and supporting information, of a standard consistent with good electricity industry practice, to detail the metering installation for maintenance and auditing purposes.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
346	Condition 4.1.1	Clause 3.13(1)	A network operator must procure the user, or the user's customer, to install, or arrange for the installation of, a full check metering installation or partial check metering installation in accordance with the prescribed requirements.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
347	Condition 4.1.1	Clause 3.13(3) (c)	A partial check metering installation must be physically arranged in a manner determined by the network operator, acting in accordance with good electricity industry practice.	4	TECH is not a network operator. Horizon Power operate their own meter on their side of the network. Therefore, this obligation has been rated as not applicable.	NP	N/A
348	Condition 4.1.1	Clause 3.13(4)	A check metering installation for a metering point must comply with the prescribed requirements.	4	TECH is not a network operator. Horizon Power operate their own meter on their side of the network. Therefore, this obligation has been rated as not applicable.	NP	N/A
349	Condition 4.1.1	Clause 3.16(1)	If, under clause 3.14(2), a metering installation uses metering class CTs	4	TECH is not a network operator. Horizon Power operate their own meter on their side of the network.	NP	N/A

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
			and VTs that do not comply with the Table 3 or Table 3A in Appendix 1 (as applicable), then the network operator must take the actions specified in order to achieve the accuracy requirements in Table 3 or Table 3A in Appendix 1 (as applicable).		Therefore, this obligation has been rated as not applicable.		
355	Condition 4.1.1	Clause 3.20(1)	If reasonably requested by a Code participant, a network operator must provide enhanced technology features in a metering installation.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
356	Condition 4.1.1	Clause 3.20(3)	A network operator may only impose a charge for the provision of metering installations with enhanced technology features in accordance with its applicable service level agreement with the user.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
357	Condition 4.1.1	Clause 3.21(1)	Meters containing an internal real time clock must maintain time accuracy as prescribed. Time drift must be measured over a period of 1 month.	4	TECH is not a network operator. Horizon Power operate their own meter on their side of the network. Therefore, this obligation has been rated as not applicable.	NP	N/A
358	Condition 4.1.1	Clause 3.21(2)	If a metering installation includes measurement elements and an internal data logger at the same site, it must include facilities on-site for storing the interval energy data for the periods prescribed.	4	TECH is not a network operator. Horizon Power operate their own meter on their side of the network. Therefore, this obligation has been rated as not applicable.	NP	N/A
359	Condition 4.1.1	Clause 3.22	A network operator providing one or more metering installations with enhanced technology features must be licensed to use, and access, the	4	• TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
			metering software applicable to all devices being installed and be able to program the devices and set parameters.				
360	Condition 4.1.1	Clause 3.23(a)	Where signals are provided from the meter for the user or the user's customer, a network operator must ensure that signals are isolated by relays or electronic buffers to prevent accidental or malicious damage to the meter.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
361	Condition 4.1.1	Clause 3.23(b)	Where signals are provided from the meter for the user or the user's customer, a network operator must provide the user, or the user's customer, with sufficient details of the signal specification to enable compliance with clause 3.23(c) of the Code.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
362	Condition 4.1.1	Clause 3.24A(1)	If a retailer requests a network operator to install a pre-payment meter at a connection point, then the pre-payment meter must be sufficient to enable the retailer to comply with the retailer's obligations under the Code of Conduct.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
363	Condition 4.1.1	Clause 3.24B(1)	If a retailer requests a network operator to replace a pre-payment meter at a connection point with a meter that is not a pre-payment meter, then the network operator must do so in	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
			accordance with this Code and the Code of Conduct.				
364	Condition 4.1.1	Clause 3.27	A person must not install a metering installation on a network unless the person is the network operator or a registered metering installation provider for the network operator doing the type of work authorised by its registration.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
365	Condition 4.1.1	Clause 3.29	A network operator must publish a list of registered metering installation providers, including the prescribed details, and update the list at least annually.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
		Part 4	**The metering database**				
366	Condition 4.1.1	Clause 4.1(1)	A network operator must establish, maintain and administer a metering database containing standing data and energy data for each metering point on its network.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
367	Condition 4.1.1	Clause 4.1(2)	A network operator must ensure that its metering database with its associated links, circuits, information storage and processing systems are secured by devices or methods consistent with a good industry practice (to hinder unauthorised access and enable unauthorised access to be detected).	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
368	Condition 4.1.1	Clause 4.1(3)	A network operator must prepare and, if applicable, implement a disaster recovery plan to ensure that it is able, to rebuild the metering database and provide energy data to Code participants within 2 business days after the day of any disaster.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
369	Condition 4.1.1	Clause 4.2(1)	A network operator must ensure that its registry complies with the Code and the prescribed clause of the market rules.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
370	Condition 4.1.1	Clause 4.3(1)	The standing data for a metering point must comprise at least the items specified.	4	TECH is not a network operator. Horizon Power operate their own meter on their side of the network. Therefore, this obligation has been rated as not applicable.	NP	N/A
371	Condition 4.1.1	Clause 4.4(1)	If there is a discrepancy between energy data held in a metering installation and in the metering database, the affected Code participants and the network operator must liaise to determine the most appropriate way to resolve the discrepancy.	4	The Commercial Manager confirmed that no such event has occurred in the audit period.	NP	NR
372	Condition 4.1.1	Clause 4.5(1)	A Code participant must not knowingly permit the registry to be materially inaccurate.	4	The Commercial Manager confirmed that no such event has occurred in the audit period.	NP	NR
373	Condition 4.1.1	Clause 4.5(2)	Subject to subclause 5.19(6), if a Code participant, other than a network operator, becomes aware of a change to, or inaccuracy in, an item of	4	The Commercial Manager confirmed that no such event has occurred in the audit period.	NP	NR

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
			standing data in the registry, then it must notify the network operator and provide details of the change or inaccuracy within the timeframes prescribed.				
374	Condition 4.1.1	Clause 4.6(1)	If the network operator is notified of a change to, or inaccuracy in, an item of standing data by a Code participant that is the designated source for the item of standing data under Table 2 in clause 4.3(1) then the network operator must update the registry to address the issue.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
375	Condition 4.1.1	Clause 4.6(2)	If a network operator is notified of a change to, or inaccuracy in, an item of standing data by a Code participant which is not the designated source for the item of standing data, or otherwise becomes aware of a change to or inaccuracy in an item of standing data, then the network operator must determine whether the registry should be updated, and update the registry as required.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
376	Condition 4.1.1	Clause 4.7(1)	If standing data for a metering point is updated in the registry, the network operator must, within 2 business days after the update (or such other time as is specified in the applicable service level agreement) notify the update to the current user and each previous user, if the updated standing data	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
			relates to a period or periods when the previous user was the current user.				
377	Condition 4.1.1	Clause 4.8(3)	A network operator must allow a user who is a retailer or a generator to have local and, where a suitable communications link is installed, remote access to the energy data for metering points at its associated connection points, using a password provided by the network operator that provides 'read only' access.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
378	Condition 4.1.1	Clause 4.8(3A)	A network operator must allow a user who is a retailer or a generator to have access to data held in its metering database for metering points at its associated connection points, by the prescribed methods, using a password provided by the network operator which provides 'read only' access.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
379	Condition 4.1.1	Clause 4.8(4)(a)	A network operator must have devices and methods in place to ensure that energy data held in its metering installation is secured from unauthorised local or remote access using the methods prescribed.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
380	Condition 4.1.1	Clause 4.8(4)(b)	A network operator must have devices and methods in place to ensure that the data held in its metering database is secured from unauthorised local, or	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
			remote, access using the methods prescribed.				
381	Condition 4.1.1	Clause 4.8(5)	Without limiting subclause 4.8(4), a network operator must ensure that electronic passwords and other electronic security controls are only issued to the specified authorised personnel and otherwise keep its records of electronic passwords, and other electronic security controls, secure from unauthorised access.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
382	Condition 4.1.1	Clause 4.9	A network operator must retain energy data in its metering database for each metering point on its network, including any energy data that has been replaced under subclause 5.24, for at least the periods, and with the level of accessibility, prescribed.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
		Part 5	**Metering services**				
383	Condition 4.1.1	Clause 5.1(1)	A network operator must use all reasonable endeavours to accommodate another Code participant's requirement to obtain a metering service and requirements in connection with the negotiation of a service level agreement.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
384	Condition 4.1.1	Clause 5.1(2)	Without limiting subclause 5.1(1), a network operator must:	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
			• expeditiously and diligently process all requests for a service level agreement; • negotiate in good faith with a Code participant regarding the terms for an agreement; and • to the extent reasonably practicable in accordance with good electricity industry practice, permit a Code participant to acquire a metering service containing only those elements of the metering service which the Code participant wishes to acquire.				
385	Condition 4.1.1	Clause 5.3(1)	A network operator must, for each metering point on its network, obtain energy data from the metering installation and transfer the energy data into its metering database by no later than 2 business days after the date for the scheduled meter reading for the metering point (or such other time as is specified in the applicable service level agreement).	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
386	Condition 4.1.1	Clause 5.4(1)	A network operator must, for each meter on its network, at least once in every 12-month period undertake a meter reading that provides an actual value that passes the validation processes in Appendix 2.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
387	Condition 4.1.1	Clause 5.4(1A)	The meter reading referred to in clause 5.4(1) must not be undertaken by the customer associated with the meter and must be undertaken by a person who is employed or appointed by the network operator and who is suitably skilled in accordance with good electricity industry practice to carry out meter readings.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
388	Condition 4.1.1	Clause 5.4(2)	A user must, when reasonably requested by a network operator, assist the network operator to comply with the network operator's obligation under subclause 5.4(1).	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
389	Condition 4.1.1	Clause 5.5(2)	Subject to subclause 5.5(2A)(b), a network operator may impose a charge for the provision of data, but only if • a user has requested the energy data to the extent permitted by, and in accordance with the applicable service level agreement between it and the user; and • if a customer has given a direction under subclause 17A (1), in accordance with the prescribed conditions.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
390	Condition 4.1.1	Clause 5.5(2A)	A network operator must not impose a charge for the provision of standing data and for the provision of energy data if another enactment prohibits it doing so.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
391	Condition 4.1.1	Clause 5.6(1)	Subject to subclause 5.6(2), a network operator must provide validated, and where necessary, substituted or estimated energy data for a metering point to the user for the metering point and the IMO within the timeframes prescribed in subclause 5.6(1)(2).	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
91A	Condition 4.1.1	Clause 5.6(3) *(From Feb. 2022)*	A network operator must provide validated, and where necessary substituted or estimated, interval energy data for a metering point to AEMO before 5pm on the first business day after the network operator obtains energy data for the metering point under clause 5.3(1)(a), or such other time as agreed in writing.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
392	Condition 4.1.1	Clause 5.7	If a replacement energy data value is inserted in a metering database for a metering point, the network operator must provide replacement energy data to the user for the metering point and the IMO within the timeframes prescribed.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
393	Condition 4.1.1	Clause 5.8	A network operator must provide a user with whatever information the network operator has that is necessary to enable the user to comply with its obligations under the Code of Conduct, within the time necessary	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
			for the user to comply with the obligations.				
394	Condition 4.1.1	Clause 5.9	A network operator must provide standing data, provided to or obtained by it under this Code, to users where required to do so under any enactment.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
395	Condition 4.1.1	Clause 5.10	A network operator must provide a subset of the standing data to a retailer in accordance with the provisions of Annex 4 of the Customer Transfer Code.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
396	Condition 4.1.1	Clause 5.11	If a transfer occurs at a connection point, then within 2 business days after the transfer date, as defined in the Customer Transfer Code, the network operator must provide the incoming retailer with a copy of the standing data for each metering point associated with the connection point.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
398	Condition 4.1.1	Clause 5.13	If the current user for a metering point gives the network operator a standing data request for the metering point in accordance with the communication rules, then the network operator must: • provide the current user with a complete current set of standing data for a metering point; and • advise whether there is a communications link for the metering point, within 2 business	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
			days after the receipt of the request.				
399	Condition 4.1.1	Clause 5.14(3)	If a user makes a bulk standing data request, the network operator must in accordance with the communication rules, acknowledge receipt of the request and provide the requested standing data within the timeframes prescribed.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
400	Condition 4.1.1	Clause 5.15	If a network operator provides energy data to a user or the IMO it must also provide the date of the meter reading in accordance with the requirements specified.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
401	Condition 4.1.1	Clause 5.16	If a user collects or receives energy data from a metering installation then the user must provide the network operator with the energy data (in accordance with the communication rules) within the timeframes prescribed.	4	TECH collects data at the request of Horizon Power (as the network operator) for the purposes of the metering code. The data has been provided within the timeframes prescribed. TECH only collects data from its own metering installation and that this data is provided to Horizon Power as part of the invoicing process under the PPA. Horizon Power separately collects data from its own metering installation which sits at the Horizon Power side of the connection. TECH is not in any way involved with collection of data from Horizon Power's metering installation. Horizon Power does not issue any verification of continued compliance and only breaches are recorded in writing.	NP	1

