



Southern Cross Energy Partnership

2022 Performance Audit and Asset Management System Review Electricity Licences EGL13 ETL4 EDL13 ERL7

Report

Economic Regulation Authority October 2022



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Limitations of this Report

This report was prepared for distribution to the Economic Regulation Authority and Southern Cross Energy Partnership (SCE) for the purpose of fulfilling SCE's performance audit and asset management system review obligations under its Electricity Licences. We disclaim any assumption of responsibility for any reliance on this report to any persons or users other than the Economic Regulation Authority and SCE 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 Licences, 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

Southern Cross Energy Partnership (SCE) is the licensee of the Economic Regulation Authority (ERA) for the electricity generation licence (EGL13), electricity transmission licence (ETL4), electricity distribution licence (EDL3) and electricity retail licence (ERL7), under the provisions contained in the *Electricity Industry Act 2004*.

SCE is a subsidiary of TransAlta Energy Australia Pty Ltd (TransAlta). TransAlta operates several power generation and transmission operations in regional Western Australia, including SCE. SCE is 100% owned by TransAlta through two entities, TEC Desert Pty Ltd and TEC Desert No.2 Pty Ltd. TransAlta is contractually obligated to ensure the SCE business objectives are met.

SCE owns and operates four gas turbine power stations in Western Australia and primarily exists to provide power to BHP's Nickel operations (Nickel West) at Mt Keith, Leinster, Kalgoorlie and Kambalda.

We have performed a reasonable assurance engagement on SCE's compliance, in all material respects, with the conditions of EGL13, ETL4, EDL3 and ERL7 and the *Electricity Industry Act 2004* for the period from 1 July 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 SCE'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, Southern Cross Energy Partnership has complied, in all material respects, with its licence conditions and relevant legislative obligations for the period from 1 July 2018 to 30 June 2022.

Basis for opinion

During the period from 1 July 2018 to 30 June 2022, SCE had 10 out of 142 obligations with noncompliances rated as "minor impact on customers" for the following Licence Conditions:

	Reporting Manual number and Licence obligation	Issue					
105	fees to the ERA according to clauses 6, 7 and 8 of the <i>Economic</i> Regulation	As reported in the Compliance Report to the ERA for 2019/20, SCE 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. SCE 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.					



	Reporting Manual number and Licence obligation	Issue
319	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.	
326	A network operator must ensure that there is a metering installation at every connection point on its network that is not a Type 7 connection point. Unless it is a Type 7 metering installation, the metering installation must meet the functionality requirements prescribed.	Clause 10.5 of the Power Purchase Agreement (PPA) sets out that SCE and BPH Billiton Nickel West acknowledge that the agreement constitutes a Service Level Agreement (as defined in the Metering Code) and agree that the metering installations are adequate to meet the needs of the agreement. SCE has not complied with 3.5(1) as SCE does not have a metering installation at every connection point. SCE has reported this obligation as non-compliant due to the 'absence' of metering, which may not be covered by the exemption applicable to 'existing' metering.
422	A network operator must validate energy data in accordance with this Code applying, as a minimum, the prescribed rules and procedures set out 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.	Although SCE validates its energy data, it considers that the methodologies it uses do not fully comply with the prescribed validation rules and procedures set out in Appendix 2 and the prescribed substitution and estimation rules and procedures set out in Appendix 3. Installation of SCE's metering pre-dates the requirements of the Code apart from one new meter which is compliant.
425	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.	SCE is non-compliant in relation to clause 6.1(1)(c) as SCE does not have a metrology procedure.
426	Substitution or estimation of energy data is required when energy data is missing, unavailable or corrupted, including in the circumstances described in this subclause.	Although SCE substitutes and estimates energy data when required, it considers that the methodologies it uses do not fully comply with the prescribed substitution and estimation rules and procedures set out in Appendix 3.
434	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.	SCE is non-compliant in relation to clause 6.1(1)(c) as SCE does not have a metrology procedure.
447	A network operator must, in relation to its network, comply with the agreements, rules, procedures, criteria and processes prescribed.	SCE is non-compliant in relation to clause 6.1(1)(c) as SCE does not have a metrology procedure.



	Reporting Manual number and Licence obligation	Issue					
448A 448C	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). A network operator must publish its communication rules as soon as practicable, and in any event within 6 months after the date this Code applies to it.	 sub-clauses 6.2(a)-(d) to the ERA for approval being: proposed model Service Level Agreement Metrology Procedure proposed mandatory link criteria under clause 3.6. SCE has a PPA that sets out the Service Level 					

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 SCE staff to gain an understanding of process controls;
- Onsite visit to the Corporate Office in Perth and the Power Stations at Mt Keith, Leinster, Kalgoorlie and Kambalda, including our Engineer.
- 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.
- 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 SCE 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

SCE'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 SCE'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

7 November 2022



2. Executive Summary

2.1 Background

Southern Cross Energy Partnership (SCE) is the licensee of the Economic Regulation Authority (ERA) for the electricity generation licence (EGL13), electricity transmission licence (ETL4), electricity distribution licence (EDL3) and electricity retail licence (ERL4), under the provisions contained in the *Electricity Industry Act 2004*.

SCE is a subsidiary of TransAlta Energy Australia Pty Ltd (TransAlta). TransAlta operates several power generation and transmission operations in regional Western Australia, including SCE. SCE is 100% owned by TransAlta through two entities, TEC Desert Pty Ltd and TEC Desert No.2 Pty Ltd. TransAlta is contractually obligated to ensure the SCE business objectives are met.

SCE owns and operates four gas turbine power stations in Western Australia and primarily exists to provide power to BHP's Nickel operations (Nickel West) at Mt Keith, Leinster, Kalgoorlie and Kambalda.

This audit and review covers the period from 1 July 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 SCE has fully complied with its Electricity Generation, Transmission, Distribution and Integrated Retail Licence obligations except for some minor non-compliances, during the audit period from 1 July 2018 to 30 June 2022.

Out of 142 applicable compliance obligations, the audit found:

- 59 obligations were rated compliant (3 with adequate controls and 56 with controls not reviewed).
- 10 were rated non-compliant minor impact on customers or third parties (1 with adequate controls and 9 with controls not assessed).
- 73 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 SCE has complied with its information reporting obligations for the period 1 July 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 SCE has operated the electricity generation plant, transmission, distribution and supply services in a reliable manner and provided a good level of service to the single customer.

The review found that SCE has established an adequate control environment for ongoing compliance in respect of the asset management system and has a generally effective asset management system.

For the review period from 1 July 2018 to 30 June 2022, the electricity supply service provided under the Electricity Generation, Transmission, Distribution and Integrated Retail Licences is considered to be operated with a professional and comprehensive approach.

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

- 51 criteria were rated as performing effectively (with adequately defined processes);
- 2 were rated as opportunity for improvement (with corrective action required)' and
- 5 were rated as opportunity for improvement (with processes that require some improvement).

There were four recommended improvements relating to environmental analysis, asset operations (2) and asset maintenance.



3. Performance Audit

3.1 Introduction

Southern Cross Energy Partnership (SCE) is the licensee of the Economic Regulation Authority (ERA) for the electricity generation licence (EGL13), electricity transmission licence (ETL4), electricity distribution licence (EDL3) and electricity retail licence (ERL4), under the provisions contained in the *Electricity Industry Act 2004*.

SCE is a subsidiary of TransAlta Energy Australia Pty Ltd (TransAlta). TransAlta operates several power generation and transmission operations in regional Western Australia, including SCE. SCE is 100% owned by TransAlta through two entities, TEC Desert Pty Ltd and TEC Desert No.2 Pty Ltd. TransAlta is contractually obligated to ensure the SCE business objectives are met.

SCE owns and operates four gas turbine power stations in Western Australia and primarily exists to provide power to BHP's Nickel operations (Nickel West) at Mt Keith, Leinster, Kalgoorlie and Kambalda. Nickel West also receives thermal energy from SCE from a number of SCE's power stations. Various smaller operations such as Lefroy Mill in the South are also supplied via the TransAlta transmission and distribution networks. SCE has one Power Purchase Agreement with BHP Nickel West.

LICENCE	TYPE OF LICENCE	Versions
EGL13	Electricity Generation	Version 5 (1 July 2018 to current).
ETL4	Electricity Transmission	Versions 7 to 10 (1 July 2018 to current) - amendment of electricity licence operating areas and extension of transmission line to connect two new substations.
EDL3	Electricity Distribution	Versions 8 to 10 (1 July 2018 to current) – minor amendment to remove two distribution lines and amendment of electricity licence operating area.
ERL7	Electricity Integrated Retail	Version 6 (1 July 2018 to 8 March 2021) and Version 7 (9 March 2021 to current) – Licence renewed for 15 years.

SCE holds the following licences:

SCE is required to comply with the terms and conditions of their licences, including applicable legislative provisions and performance reporting as set out in the Electricity Compliance Reporting Manual (February 2022 and previous versions June 2020 and July 2018).

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.

SCE engaged Quantum Management Consulting and Assurance ('Quantum Assurance'), with the approval of the ERA, to perform an audit and review of SCE's electricity supply services, to comply with the licensing requirements of the ERA. This audit and review covers the period from 1 July 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 licences.

The scope of the audit included the adequacy and effectiveness of performance against the requirements of the licences 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 preparation of the Audit Plan has considered the previous audit report (October 2018) and the Annual Compliance Reports for 2019/20 and 2020/21 in the preliminary risk assessments. There were minor non-compliances reported as follows:

• Obligations 325, 423, 425, 426, 434 and 447 – although SCE validates its energy data, the methodologies do not fully comply with the validation, substitution and estimation rules. The Power Purchasing Agreement (PPA) in place with the single customer constitutes a service level agreement and covers metering. SCE has advised this will be updated when a new PPA is put in place.