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
402	Condition 4.1.1	Clause 5.17(1)	A user must provide standing data and validated, and where necessary substituted or estimated, energy data to the user's customer to which that information relates where the user is required by an enactment or an agreement to do so for billing purposes or for the purpose of providing metering services to the customer.	4	TECH has complied with the requirements. TECH only collects data from its own metering installation and that this data is provided to Horizon Power as part of the invoicing process under the PPA. Horizon Power separately collects data from its own metering installation which sits at the Horizon Power side of the connection. TECH is not in any way involved with collection of data from Horizon Power's metering installation. The only meter and National Metering Identifier (NMI) related to TECH are those for the SHPS. TECH is not involved with retailing activities and, as such, it does not have anyone to pass on standing data or energy data to. Horizon Power does not issue any verification of continued compliance and only breaches are recorded in writing.	NP	1
403	Condition 4.1.1	Clause 5.17A(1)	A network operator must provide data for a metering point from its metering database to a person if (and to the extent that) the customer associated with the metering point gives the network operator a direction to do so that complies with subclause 5.17A(2).	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
404	Condition 4.1.1	Clause 5.17A(3)	A network operator must comply with a direction under subclause 5.17A(1) within the timeframes prescribed.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
405	Condition 4.1.1	Clause 5.18	If a user collects or receives information regarding a change in the energisation status of a metering point then the user must provide the network	4	TECH collects information regarding the energisation at the request of Horizon Power (as the network operator) for the purposes of the Metering Code.	NP	NR

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
			operator with the prescribed information, including the stated attributes, within the timeframes prescribed.		TECH does not have any retail customers and the only connection point TECH is involved with is the one for the SHPS. The SHPS was commissioned during the previous licence audit period and the metering point was energised during this period. Energisation of the connection point was done in close co-operation with Horizon Power and the connection point has not changed status since.		
406	Condition 4.1.1	Clause 5.19(1)	A user must, when requested by the network operator acting in accordance with good electricity industry practice, use reasonable endeavours to collect information from customers, if any, that assists the network operator in meeting its obligations described in the Code and elsewhere, and provide that information to the network operator.	4	There have been no requests by the network operator during the audit period.	NP	NR
407	Condition 4.1.1	Clause 5.19(2)	A user must, to the extent that it is able, collect and maintain a record of the prescribed information in relation to the site of each connection point with which the user is associated.	4	TECH has complied with the requirements. The prescribed information is contained in various documents between Horizon Power and TECH, including the Dispatch and Operating Procedure and the PPA. TECH only has one connection point and these details are unlikely to ever change.	NP	1
408	Condition 4.1.1	Clause 5.19(3)	Subject to subclauses 5.19(3A) and 5.19(6), the user must, within 1 business day after becoming aware of any change in an attribute described in subclause 5.19(2), notify the network operator of the change.	4	TECH has not been aware of any change in attribute.	NP	NR

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
409	Condition 4.1.1	Clause 5.19(5)	A network operator must give notice to a user, or (if there is a different current user) the current user, acknowledging receipt of any customer, site or address attributes from the user within the timeframes prescribed.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
410	Condition 4.1.1	Clause 5.19(6)	The user must use reasonable endeavours to ensure that it does not notify the network operator of a change in an attribute described in subclause 5.19(2) that results from the provision of standing data by the network operator to the user.	4	TECH has complied with the requirements. TECH only has a single connection point and has stated that it would always elect to send such notices (about changes to standing data) in a manual way, e.g. by email.	NP	1
411	Condition 4.1.1	Clause 5.20(1)	A network operator must, by not later than 6 months after the date this Code applies to the network operator, develop, in accordance with the communication rules, an Energy Data Verification Request Form.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
412	Condition 4.1.1	Clause 5.20(2)	An Energy Data Verification Request Form must require a Code participant to provide the information prescribed.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
413	Condition 4.1.1	Clause 5.20(4)	If a Code participant requests verification of energy data under subclause 5.20(3), the network operator must, in accordance with the metrology procedure: • subject to subclause 5.20(5) use reasonable endeavours to verify energy data; and	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
			• inform the requesting Code participant of the result of the verification and provide the verified energy data to that Code participant within the timeframes prescribed.				
414	Condition 4.1.1	Clause 5.21(2)	A network operator must comply with any reasonable request under subclause 5.21(1).	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
415	Condition 4.1.1	Clause 5.21(4)	A test or audit under subclause 5.21(1) is to be conducted in accordance with the metrology procedure and the applicable service level agreement.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
416	Condition 4.1.1	Clause 5.21(5)	A Code participant must not request a test or audit under subclause 5.21(1) unless the Code participant is a user and the test or audit relates to a time or times at which the user was the current user or the Code participant is the IMO.	4	TECH has not requested a test or audit during the audit period.	NP	NR
417	Condition 4.1.1	Clause 5.21(6)	A Code participant must not make a request under subclause 5.21(1) that is inconsistent with any access arrangement or agreement.	4	TECH has not requested a test or audit during the audit period.	NP	NR
418	Condition 4.1.1	Clause 5.21(8)	A network operator may only impose a charge for the testing of the metering installations, or auditing of information from the meters associated with the metering installations, or both, in accordance with the applicable	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
			service level agreement between it and the user.				
419	Condition 4.1.1	Clause 5.21(9)	Any written service level agreement entered into under subclause 5.21(7) must include a provision that no charge is to be imposed if the test or audit reveals a non- compliance with this Code.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
420	Condition 4.1.1	Clause 5.21(11)	If a test or audit shows that the accuracy of the metering installation or information from the meter associated with the metering installation does not comply with the requirements under this Code, the network operator must: • advise the affected parties as soon as practicable of errors detected under a test or audit, the possible duration of the errors; and • must restore the accuracy of the metering installation in accordance with the applicable service level agreement.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
421	Condition 4.1.1	Clause 5.21(12)	The original stored error correction data in a meter must not be altered except during accuracy testing and calibration of a metering installation.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
422	Condition 4.1.1	Clause 5.22(1)	A network operator must validate energy data in accordance with this Code applying, as a minimum, the prescribed rules and procedures set out	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
			in Appendix 2 and must, where necessary, substitute and estimate energy data under this Code applying, as a minimum, the prescribed rules and procedures set out in Appendix 3.				
423	Condition 4.1.1	Clause 5.22(2)	The network operator must use check metering data, where available, to validate energy data provided that the check metering data has been appropriately adjusted for differences in metering installation accuracy in accordance with subclause 3.13.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
424	Condition 4.1.1	Clause 5.22(3) *(Amended Feb. 2022)*	If a check meter is not available or energy data cannot be recovered from the metering installation within the time required under this Code, or if clause 5.22(7) applies, then the network operator must prepare substitute values using a method contained in Appendix 3 (or in the case of a substitution under clause 5.22(7), a method contained in the metrology procedure) and agreed where necessary with the relevant Code participants.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
425	Condition 4.1.1	Clause 5.22(4)	If a network operator detects a loss of energy data or incorrect energy data from a metering installation, it must notify each affected Code participant of the loss or error within 24 hours after detection.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
426	Condition 4.1.1	Clause 5.22(5)	Substitution or estimation of energy data is required when energy data is missing, unavailable or corrupted, including in the circumstances described in this subclause.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
427	Condition 4.1.1	Clause 5.22(6)	A network operator must review all validation failures before undertaking any substitution.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
428	Condition 4.1.1	Clause 5.23(1)	If a network operator determines that there is no possibility of determining an actual value for a metering point, then the network operator must designate an estimated or substituted value for the metering point to be a deemed actual value for the metering point.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
429	Condition 4.1.1	Clause 5.23(3)	If a network operator has designated a deemed actual value for a metering point, then the network operator must: • repair or replace the meter or one or more of components of metering equipment (as appropriate) at the metering point; and • subclauses 5.24(3(c) and 5.24(4) apply in respect of the estimated or substituted value which was designated to be the deemed actual value.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
430	Condition 4.1.1	Clause 5.24(1)	If a network operator uses an actual value (first value) for energy data for a metering point, and a better quality actual or deemed actual value is	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
			available (second value), the network operator must replace the first value with the second value if doing so would be consistent with good electricity industry practice.				
431	Condition 4.1.1	Clause 5.24(2)	If a network operator uses a deemed actual value (first value) for energy data for a metering point, and a better quality deemed actual value is available (second value), then the network operator must replace the first value with the second value if doing so would be consistent with good electricity industry practice.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
433	Condition 4.1.1	Clause 5.24(4)	A network operator (acting in accordance with good electricity industry practice) must consider any reasonable request from a Code participant for an estimated or substituted value to be replaced under subclause 5.24.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
434	Condition 4.1.1	Clause 5.25	A network operator must ensure the accuracy of estimated energy data in accordance with the methods in its metrology procedure and ensure that any transformation or processing of data preserves its accuracy in accordance with the metrology procedure.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
435	Condition 4.1.1	Clause 5.27	Upon request from a network operator, the current user for a connection point	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
			must provide the network operator with customer attribute information that it reasonably believes are missing or incorrect within the timeframes prescribed.				
438	Condition 4.1.1	Clause 5.31(1)	If a network operator makes an election under subclause 5.28 in relation to a network, the electricity networks corporation must assess the compliance of each metering installation in the network with this Code and notify the electing network operator of each non-compliant metering installation.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
439	Condition 4.1.1	Clause 5.31(2)	For each non-compliant metering installation notified under subclause 5.31(1)(b), the electing network operator may, by notice to the electricity networks corporation, require the electricity networks corporation to upgrade a non-compliant metering installation, in which case the electricity networks corporation must undertake the upgrade in accordance with the metering data agency agreement and good electricity industry practice.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
440	Condition 4.1.1	Clause 5.34(2)	Except to the extent that the metering data agency agreement provides otherwise, the costs which may be recovered by the electricity networks corporation under subclause 5.34(1)	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
			must not exceed the amounts prescribed.				
		Part 6	**Documentation**				
447	Condition 4.1.1	Clause 6.1(1)	A network operator must, in relation to its network, comply with the agreements, rules, procedures, criteria and processes prescribed.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
448	Condition 4.1.1	Clause 6.1(2)	A user must, in relation to a network on which it has an access contract, comply with the rules, procedures, agreements and criteria prescribed.	4	The auditor confirmed with the Plant Manager and site visit that in relation to the Metrology procedure, communication rules and mandatory link criteria, TECH's metering equipment is installed on the TECH side of the fence and is used for its own purposes. The official metering (to which the NMI is attached) is installed on the Horizon Power side of the fence and owned and operated by Horizon Power. As the official metering equipment is owned and operated by Horizon Power, TECH is not involved with activities under these documents,	NP	NR
448A	Condition 4.1.1	Clause 6.2	A network operator must, as soon as practicable and in any event no later than 6 months after the date this Code applies to it, submit to the ERA for its approval the prescribed documents in subclauses 6.2(a)-(d).	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
448B	Condition 4.1.1	Clause 6.18	A network operator must publish the document within 10 business days after notification of the ERA's approval under subclauses 6.13(1)(a)(i), 6.16 or 6.17.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
448C	Condition 4.1.1	Clause 6.19A(1)	A network operator must publish its communication rules as soon as practicable, and in any event within 6	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
			months after the date this Code applies to it.				
448D	Condition 4.1.1	Clause 6.19B(1)	Once communication rules have been published for a network under clause 6.19A, or amended under clause 6.21(3), the communication rules may only be amended thereafter in accordance with the communication rules made under subclause 6.7(1)(k) or clause 6.19C.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
449	Condition 4.1.1	Clause 6.20(4)	A network operator must amend any document in accordance with the ERA's final recommendation.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
450	Condition 4.1.1	Clause 6.20(5)	The network operator must publish any document that has been amended under subclause 6.20(4).	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A
		Part 7	**Notes and confidential information**				
451	Condition 4.1.1	Clause 7.2(1)	Code participants must use reasonable endeavours to ensure that they can send and receive a notice by post, facsimile and electronic communication and must notify the network operator of a telephone number for voice communication in connection with the Code.	4	From review during the audit, TECH has complied with the requirements. Email, phone and postal address are available.	NP	1
452	Condition 4.1.1	Clause 7.2(2)	A network operator must notify each Code participant of its initial contact details and of any change to its contact details at least 3 business days before the change takes effect.	4	TECH is not a network operator. Therefore, this obligation has been rated as not applicable.	NP	N/A