There were no high priority areas (priority 1, 2 or 3) based on inherent risk, the previous audit's assessed controls/processes and the reported non-compliances for this audit period.

The audit was designed to identify any areas where improvement was required and to recommend corrective action as necessary. The recommendations from the previous audit relate to minor non-compliances re the metering system were also reviewed in this audit. Refer section 3.5.

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).*



3.3 Audit Compliance and Controls Rating Scale

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

A	dequacy of Controls Rating	Compliance Rating					
Rating	Description	Rating	Description				
А	Adequate controls – no improvement needed	1	Compliant				
В	Generally adequate controls – improvement needed	2	Non-compliant – minor impact on customers or third parties				
С	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 Not Applicable Obligations

The following obligations included in the Audit and Review Plan were found to be not applicable in this audit.

No.	Brief Description	Legislative Reference	Reason
	Electricity Industry Act 2004		
127	Priority Restoration Register	Section 11	Under the Distribution Licence EDL3, SCE is not required to maintain a Priority Restoration Register where the
128	Compliance of Register	Section 11	distribution transports electricity to only one customer.
	Electricity Industry Metering Code		
317	Treat Associate Code Participants at arms-length	Clause 2.2(1)(a)	SCE has no Code participants that are its associates.
318	Any benefits to be at arms- length	Clause 2.2(1)(a)	Therefore, these obligations are not applicable.
330	Advise affected parties of any non-compliance	Clause 3.5(9)	SCE's meter installation pre-dates the requirements of the Code. Therefore, this obligation is considered to be not applicable. The PPA (section 10.5) states that there is no obligation for SCE to change its meters and that the meters are adequate for the purposes of the PPA.
348	A check metering installation for a metering point must comply with the prescribed requirements.	Clause 3.13(4)	SCE does not use check meters. The requirement for check meters is not applicable due to the transitional provisions in the <i>Electricity Industry</i> <i>(Metering)</i> Code 2012, which provide exemptions for meters installed prior to the commencement of the <i>Electricity</i> <i>Industry (Metering)</i> Code 2005 from the majority of testing and accuracy requirements specified in Part 3 of the 2012 Metering Code.
357	Meters containing an internal real time clock must maintain time accuracy as prescribed. Time drift must be measured over a period of 1 month.	Clause 3.21(1)	SCE do not measure time drift as specified by the code for its meters SCE's meters are accumulation meters and do not contain internal real time clocks This requirement is not applicable to the existing meters due to the transitional provisions in the <i>Electricity Industry</i> <i>(Metering) Code 2012,</i> which provide exemptions for meters installed prior to the commencement of the <i>Electricity</i> <i>Industry (Metering) Code 2005</i> from the majority of testing and accuracy requirements specified in Part 3 of the 2012 Metering Code.



No.	Brief Description	Legislative Reference	Reason			
369	Registry to comply with the Code and market rules	Clause 4.2(1)	The registry that holds the standing data for SCE's metering points is maintained by Western Power. SCE's network does not form part of the Wholesale Electricity Market. Therefore, the market rules do not apply.			
391A	Provide energy data to AEMO	Clause 5.6(3)	Western Power is the network operator at the Kambalda Town point where substituted or estimated energy data			
392	Provide replacement energy data to user	Clause 5.7	is/was required. Therefore, Western Power is responsible for notifying the AEMO of changes within the prescribed time.			
411	Develop an Energy Data Verification Request Form	Clause 5.20(1)				
412	Form to require Code participant to provide information	Clause 5.20(2)	SCE is the user and network operator and any requests would be to itself, so these obligations are not applicable.			
413	Request from Code participant for verification of energy data	Clause 5.20(4)				
423	Use check metering data	Clause 5.22(2)	SCE does not use check meters. Substitute values estimated by SCE where necessary. The requirement for substitute values are covered in the PPA between S and its customer.			
435	Provide network operator with customer attribute information that is missing or incorrect within the timeframes.	Clause 5.27	SCE is the user and network operator and any requests would be to itself, so this obligation is not applicable.			
468	Minimise interruptions in certain areas	Clause 13(2)	SCE has entered into an agreement with its customer (PPA)			
469	Calculation of average total length of supply interruptions	Clause 13(3)	that has reliability standards different to that in the Code, so this obligation is not applicable.			
472	Payment to customer for failure to give notice of planned interruption	Clause 18				
473	Payment to customer if supply interruption exceeds 12 hours	Clause 19				
474	Customer information about applying for payments for failure to meet the Code	Clause 21(1)	Electricity Corporation conditions are not applicable.			
475	Provide written notice to eligible customers about payments available	Clause 21(2)				
476	Provide written notice at least once every financial year	Clause 21(3)				



3.5 Audit Ratings of Controls and Compliance

The current audit assessment of the ratings for the adequacy of controls and compliance for the 142 applicable licence obligations is shown below in the summary table and detailed obligations table.

	Compliance Rating											
Controls rating	Rating	1 Compliant	2 Non- compliant (minor impact)	3 Non- compliant (moderate impact)	4 Non- compliant (major impact)	NR Not rated	Total					
ols	A -Adequate	3	1	-	-	-	4					
ontr	B – Generally adequate	-	-	-	-	-	-					
с С	C - Inadequate	-	-	-	-	-	-					
	D – No controls	-	-	-	-	-	-					
	NP – Not performed	56	9	-	-	73	138					
	Total	59	10	-	-	73	142					

Summary of Audit Ratings of Control and Compliance

Detailed Audit Ratings of Control and Compliance by Obligation

No.1	Brief Description	Legislative Ref.	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)				
				А	В	С	D	NP	1	2	3	4	NR
Electric	ity 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	~					v				
107	Payment of costs for land	Section 41(6)	4					~	~				
119	Maintaining accounting records	Section 11	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 Ref.	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)					
120	Comply with ERA's	Section 11	4	A	В	С	D	NP ✓	1	2	3	4	NR
120	performance standards		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					~	✓				
Electric	ity Industry Metering Code												
Part 3 -	Meters and Metering Installa	ations											
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					~					~
329	Meter charges in accordance with service level agreement	Clause 3.5(6)	4					~	~				
331	All devices compatible with telecommunication network etc.	Clause 3.7	4					~	~				
332	Secure meter from unauthorised access	Clause 3.8	4					~					~



No. ¹	Brief Description	Legislative Ref.	Adequacy of Controls Rating ² (A=Adequate, B=Generally adequate, C=Inadequate, D=No controls, NP=Not performed) A B C D NP				erally uate, ⊧Not	Compliance Rating (1=Compliant 2=Non-compliant (minor impact), 3=Non-compliant – moderate impact, 4=Non- compliant - major impact, NR=Not rated)					
333	Metering installation to meet Code specifications	Clause 3.9(3)	4	A	В	С	D	NP ✓	1	2	3	4	NR ✓
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					~	~				
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					~					~
356	Charges to be in accordance with service level agreement	Clause 3.20(3)	4					1					~



No. ¹	Brief Description	Legislative Ref.	Adequacy of Controls Rating ² (A=Adequate, B=Generally adequate, C=Inadequate, D=No controls, NP=Not performed)				erally uate, ⊧Not	impact), 3=Non-compliant moderate impact, 4=Non compliant - major impact NR=Not rated)					
357	Accurate internal real time clock measured over 1 month	Clause 3.21(1)	3	A	В	C	D	NP ✓	1	2	3	4	NR ✓
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		1	I		1	1	1					
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					~	~				
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					~					~



No. ¹	Brief Description	Legislative Ref.	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)				2 imp m	(1= Non-(pact), 3 oderate	=Compl complia =Non-c e impac	ant (mir complia ct, 4=No or impa	nor Int — Dn-	
276	Notify up or within 2		4	A	В	С	D	NP ✓	1	2	3	4	NR
376	Notify user within 2 business days of any update to registry	Clause 4.7(1)	4					v					v
377	User being retailer or generator to have remote access to energy data	Clause 4.8(3)	4					~					~
378	User being retailer or generator to have remote access to metering database	Clause 4.8(3A)	4					V	~				
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	1											
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					~					~
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					~					~



No.1	Brief Description	Ref. Priority applied Rating ² (1) (rated (rated) (A=Adequate, B=Generally adequate, C=Inadequate, to 5 = 2=Non impact), modera Low)						Rating ² (A=Adequate, B=Generally adequate, C=Inadequate, D=No controls, NP=Not performed)				Diliance Rating I=Compliant I-compliant (minor 3=Non-compliant – te impact, 4=Non- ant - major impact, R=Not rated)		
397	Energy data request from user	Clause 5.12(1)	4	A	В	С	D	NP ✓	1	2	3	4	NR ✓	
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					~					~	
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					~	~					
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					~					~	



No.1	Brief Description	Legislative Ref.	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)				erally uate,	Compliance Rating (1=Compliant 2=Non-compliant (minor impact), 3=Non-compliant – moderate impact, 4=Non- compliant - major impact, NR=Not rated)				ior nt — on-
418	Meter testing or auditing	Clause 5.21(8)	4	A	В	С	D	NP ✓	1	2	3	4	NR
410	charge as per service level agreement (SLA)	012030 0.21(0)	7					-					
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					~					✓
422	Validate energy data in accordance with the Code	Clause 5.22(1)	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					~					v
433	Request for estimated or substituted value	Clause 5.24(4)	4					~					~
434	Accuracy of estimated energy data	Clause 5.25	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												



No.1	Brief Description	Legislative Ref.	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 (mino impact), 3=Non-compliant moderate impact, 4=Non compliant - major impact NR=Not rated)			ior nt – on- ct,		
447	Network operator compliance with agreements, rules, etc.	Clause 6.1(1)	4	A	В	C	D	NP ✓	1	2 ✓	3	4	NR
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					~		~			
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 infor	mation	<u> </u>			1	Ι	1	1			1	
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					~					×



No.1	Brief Description	(rated 1 = High to 5 = D=No controls, NP=Not Low) (A=Adequate, B=Generally adequate, C=Inadequate, D=No controls, NP=Not compliant						Complia complia Non-ce impace	iant Int (min complia t, 4=Nc or impa	or nt – on-			
				А	В	С	D	NP	1	2	3	4	NR
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	Clause 8.3(2)	4					×					~
Electric	city Industry Network Quality	and Reliability of	Supply Cod	е	1	1			•			1	
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					~	~				
465	Reduce effect of interruption on customer	Clause 10(1)	4					~	~				
466	Alternative means of supply	Clause 10(2)	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					~	~				
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					~					~



3.6 Status of Previous Audit Recommendations

The previous audit covered the period from commencement of the licence on 1 July 2014 to 30 June 2018 and was reported in October 2018. The status of the previous recommendation is stated below.

Reference (no./year)	Previously Assessed Non-Compliance/Controls Improvement	Previous Auditor's Recommendation and <i>Action Taken</i>	Date Resolved	Further action required
A. Resolved I	pefore end of previous audit			
	Nil			
B. Resolved of	during current audit period			
	Nil			
C. Unresolve	d during current audit period			I
1/2018	Metering Installations Obligation 326 - A network operator must ensure that there is a metering installation at every connection point on its network that is not a Type 7 connection point. Unless it is a Type 7 metering installation, the metering installation must meet the functionality requirements prescribed. SCE has not complied with clause 3.5(1) as SCE does not have metering installation at every connection point.	SCE has reported this obligation as non- compliant due to the 'absence' of metering, which may not be covered by the exemption applicable to 'existing' metering. Status: Outstanding Although SCE has reported a non- compliance against this obligation in its annual compliance reports to the ERA for 2018/19, 2019/20 and 2020/21, clause 10.5 of the Power Purchase Agreement (PPA) sets out that SCE and BPH Billiton Nickel West acknowledge that the agreement constitutes a Service Level Agreement (as defined in the Metering Code) and agree that the metering installations are adequate to meet the needs of the agreement. SCE does not propose to take action in respect of this matter and will continue to report the minor non-compliance.	Unresolved	Noted as a minor non-compliance in this audit report. <i>Refer</i> <i>recommendation</i> 1/2022.



Reference (no./year)	Previously Assessed Non-Compliance/Controls Improvement	Previous Auditor's Recommendation and <i>Action Taken</i>	Date Resolved	Further action required
	Metrology Procedure			
2/2018	Obligation 422 - A network operator must validate energy data in accordance with this Code applying, as a minimum, the prescribed rules and procedures set out 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.	As noted in the 2018 audit report and as advised by the ERA on 18 December 2014, the ERA accepts that SCE will not take action to address the non-compliances unless replacing the current PPA with a new	Unresolved	Noted as minor non-compliances in this audit report. <i>Refer</i>
	Although SCE validates its energy data, it considers that the methodologies it uses do not fully comply with the prescribed validation rules and procedures set out in Appendix 2 and the prescribed substitution and estimation rules and procedures set out in Appendix 3.	contract. Status: Outstanding The PPA was amended on 22 October 2020 and includes compliance with relevant		recommendation 2/2022.
	Procedures for validation, substitution and estimation are set out in the PPA that SCE has agreed with its customer (Section 8.6 Electricity metering of the PPA).	sections of the Metering Code. The PPA does not include a metrology procedure that includes compliance with these obligations,		
3/2018	Obligation 425 - 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.	as they are not considered relevant to the service provided to the single customer. These will continue to be reported as minor non-compliances.		
	SCE is non-compliant in relation to clause 6.1(1)(c) as SCE does not have a metrology procedure.			
4/2018	Obligation 426 - Substitution or estimation of energy data is required when energy data is missing, unavailable or corrupted, including in the circumstances described in this subclause.			
	Although SCE substitutes and estimates energy data when required, it considers that the methodologies it uses do not fully comply with the prescribed substitution and estimation rules and procedures set out in Appendix 3.			
	Installation of SCE's metering pre-dates the requirements of the Code.			
5/2018	Obligation 434 - "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.			



Reference (no./year)	Previously Assessed Non-Compliance/Controls Improvement	Previous Auditor's Recommendation and <i>Action Taken</i>	Date Resolved	Further action required
6/2018	 SCE is non-compliant in relation to clause 6.1(1)(c) as SCE does not have a metrology procedure. Obligation 447 - A network operator must, in relation to its network, comply with the agreements, rules, procedures, criteria and processes prescribed. SCE is non-compliant in relation to clause 6.1(1)(c) as SCE does not have a metrology procedure. 			
7/2018	Network Communication Rules Obligation 448A - 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). SCE has not submitted the prescribed documents in subclauses 6.2(a)- (d) to the ERA for approval.	As noted in the 2018 audit report and as advised by the ERA on 18 December 2014, the ERA accepts that SCE will not take action to address the non- compliances unless replacing the current PPA with a new contract. Status: Unresolved.	Unresolved	Noted as minor non-compliances in this audit report. <i>Refer</i> <i>recommendation</i> 3/2022.
8/2018	Obligation 448C A network operator must publish its communication rules as soon as practicable, and in any event within 6 months after the date this Code applies to it. SCE has not published its communication rules. Therefore, SCE is non- compliant with the obligation.	Accepted as no further action required unless PPA is replaced.		5/2022.



3.7 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) 2012	Refer Compliance Obligations 317 to 461 as applicable.
ELECTRICITY INDUSTRY NETWORK QUALITY AND RELIABILITY OF SUPPLY CODE 2005	Refer Compliance Obligations 462 to 485 as applicable.



No ³	Licence Condition	Legislative Reference	Description	Audit Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	Compliance Rating ⁶
ELECTR	ICITY INDUST	RY 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 October 2018. 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. This obligation is documented in the Asset Management Plan – Southern Cross Energy (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 Senior Contracts Specialist and field observations that no substantial changes have been made to the Asset Management System 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 October 2018. This review report will also be provided to the ERA.	NP	1
105	Condition 4.2.1	ERA (Licensing Funding)	A licensee must pay the prescribed licence fees to the ERA according to clauses 6, 7 and 8 of the <i>Economic</i>	4	As reported in the Compliance Report to the ERA for 2018/19, SCE did not comply with this obligation as payment was later than one month, on three separate occasions covering two invoices issued in	A	2

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 Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	Compliance Rating ⁶
		Regulation s 2014	Regulation Authority (Licensing Funding) Regulations 2014.		June 2018 and one invoice issued in December 2018. SCE 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.		
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 SCE's Emergency Response Plans, Business Continuity Plans and the Operations Communication Protocol with its customer, the auditor confirmed that SCE maintains emergency response, incident response and business continuity management systems, which support SCE's commitment to its single customer to maintain continuity of supply and safe and secure operations The Plant Manager confirmed that SCE 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
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 SCE has complied with this obligation and met all costs associated with interests in land and easements over land.	NP	1
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	4	Through review of SCE's Financial Statements for 2019, 2020 and 2021, the auditor noted that the audit opinion confirmed the statements:	NP	1



No ³	Licence Condition	Legislative Reference	Description	Audit Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	Compliance Rating ⁶
			Standards or equivalent International Accounting Standards.		• 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 SCE and the effective reporting periods. 		
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 SCE for the period 1 July 2018 to 30 June 2022.	NP	1
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 SCE for the period 1 July 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	4	The Commercial Manager confirmed that SCE 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



No ³	Licence Condition	Legislative Reference	Description	Audit Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	Compliance Rating ⁶
			licensee's ability to meet its obligations.				
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 SCE's Annual Compliance Reports for 2018/19, 2019/20 and 2020/21, the auditor confirmed that SCE 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 SCE 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 SCE was not required by the ERA to publish any information during the audit period.	NP	NR
126	Condition 3.7.1	Section 11	All notices must be in writing, unless otherwise specified.	4	The Senior Contracts Specialist confirmed that SCE maintains manual and scanned records to evidence formal communications with the ERA, which have been made via post or email and are stored on SCE's system. The auditor sighted examples of correspondence with the ERA.	NP	1
ELECT	RICITY INDUS	TRY METERING	G CODE	• 			
		Part 3	Meters and metering installations				
319	Condition 4.1.1	Clause 3.1	A network operator must ensure that its meters meet the requirements specified in the applicable metrology	4	Through discussion with the Commercial Manager and the Plant Manager and review of SCE's metering processes, the audit confirmed that SCE	NP	2