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
453	Condition 4.1.1	Clause 7.2(4)	If requested by a network operator with whom it has entered into an access contract, the Code participant must notify its contact details to a network operator within 3 business days after the request.	4	TECH has complied with this obligation. There have been no changes to the contact details in the audit period.	NP	NR
454	Condition 4.1.1	Clause 7.2(5)	A Code participant must notify any affected network operator of any change to the contact details it notified to the network operator under subclause 7.2(4) at least 3 business days before the change takes effect.	4	TECH has complied with this obligation. There have been no changes to the contact details in the audit period.	NP	NR
455	Condition 4.1.1	Clause 7.5	A Code participant must subject to subclauses 5.17A and 7.6 not disclose, or permit the disclosure of, confidential information provided to it under or in connection with the Code and may only use or reproduce confidential information for the purpose for which it was disclosed or another purpose contemplated by the Code.	4	The Commercial Manager confirmed that TECH has not disclosed or permitted the disclosure of confidential information.	NP	1
456	Condition 4.1.1	Clause 7.6(1)	A Code participant must disclose or permit the disclosure of confidential information that is required to be disclosed by the Code.	4	TECH has not been required to disclose or permit the disclosure of confidential information that is required to be disclosed by the Code during the audit period.	NP	NR
		Part 8	**Dispute resolution**				
457	Condition 4.1.1	Clause 8.1(1)	If any dispute arises between any Code participants, then (subject to subclause 8.2(3)) representatives of disputing parties must meet within 5 business days after a notice given by a	4	The Commercial Manager confirmed that there have been no disputes between Code participants within the audit period. Therefore, this obligation has not been rated.	NP	NR

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
			disputing party to the other disputing parties and attempt to resolve the dispute by negotiations in good faith.				
458	Condition 4.1.1	Clause 8.1(2)	If a dispute is not resolved within 10 business days after the dispute is referred to representative negotiations, the disputing parties must refer the dispute to a senior management officer of each disputing party who must meet and attempt to resolve the dispute by negotiations in good faith.	4	As per obligation 457.	NP	NR
459	Condition 4.1.1	Clause 8.1(3)	If the dispute is not resolved within 10 business days after the dispute is referred to senior management negotiations, the disputing parties must refer the dispute to the senior executive officer of each disputing party who must meet and attempt to resolve the dispute by negotiations in good faith.	4	As per obligation 457.	NP	NR
460	Condition 4.1.1	Clause 8.1(4)	If the dispute is resolved by representative negotiations, senior management negotiations or CEO negotiations, the disputing parties must prepare a written and signed record of the resolution and adhere to the resolution.	4	As per obligation 457.	NP	NR
461	Condition 4.1.1	Clause 8.3(2)	The disputing parties must at all times conduct themselves in a manner which is directed towards achieving the objective in subclause 8.3(1).	4	As per obligation 457.	NP	NR

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
ELECTRICITY INDUSTRY NETWORK QUALITY AND RELIABILITY OF SUPPLY CODE							
462	Condition 4.1.1	Clause 5(1))	A distributor or transmitter must, as far as reasonably practicable, ensure that electricity supply to a customer's electrical installations complies with prescribed standards.	4	TECH is not a distributor or transmitter. Therefore, this obligation has been rated as not applicable.	NP	N/A
463	Condition 4.1.1	Clause 8	A distributor or transmitter must, so far as reasonably practicable, disconnect the supply of electricity to installations or property in specified circumstances, unless it is in the interest of the customer to maintain the supply.	4	TECH is not a distributor or transmitter. Therefore, this obligation has been rated as not applicable.	NP	N/A
464	Condition 4.1.1	Clause 9	A distributor or transmitter must, as far as reasonably practicable, ensure that the supply of electricity is maintained and the occurrence and duration of interruptions is kept to a minimum.	4	TECH is not a distributor or transmitter. Therefore, this obligation has been rated as not applicable.	NP	N/A
465	Condition 4.1.1	Clause 10(1)	A distributor or transmitter must, so far as reasonably practicable, reduce the effect of any interruption on a customer.	4	TECH is not a distributor or transmitter. Therefore, this obligation has been rated as not applicable.	NP	N/A
466	Condition 4.1.1	Clause 10(2)	A distributor or transmitter must consider whether, in specified circumstances, it should supply electricity by alternative means to a customer who will be affected by a proposed interruption.	4	TECH is not a distributor or transmitter. Therefore, this obligation has been rated as not applicable.	NP	N/A
468	Condition 4.1.1	Clause 13(2)	A distributor or transmitter must, so far as reasonably practicable, ensure that customers in specified areas do not	4	TECH is not a distributor or transmitter. Therefore, this obligation has been rated as not applicable.	NP	N/A

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
			have average total lengths of interruptions of supply greater than specified durations.				
469	Condition 4.1.1	Clause 13(3)	The average total length of interruptions of supply is to be calculated using the specified method.	4	TECH is not a distributor or transmitter. Therefore, this obligation has been rated as not applicable.	NP	N/A
470	Condition 4.1.1	Clause 14(8)	A distributor or transmitter must, on request, provide to an affected customer a free copy of an instrument issued by the Minister and of any notice given under section 14(7) of *the Electricity Industry (Network Quality and Reliability of Supply) Code 2005.*	4	TECH is not a distributor or transmitter. Therefore, this obligation has been rated as not applicable.	NP	N/A
471	Condition 4.1.1	Clause 15(2)	A distributor or transmitter that agrees with a customer to exclude or modify certain provisions must set out the advantages and disadvantages to the customer of doing so in their agreement.	4	TECH is not a distributor or transmitter. Therefore, this obligation has been rated as not applicable.	NP	N/A
472	Condition 4.1.1	Clause 18	A distributor operating a relevant distribution system must, in specified circumstances, make a payment to a customer within a specific timeframe for a failure to give required notice of planned interruption.	4	TECH is not a distributor or transmitter. Therefore, this obligation has been rated as not applicable.	NP	N/A
473	Condition 4.1.1	Clause 19	A distributor operating a relevant distribution system must, in specified circumstances, make a payment to a customer within a specific timeframe if a supply interruption exceeds 12 hours.	4	TECH is not a distributor or transmitter. Therefore, this obligation has been rated as not applicable.	NP	N/A

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
474	Condition 4.1.1	Clause 21(1)	A distributor operating a relevant distribution system must provide eligible customers with information about applying for payments for failure to meet the requirements in sections 18 and 19 of the *Electricity Industry (Network Quality and Reliability of Supply) Code 2005.*	4	TECH is not a distributor or transmitter. Therefore, this obligation has been rated as not applicable.	NP	N/A
475	Condition 4.1.1	Clause 21(2)	A distributor operating a relevant distribution system must provide written notice to customers about payments for failure to meet the requirements in sections 18 and 19 of the *Electricity Industry (Network Quality and Reliability of Supply) Code 2005.*	4	TECH is not a distributor or transmitter. Therefore, this obligation has been rated as not applicable.	NP	N/A
476	Condition 4.1.1	Clause 21(3)	A distributor operating a relevant distribution system must provide written notice to eligible customers about payments for failure to meet the requirements in sections 18 and 19 of the *Electricity Industry (Network Quality and Reliability of Supply) Code 2005* not less than once in each financial year.	4	TECH is not a distributor or transmitter. Therefore, this obligation has been rated as not applicable.	NP	N/A
477	Condition 4.1.1	Clause 23(1)	A distributor or transmitter must take all such steps as are reasonably necessary to monitor the operation of its network to ensure compliance with specified requirements.	4	TECH is not a distributor or transmitter. Therefore, this obligation has been rated as not applicable.	NP	N/A
478	Condition 4.1.1	Clause 23(2)	A distributor or transmitter must keep records of information regarding its	4	TECH is not a distributor or transmitter. Therefore, this obligation has been rated as not applicable.	NP	N/A

No[3]	Licence Condition	Legislative Reference	Description	Audit Priority[4]	Systems, Processes, Controls in Place to Comply with Licence *(including any recommendations)*	Adequacy of Controls Rating[5]	Compliance Rating[6]
			compliance with specific requirements for the period specified.				
479	Condition 4.1.1	Clause 24(3)	A distributor or transmitter must complete a quality investigation requested by a customer in accordance with specified requirements.	4	TECH is not a distributor or transmitter. Therefore, this obligation has been rated as not applicable.	NP	N/A
480	Condition 4.1.1	Clause 24(4)	A distributor or transmitter must report the results of an investigation to the customer concerned.	4	TECH is not a distributor or transmitter. Therefore, this obligation has been rated as not applicable.	NP	N/A

3.7 Audit Recommendations

Table of Current Audit Non- Compliances and Recommendations

A. Resolved during current audit period			
Recommendation (no./year)	**Non-Compliance/Controls Improvement** (Rating/Licence obligation ref. and obligation/Non-compliance or inadequacy of control)	**Date Resolved** (& management action taken)	**Auditor's Comments**
-	**Payment of Licence Fees** **A2** *Obligation 105* *A licensee must pay the prescribed licence fees to the ERA according to clauses 6, 7 and 8 of the Economic Regulation Authority (Licensing Funding) Regulations 2014.* As reported in the Compliance Report to the ERA for 2019/20, TECH did not comply with this obligation as payment was later than one month on three separate occasions for two invoices issued in June 2018 and one invoice issued in December 2018.	TECH has put in place quarterly reminders in the contract management system for the receipt and payment of invoices and changed the email address for invoices to a generic 'accounts payable' email address. Subsequent payments have been made by the due dates.	As this issue has been resolved, no further recommendation is made.

B. Unresolved at end of current audit period			
Recommendation (no./year)	**Non-Compliance/Controls Improvement** (Rating/Licence obligation ref. and obligation/Non-compliance or inadequacy of control)	**Auditor's Recommendation**	**Action taken by the licensee by end of audit period**
	Nil		

4. Asset Management System Review

4.1 Description of Infrastructure

TEC Hedland Pty Ltd (TECH) is a subsidiary of TransAlta Energy (Australia) Pty Ltd.

TECH holds an integrated regional licence (EIRL9) under the provisions in the *Electricity Industry Act 2004 ('the Act').* TECH owns and operates a dual fuel (natural gas and diesel) fired facility supplying electricity to Horizon Power and The Pilbara Infrastructure Pty Ltd (a subsidiary of the Fortescue Metals Group) (FMG) on Horizon Power's transmission and distribution network. The electricity generated services FMG's port operations located in Port Hedland and provides additional capacity for the Pilbara to meet the long term electricity requirements of Horizon Power.

TECH's assets are solely located at South Hedland Power Station in the Pilbara Region of Western Australia. This 150 megawatt (MW) combined cycle power station was built by TECH under an engineering, procurement and construction (EPC) contract with IHI Engineering Australia. TECH now owns and operates the power station. There are two Power Purchase Agreements (PPA) governing supply to the two foundation customers, Horizon Power (HP) and FMG. The PPA term for both foundation customers is 25 years.

Since the previous audit in 2018, TECH has upgraded the station to provide black start capability for Horizon Power in 2019 and purchased a spare engine in 2021 to have a spare stored at site. Commenced PPA with Fortescue (The Pilbara Infrastructure Pty Ltd) in January 2022 which is in addition to the existing PPA with Horizon Power.

This audit and review covers the period from 1 November 2018 to 30 June 2022.

The audit and review approach is based on the compliance obligations set out in the Licence, applicable legislation, regulatory guidelines (Electricity Compliance Reporting Manual - February 2022 and previous versions June 2020 and July 2018) and the 2019 Audit and Review Guidelines: Electricity and Gas Licences.

4.2 Objectives and Scope

The objective of the review was to assess the adequacy and effectiveness of the asset management system in place for the undertaking, maintenance and monitoring of the licensee's assets.

The scope of the review included an assessment of the adequacy and effectiveness of the asset management system by evaluating the key processes of:

- Asset planning
- Asset creation/acquisition
- Asset disposal
- Environmental analysis
- Asset operations
- Asset maintenance
- Asset management information system
- Risk management
- Contingency planning
- Financial planning
- Capital expenditure planning
- Review of the asset management system.

The highest priority areas (priority 1, 2 or 3) based on inherent risk and the previous review's effectiveness ratings were:

Priority 2

- Asset Planning *(High inherent risk)*

- Environmental Analysis *(High inherent risk)*
- Contingency Planning *(High inherent risk)*.

The status of the previous review recommendations was also reviewed. Refer section 4.5.

4.3 Asset Management Process and Performance Rating Scales

The adequacy of process policy and definition and the performance of the key processes were assessed using the scales described in the tables below. The overall effectiveness rating for each asset management process is based on a combination of the process and policy adequacy rating and the performance rating.

Asset Management Process and Policy Definition - Adequacy ratings

RATING	DESCRIPTION	CRITERIA
A	Adequately defined	• Processes and policies are documented. • Processes and policies adequately document the required performance of the assets. • Processes and policies are subject to regular reviews and updated where necessary. • The asset management information system(s) are adequate in relation to the assets that are being managed.
B	Requires some improvement	• Process and policy documentation require improvement. • Processes and policies do not adequately document the required performance of the assets. • Reviews of processes and policies are not conducted regularly enough. • The asset management information system(s) requires minor improvements (taking into consideration the assets being managed).
C	Requires significant improvement	• Process and policies are incomplete or require substantial improvement. • Processes and policies do not document the required performance of the assets. • Processes and policies are considerably out of date. • The asset management information system(s) requires substantial improvement (taking into consideration the assets being managed).
D	Inadequate	• Processes and policies are not documented. • The asset management information system(s) is not fit for purpose (taking into consideration the assets being managed).