No ³	Licence Condition	Legislative Reference	Description	Audit Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	Compliance Rating ⁶
			procedure and comply with any applicable specifications or guidelines, including any transitional arrangements, specified by the National Measurement Institute under the National Measurement Act.		has meters installed at its gas turbines and connection points to the network and customer. Although SCE has demonstrated that it has maintained its meters to the satisfaction of its customer throughout the audit period, it does not have a metrology procedure to demonstrate its compliance with the specifications of the National Measurement Institute under the National Measurements Act. This had no impact on customers and was rated as a minor non- compliance. As the ERA has accepted from 18 December 2014, that SCE will not take action to address the non- compliance unless replacing the current PPA with a new contract, no further recommendation is made.		
320	Condition 4.1.1	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	SCE has accumulation meters with display panels. SCE has a metering database which includes relevant technical metering information. The information relevant to the meters is captured in the metering database and monthly generation database.	NP	1
321	Condition 4.1.1	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	SCE does not have interval meters as required by Appendix 1 - Table 3, nor a metrology procedure. SCE Interval accumulation is carried out in the control system (PLC). This obligation is not applicable to existing meters due to the transitional provisions in the Electricity Industry (Metering) Code 2012, which provide exemptions for meters installed prior to the commencement of the	NP	1



No ³	Licence Condition	Legislative Reference	Description	Audit Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	Compliance Rating ⁶
					Electricity Industry (Metering) Code 2005 from the majority of testing and accuracy requirements specified in Part 3 of the 2012 Metering Code.		
					In this audit period, a new compliant meter was installed at the offtake for the Cassini mine and this complies with the requirements of the Metering Code.		
322	Condition 4.1.1	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 regulations that allows the interval energy data to be downloaded in the manner prescribed.	4	The Commercial Manager confirmed that SCE's retailer and customer have no requirement for a communication link to download interval energy data.	NP	NR
323	Condition 4.1.1	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	The Commercial Manager confirmed that SCE's meters are capable of measuring bi-directional flows at locations where bidirectional flow may occur.	NP	1
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	The Commercial Manager confirmed that SCE has not become aware of a metering point which was not previously subject to bi-directional electricity flow becoming subject to bi-direction flow over the audit period.	NP	NR



No³	Licence Condition	Legislative Reference	Description	Audit Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	Compliance Rating ⁶
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	All SCE bi-directional metering points have the capability to record the net electricity production transferred into the network that exceeds electricity consumption and the net electricity consumption transferred out of the network that exceeds production. SCE has complied with this obligation	NP	1
326	Condition 4.1.1	Clause 3.5(1) and (2) (Updated Feb.2022)	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. Unless it is a Type 7 metering installation, the metering installation must meet the functionality requirements prescribed.	4	The Commercial Manager advised that SCE South has meters installed only at its gas turbines and the Western Power (Boulder) connection point. SCE has installed Type 2, 0.5 class CT and VT meters. Energy Point of Sale (POS) per the contract are not metered. However, individual loads on SCE's network are derived in the PLC control system. The difference between what's generated and the net of what goes to Western Power goes to SCE's customer. The metering arrangements remain as they were reported at the last audit, except in the South, a new POS has been established for offtake for the Cassini mine. A new, compliant meter was installed at this new POS that complies with the requirements of the Metering Code. Clause 10.5 of the Power Purchase Agreement (PPA) sets out that SCE and BPH Billiton Nickel West acknowledge that the agreement constitutes a Service Level Agreement (as defined in the Metering Code) and agree that the metering installations are adequate to meet the needs of the agreement.	NP	2



No ³	Licence Condition	Legislative Reference	Description	Audit Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	Compliance Rating ⁶
					SCE has not complied with 3.5(1) as SCE does not have a metering installation at every connection point. SCE has reported this obligation as non- compliant due to the 'absence' of metering, which may not be covered by the exemption applicable to 'existing' metering. Recommendation 1/2022 SCE to continue to report to the ERA, the absence of meters at all connection points as a minor non- compliance with the Metering Code. There is no impact on the customer.		
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	SCE has in place Power Purchase Agreements with its customer specifying requirements for maintaining meter installations and connections per Good Engineering and Operating Practices, e.g. testing metering accuracy, remedying any faults, etc., which are more onerous than the requirements of this clause. There was one new meter installed during the audit period that is compliant with the Metering Code.	NP	1
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	With the exception of one new meter that was installed at the connection point, the meters that SCE has in place were installed prior to the Metering Code coming into effect. SCE has taken the view that the meters do not comply with the accuracy requirements for the meters to be considered as revenue meters under the Code. As such, SCE considers that it does not have revenue meters at this point in time and there are no plans to replace these meters at present. Therefore,	NP	NR



No ³	Licence Condition	Legislative Reference	Description	Audit Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	Compliance Rating ⁶
					the obligation is considered not able to be rated for the audit period.		
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	SCE has a Power Purchase Agreement with its customer and as per the PPA, there is no charge for metering installations.	NP	1
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	The Commercial Manager confirmed that SCE does not have "devices" connected to a telecommunications network.	NP	NR
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	The Plant Manager and the site visit confirmed that SCE maintains its meter installations securely. Unauthorised access is prevented and restricted through control of metering installations. The meters are located on private property and access is strictly controlled	NP	1
333	Condition 4.1.1	Clause 3.9(3) <i>(Updated</i> <i>Feb.2022)</i>	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	SCE does not have interval meters as required by Appendix 1 - Table 3, nor a metrology procedure. SCE Interval accumulation is carried out in the control system (PLC). This obligation is not applicable to existing meters due to the transitional provisions in the <i>Electricity Industry (Metering)</i> <i>Code 2012</i> , which provide exemptions for meters installed prior to the commencement of the <i>Electricity Industry (Metering) Code 2005</i> from the	NP	NR



No ³	Licence Condition	Legislative Reference	Description	Audit Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	Compliance Rating ⁶
					majority of testing and accuracy requirements specified in Part 3 of the 2012 Metering Code. In this audit period, a new compliant meter was installed at the offtake for the Cassini mine and this complies with the requirements of the Metering Code.		
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	As per obligation 333.	NP	NR
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	SCE does not have interval meters as required by Appendix 1 - Table 3, nor a metrology procedure. Energy Point of Sale (POS) per the contract are not metered. However, individual loads on SCE's network are derived in the PLC control system. The difference between what's generated and the net of what goes to Western Power goes to SCE's customer. There is no compensation carried out within the meters.	NP	NR
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	4	SCE has appropriate measures in place concerning programmable settings if they affect data resolution and accuracy. SCE relies on the provisions in its PPA with the single customer that sets out requirements in relation to metering, including calibration and estimation where necessary.	NP	1



No ³	Licence Condition	Legislative Reference	Description	Audit Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	Compliance Rating ⁶
			Measurement Institute under the National Measurement Act.				
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	SCE as a network operator operates in accordance with good engineering operating practice and has entered into a PPA with its customer detailing information provision requirements.	NP	1
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	The Commercial Manager advised there have been no outages or malfunctions of the metering installations during the audit period. As this has not occurred, this obligation is not rated.	NP	NR
339	Condition 4.1.1	Clause 3.11(3)	A Code participant who becomes aware of an outage or malfunction of a metering installation must advise the network operator as soon as practicable.	4	SCE has complied with this obligation and advised the network operator, Western Power, of any outages.	NP	1
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	The requirement for accuracy of meters is covered by the PPA. The standard requires unity and 0.5pf. Testing of meters is scheduled via the SCE asset management system and typically carried out once every 24 months. Testing is carried out by qualified third parties, and test reports are provided to SCE and in turn to the customer. An external test report of all meters in November 2019 confirmed the accuracy of the meters. Testing of meters is included in the PPA.	NP	1



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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	No population of meters is deemed to have failed under AS 1284.13. The PPA stipulates that if any tests deem a meter to be inaccurate then that meter will be repaired or replaced.	NP	NR
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	SCE does not have revenue meters, check meters or separate wiring on VTs and has complied with all the prescribed design requirements This requirement is not applicable due to the transitional provisions in the Electricity Industry (Metering) Code 2012, which provide exemptions for meters installed prior to the commencement of the <i>Electricity Industry (Metering) Code 2005</i> from the majority of testing and accuracy requirements specified in Part 3 of the 2012 Metering Code. The new meter installed in the audit period at the offtake for the Cassini mine complies with the prescribed design requirements.	NP	1
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	SCE has complied with the obligation for the new meter installed in the audit period. However, the requirement is not applicable to other existing meters, due to the transitional provisions in the <i>Electricity Industry (Metering) Code 2012</i> , which provide exemptions for meters installed prior to the commencement of the <i>Electricity Industry (Metering) Code 2005</i> from the majority of testing and accuracy requirements specified in Part 3 of the 2012 Metering Code.	NP	1



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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	SCE has complied with the obligation. Calibration and testing is undertaken under the terms of the PPA. Isolation facilities of a standard consistent with good electricity industry practice are in place to facilitate testing and calibration of the metering installations.	NP	1
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	SCE has complied with this obligation. SCE has maintained drawings and supporting information, of a standard consistent with good electricity industry practice, that detail the metering installation for maintenance and auditing purposes. This is included in the PPA and supporting information.	NP	1
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	SCE has complied with this obligation. Clause 3.13(3)(b) specifically allows for the use of SCADA to perform the check metering. Also note, clause 3.14 of the Metering Code provides an exemption for the requirement to upgrade any metering installations installed before the 2005 Metering Code amendment (applies for SCE).	NP	1
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	SCE complies with 'partial check' requirements in that SCE uses SCADA data. The requirement for partial check meters is not applicable due to the transitional provisions in the <i>Electricity Industry (Metering) Code 2012,</i> which provide exemptions for meters installed prior to the commencement of the <i>Electricity Industry</i> (<i>Metering) Code 2005</i> from the majority of testing and accuracy requirements specified in Part 3 of the 2012 Metering Code.	NP	1



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349	Condition 4.1.1	Clause 3.16(1)	If, under clause 3.14(2), a metering installation uses metering class CTs 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).	4	The new meter installed in the audit period at the offtake for the Cassini mine complies with the prescribed design requirements. This requirement is not applicable to the existing meters due to the transitional provisions in the <i>Electricity Industry (Metering)</i> Code 2012, which provide exemptions for meters installed prior to the commencement of the <i>Electricity Industry (Metering)</i> Code 2005 from the majority of testing and accuracy requirements specified in Part 3 of the 2012 Metering Code.	NP	1
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	The Commercial Manager confirmed that SCE has not received a request to provide enhanced technology features	NP	NR
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	The Commercial Manager confirmed that SCE has not imposed any charge for metering installations apart from in accordance with the PPA with its customer.	NP	NR
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	SCE interval accumulation is carried out in the control system (PLC).	NP	NR
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	SCE does not provide meters with enhanced technology features.	NP	NR



No ³	Licence Condition	Legislative Reference	Description	Audit Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	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	SCE has complied with this obligation via the SCADA system monitored by the Control Room	NP	1
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	SCE has complied with this obligation. Details of the metering is included in the PPA with the customer.	NP	1
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	The Commercial Manager confirmed that SCE has not received a request to install a pre-payment meter within the audit period.	NP	NR
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	The Commercial Manager confirmed that SCE has not received a request to install a pre-payment meter within the audit period.	NP	NR



No ³	Licence Condition	Legislative Reference	Description	Audit Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	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	The Commercial Manager confirmed that the metering installation installed at the take off for the Cassini mine was installed by a registered metering operator.	NP	1
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	As there is only one customer and no requirement for SCE customers to install meters this obligation is not rated.	NP	NR
		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	SCE has complied with this obligation. SCE stores meter data on commercial databases.	NP	1
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	SCE has complied with this obligation. There is an IT policy in place to protect access to the database. Access has to be granted in order for access to be possible.	NP	1



No ³	Licence Condition	Legislative Reference	Description	Audit Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	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	SCE has an Emergency Management Policy and also a Standard. Under this 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 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. Data is backed on a daily basis to the Calgary server. In the event of a disaster, the Calgary server is able to recover all lost information within 2 business days. In the event of a disaster, all data is able to be recovered expediently as part of SCE's disaster recovery and business continuity plan.	NP	1
370	Condition 4.1.1	Clause 4.3(1)	The standing data for a metering point must comprise at least the items specified.	4	SCE has provided for the audit a complete print out of the registry information which contains the standing data required by the code and additional data.	NP	1
371	Condition 4.1.1	Clause 4.4(1)	If there is a discrepancy between energy data held in a metering	4	The Commercial Manager confirmed that any instances of incorrect energy data due to loss of	NP	1



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			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.		communications are identified and rectified with SCE's customer before invoicing.		
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 SCE has not knowingly permitted the registry to be materially inaccurate.	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 standing data in the registry, then it must notify the network operator and provide details of the change or inaccuracy within the timeframes prescribed.	4	The Commercial Manager confirmed that no such event has occurred in the audit period.	NP	NR
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	The Commercial Manager confirmed that SCE has not received any notices in the audit period.	NP	NR
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	4	The Commercial Manager confirmed that SCE has not received any notices in the audit period.	NP	NR



No ³	Licence Condition	Legislative Reference	Description	Audit Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	Compliance Rating ⁶
			data, then the network operator must determine whether the registry should be updated, and update the registry as required.				
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 relates to a period or periods when the previous user was the current user.	4	The Commercial Manager confirmed that no updates have been made to standing data in the audit period.	NP	NR
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	The Commercial Manager confirmed that there have been no requests for remote access to the energy data for the metering points in the audit period and, therefore, a suitable communication link for remote data provision is not installed. The single customer is provided with metering data in accordance with provisions set out in the PPA.	NP	NR
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	SCE can allow its users to have access. (SCE is both network operator and retailer). BHP Nickel West is technically a retailer to third party users. BHP Nickel West has local access to the metering installations and local data. Provision of this data is covered by the PPA.	NP	1



No ³	Licence Condition	Legislative Reference	Description	Audit Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	Compliance Rating ⁶
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	From discussion with the Senior Contracts Specialist and review of IT policies and systems, the audit confirmed that SCE has security devices, controls and passwords in place in accordance with its IT policy.	NP	1
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 remote, access using the methods prescribed.	4	From discussion with the Senior Contracts Specialist and review of IT policies and the systems, the audit confirmed that SCE has security devices, controls and passwords in place in accordance with its IT policy.	NP	1
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	From discussion with the Senior Contracts Specialist and review of IT policies and the systems, the audit confirmed that SCE has security devices, controls and passwords in place in accordance with its IT policy.	NP	1
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	SCE has complied with this obligation. SCE's metering database has data going back to 2006.	NP	1
		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	4	The Commercial Manager confirmed that there have been no such requirements in the audit period.	NP	NR



No ³	Licence Condition	Legislative Reference	Description	Audit Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	Compliance Rating ⁶
			participant's requirement to obtain a metering service and requirements in connection with the negotiation of a service level agreement.				
384	Condition 4.1.1	Clause 5.1(2)	 Without limiting subclause 5.1(1), a network operator must: 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. 	4	The Commercial Manager confirmed that there have been no such requirements in the audit period.	NP	NR
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	The Commercial Manager confirmed that SCE takes manual meter readings monthly and updated to the metering database within 2 business days. Meter readings are verified by cross checking and separation of duties. The audit sighted the database in June 2022.	NP	1



No ³	Licence Condition	Legislative Reference	Description	Audit Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	Compliance Rating ⁶
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	The Commercial Manager confirmed that SCE takes manual meter readings monthly and updated to the metering database within 2 business days. Meter readings are verified by cross checking and separation of duties. The audit sighted the database in June 2022.	NP	1
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	SCE has complied with this obligation. Meter readings are not undertaken by the customer as SCE employs qualified and trained high voltage technicians to take manual readings of customer associated meters on a monthly basis. Meter readings are also verified by cross checking and separation of duties.	NP	1
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	SCE has complied with this regulation. The Commercial Manager confirmed that SCE has assisted the network operator when requested.	NP	1
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 	4	The Commercial Manager confirmed that no charges have been imposed for the provision of data between network operator and retailer.	NP	NR



No ³	Licence Condition	Legislative Reference	Description	Audit Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	Compliance Rating ⁶
			accordance with the prescribed conditions.				
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	The Commercial Manager confirmed that no charges have been imposed for the provision of data between network operator and retailer.	NP	1
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	The Commercial Manager confirmed that there have been no requests in the audit period for substituted or estimated energy data.	NP	NR
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 for the user to comply with the obligations.	4	SCE is both network operator and retailer. SCE as a user has not collected any data required to be provided to network operator Western Power.	NP	NR
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	SCE has not been required to provide any standing data to another user.	NP	NR
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	SCE is both network operator and retailer. SCE as a user has not collected any data required to be provided to another retailer.	NP	NR



No ³	Licence Condition	Legislative Reference	Description	Audit Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	Compliance Rating ⁶
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	There have been no transfers to another retailer at a connection point in the audit period.	NP	NR
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 days after the receipt of the request. 	4	No request for standing data has been received within the audit period.	NP	NR
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	No request for standing data has been received within the audit period.	NP	NR
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	4	The Commercial Manager confirmed that any data provided to a user includes the date of the meter reading in accordance with the requirements specification.	NP	1



No ³	Licence Condition	Legislative Reference	Description	Audit Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	Compliance Rating ⁶
			accordance with the requirements specified.				
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	SCE is both network operator and retailer. SCE as a user has not collected any data required to be provided to network operator Western Power.	NP	NR
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	The Commercial Manager confirmed that there have been no adhoc requests for metering data during the audit period. SCE provides its customer with metering data as per the requirement of the PPA, typically once every month to assist with the invoicing process.	NP	NR
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	The Commercial Manager confirmed that there have been no adhoc requests for metering data during the audit period. SCE provides its customer with metering data as per the requirement of the PPA, typically once every month to assist with the invoicing process.	NP	NR
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	As per obligation 403.	NP	NR
405	Condition 4.1.1	Clause 5.18	If a user collects or receives information regarding a change in the	4	SCE is both network operator, generator and retailer. Information is shared between them.	NP	NR



No ³	Licence Condition	Legislative Reference	Description	Audit Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	Compliance Rating ⁶
			energisation status of a metering point then the user must provide the network operator with the prescribed information, including the stated attributes, within the timeframes prescribed.		SCE as a user has not collected or received information regarding a change in energisation status of a metering point		
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	SCE is both network operator, generator and retailer. Information is shared between them.	NP	1
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	SCE has complied with the requirements. The prescribed information is contained in the PPA.	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	SCE as a retailer and generator has not become aware of any change in attribute.	NP	NR
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	4	SCE as a network operator has not received any customer, site or address attributes.	NP	N/R



No³	Licence Condition	Legislative Reference	Description	Audit Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	Compliance Rating ⁶
			attributes from the user within the timeframes prescribed.				
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	SCE as a network operator has not received any customer, site or address attributes or changes.	NP	NR
414	Condition 4.1.1	Clause 5.21(2)	A network operator must comply with any reasonable request under subclause 5.21(1).	4	SCE has not received any requests for meter testing during the audit period. The meter testing and applicable service level agreement is included in the PPA.	NP	NR
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	SCE has not received any requests for meter testing during the audit period. The meter testing and applicable service level agreement is included in the PPA.	NP	NR
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	SCE 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	SCE 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	4	SCE as network operator has not imposed a charge for the testing of metering installations of the audit	NP	NR