Asset Management Performance Ratings

RATING	DESCRIPTION	CRITERIA
1	Performing effectively	• The performance of the process meets or exceeds the required levels of performance. • Process effectiveness is regularly assessed, and corrective action taken where necessary.
2	Opportunity for improvement	• The performance of the process requires some improvement to meet the required level. • Process effectiveness reviews are not performed regularly enough. • Process improvement opportunities are not implemented.
3	Corrective action required	• The performance of the process requires significant improvement to meet the required level. • Process effectiveness reviews are performed irregularly, or not at all. • Process improvement opportunities are not implemented.
4	Some action required	• Process is not performed, or the performance is so poor that the process is considered to be ineffective.

4.4 Summary of Asset Management System Effectiveness Ratings

The review's assessment of the asset management system process and policy definitions and their effectiveness, based on the ratings scale in Section 4.3, is shown in the table below.

Section 4.6 provides further details of the current rating results for each process in the asset management system.

Summary of Asset Management Performance Ratings

Process and Policy Definition – Adequacy Rating	Performance Rating for Effectiveness Criteria					
	Rating	1 Performing effectively	2 Opportunity for improvement	3 Corrective action required	4 Some action required	Total
	A -Adequately defined	52	-	-	-	**52**
	B – Requires some improvement	-	4	2	-	**6**
	C – Requires significant improvement	-	-	-	-	**-**
	D – Inadequate	-	-	-	-	**-**
	Total	**52**	**4**	**2**	**-**	**58**

Asset Management System Performance Ratings

ASSET MAN/AGEMENT SYSTEM COMPONENT & EFFECTIVENESS CRITERIA	Process and Policy rating				Performance rating				
	Adequately defined	Requires some improvement	Requires significant improvement	Inadequate	Performing effectively	Opportunity for improvement	Corrective action required	Serious action required	Not Rated
	A	B	C	D	1	2	3	4	NR
1. Asset planning	**A**				**1**				
1.1 Asset management plan covers the processes in this table.	✓				✓				
1.2 Planning process 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 options (e.g. demand management) are considered.	✓				✓				

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	A	B	C	D	1	2	3	4	NR
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 are regularly reviewed and updated.	✓				✓				
2. Asset creation/ acquisition	**A**				**1**				
2.1 Full project evaluations are undertaken for new assets, including comparative assessment of non-asset solutions.	✓				✓				
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	**A**				**1**				
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		**B**				**2**			
4.1 Opportunities and threats in the asset management system environment are assessed.		✓				✓			

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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 Achievement of customer service levels.	✓				✓				
5. Asset operations	**A**				1				
5.1 Operational policies and procedures are documented and linked to service levels required.	✓				✓				
5.2 Risk management is applied to prioritise operations tasks.	✓				✓				
5.3 Assets are documented in an Asset Register including asset type, location, material, plans of components, and an assessment of assets' physical/structural condition.	✓				✓				
5.4 Accounting data is documented for assets.	✓				✓				
5.5 Operational costs are measured and monitored.	✓				✓				
5.6 Staff resources are adequate and staff receive training commensurate with their responsibilities.		✓				✓			
6. Asset maintenance		**B**				**2**			
6.1 Maintenance policies and procedures are documented and linked to service levels required.	✓				✓				
6.2 Regular inspections are undertaken of asset performance and condition.		✓				✓			
6.3 Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule.		✓					✓		
6.4 Failures are analysed and operational/maintenance plans adjusted where necessary.	✓				✓				
6.5 Risk management is applied to prioritise maintenance tasks.	✓				✓				
6.6 Maintenance costs are measured and monitored.	✓				✓				

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7. Asset Management Information System	**A**				**1**				
7.1 Adequate system documentation for users and IT operators.	✓				✓				
7.2 Input controls include appropriate verification and validation of data entered into the system.	✓				✓				
7.3 Security access controls appear adequate, such as passwords.	✓				✓				
7.4 Physical security access controls appear adequate.	✓				✓				
7.5 Data backup procedures appear adequate and backups are tested.	✓				✓				
7.6 Computations for licensee performance reporting are accurate.	✓				✓				
7.7 Management reports appear adequate for the licensee to monitor licence obligations.	✓				✓				
7.8 Adequate measures to protect asset management data from unauthorised access or theft by persons outside the organisation.	✓				✓				
8. Risk management	**A**				**1**				
8.1 Risk management policies and procedures exist and are being applied to minimise internal and external risks associated with the asset management system.	✓				✓				
8.2 Risks are documented in a risk register and treatment plans are actioned and monitored.	✓				✓				
8.3 The probability and consequences of asset failure are regularly assessed.	✓				✓				
9. Contingency planning		**B**					**3**		
9.1 Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks.		✓					✓		
10. Financial planning	**A**				**1**				
10.1 The financial plan states the financial objectives and identifies strategies and actions to achieve those.	✓				✓				

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10.2 The financial plan identifies the source of funds for capital expenditure and recurrent costs.	✓				✓				
10.3 The financial plan provides projections of operating statements (profit and loss) and statement of financial position (balance sheets).	✓				✓				
10.4 The financial plan provides firm predictions on income for the next five years and reasonable indicative predictions beyond this period.	✓				✓				
10.5 The financial plan provides for the operations and maintenance, administration and capital expenditure requirements of the services.	✓				✓				
10.6 Large variances in actual/budget income and expenses are identified and corrective action taken where necessary.	✓				✓				
11. Capital expenditure planning	**A**				**1**				
11.1 There is a capital expenditure plan covering works to be undertaken, actions proposed, responsibilities and dates.	✓				✓				
11.2 The capital expenditure plan provides reasons for capital expenditure and timing of expenditure.	✓				✓				
11.3 The capital expenditure plan is consistent with the asset life and condition identified in the asset management plan.	✓				✓				
11.4 There is an adequate process to ensure that the capital expenditure plan is regularly updated and implemented.	✓				✓				
12. Review of asset management system	**A**				**1**				
12.1 A review process is in place to ensure that 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.	✓				✓				

4.5 Status of Previous Review Recommendations

The previous review covered the period from 15 October 2014 to 31 October 2018 and was reported in February 2019. There were no recommendations in the previous review that were rated as process C or D or effectiveness 3 or 4[7].

Reference (no./year)	**Previously Assessed Process and Policy Deficiency** (Rating, Asset management process, Details)	**Previous Recommendation and *Action Taken***	**Date Resolved**	**Further action required** Details of any further action required
A. Resolved before end of previous review				
	Nil			
B. Resolved during current review period				
	Nil			

[7] *Note: As per the Audit and Review Guidelines, recommendations from the previous review that were rated as process C or D and/or effectiveness of 3 or 4 are listed in the following table together with the current status of actions to address the recommendations. Recommendations for improvements at higher ratings are no longer required to be reported in this report.*

4.6 Detailed Review Observations

Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
1	**ASSET PLANNING**			A	1
1.1	2	Asset management plan covers the processes in this table	TECH has an Asset Management Plan (AMP) – South Hedland Power Station (SHPS) that was revised in August 2021 and is reviewed annually. The AMP defines the activities required over the life of the asset to achieve the strategic objectives and desired customer levels of service. The plan represents an integrated view of financial, commercial, human resources, operations, maintenance and engineering perspective required to manage the facility. The relationship between organisational level and asset integration focus is illustrated in Sections 4.1 and 4.2 in the AMP. This establishes the responsibilities for the different asset management levels and the systems, processes, procedures and other key documentation. Maintenance and operational works are assigned to site maintenance and operational teams and carried out by them. Other functions are handled by head office teams.	A	1
1.2	4	Planning processes and objectives reflect the needs of all stakeholders and are integrated with business planning	TECH has a full governance structure across the development and finance for new projects. This is set out in the AMP, including the major stakeholders. TECH has Power Purchasing Agreements (PPAs) with Horizon Power and FMG. Performance guarantees under the PPA contract terms are set out in the AMP. The PPAs are structured as capacity based PPAs, with some variable operational and maintenance charges included in the contract. TECH's AMP acknowledges that operating and maintenance strategies will need to be modified if there are changes to the PPAs depending on the extent of Horizon Power's and FMG's operations into the future. Depending on the future operating scenarios, this may involve moving major maintenance events, reducing operating spares, changing duty/standby programs and decommissioning plant to meet changing demand.	A	1

Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
			Appropriate capital and operating plans and budgets will be developed by TECH depending on the future energy requirements of its customers.		
1.3	4	Service levels are defined in the asset management plan	Levels of Service are covered under the Horizon Power Technical Rules for the NWIS. The PPA between TECH and Horizon Power requires TECH to comply with the Technical Rules. The Technical Rules are owned by Horizon Power and included as an annexure to the PPA. The PPA includes dispatch and operational requirements and provide the operational context of how TECH need to operate the SHPS in order to provide the necessary electricity to Horizon Power. Heat rates are required to be maintained at the optimum level through sound operating and maintenance practices. The PPAs specifies availability targets for the SHPS and there are financial incentives for meeting the targets. PPA obligations are managed through the Australian Contract Management System Database. This database is set up to provide automatic notifications to the relevant owners, with an escalation mechanism to ensure the obligations are met. In addition to the requirements of the contracts, TECH has internal performance indicators for gas turbine trip reliability, Root Cause Analysis (RCA) investigations and the Injury Frequency Rate (IFR). Safety KPIs are developed each year as part of TransAlta's "Target Zero Initiative" and business planning.	A	1
1.4	4	Non-asset options (e.g. demand management) are considered	TransAlta Corporate has well-developed and documented asset management criteria, procedures and planning requirements which are applied across all of TransAlta's assets, including TECH's. External independent consultants are used to prepare and/or confirm financial models, performance analysis, comparisons between different technical solutions, preparation of tender documents, vetting of options analysis etc.	A	1

Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
1.5	4	Lifecycle costs of owning and operating assets are assessed	The AMP includes a Whole of Life (WOL) Asset Plan, encapsulated as the Great White model. This combined with the Long Range Forecast (LRF) will help provide managers, the data to estimate when major critical equipment should be replaced based on best knowledge at the time. There are financial Long (LRF) Range Forecasts that use historical data and estimates to determine revenues and spend till the forecast end of SHPS. The Major maintenance model covering HSE and Major Overhaul is covered in 17.3 Maintenance The plant has a nominal 25 year asset life, and so is currently forecast to expire in 2042. Full lifecycle costs are included in the project development. TECH uses TransAlta's corporate gateway processes for approval of the project through the different stages before it is added to the approved capital program. Lifecycle costs are taken into consideration when assessing new assets.	A	1
1.6	4	Funding options are evaluated	Capital expenditure is analysed on a global basis across all of TransAlta's operations, including those in Australia. The assets are compared on an asset by asset basis, using normalised ranking methods. Costs, risks, timing and other considerations are factored. Typically asset projects are funded from TECH's balance sheet or from debt equity. Capital funds are sourced from TransAlta in Canada.	A	1
1.7	4	Costs are justified and cost drivers identified	Full lifecycle costs are included in the project development. TECH uses TransAlta's corporate gateway processes for approval of the project through the different stages before it is added to the approved capital program. TECH has a detailed short-term forecast for the next three years. The long-term forecast goes out to 20 years. TECH interacts with its customers to develop its future asset planning and identify the future asset portfolio.	A	1

Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
1.8	4	Likelihood and consequences of asset failure are predicted	Performance of existing assets are regularly monitored and checked against expected performance – underperforming assets are flagged for critical review for remedial actions and/or ultimately for disposal if justified. Investments for new assets are critically reviewed in accordance with TransAlta's asset investment / asset creation criteria, including financial considerations, technology choices, technical alternatives, operations and maintenance considerations, etc. Asset replacements are based on asset performance, in many instances utilising hours run. This takes into account the likelihood and consequences of asset failure and is monitored regularly. As with new assets, the justification for asset retirement is strictly considered and takes into account not only financial factors, but technological, environmental, commercial / legal and relative benefit, comparing continuation of operating and maintaining the underperforming asset versus replacing it.	A	1
1.9	4	Asset management plan is regularly reviewed and updated	The AMP has an annual review process set up in Total Safety Documents, the corporate system. The AMP was reviewed in August 2021 and the next review is due in November 2022.	A	1
2		**ASSET CREATION/ ACQUISITION**		A	1
2.1	4	Full project evaluations are undertaken for new assets, including comparative assessment of non-asset solutions.	Requests for new assets are generally driven directly by customer needs. Utilisation of assets is assessed to review if an operations solution is feasible rather than a solution based on acquiring or creating a new asset. TECH are required to follow the corporate financial policies with regard to project planning and purchasing. TECH use the TransAlta corporate Australian Capital Process to summarise the capital projects and present the business case in order to receive funding. Gate checks, as part of the Australian Capital Process, are used to assess the options at an earlier stage prior to the preparation of the AFE template. Gate 2 is required to be passed to progress developing the AFE. Approvals for	A	1

Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
			individual spend/projects are granted by the Australian Managing Director (MD) once the Capital budget is approved. If the proposed project is estimated to cost more than $0.5M, the project has to be approved by the Australian MD. The TransAlta Application for Expenditure (AFE) template includes associated operating costs impacting from the new capital spend, details of the people involved in the project, the project details, project alternatives and supplier.		
2.2	4	Evaluations include all life-cycle costs.	TECH use the TransAlta corporate Australian Capital Process to summarise the capital projects and present the business case in order to receive funding. The TransAlta Application for Expenditure (AFE) template includes associated operating costs impacting from the new capital spend (lifecycle costs), details of the people involved in the project, the project details, project alternatives and supplier. Engineering and development teams are responsible for reviewing technical designs. Internal engineering standards are used for the development of new assets.	A	1
2.3	4	Projects reflect sound engineering and business decisions.	For new asset projects, costs, risks, rate of return requirements, funding and approval processes are assessed. Once a project has been approved, it goes through the corporate processes to form the arrangements for that specific project, e.g. expenditure and contract term sheets for the business unit responsible, legal and tax implications, etc. There are also approval processes for international approval as Canadian laws, under which TransAlta's global business operate, differ from Australian laws that their Australian operations are subject to. Projects are screened to look at options and to assess risks, timeframes and technology to arrive at the best solution. Hybrid solutions are also considered. Designs for plant augmentation and remedial work are typically done in-house (using TransAlta's corporate engineering and technical resources) but are also commonly outsourced to engineering companies who specialise in the various services.	A	1

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2.4	4	Commissioning tests are documented and completed.	Major maintenance for the turbines and generators is conducted by GE under a Long-Term Service Agreement (LTSA) in place, with minor servicing and repairs conducted by TransAlta site personnel. Commissioning tests are documented and completed for any asset replacements or upgrades.	A	1
2.5	4	Ongoing legal/environmental/safety obligations of the asset owner are assigned and understood.	Ongoing legal, environmental and safety obligations in relation to asset creation/acquisition are understood by TECH (refer Environmental Analysis section).	A	1
3		**ASSET DISPOSAL**		A	1
3.1	4	Under-utilised and under-performing assets are identified as part of a regular systematic review process.	TECH polices for disposal are included in its Financial Policy. TransAlta corporate document "230(k) Decommissioning & Restoration Obligations" details the financial requirements for decommissioning and 230(a) describes de-recognition as capital of disposed asset. Performance of existing assets are regularly monitored and checked against expected performance. Underperforming assets are flagged for critical review for remedial actions and/or ultimately for disposal if justified. Hot section replacements are examples of scheduled and monitored major maintenance activities for TECH's turbines.	A	1
3.2	4	The reasons for under-utilisation or poor performance are critically examined and corrective action or disposal undertaken.	Performance of existing assets is regularly monitored and checked against expected performance. Underperforming assets are flagged for critical review for remedial actions and/or ultimately for disposal if justified.	A	1
3.3	4	Disposal alternatives are evaluated.	Condition based performance monitoring and testing – results of which are considerations for any asset remedial and/or disposal decisions. Asset disposals are recorded in TECH's asset register in SAP. The scrap or sale values of disposed assets are recorded in the system. TECH has not disposed of any assets during the review period.	A	1

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3.4	4	There is a replacement strategy for assets.	Replacement strategies for different assets are set out in the Engineering Standard documents. The Standards provide the policies, guidelines, expectations for inspection and maintenance activities for different types of assets. When the gas turbines have completed 50,000 running hours, the engines will be replaced with new or refurbished engines.	A	1
4		**ENVIRONMENTAL ANALYSIS**		B	2
4.1	2	Opportunities and threats in the system environment are assessed.	Through discussion with the O&M Supervisor for SHPS Operations, examination of relevant supporting documentation and a site visit, the review determined: • SHPS utilises TECH's procedure "GAS.02.1471 EMERGENCY PREPAREDNESS AND RESPONSE" for reporting • Review of this procedure identified the following improvement opportunities for TransAlta to update their processes and procedures: 1) Due to the proximity of the Evaporation ponds to the Site Offices at SHPS, TransAlta needs to consider updating their current procedures to include Evaporation Pond Management via retrofitting Mechanical Aeration methods and/or by maintaining a regular Chemical Dosing Regime. This will avoid mosquito breeding leading to ross river virus, legionella infections, etc. 2) In the light of current events, TransAlta needs to consider addition of Emergency Response Procedure for Contagious Disease Management such as pandemic outbreak, etc. into their current procedures. It was noted that COVID-19 preparedness drills were conducted in 2021 and 2022. The procedure needs to be updated to align with the drills.	B	2
4.2	4	Performance standards (availability of service, capacity, continuity, emergency response, etc.) are measured and achieved.	Through discussion with the O&M Supervisor for SHPS Operations, review of relevant supporting documentation and a site visit, the review determined:	A	1

Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
			• Asset performance is regularly monitored. Incentives and penalties are included in the PPAs for fuel conversion efficiencies, plant availability and reliability, impact on production, unplanned outages, etc. • Key Performance Indicators are set out in the AMP document. • There is a strong commitment to root cause analysis for all incidents, particularly those causing loss of production and/or non-compliances with any statutory or PPA requirements. • Utilisation of fuel and maintenance are cost drivers. • TECH uses the corporate Safety Performance Reporting ((Synergi)) for its incident reporting. This system utilises an online set-up that all the staff in the business can access.		
4.3	4	Compliance with statutory and regulatory requirements.	Through discussion with the O&M Supervisor for SHPS Operations, review of relevant supporting documentation and a site visit, the review determined: • Management of compliance is achieved through the Environmental, Health & Safety Plan and associated procedures. • All of the process units are bunded to prevent discharges to the environment and any collected water is pumped to the oily water separators. • TECH undertakes annual National Greenhouse and Energy Reporting (NGER) and National Pollutant Inventory (NPI) reporting. It also reports internally on a number of sustainability performance indicators. • TECH has a process to put its greenhouse gas data into a series of verification sheets for each of its sites. The Plant Managers at each site collect the sheets from the Operations staff and verify the data on a monthly basis. The data collected includes diesel and gas used for electricity generation and vehicles.	B	2

Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
			• "Operational Emissions Thresholds" are defined in the Environmental operating licence. • Permits and training are required to carry out hot work activities, and for working at heights and confined space entry. Lock out tag out procedures are in place. The review determined that TransAlta had one breach of compliance of the SHPS statutory and regulatory environmental obligations related to the Department of Water and Environmental Regulation (DWER) reporting during the review period. This related to the omission of one quarterly sampling of the bores in February 2022. As this has been rectified, no further action is recommended.		
4.4	4	Achievement of customer service levels.	Through discussion with the O&M Supervisor for SHPS Operations, review of relevant supporting documentation and a site visit, the review determined that the PPAs specify the levels of service to the clients. Heat rates are required to be maintained at the optimum levels through sound operating and maintenance practices. These are monitored and have been achieved in the review period.	A	1
5		**ASSET OPERATIONS**		B	2
5.1	4	Operational policies and procedures are documented and linked to service levels required.	Through discussion with the O&M Supervisor for SHPS Operations, review of relevant supporting documentation and a site visit, the review determined: • Operational policies and procedures are documented through the SHPS AMP, PPAs with the clients and the Power Generation Operational Plan. • The service levels requirements are either defined explicitly or derived from these documents. • Operational procedures and manuals are maintained electronically in TransAlta's document management system and are readily accessible.	B	2

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			• Reliability and maintenance requirements are also set up in the AMP – SHPS FY2022 – FY2025. • SHPS is controlled remotely from Control Room at TransAlta's Parkeston Power Station in Kalgoorlie that is manned 24/7/365. • Performance monitoring is driven by the requirements of the contracts with Horizon Power and FMG. • The SCADA system is used to provide all real-time monitoring information, data trending, alarming and reporting, which is backed up on a Plant Historian system. • In addition to the SCADA, IEA Corporation are monitoring the SHPS performance remotely and provide weekly reports. • TECH's metering for the SHPS is on the low voltage line inside the boundary of the facility. This is the delivery point to both Horizon Power and FMG and these meters are used for billing both of TECH's customers. • There is a relay back from the Horizon Power substation downstream of the SHPS that is used to show the load to the Port and how much of the total production is being provided to FMG. • Gas nominations are completed daily to meet the contractual output of the SHPS. The gas supply to the SHPS is provided by Horizon Power and FMG through a piped supply to the plant. • SHPS has approximately two days of diesel stored onsite that can be used in an emergency to power the turbines if there is no available gas. • Provisions for outages are agreed between the parties. • The weekly production performance meeting is used by TECH to review and assess performance, the current financial situation, any work carried out and any outages that have been experienced.		

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			It was noted that upon requesting Black Start Testing procedure "GAS.05.1536SHPS Black Start of the 11 220 KV Step Up Transformer", and testing frequencies/proof of testing, it became obvious that SHPS do not test their Black Start Capability at regular intervals because this cannot be achieved without taking out their customers, Horizon Power and FMG. This defeats the purpose of having the Black Start Capability without the ability to offline test the engine start capability. An improvement opportunity is to upgrade the Black Start system to provide periodic offline testing capability. Alternatively, SHPS needs to have an agreement with their customers to have regular outage periods for purposes of testing, in order to ensure the integrity of the Black Start Capability.		
5.2	4	Risk management is applied to prioritise operations tasks.	Through discussion with the O&M Supervisor for SHPS Operations, review of relevant supporting documentation and a site visit, the review determined: • TransAlta maintains an All-Australia Risk Register for all TransAlta's facilities, including SHPS. • Risk assessments and risk quantification are carried out throughout TransAlta's business activities, including SHPS assets based on criticality. • TECH uses the corporate Total Safety Documents (TSD) system for its risk management. The dashboard provides access to the consequence guidelines, risk matrices and responsibilities. • TECH uses a corporate risk register for all TransAlta Australia sites, which can be filtered to show only SHPS risks. • Permits and training are required to carry out hot work activities, and for working at heights and confined space entry. Lock out tag out procedures are in place. • TECH's training requirements and management of compliance training are very comprehensive. • Incident reports are completed when required and high-consequence incidents are escalated to corporate level.	A	1

Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
			• TECH uses the corporate TapRooT root cause analysis tool to assess asset failures and significant near misses based on risk assessment.		
5.3	4	Assets are documented in an Asset Register including asset type, location, material, plans of components, and an assessment of assets' physical/structural condition and accounting data.	Through discussion with the O&M Supervisor for SHPS Operations, review of relevant supporting documentation and a site visit, the review determined: • Assets are registered in a fixed assets and equipment register in SAP, which details the asset type, location, material and drawings. • Condition information from inspection and maintenance tasks is captured in the work orders and related back to the functional location descriptor. Asset scores are not assigned but the work orders are used to record and highlight any issues. • The weekly production performance meeting is used by TECH to review and assess performance, the current financial situation, any work carried out and any outages that have been experienced. • Operations and performance data is analysed to assess trends. • The operations and performance information are reported up to the Group Operations Manager. • Monthly operation outcomes are included in the monthly invoice to TECH's customers, Horizon Power and FMG, to allow the operations outcomes to be validated by the customer.	A	1
5.4	4	Accounting data is documented for assets.	Through discussion with the O&M Supervisor for SHPS Operations, review of relevant supporting documentation and a site visit, the review determined: • TECH are required to follow the corporate financial policies about project planning and purchasing. • TECH uses SAP for the operational asset register. SAP is configured with a functional location structure, which sets out the hierarchy for all the assets. TECH also uses SAP for its materials master system.	A	1

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			• TECH has a separate financial asset register for its assets in SAP. • The asset registers include information on the asset attributes, although no condition data is kept. • TECH depreciates its assets based on age.		
5.5	4	Operational costs are measured and monitored.	Through discussion with the O&M Supervisor for SHPS Operations, review of relevant supporting documentation and a site visit, the review determined: • TECH uses load forecasts from its customers to develop its operational cost forecasts. • TECH's budget process defines the expenditure requirements for a rolling three-year period, with the next year budget being locked in at the end of each year's budget process. • As TECH's parent company is Canadian, all financial management is carried out with regard to a calendar year financial year. • Monthly reporting is carried out to report against the budget.	A	1
5.6	4	Staff resources are adequate and staff receive training commensurate with their responsibilities.	Through discussion with the O&M Supervisor for SHPS Operations, review of relevant supporting documentation and a site visit, the review determined: • TECH's training is split into compliance training directly related to work activities undertaken by each member of staff, and individual development training to improve skills and knowledge. • The Environment Health and Safety (EHS) team identify training needs through a training matrix and schedule the required activities. Training is managed through the corporate system called DART. • The Training Coordinator/Manager receives alerts from the system when training needs become overdue. TECH staff also have a quarterly staff appraisal where training needs can be identified.	B	2

Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
			• Contractors and Subcontractors have been selected for specific works as required to meet the overall Asset and maintenance plans and TransAlta ensures and tracks any training requirements on an as-needed basis. It was also noted that over 120 preventative maintenance tasks with 2,691 budgeted hours of effort were overdue for SHPS at the date of review. Preventative maintenance has consistently been recorded to be below target by more than 35%. This is indicative of insufficient staffing levels and needs to be addressed. *Refer recommendation 1/2022 in criteria 6.3 below.*		
6		**ASSET MAINTENANCE**		B	3
6.1	4	Maintenance policies and procedures are documented and linked to service levels required.	Through discussion with the O&M Supervisor for SHPS Operations, review of relevant supporting documentation and a site visit, the review determined: • Maintenance is supported by external contractors when required and the Plant Manager is employed on a FIFO basis. • Maintenance management information can be accessed through Total Safety Documents, the corporate system available through the intranet to everyone in the business. • TECH's service levels are set out in the PPAs with its customers. • Regular meetings are held to firm up the outage plans and ensure all stakeholders are engaged. • Major maintenance outages are planned by the Maintenance Manager three years in advance. • TECH Maintenance Management System uses SAP PM (Plant Maintenance) to manage the maintenance program. • SHPS's customers are informed of planned outages as required and output tracked in real time.	A	1

Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
			• TECH has a number of Standard Operating Procedures to operate the plant. Some of these are based on Plant Maintenance, while other are purely for the operations of the plant. • TransAlta monitors equipment condition to optimise asset life prior to completion of hot sections and major overhauls. • Major maintenance for the turbines and generators is conducted by GE under a Long-Term Service Agreement (LTSA) in place, with minor servicing and repairs conducted by TransAlta site personnel. • SHPS has a standing agreement with IEA to provide remote condition monitoring services besides the 24/7/365 manned remote monitoring control room tracking asset performance attributes from TransAlta's Parkeston Power Station in Kalgoorlie		

6.2	4	Regular inspections are undertaken of asset performance and condition.	Through discussion with the O&M Supervisor for SHPS Operations, review of relevant supporting documentation and a site visit, the reviewer determined:
			• TransAlta undertakes condition monitoring of all their asset performance attributes and plans inspection and maintenance tasks by way of raising and executing work orders in SAP.
			• Asset performance attributes that are monitored throughout the facility include:
			  ○ Online & offline vibration analysis
			  ○ On-line temperature monitoring
			  ○ Oil analysis
			  ○ Partial Discharge (annual test on the generators)
			  ○ Motor flux analysis (on the generators)
			  ○ Dissolved Gas Analysis (on transformers)
			  ○ Thermography
				B	2

Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
			○ Water quality • A weekly production meeting is used to look at heat rate performance, plant capacity and any outages. This information is subsequently used to develop the asset inspection and maintenance program for the work that needs to be carried out. • There is a weekly maintenance meeting to discuss the maintenance work coming up in the next three weeks. SHPS has a Maintenance Planner who schedules the work based on the priority of the required maintenance work and available resources. • All preventative maintenance work orders recorded in SAP have a priority rating. The work is carried out in accordance with TransAlta's work management standard. Lower priority work can be rescheduled if appropriate. • The SAP work orders are used to record the work history, including findings, work carried out, as well as the labour and material costs associated with completing the work order. • Parts that are required for planned maintenance are ordered when the work becomes due. • SHPS maintains a spare engine for the Gas turbines at its warehouse, thus improving the availability of its asset performance. The reviewer observed during site visit and by discussion with the O&M Site Supervisor that Warehouse Inventory Management and tracking of spares could be improved at SHPS. The current method is dependent on certain site personnel with knowledge rather than utilising an established work process. No minimum and maximum stock levels are maintained against the available inventory items. Besides, Inventory is stored in multiple containers outside the warehouse with no exterior labelling that identifies contents inside each container and relies on familiarity by the site personnel.		

Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
			An improvement opportunity is to update the Inventory Management System with minimum and maximum stock levels and container location, and to place external labels on each container for identification.		
6.3	4	Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule.	Through discussion with the O&M Supervisor for SHPS Operations, review of relevant supporting documentation and a site visit, the reviewer determined: • TECH has emergency. Corrective and preventative maintenance plans for all its assets at SHPS. • Maintenance is managed through a front-end dashboard to SAP and all corrective, preventative and compliance maintenance activities are included in the maintenance schedules. • All major maintenance, including capital works, is planned by the maintenance planner according to the TransAlta MRF and budgeting processes. • Maintenance staff visit the site every day and conduct inspection rounds. • Remote support is also available as TECH's operations systems can be logged into remotely. It was noted that there were over 120 overdue preventative maintenance tasks with budgeted hours of 2,691 and the low preventative maintenance metrics (over 35% below target) is indicative of Maintenance Plans not being suitable and/or not being completed on schedule. ***Recommendation 1/2022*** *TransAlta to review the overdue preventative maintenance tasks at SHPS and reassess priorities and review the adequacy of staffing levels.*	B	3

Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
6.4	4	Failures are analysed and operational/maintenance plans adjusted where necessary.	Through discussion with the O&M Supervisor for SHPS Operations, review of relevant supporting documentation and a site visit, the reviewer determined: • TECH use TapRooT for root cause analysis. The software has been developed to include the standards to trigger when investigations should be undertaken and this analysis is used for high risk events and critical assets. • Failure history is recorded in the SAP work order data. The specific component failing and an overview of the cause of the failure and the damage incurred can also be recorded. The actions completed to rectify the failure are also recorded. • The weekly production performance meeting is used by TECH to review and assess performance, the current financial situation, any work carried out and any outages that have been experienced. • Unplanned outages are reported to Horizon Power when they occur. • There is a KPI on the SAP dashboard for repeat failures on the same equipment.	A	1
6.5	4	Risk management is applied to prioritise maintenance tasks.	Through discussion with the O&M Supervisor for SHPS Operations, review of relevant supporting documentation and a site visit, the reviewer determined: • Risk assessments and risk quantification are carried out throughout TransAlta's business activities, including SHPS assets based on criticality. • Each piece of equipment is ranked with a criticality score based on engineering standards that determines whether an asset has a high, medium or low criticality. This approach allows TECH to focus on the work orders for the most critical assets. • All work orders carry criticality rating and works are completed in accordance with their criticality. • Safety Critical maintenance activities are given the highest priority followed by Asset Health Critical maintenance activities.	A	1

Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
6.6	4	Maintenance costs are measured and monitored.	Through discussion with the O&M Supervisor for SHPS Operations, review of relevant supporting documentation and a site visit, the reviewer determined: • The medium range forecast (MRF) is a budget for expenditure over a three-year period and is built from minor and major maintenance activities. • Major maintenance intervals are tracked, updated and planned. • Maintenance costs are tracked and monitored through the monthly financial reports.	A	1
7		**ASSET MANAGEMENT INFORMATION SYSTEM**		A	1
7.1	4	Adequate system documentation for users and IT operators.	Through discussion with the O&M Supervisor for SHPS Operations, review of relevant supporting documentation and a site visit, the reviewer determined: • TECH uses the corporate Safety Performance Reporting ((Synergi)) for its incident reporting. This system utilises an online set-up that all the staff in the business can access. • The SCADA system is used to provide all real-time monitoring information, data trending, alarming and reporting, which is backed up on a Plant Historian system. • TECH uses the corporate Total Safety Documents (TSD) system for its risk management. The dashboard provides access to the consequence guidelines, risk matrices and responsibilities. • TECH operates an Operational Integrity Program (OIP). This is used to review and identify equipment safety aspects. The OIP is used to assess the loss of primary containment (the energy within the assets). The TSD and OIP are used to cover the management of assets and people. • TECH uses TapRooT for root cause failure analysis. • SharePoint is used throughout the business. • There is extensive system documentation for users and IT operators stored on the corporate intranet site.	A	1

Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
7.2	4	Input controls include appropriate verification and validation of data entered into the system.	Through discussion with the O&M Supervisor for SHPS Operations, review of relevant supporting documentation and a site visit, the reviewer determined: • Calculations are checked using financial settlement data and raw data. • TECH conducts daily and ongoing monitoring of its contract compliance. Levels of Service are covered under the Horizon Power Technical Rules for the NWIS. Under the Horizon Power and FMG PPAs, TECH is required to comply with the Technical Rules. • Operations data is primarily collated automatically and stored on the Aspen server. • Operators check this data for accuracy and amend as necessary daily, using an Excel-based interrogation tool to interact with the Aspen database.	A	1
7.3	4	Logical security access controls appear adequate, such as passwords.	The reviewer confirmed that access to the TECH's servers is strictly controlled and a ticket needs to be lodged to gain access. Staff are only able to interface with the systems and are not able to edit the recorded information without going through an approval process to be able to carry out these functions. SQL queries have been set up for non-approved staff to get information when required. Password changes are required every 1 to 2 months. TransAlta has also developed an enterprise Cyber Security Policy that defines the mandatory minimum cyber security requirements for TransAlta. This policy is a part of a framework modelled in accordance with the National Institute of Science and Technology – Cyber Security Framework (NIST CSF), governing organizational cyber security policies, standards, and procedures within TransAlta.	A	1

Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
7.4	4	Physical security access controls appear adequate.	Through discussion with the O&M Supervisor for SHPS Operations, review of relevant supporting documentation and site visits, the reviewer determined: • Physical access to the SHPS sites is strictly controlled and the security access controls are effective. • Physical access to the Control Room at TransAlta's Parkeston Power Station in Kalgoorlie is restricted to authorised staff and contractors. • Physical access to the corporate office is physically secured with identification passes.	A	1
7.5	4	Data backup procedures appear adequate and backups are tested.	Through discussion with the O&M Supervisor for SHPS Operations, review of relevant supporting documentation and site visits, the reviewer determined: • The Corporate Governance & Legal Compliance Policy 140: Records and Information Management sets out the information retention and backup requirements. • The SCADA system is used to provide all real-time monitoring information, data trending, alarming and reporting, which is backed up on a Plant Historian system. • The Citect SCADA system is connected to the Aspen server located in Perth and is also mirrored on a server located in Canada. • Operations data is primarily collated automatically and stored on the Aspen server. • SharePoint is used throughout the business and backed up on the corporate servers. • Backups are periodically tested including recovery of files.	A	1

Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
7.6	4	Key computations related to licensee performance reporting are materially accurate.	Through discussion with the O&M Supervisor for SHPS Operations, review of relevant supporting documentation and site visits, the reviewer determined: • Operations and performance data is analysed to assess trends. The performance of the engines is reported weekly. Performance via graphical data from SCADA is reviewed and discussed at the weekly production meeting. • The operations and performance information is reported up to the Group Operations Manager. • Monthly operation outcomes are included in the monthly invoices to customers, Horizon Power and FMG, to allow the operations outcomes to be validated by the customer.	A	1
7.7	4	Management reports appear adequate for the licensee to monitor licence obligations.	Through discussion with the O&M Supervisor for SHPS Operations, review of relevant supporting documentation and site visits, the reviewer determined: • A weekly report of scheduled vs completed work orders, high priority planned maintenance tasks and extra work orders is generated, along with forthcoming week's work, for discussion at the weekly maintenance meeting. • The weekly maintenance meeting is attended by all in the maintenance team, with minutes recorded. • TECH's maintenance culture is very effective. Essentially, maintenance teams are self- scheduling and able to review, propose and execute the maintenance activities from the plan to prevent backlog, yet ensure the asset maintenance needs are met. This takes into account priorities, risks to operations, production, compliance, safety and finance. • A monthly financial pack is prepared and provided to management to show the financials for the month, year to date, balance of the year and the	A	1

Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
			annual estimate. This financial pack provides overall profit and loss information and details of the capital expenditure program. • In addition, SHPS has a separate monthly finance report that is prepared for the Plant Manager which contains more detail. Management reports are considered to be adequate for the licensee to monitor licence obligations. TECH's licence obligations are reviewed annually during the preparation of the annual Compliance reports.		
7.8	4	Adequate measures to protect asset management data from unauthorised access or theft by persons outside the organisation.	The reviewer confirmed that access to the TECH's servers is strictly controlled and a ticket needs to be lodged to gain access. Staff are only able to interface with the systems and are not able to edit the recorded information without going through an approval process to be able to carry out these functions. SQL queries have been set up for non-approved staff to get information when required. Password changes are required every 1 to 2 months. TransAlta has also developed an enterprise Cyber Security Policy that defines the mandatory minimum cyber security requirements for TransAlta. This policy is a part of a framework modelled in accordance with the National Institute of Science and Technology – Cyber Security Framework (NIST CSF), governing organizational cyber security policies, standards, and procedures within TransAlta.	A	1
8		**RISK MANAGEMENT**		A	1
8.1	4	Risk management policies and procedures exist and are being applied to minimise internal and external risks associated with the asset management system.	Through discussion with the O&M Supervisor for SHPS Operations, review of relevant supporting documentation and site visits, the reviewer determined: • TransAlta an All-Australia Risk Register for all of TransAlta's facilities, including SHPS. • An Environmental Health and Safety team of two people is employed to serve TECH and the other TransAlta subsidiaries.	A	1

Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
			• Risk assessments and risk quantification are carried out throughout TransAlta's business activities. This includes pre-job planning, asset maintenance, justification for expenditure, asset creation/disposal, incident investigation and asset management. • Risk assessments based on criticality have also been carried out for the SHPS assets. TECH takes a consistent approach towards assessing and quantifying the risks based on well-defined risk assessment procedures, with likelihood and consequence considered. Risk rankings are consistent with Australian Risk Standards.		
8.2	4	Risks are documented in a risk register and treatment plans are actioned and monitored.	Through discussion with the O&M Supervisor for SHPS Operations, review of relevant supporting documentation and site visits, the reviewer determined: • The AMP in Section 13 includes a summary of the risk and opportunities approach. • TECH uses a corporate risk register for all TransAlta Australia sites, which can be filtered to show only SHPS risks. The Risk Register details specific hazards and controls for SHPS i.e. risks of the steam that is generated onsite to power the turbines that is not present at other TransAlta operations within Australia • Dashboard links provide access to the individual risk assessments recorded in TECH's corporate system, Synergi. The assessments include the controls used to manage the risks. The Synergi dashboards also provide links to business risks and non-WHS risks. • TECH uses the corporate Total Safety Documents (TSD) system for its risk management. The dashboard provides access to the consequence guidelines, risk matrices and responsibilities. • TECH employs an Operational Integrity Program (OIP) to review and identify equipment and safety aspects. The OIP is used to assess the loss of primary containment (the energy within the assets).	A	1

Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
			• The TSMS and OIP are used to cover the management of assets and people. • All applicable EHS Management System controls appropriate to operate and maintain plant and equipment are documented within the site specific EHS Management Plan and supporting procedures. • TECH has a SHPS Hazard and Risk Register. The register provides detailed site specific risks] and includes descriptions of the treatment or action required to mitigate the risk. ▪ TECH's corporate EHS portal is the business's system for reporting EHS issues and for accessing information on EHS policies, procedures and reporting. The portal also provides access to the chemical database, site licences, relevant Acts and other legislative documents, the learning management system and the TapRooT tool. • Incident reports are completed when required and high-consequence incidents are escalated to corporate level.		
8.3	4	The probability and consequences of asset failure are regularly assessed.	TECH uses the corporate TapRooT root cause analysis tool to assess asset failures and significant near misses based on risk assessment.	A	1

Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
9		**CONTINGENCY PLANNING**		B	3
9.1	2	Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks.	TECH has an Emergency Management Policy and also a Standard. There are individual plans for crisis management, threat responses, communications plan and IT contingency. Under this, there are business unit plans for emergency response and continuity. The Emergency Management Standard defines the TransAlta Corporate Emergency Management Program through documentation, procedures and activities to be used by the TransAlta Corporation and its wholly owned subsidiaries. The standard specifies that it is to be used prior to, during and post emergency situations. The Emergency Management Standard sets out the emergency policies, the management program with all the relevant management plans, leadership and accountability details, training and evaluation requirements and processes and the executive review processes for the Standard. TECH's corporate Emergency Response Guide for emergencies sets out the internal and external contacts for managing incidents and emergencies. TECH also has a standalone Cyclone Management Plan for the SHPS. Contingency procedures covering various aspects of asset operation and maintenance have been developed. Three-monthly emergency drills are undertaken at the SHPS. The EHS team consult with the Plant Manager to decide the scenario to be tested and EHS can also decide the drill scenario without input if considered required. The hierarchy of site drills to be undertaken is as follows: – Tabletop exercise – Functional exercise – Full scale exercise The review sighted examples of completed drills and exercises in 2020 and 2021 but not 2022.	B	3

Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
			The O&M Site Supervisor raised concerns about the effectiveness of the procedure "GAS.02.1471 EMERGENCY PREPAREDNESS AND RESPONSE" for the Port Hedland region in relation to Department of Fire and Emergency Services (DFES) and Emergency Medical attendance availability and response times. This warrants an urgent requirement by TransAlta management to consider and schedule drills for the Port Hedland Operations to test effectiveness and identify any corrective actions. Besides, no proofs of Drills and Tabletop Exercises (TTX) conducted this year 2022 for TECH Hedland site were provided to the review, to establish compliance with the procedures. This requires corrective action. The reviewer also observed during the site visit that the O&M Site Supervisor was not familiar with the emergency response procedure for the site, which raised concerns relating to the effectiveness of new starter inductions and mandatory training. ***Recommendation 2/2022*** *a) TransAlta to action suitable training for all their site personnel and contractors at SHPS to ensure their understanding of all aspects of TECH's procedure "GAS.02.1471 EMERGENCY PREPAREDNESS AND RESPONSE" has been achieved.* *b) TransAlta to complete Drills and Tabletop Exercises (TTX) at TECH Hedland site to establish compliance with the procedure GAS.02.1471 EMERGENCY PREPAREDNESS AND RESPONSE.* c) *TransAlta to develop and implement a schedule at SHPS to conduct Emergency Response Drills or Functional Exercises (FTX) that may involve the testing of a specific component of the emergency response plan and to undertake Full Scale Exercise (FSX) for testing the Department of Fire and Emergency Services (DFES) and Emergency Medical attendance availability and response times in the event of a significant workplace emergency.*		

Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
10		**FINANCIAL PLANNING**		A	1
10.1	4	The financial plan states the financial objectives and strategies and actions to achieve the objectives.	TECH has a long-range forecast (LRF) and a medium range forecast (MRF). The latest medium range forecast goes out three years from 2022 to 2024 and is developed between June and September each year. Between March and April each year a refresh of the budgets for these years is carried out and the LRF is also reviewed. The LRF goes beyond 5 years. Annual budgets are prepared and justification for expenditure are strictly controlled. All business cases have the required criteria well-defined in the justification template, including risks, financial returns, impact on commercial / contractual, options, legal, legislative, maintenance, operations, personnel, timing, etc.	A	1
10.2	4	The financial plan identifies the source of funds for capital expenditure and recurrent costs.	TECH use the Approval for Expenditure (AFE) process to develop capital projects and present the business case for approval for it to be added to the approved budget. At the current time there is no requirement to increase the capacity of South Hedland Power Station (SHPS) through additional capital investment. The costed schedule for capital purchases provides clarity for TECH's major expenditure into the future and provides a basis for optimisation of that spend. The forecast expenditure has been developed by TECH considering the stage of the contract life.	A	1
10.3	4	The financial plan provides projections of operating statements (profit and loss) and statement of financial position (balance sheets).	TECH works to a calendar year for its financial planning, budgeting processes and reporting. This is due to TECH's parent company being a Canadian company. Annual budgets are approved for use by November of the preceding year. TECH has a long-range forecast (LRF) and a medium range forecast (MRF). The latest medium range forecast goes out three years from 2022 to 2024 and is developed between June and September each year. Between March and April each year a refresh of the budgets for these years is carried out and the LRF is also reviewed. The LRF goes beyond 5 years.	A	1

Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
			A monthly financial pack is prepared and provided to management to show the financials for the month, year to date, balance of the year and the annual estimate. This financial pack provides overall profit and loss information and details of the capital expenditure program by site and project. The monthly financial reports also include information on the availability of supply and power outages as there are financial impacts for these performance indicators under the conditions of the contract that TECH has with its customers. The monthly reports data is extracted from SAP, the corporate financial system used by TECH. The data extracted and reported is based on a transactional level. There is a monthly meeting to discuss the business finances. In addition, SHPS has a separate monthly finance report that is prepared for the Plant Manager which provides transactional detail.		
10.4	4	The financial plan provides firm predictions on income for the next five years and reasonable indicative predictions beyond this period.	TECH has a long-range forecast (LRF) and a medium range forecast (MRF). The latest medium range forecast goes out three years from 2022 to 2024 and is developed between June and September each year. Between March and April each year a refresh of the budgets for these years is carried out and the LRF is also reviewed. The LRF goes beyond 5 years. The LRF includes estimates for revenue that includes lines for contract, merchant and miscellaneous revenue. The budgets/forecasts are developed for each site using a bottom-up approach.	A	1
10.5	4	The financial plan provides for the operations and maintenance, administration and capital expenditure requirements of the services.	The LRF includes estimates for operating costs that include labour, staff costs, vehicles, office, materials, insurance and contract staff. The budgets/forecasts are developed for each site using a bottom-up approach.	A	1
10.6	4	Significant variances in actual/budget income and expenses are identified and corrective action taken where necessary.	A monthly financial pack is prepared and provided to management to show the financials for the month, year to date, balance of the year and the annual estimate. This financial pack provides overall profit and loss information and details of the capital expenditure program by site and project. Variances between actuals and budgets are reported and reviewed.	A	1

Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
11		**CAPITAL EXPENDITURE PLANNING**		**A**	**1**
11.1	4	There is a capital expenditure plan that covers issues to be addressed, actions proposed, responsibilities and dates.	SHPS was constructed in 2017 based on contracts with Horizon Power and the Pilbara Infrastructure Pty Ltd (a subsidiary of the Fortescue Metals Group) (FMG). The construction of the plant was completed through TransAlta's AFE process as for any other capital project. Capital expenditure planning is included in TECH's annual budgeting process. TECH's capital plans and budgets are managed in spreadsheets. The capital forecast is reviewed each year to ensure that it meets TransAlta's business objectives. TECH use the Australian Capital Process to summarise the capital projects and present the business case in order to receive funding. The WAVE system uses gate checks as part of the Australian Capital Process to assess the options at an earlier stage prior to the preparation of the AFE template. Gate 2 is required to be passed in order to progress developing the AFE. Approvals for individual spend/projects are granted by the Australian Managing Director once the capital budget is approved. If the proposed project is estimated to cost more than $0.5M, the project has to be approved by the Australian MD. The Application for Expenditure (AFE) template includes associated operating costs impacting from the new capital spend, details of the people involved in the project, the project details, project alternatives and supplier. Engineering and development teams are responsible for reviewing technical designs. Internal engineering standards are used for the development of new assets. Any capital improvement works being carried out at the SHPS are the responsibility of the Plant Manager. TransAlta has different corporate levels of financial authority depending on the dollar value of any proposed capital works. At the current time there is no requirement to increase the capacity of South Hedland Power Station (SHPS) through additional capital investment. The costed schedule for capital purchases provides clarity for TECH's major	A	1

Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
			expenditure into the future and provides a basis for optimisation of that spend. The forecast expenditure has been developed by TECH considering the stage of the contract life.		
11.2	4	The plan provides reasons for capital expenditure and timing of expenditure.	At the current time there is no requirement to increase the capacity of SHPS through additional capital investment. The costed schedule for capital purchases provides clarity for TECH's major expenditure into the future and provides a basis for optimisation of that spend. The forecast expenditure has been developed by TECH considering the stage of the contract life.	A	1
11.3	4	The capital expenditure plan is consistent with the asset life and condition identified in the asset management plan.	TECH are required to follow the corporate financial policies with regard to project planning and purchasing. At the current time there is no requirement to increase the capacity of South Hedland Power Station (SHPS) through additional capital investment. The costed schedule for capital purchases provides clarity for TECH's major expenditure into the future and provides a basis for optimisation of that spend. The forecast expenditure has been developed by TECH considering the stage of the contract life.	A	1
11.4	4	There is an adequate process to ensure that the capital expenditure plan is regularly updated and actioned.	TECH are required to follow the corporate financial policies for project planning and purchasing. Capital expenditure planning is included in TECH's annual budgeting process. TECH's capital plans and budgets are managed in spreadsheets. The capital forecast is reviewed each year to ensure that it meets TransAlta's business objectives.	A	1

Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
12		**REVIEW OF ASSET MANAGEMENT SYSTEM**		A	1
12.1	4	A review process is in place to ensure that the asset management plan and the asset management system described therein are kept current.	The Asset Management Plan was revised in 2018 after the plant was constructed in 2017. This review confirmed the Asset Management Plan is reviewed on an annual basis with the previous review being in 2021 and the next review due November 2022. This asset management system review confirmed that the supporting asset management system is kept current.	A	1
12.2	4	Independent reviews (e.g. internal audit) are performed of the asset management system.	This review is an independent review of the asset management system. This obligation is included in the Compliance Register.	A	1

4.7 Review Recommendations

As per the Audit and Review Guidelines, recommendations from the review that were rated as process C or D and/or effectiveness of 3 or 4 are listed in the following table. Other opportunities for improvements are advised separately to the Licensee.