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			metering installations, or auditing of information from the meters associated with the metering installations, or both, in accordance with the applicable service level agreement between it and the user.		of information form meters associated with the metering installation during the audit period. The applicable service levels are set out in the PPA between SCE and its customer.		
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	As per the PPA, the cost of testing and auditing remains with SCE.	NP	1
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 	4	No errors have been identified that require the affected party to be notified during the audit period. This requirement is covered by the PPA.	NP	NR
			metering installation in accordance with the applicable service level agreement.				
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	No data has been altered during the audit period.	NP	NR



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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 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.	4	Although SCE validates its energy data, it considers that the methodologies it uses do not fully comply with the prescribed validation rules and procedures set out in Appendix 2 and the prescribed substitution and estimation rules and procedures set out in Appendix 3. Procedures for validation, substitution and estimation are set out in the PPA that SCE has agreed with its customer (Section 10.5 Electricity metering of the PPA). Installation of SCE's metering pre-dates the requirements of the Code and it considers that it is non-compliant. Recommendation 2/2022. SCE to continue to report to the ERA, the non- compliance with obligations 422, 425, 426, 434 and 447 due to the absence of a metrology procedure to demonstrate compliance with the Metering Code. There is no impact on the customer.	NP	2
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	SCE does not use check meters. Substitute values are estimated by SCE where necessary. The requirements for substitute values are covered in the PPA between SCE and its customer.	NP	1



No ³	Licence Condition	Legislative Reference	Description	Audit Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	Compliance Rating ⁶
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	Substitute values are estimated by SCE where necessary. The requirements for substitute values are covered in the PPA between SCE and its customer. The auditor notes that SCE considers that this obligation is non-reportable because of the nature of the non-compliance in relation to the Metering Code, clause 6.1(1) and the subsidiary requirements thereafter need not be reported as non-compliant. SCE is non-compliant in relation to clause 6.1(1)(c) as SCE does not have a metrology procedure. <i>Refer recommendation 2/2022.</i>	NP	2
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	Although SCE substitutes and estimates energy data when required, it considers that the methodologies it uses do not fully comply with the prescribed substitution and estimation rules and procedures set out in Appendix 3. Procedures for validation, substitution and estimation are set out in the PPA that SCE has agreed with its customer (Section 10.5 Electricity metering of the PPA). As the installation of SCE's metering pre-dates the requirements of the Code, this obligation is a minor non-compliance. <i>Refer recommendation 2/2022.</i>	NP	2
427	Condition 4.1.1	Clause 5.22(6)	A network operator must review all validation failures before undertaking any substitution.	4	The meter accuracies are regularly tested (at least every 2 years) in accordance with the requirements in SCE's PPA (Section 10.5). Validation checks and error corrections are made to data using an automated routine when importing	NP	1



No ³	Licence Condition	Legislative Reference	Description	Audit Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	Compliance Rating ⁶
					data into the database which is consistent with this obligation.		
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	The Commercial Manager confirmed there have been no instances in the audit period where actual values could not be determined.	NP	NR
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	The meter accuracies are regularly tested (at least every 2 years) in accordance with the requirements in SCE's PPA. Validation checks and error corrections are made to data using an automated routine when importing data into the database which is consistent with this obligation. However, no such event has occurred that has required replacement or repair of any meters within the audit period.	NP	NR
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 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.	4	The meter accuracies are regularly tested (every 2 years) in accordance with the requirements in SCE's PPAs. Validation checks and error corrections are made to data using an automated routine when importing data into the database which is consistent with this obligation. Based on the validation checks and error corrections performed, SCE complies with the requirements of this clause.	NP	1



No ³	Licence Condition	Legislative Reference	Description	Audit Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	Compliance Rating ⁶
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	As per obligation 430.	NP	NR
432	Condition 4.1.1	Clause 5.24(3)	If a network operator uses an estimated or substituted value (first value) for energy data for a metering point, and a better quality actual, deemed, estimated or substituted 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 or the user and its customer jointly request it to do so.	4	As per obligation 430.	NP	NR
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	The Commercial Manager confirmed that no requests under subclause 5.24 of the <i>Electricity Industry Metering Code 2012</i> have occurred during the audit period. All requests have been made under the conditions of the PPA in place between the parties (BHP Nickel West & SCE).	NP	NR
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	4	SCE is non-compliant in relation to clause 6.1(1)(c) as SCE does not have a metrology procedure. Refer recommendation 2/2022.	NP	2



No ³	Licence Condition	Legislative Reference	Description	Audit Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	Compliance Rating ⁶
			data preserves its accuracy in accordance with the metrology procedure.				
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	SCE and Western Power Corporation (WPC) have not entered into a metering data agency agreement as defined by the <i>Electricity Industry Metering Code</i> 2012.	NP	NR
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	As per obligation 438.	NP	NR
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) must not exceed the amounts prescribed.	4	As per obligation 438.	NP	NR
		Part 6	Documentation				



No ³	Licence Condition	Legislative Reference	Description	Audit Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	Compliance Rating ⁶
447	Condition 4.1.1 & ETL Condition 5.1	Clause 6.1(1)	A network operator must, in relation to its network, comply with the agreements, rules, procedures, criteria and processes prescribed.	4	SCE is non-compliant in relation to clause 6.1(1)(c) as SCE does not have a metrology procedure in full accordance with the requirements of the <i>Electricity</i> <i>Industry Metering Code 2012</i> . However, SCE has a well-documented metrology procedure in the PPA with its customer which covers most of the requirements of the Code. This audit confirmed compliance with the PPA. <i>Refer recommendation 2/2022.</i>	NP	2
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	This audit confirmed that SCE has complied with the requirements.	NP	1
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	 SCE has not submitted the prescribed documents in sub-clauses 6.2(a)-(d) to the ERA for approval being: proposed model Service Level Agreement Metrology Procedure proposed mandatory link criteria under clause 3.6. SCE has a PPA that sets out the Service Level Agreement with its single customer. As there is a single customer and there is no model SLA, Metrology Procedure or mandatory link criteria, the SCE has not submitted or published any documents. This is considered a minor non-compliance with no impact on the customer. <i>Recommendation 3/2022</i> SCE to continue to report to the ERA, the non-compliance with obligation 448A and 448C re publishing certain documents to set out its network 	NP	2



No ³	Licence Condition	Legislative Reference	Description	Audit Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	Compliance Rating ⁶
					communication rules. There is no impact on the customer.		
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	SCE has not submitted any documents to the ERA for approval under subclauses 6.13(1)(a)(i), 6.16 or 6.17. Therefore, this obligation has not been rated.	NP	NR
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 months after the date this Code applies to it.	4	SCE has not published its communication rules. Therefore, SCE is non-compliant with the obligation. <i>Refer recommendation 3/2022.</i>	NP	2
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.	A SCE has not amended its during the audit period. The has not been rated. (3), the communication rules may y be amended thereafter in cordance with the communication es made under subclause 6.7(1)(k)		NP	NR
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	The Senior Contracts Specialist confirmed that SCE has not received any request by the ERA to amend any documents within the audit period.	NP	NR
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	SCE has had no documents amended under subclause 6.20(4) during the audit period.	NP	NR
		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	4	From review during the audit, SCE has complied with the requirements. Email, phone and postal address are available.	NP	1



No ³	Licence Condition	Legislative Reference	Description	Audit Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	Compliance Rating ⁶
			a telephone number for voice communication in connection with the Code.				
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	SCE as a network operator has not changed its address during the audit period.	NP	NR
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	SCE 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	SCE 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.	cct to not re of, to it4The Commercial Manager confirmed that SCE had not disclosed or permitted the disclosure of confidential information.code vduce the ed or4		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	SCE 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



No ³	Licence Condition	Legislative Reference	Description	Audit Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	Compliance Rating ⁶
		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 disputing party to the other disputing parties and attempt to resolve the dispute by negotiations in good faith.	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
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



No ³	Licence Condition	Legislative Reference	Description	Audit Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	Compliance Rating ⁶
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
ELECT	RICITY INDUS		QUALITY AND RELIABILITY OF SUPPL	Y 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	The Commercial Manager confirmed that the electricity supply to SCE's customer's electrical installations during the audit period has complied with the prescribed standards.	NP	1
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	SCE has complied with this obligation. The Commercial Manager advised there was one request during the audit period to disconnect the point of supply associated with supply to the Agnew mine site south of Leinster. This request had been discussed informally for some time between SCE, BHP Nickel West and Goldfields Australia (owner of Agnew site). The disconnection was formalised in an agreement of 3 July 2019, with disconnection completed on 2 August 2019.	NP	1
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	SCE has ensured that the supply of electricity has been maintained and the occurrence and duration of interruptions has been kept to a minimum. There are heavy PPA financial penalties imposed for any interruptions to supply.	NP	1
465	Condition 4.1.1	Clause 10(1)	A distributor or transmitter must, so far as reasonably practicable, reduce the	4	SCE has reduced the effect of any interruption on the customer.	NP	1



No ³	Licence Condition	Legislative Reference	Description	Audit Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	Compliance Rating ⁶
			effect of any interruption on a customer.		There are heavy PPA financial penalties imposed for any interruptions to supply.		
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	There are strong financial disincentives for any interruptions to supply. SCE has back-up arrangements to minimise the interruption of supply to its customers including contract arrangements with Western Power, generation of electricity using higher cost fuel sources, etc.	NP	1
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	The Commercial Manager confirmed that SCE has not received any such request within the audit period.	NP	NR
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	SCE has in place a PPA with its customer specifying network quality and reliability of supply and are similar to requirements set out in the Code. Limits on power frequency and voltage limits on SCE's northern network (islanded) are more onerous than on the wider SWIS network.	NP	1
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	SCE has in place an agreement (PPA) with its customer specifying network quality and reliability of supply and is similar to requirements set out in the Code. Limits on power frequency and voltage limits on SCE's northern network (islanded) are more onerous than on the wider SWIS network.	NP	1



No ³	Licence Condition	Legislative Reference	Description	Audit Priority⁴	Systems, Processes, Controls in Place to Comply with Licence (including any recommendations)	Adequacy of Controls Rating⁵	Compliance Rating ⁶
478	Condition 4.1.1	Clause 23(2)	A distributor or transmitter must keep records of information regarding its compliance with specific requirements for the period specified.	4	SCE runs a Regional Control Centre in Kalgoorlie which is manned 24/7/365. SCE has taken all such steps as are reasonably necessary to monitor the operation of its network to ensure compliance with the specified requirements.	NP	1
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	The Commercial Manager confirmed that SCE has not received a quality investigation request from its customer during the audit period.	NP	NR
480	Condition 4.1.1	Clause 24(4)	A distributor or transmitter must report the results of an investigation to the customer concerned.	4	As per obligation 480.	NP	NR



3.8 Audit Recommendations

A. Resolved during o	urrent 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
N/A	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, SCE 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.	SCE 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	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				
1/2022	Metering Installations						
	NP2						
	Obligation 326	SCE to continue to report to	Nil				
	A network operator must ensure that there is a metering installation at every connection point on its network that is not a Type 7 connection point. Unless it is a Type 7 metering installation, the metering installation must meet the functionality requirements prescribed.	the ERA, the absence of meters at all connection points as a minor non-					
	The Commercial Manager advised that SCE South has meters installed only at its gas turbines and the Western Power (Boulder) connection point. SCE has installed Type 2, 0.5 class CT and VT meters.	compliance with the Metering Code. There is no impact on the customer.					
	Energy Point of Sale (POS) per the contract are not metered. However, individual loads on SCE's network are derived in the PLC control system. The difference between what's generated and the net of what goes to Western Power goes to SCE's customer.						
	The metering arrangements remain as they were reported at the last audit, except in the South, a new POS has been established for offtake for the Cassini mine. A new, compliant meter was installed at this new POS that complies with the requirements of the Metering Code.						
	Clause 10.5 of the Power Purchase Agreement (PPA) sets out that SCE and BPH Billiton Nickel West acknowledge that the agreement constitutes a Service Level Agreement (as defined in the Metering Code) and agree that the metering installations are adequate to meet the needs of the agreement.						
	SCE has not complied with 3.5(1) as SCE does not have a metering installation at every connection point. SCE has reported this obligation as non-compliant due to the 'absence' of metering, which may not be covered by the exemption applicable to 'existing' metering.						



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		
2/2022	 Metrology Procedure NP2 Obligation 422 - A network operator must validate energy data in accordance with this Code applying, as a minimum, the prescribed rules and procedures set out 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. Although SCE validates its energy data, it considers that the methodologies it uses do not fully comply with the prescribed validation rules and procedures set out in Appendix 3. Installation of SCE's metering pre-dates the requirements of the Code apart from one new meter which is compliant. Obligation 425 - 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. SCE is non-compliant in relation to clause 6.1(1)(c) as SCE does not have a metrology procedure. Obligation 426 - Substitution or estimation of energy data is required when energy data is missing, unavailable or corrupted, including in the circumstances described in this subclause. Although SCE substitutes and estimates energy data when required, it considers that the methodologies it uses do not fully comply with the prescribed substitution and estimation rules and procedures. Obligation 434 - '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. SCE is non-compliant in relation to clause 6.1(1)(c) as SCE does not have a metrology procedure. SCE is non-compliant in relation to clause 6.1(1)(c) as SCE does not have a metrology procedure. SCE is non-compliant in relation to clause 6.1(1)(c) as SCE does not have a metrology procedure. <td>SCE to continue to report to the ERA, the non- compliance with obligations 422, 425, 426, 434 and 447 due to the absence of a meterology procedure to demonstrate compliance with the Metering Code. There is no impact on the customer</td><td>Nil</td>	SCE to continue to report to the ERA, the non- compliance with obligations 422, 425, 426, 434 and 447 due to the absence of a meterology procedure to demonstrate compliance with the Metering Code. There is no impact on the customer	Nil		



B. Unresolved at end	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			
	As noted in the 2018 audit report and as advised by the ERA on 18 December 2014, the ERA accepts that SCE will not take action to address the non-compliances unless replacing the current PPA with a new contract. The PPA was amended on 22 October 2020 and includes compliance with relevant sections of the Metering Code. The PPA does not include a metrology procedure that includes compliance with these obligations, as they are not considered relevant to the service provided to the single customer. SCE does not intend to put in place a Metrology Procedure.					
3/2022	 Network Communication Rules NP2 Obligation 448A - 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). Obligation 448C - A network operator must publish its communication rules as soon as practicable, and in any event within 6 months after the date this Code applies to it. SCE has not submitted the prescribed documents in sub-clauses 6.2(a)-(d) to the ERA for approval being: proposed model Service Level Agreement Metrology Procedure proposed mandatory link criteria under clause 3.6. SCE has a PPA that sets out the Service Level Agreement with its single customer. As there is a single customer and there is no model SLA, Metrology Procedure or mandatory link criteria, the SCE has not submitted or published any documents. This is considered a minor noncompliance with no impact on the customer. 	SCE to continue to report to the ERA, the non- compliance with obligation 448A and 448C re publishing certain documents to set out its network communication rules. There is no impact on the customer.	Nil			



4. Asset Management System Review

4.1 Description of Infrastructure

Southern Cross Energy Partnership (SCE) is the licensee of the Economic Regulation Authority (ERA) for the electricity generation licence (EGL13), electricity transmission licence (ETL4), electricity distribution licence (EDL3) and electricity retail licence (ERL4), under the provisions contained in the *Electricity Industry Act 2004*.

SCE is a subsidiary of TransAlta Energy Australia Pty Ltd (TransAlta). TransAlta operates several power generation and transmission operations in regional Western Australia, including SCE. SCE is 100% owned by TransAlta through two entities, TEC Desert Pty Ltd and TEC Desert No.2 Pty Ltd. TransAlta is contractually obligated to ensure the SCE business objectives are met.

SCE owns and operates four gas turbine power stations in Western Australia and primarily exists to provide power to BHP's Nickel operations (Nickel West) at Mt Keith, Leinster, Kalgoorlie and Kambalda. Nickel West also receives thermal energy from SCE from a number of SCE's power stations. Various smaller operations such as Lefroy Mill in the South are also supplied via the TransAlta transmission and distribution networks. SCE also owns and operates 11 diesel generators for back-up capacity. Total generation capacity is around 260MW. SCE has one Power Purchase Agreement with Nickel West.

Southern Cross Energy Partnership is also responsible for 289km of transmission lines and 168km of distribution lines between its generation sites. Southern Cross Energy Partnership holds a retail licence also. Most of its electricity is sold to a single customer. TransAlta has advised that there have been no material changes to asset infrastructure. The Power Purchase Agreement (PPA) with BHP Nickel West was extended on October-2020 on predominantly the same operative terms and conditions, except for BHP Nickel West now having approval rights on SCE's Operations and Maintenance plans. Compared to 2018, no additional services are provided.

This audit and review cover the period from 1 July 2018 to 30 June 2022.

The audit and review approach is based on the compliance obligations set out in the Licences, 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 Definit	tion - Adequacy	v ratings
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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.
В	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).
С	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.

	Performance Rating for Effectiveness Criteria									
Policy Definition uacy Rating	Rating	1 Performing effectively	2 Opportunity for improvement	3 Corrective action required	4 Some action required	Total				
Polic lacy	A -Adequately defined	49	-	-	-	49				
	B – Requires some improvement	-	5	2	-	7				
Process and – Adeq	C – Requires significant improvement	-	-	2	-	2				
P.	D – Inadequate	-	-	-	-	-				
	Total	49	5	4	-	58				

Summary of Asset Management Performance Ratings

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		
	Α	В	С	D	1	2	3	4	NR		
1. Asset planning	Α				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.	~				~						
1.5 Lifecycle costs of owning and operating assets are assessed.	~				~						
1.6 Funding options are evaluated.	\checkmark				✓						



ASSET MAN/AGEMENT SYSTEM COMPONENT & EFFECTIVENESS CRITERIA	Process and Policy rating				Pe	erfor	manc	e ra	ting
	Adequately defined	Requires some improvement	Requires significant improvement	Inadequate	Performing effectively	Opportunity for improvement	Corrective action required	Serious action required	Not Rated
	Α	В	С	D	1	2	3	4	NR
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	Α				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	Α				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.	 ✓ 				 Image: A second s				
4. Environmental analysis		В				2			
4.1 Opportunities and threats in the asset management system environment are assessed.		~				~			
4.2 Performance standards (availability of service, capacity, continuity, emergency response, etc) are measured and achieved.	~				~				
4.3 Compliance with statutory and regulatory requirements.		✓					✓		
4.4 Achievement of customer service levels.	~				~				



ASSET MAN/AGEMENT SYSTEM COMPONENT & EFFECTIVENESS CRITERIA		roce: olicy			Pe	erfor	nanc	e ra	ting
	Adequately defined	B Requires some improvement	 Requires significant improvement 	 Inadequate 	- Performing effectively	Cpportunity for improvement	➡ Corrective action required	Serious action required	Not Rated
5. Asset operations		в				2			
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		В				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.	~				✓				
7. Asset Management Information System	Α				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.	 ✓ 				\checkmark				