Table of Current Review Asset System Deficiencies and Recommendations

A. Resolved during current review period

Reference (no./year) Compliance rating	**Asset System Deficiency** (AMS Component/Effectiveness Criteria/Details)	**Auditor's Recommendation**	**Management Action taken by end of review period**
	Nil		

B. Unresolved during current review period

Reference (no./year) Compliance rating	**Asset System Deficiency** (AMS Component/Effectiveness Criteria/Details)	**Auditor's Recommendation**	**Management Action taken by end of audit period**
1/2022 **B3**	**Asset Maintenance** *Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule.* Through discussion with the O&M Supervisor for SHPS Operations, review of relevant supporting documentation and a site visit, the reviewer determined: • TECH has emergency. Corrective and preventative maintenance plans for all its assets at SHPS. • Maintenance is managed through a front-end dashboard to SAP and all corrective, preventative and compliance maintenance activities are included in the maintenance schedules.	TransAlta to review the overdue preventative maintenance tasks at SHPS and reassess priorities and review the adequacy of staffing levels.	Nil

B. Unresolved during current review period			
Reference (no./year) Compliance rating	**Asset System Deficiency** (AMS Component/Effectiveness Criteria/Details)	**Auditor's Recommendation**	**Management Action taken by end of audit period**
	• All major maintenance, including capital works, is planned by the maintenance planner according to the TransAlta MRF and budgeting processes. • Maintenance staff visit the site every day and conduct inspection rounds. • Remote support is also available as TECH's operations systems can be logged into remotely. It was noted that there were over 120 overdue preventative maintenance tasks with budgeted hours of 2,691 and the low preventative maintenance metrics (over 35% below target) is indicative of Maintenance Plans not being suitable and/or not being completed on schedule.		
2/2022 **B3**	**Contingency Planning** *Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks.* TECH has an Emergency Management Policy and also a Standard. There are individual plans for crisis management, threat responses, communications plan and IT contingency. Under this, there are business unit plans for emergency response and continuity. Three-monthly emergency drills are undertaken at the SHPS. The EHS team consult with the Plant Manager to decide the scenario to be tested and EHS can also decide the drill scenario without input if considered required. The hierarchy of site drills to be undertaken is as follows: – Tabletop exercise – Functional exercise – Full scale exercise	a) TransAlta to action suitable training for all their site personnel and contractors at SHPS to ensure their understanding of all aspects of TECH's procedure "GAS.02.1471 EMERGENCY PREPAREDNESS AND RESPONSE" has been achieved. b) TransAlta to complete Drills and Tabletop Exercises (TTX) at TECH Hedland site to establish compliance with the procedure GAS.02.1471 EMERGENCY PREPAREDNESS AND RESPONSE. c) TransAlta to develop and implement a schedule at SHPS to conduct Emergency Response Drills or Functional Exercises (FTX) that may involve the testing of a specific component of the emergency	Nil

B. Unresolved during current review period			
Reference (no./year) Compliance rating	**Asset System Deficiency** (AMS Component/Effectiveness Criteria/Details)	**Auditor's Recommendation**	**Management Action taken by end of audit period**
	The review sighted examples of completed drills and exercises in 2020 and 2021 but not 2022. The O&M Site Supervisor raised concerns about the effectiveness of the procedure "GAS.02.1471 EMERGENCY PREPAREDNESS AND RESPONSE" for the Port Hedland region in relation to Department of Fire and Emergency Services (DFES) and Emergency Medical attendance availability and response times. This warrants an urgent requirement by TransAlta management to consider and schedule drills for the Port Hedland Operations to test effectiveness and identify any corrective actions. Besides, no proofs of Drills and Tabletop Exercises (TTX) conducted this year 2022 for TECH Hedland site were provided to the review, to establish compliance with the procedures. This requires corrective action. The reviewer also observed during the site visit that the O&M Site Supervisor was not familiar with the emergency response procedure for the site, which raised concerns relating to the effectiveness of new starter inductions and mandatory training.	response plan and to undertake Full Scale Exercise (FSX) for testing the Department of Fire and Emergency Services (DFES) and Emergency Medical attendance availability and response times in the event of a significant workplace emergency.	

Appendix A - Methodology

A1. Audit and Review Approach

Our approach to meeting the requirements for the performance audit and asset management system effectiveness review is set out below.

Audit and Review Planning

- Conduct an initial meeting with the ERA to confirm the audit/review approach and timing for the audit and review (*not required).*
- Contact the licensee to gain an understanding of the business, relevant management plans and systems that may affect the risk assessment for planning purposes (*completed).*
- Prepare a risk assessment including any specific factors or changes relevant to the licensee (in tabular form against each licence condition and asset management system component).
- Submit a draft **Audit and Review Plan**, including the risk assessment and proposed approach, to the ERA for review and approval.
- Send a **Pre-Visit Checklist** of information and documentation to the licensee to enable staff to prepare for the visit (and where possible, send us information prior to the site visit).

Fieldwork

- Undertake a visit to the licensee and conduct various meetings with stakeholders, including corporate services and works/facilities management personnel, to determine the effectiveness of systems and procedures in place and to compare actual performance against the licence standards. The on-site visit will include our Senior Engineer.
- Obtain copies of the latest asset management plans, performance reporting statistics and relevant correspondence between the licensee and the ERA for the audit period.
- The audit steps for the **Performance Audit** will include:
    - **analysis of documented procedures** to assess whether they are consistent with regulatory requirements or arrangements under the licence;
    - **review of systems and procedures** to assess whether they reflect compliance obligations and performance standards, including assessing and testing the following:
        - **control environment** – management's philosophy and operating style, organisational structure, assignment of authority and responsibilities, the use of internal audit, the use of information technology and the skills and experience of the key staff members;
        - **information system** – the appropriateness of the information systems to record the information needed to comply with the licence, accuracy of data, security of data, cyber security and documentation describing the information system;
        - **control procedures** – the presence of systems and procedures to monitor compliance with the licence or the effectiveness of the asset management system and to detect and correct non-compliance or under-performance;
        - **compliance attitude** - the action taken by the licensee in response to the previous audit/review recommendations, and an assessment of management's attitude towards compliance; and
        - **outcome compliance** – the actual performance against standards prescribed in the licence throughout the audit period.

- Update the risk assessment with any new information obtained in the course of the audit testing and, in instances of significant non-compliance, assess the licensee's plan to ensure compliance and recommend any further improvements to achieve compliance.
- The activities in the **Asset Management System Review** will include:
    - analyse the documented procedures and processes for the planning, construction, operation and maintenance of assets to assess whether they are consistent with regulatory requirements under the licence;
    - interview key personnel to assess whether they understand and comply with the documented processes and procedures;
    - physically inspect the key assets and infrastructure; and
    - assess the effectiveness of the processes and system in place.

Audit and Review Reporting

- Prior to the conclusion of the visit, the lead auditor will discuss any observations and recommendations with the licensee's management to confirm our understanding of the issues and to discuss the action to be taken.
- Provide a draft report to the ERA for review no later than two weeks before the final report is due and make any revisions necessary.
- Provide the updated draft report to the ERA for review and feedback prior to finalising the report.
- Issue the final report to the ERA.
- The ERA will arrange responses to the proposed actions in the Post Audit Implementation Plan.

A2. Key Documents Reviewed

Regulatory Compliance

- Energy Coordination Act 1994
- Electricity Industry Act 2004
- Electricity Industry (Metering Code) 2012
- Economic Regulation Authority (Licensing Funding) Regulations 2014
- Electricity Compliance Reporting Manual (July 2018 and June 2020)
- Electricity Integrated Regional Licence ERL9 (Version 3)
- Electricity Integrated Regional Licence ERL9 (Version 3) – Operating Area Maps (ERA-EL-140 and ERA-EL-141)
- Post Audit Implementation Plan (2019)
- Compliance Reports to the ERA for 2018/19, 2019/20 and 2020/21 and acknowledgment of receipt
- Information on fees paid to the ERA (amounts and dates paid)

TEC Hedland

Asset Planning

- Asset Management Plan - SHPS
- Power Purchasing Agreements between TECH and Horizon Power, and between TECH and FMG
- Life Cycle Planning 20110201.ppt presentation
- 2022 Australia Budget Timelines memo
- Budget Process PowerPoint, dated June 2017
- Australia 2022 L01.xlsx long range forecast spreadsheet
- AFE Policy document

Environmental Analysis

- TransAlta FY22 emissions register
- GAS.04.1396 ENVIRONMENTAL MANAGEMENT
- GAS.03.0849 WASTE MANAGEMENT
- GAS.03.0850 SOLID, LIQUID AND GAS SPILL RESPONSE
- GAS.04.1260 LEGIONELLA HEALTH RISK MANAGEMENT
- GAS.03.0876 HAZARDS, NEAR MISSES AND INCIDENT REPORTING
- GAS.03.1061 SITE ENVIRONMENTAL LICENCES.pdf

- AFE (Authorisation For Expenditure) Standards document
- Capital Actuals June 22.xlsx spreadsheet

Asset Creation & Acquisition

- GAS.07.1342 PROCUREMENT GOVERNING PRINCIPLES.pdf
- Financial Policy 230 (a) PP&E.pdf (Describes capitalisation criteria for property, plant and equipment)

Asset Disposal

- Asset register showing existence of all assets, newly created assets and major asset maintenance plans
- 5 and 10 year asset major maintenance budget and NTA budgets
- Financial Policy 230 (a) PP&E
- Financial Policy 230(k) Decommissioning & Restoration Obligations
- Asset Disposal Form
- Asset Sale Process

Asset Operations

- South Hedland 2021/22 (weekly production ('heat rate') graphs)
- KPI reports (2021/22):
- PSD KPI Overview
- PSD KPI Priority Risk Control Area
- PSD Maintenance Management KPI Overview
- Live SAP asset register in structured hierarchy showing all assets for SHPS
- SOI 010 CCGT Water Chemistry Silica Test Procedure
- EHS&T 2022 Programme V2 (TransAlta's Environmental, Health and Safety Training Programme)
- ERA #027 Training Compliance Report
- ERA #027 Training History Report
- Training Needs Analysis
- ID 81 GAS.09.1404 MANAGEMENT OF CHANGE (MOC) GUIDELINE
- 9666-MAN-002 - Phase 2 Training Manual for Dispatch Scheduler (004)
- 9666-SPC-007 - Phase 2 Dispatch PLC Functional Description
- GAS.04.1398 ENVIRONMENTAL MANAGEMENT
- 2022_NPI_SHPS_Emission_Report
- DG Licence - DGS021 826 (TECH OP's). (dangerous goods licence)
- SHPS (site summary report)

Asset Maintenance

- View live on SAP:
- Structured asset register
- List of maintenance plans and examples
- Examples of maintenance records
- GAS.06.1324 Maintenance Work Management
- Maintenance Policy Engineering Standard - Example List

Risk Management

- TransAlta Australia Risk Register on Synergi
- Synergi Incident reporting, audit reporting and management and risk management database
- SHPS RISK REGISTER EXTRACT from Synergi Data Base
- TAC.07.0118 TSMS ELEMENT 2 - OPERATIONAL RISK MANAGEMENT
- TAC.03.0069 RISK MATRIX STANDARD
- TAC.02.0023 CORPORATE EMERGENCY MANAGEMENT STANDARD
- EHS Portal on TransAlta intranet
- Various EHS reports (screenshots)
- SHPS incident investigation reports (examples)
- GAS.06.1324 Maintenance Work Management
- TAC.13.0257 WORK MANAGEMENT WORK EXECUTION STANDARD
- TAC.13.0259 WORK MANAGEMENT DOCUMENT CLOSURE STANDARD
- SHPS incident reports:
- GAS.07.1418 TA AUSTRALIA DOCUMENT AND RECORDS CONTROL PROCEDURE
- TAC.07.0124 TSMS ELEMENT 7 - DOCUMENT AND RECORDS CONTROL

Asset Management Information System

- SAP PM (Plant maintenance) work schedules
- Safety Performance Reporting for its incident reporting
- Citect SCADA system for asset operations and performance monitoring
- Synergi Incident reporting, audit reporting and management and risk management database
- Total Safety Documents (TSD) system for its risk management.
- Operational Integrity Program (OIP) for reviewing and identifying equipment and safety aspects.
- TapRooT for Root Cause analysis
- Examples of monthly operation and maintenance reports and financial reports (June 2021 and June 2022)
- Cyber Security Policy
- Data backup policy

Capital Expenditure Planning

- Australia Capital Detail 2022 L01 Final (Long range forecast 2018-2042)

Contingency Planning

- TAC.02.0023 CORPORATE EMERGENCY MANAGEMENT STANDARD
- TAC.07.0130 TSMS ELEMENT 11 - EMERGENCY MANAGEMENT
- GAS.03.0913 EMERGENCY RESPONSE GUIDE
- GAS.02.1331 SOUTH HEDLAND EMERGENCY RESPONSE PLAN
- GAS.02.1253 SOUTH HEDLAND CYCLONE MANAGEMENT PLAN
- 2022 Emergency Preparedness Planning
- SHPS Evacuation Drill (examples)

Financial Planning

- South_Hedland_Jun22_F (monthly business planning forecast)
- Australia Capital Detail 2022 L01 Final (Long range forecast 2018-2042)
- Budget MRF 2022 BUD
- 1806 Day 8 Report Jun 22
- Australia Jun22 F (Spreadsheet shows budget vs actual costs for each TransAlta Australia site for June 2022)

A3. Key Contacts

The licensee's representatives participating in the audit were:

- Hari Sridhar - Senior Contracts Specialist
- Troy Forward – Group Manager Operations & Engineering
- Kristian Myhre – Commercial Manager
- Louise Law – Finance Manager
- Nigel Feletti – Lead ESHT (Environment Safety Health Training)
- Adam McClea – Plant Manager
- Shaun Clifford – Site Supervisor

A4. Consultants

NAME AND POSITION	HOURS
Geoff White - Director	10
Susan Smith - Manager	20
Tanuja Sanders – Engineering Consultant	15
TOTAL	**45**

END OF REPORT