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
	Α	В	С	D	1	2	3	4	NR
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	Α				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	Α				1				
9.1 Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks.	~				~				
10. Financial planning	Α				1				
10.1 The financial plan states the financial objectives and identifies strategies and actions to achieve those.	~				~				
10.2 The financial plan identifies the source of funds for capital expenditure and recurrent costs.	~				~				
10.3 The financial plan provides projections of operating statements (profit and loss) and statement of financial position (balance sheets).	~				*				
10.4 The financial plan provides firm predictions on income for the next five years and reasonable indicative predictions beyond this period.	~				~				
10.5 The financial plan provides for the operations and maintenance, administration and capital expenditure requirements of the services.	~				~				



ASSET MAN/AGEMENT SYSTEM COMPONENT & EFFECTIVENESS CRITERIA	Process and Policy rating			Pe	Performance rating				
	Adequately defined	Requires some improvement	Requires significant improvement	Inadequate	Performing effectively	Opportunity for improvement	Corrective action required	Serious action required	Not Rated
	Α	В	С	D	1	2	3	4	NR
10.6 Large variances in actual/budget income and expenses are identified and corrective action taken where necessary.	>				>				
11. Capital expenditure planning	Α				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	Α				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 1 July 2014 to 30 June 2018 and was reported in October 2018. There were no recommendations in the previous review that were rated as process C or D or effectiveness 3 or 4⁷.

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

ltem 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		А	1
1.1	2	Asset management plan covers the processes in this table	SCE has an Asset Management Plan (AMP) that was revised in October 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 2.2 and 2.3 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	SCE has a full governance structure across the development and finance for new projects. This is set out in the AMP, including the major stakeholders. SCE has a Power Purchasing Agreement (PPA) with BHP Billiton Nickel West (revised in October 2020). Performance guarantees under the PPA contract terms are set out in the AMP. The PPA is structured as a capacity based PPA, with some variable operational and maintenance charges included in the contract. The PPA term is to 2029. SCE's AMP acknowledges that operating and maintenance strategies will need to be modified if there are changes to the PPA depending on the extent of BHP Nickel West's operations in 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



ltem 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 SCE depending on the future energy requirements of its customer.		
1.3	4	Service levels are defined in the asset management plan	The PPA specifies the levels of service to the customer. Heat rates are required to be maintained at the optimum level through sound operating & maintenance practices. 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.	A	1
			The PPA specifies availability targets for the plants and there are financial incentives for meeting the targets.		
			Thermal energy availability targets exist for each plant. The SCE PPA specifies that the SCE may need to demonstrate the adequacy of their "Operating, Maintenance and Contingency Plan" if thermal availability targets are not met.		
			In addition to the requirements of the contracts, SCE 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"		
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 SCE's.	A	1
			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.		
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 will help provide managers, the data to estimate when major critical equipment should be replaced based on best knowledge at the time.	A	1



ltem 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
			There are financial Long Range Forecasts that use historical data and estimates to determine revenues and spend till the forecast end of the PPA in 2029. The Major maintenance model covering HSE and Major Overhaul is covered in		
			3.12 Maintenance.Full lifecycle costs are included in the project development. SCE 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.		
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 SCE's balance sheet or from debt	A	1
1.7	4	Costs are justified and cost drivers identified	equity. Capital funds are sourced from TransAlta in Canada. Full lifecycle costs are included in the project development. SCE uses TransAlta's corporate gateway processes for approval of the project through the different stages before it is added to the approved capital program. SCE has a detailed short-term forecast for the next three years. The long-term forecast goes out to 20 years. SCE interacts with its customers to develop its future asset planning and identify the future asset portfolio.	A	1
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.	A	1



ltem 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 replacements are based on asset performance, in many instances utilising hours run. This considers the likelihood and consequences of asset failure and is monitored regularly. As with new assets, the justification for asset retirement is strictly considered and considers not only financial factors, but technological, environmental, commercial / legal and relative benefit, comparing continuation of operating and maintaining the underperforming asset versus replacing it.		
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. In this audit period, the AMP was last reviewed in August 2021 and the next review is due in August 2022.	A	1
2		ASSET CREATION/ ACQUISITION		А	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. SCE are required to follow the corporate financial policies about project planning and purchasing. SCE use the TransAlta corporate Australian Capital Process to summarise the capital projects and present the business case 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 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 must 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.	A	1
2.2	4	Evaluations include all life-cycle costs.	SCE use the TransAlta corporate Australian Capital Process to summarise the capital projects and present the business case to receive funding.	A	1



ltem 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 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		
2.3	4	Projects reflect sound engineering and business decisions.	assets. 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	A	1
			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.		
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 SCE (refer Environmental Analysis section).	A	1



ltem 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
3		ASSET DISPOSAL		А	1
3.1	4	Under-utilised and under-performing assets are identified as part of a regular systematic review process.	SCE 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.	A	1
			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 SCE's turbines.		
			At some point decommissioning of an SCE plant will involve dismantling and disposal of all equipment and the sites remediated. Depending on when that occurs, it is likely that the machines will have some residual value and could be sold on the open market or redeployed as operational spares for other TransAlta operations.		
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.	А	1
			Asset disposals are recorded in SCE's asset register in SAP. The scrap or sale values of disposed assets are recorded in the system.		
			SCE has not disposed of any assets during the review period.		
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



ltem 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
4		ENVIRONMENTAL ANALYSIS		В	2
4.1	2	Opportunities and threats in the system environment are assessed.	 Through discussion with the Plant Manager for SCE South (SCES) Operations and Plant Manager for SCE North (SCEN) Operations, review of relevant supporting documentation and a site visit, the review determined: SCE has assessed opportunities and threats in the system environment and included these in the SCE Asset Management Plan document# GAS.05.1405. SCE utilises TEC's procedure "GAS.02.1471 EMERGENCY PREPAREDNESS AND RESPONSE" for reporting Review of this procedure identified the following improvement opportunity for TransAlta to update their processes and procedures: TransAlta needs to consider the addition of an Emergency Response Procedure for Contagious Disease Management such as pandemic outbreak, etc. in their current procedures. SCE has a comprehensive pandemic response at the TransAlta level. It was noted that COVID-19 preparedness drills were conducted in 2021 and 2022. This procedure needs to be updated to align with the drills 	В	2
4.2	4	Performance standards (availability of service, capacity, continuity, emergency response, etc.) are measured and achieved.	 the drills. Through discussion with the Plant Manager (SCES) and Plant Manager (SCEN), review of relevant supporting documentation and a site visit, the review determined: 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. 	A	1



	Review Priority	Component and Effectiveness		Process and	Performance Rating
ltem no.	(1 High to 5 Low)	Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Policy Rating	
			• SCE 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 reviewer notedthat a total of two real time drills and one table top exercise per site have been undertaken annually to establish staff familiarity and compliance with the procedure "GAS.02.1471 EMERGENCY PREPAREDNESS AND RESPONSE" for the Goldfields and Southern Cross South regions and 2 drills per site have been scheduled for completion before the end of this year. TransAlta uses BHP Nickel West's emergency services at SCE sites at Mt Keith, Leinster, Kalgoorlie and Kambalda to achieve the appropriate response times as outlined in the procedure.		
4.3	4	Compliance with statutory and regulatory requirements.	Through discussion with the Plant Manager (SCES) and Plant Manager (SCEN), review of relevant supporting documentation and a site visit, the review determined:	В	3
			 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. 		
			 SCE 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. 		
			• SCE 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.		
			 "Operational Emissions Thresholds" are defined in the Environmental operating licence. 		



ltem 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
			• 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.		
			 For Incident Reporting, SCEN uses the corporate Safety Performance Reporting for its incident reporting. This system utilises Synergi via a dashboard set-up that all staff in the business can access. 		
			 SCE holds a Network Access Contract with Western Power for connection to the SWIS at SCES. Grandfathering arrangements under the Technical Rules deem technical compliance of SCES. Any change to the configuration of the SCES power stations can require compliance with the current technical rules. 		
			For Incident Reporting, SCE use the corporate Safety Performance Reporting for its incident reporting. This system utilises Synergi via a dashboard set-up that all staff in the business can access. The review determined that TransAlta did not record any breaches through their SCE operations to any of their statutory and regulatory environmental related obligations during the course of their current audit period.		
			In discussions with the Plant Manager (SCES) and Plant Manager (SCEN), the reviewer was informed that TransAlta does not measure real-time emissions from the plant operation for assessing and reporting environmental compliance at any of its facilities. This is done through desktop calculations based on monthly gas and diesel fuel usage. The reviewer queried the Plant Manager to justify any fuel quality variations and fuel combustion performance variations that may impact emissions besides fuel usage. Industry practice is to take real time measurements at least annually by external testing Consideration should be given to periodic external testing to validate the calculation of emissions based on fuel usage.		
			Recommendation 4/2022		
			TransAlta should review the current methodology for emissions reporting and establish if this method is acceptable to establish compliance with the environmental licensing requirements, including periodic external testing to validate the methodology.		



ltem 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
4.4	4	Achievement of customer service levels.	Through discussion with the Plant Manager (SCES) and Plant Manager (SCEN), 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	A	1
5		ASSET OPERATIONS	achieved in the review period.	В	2
5.1	4	Operational policies and procedures are documented and linked to service levels required.	 Through discussion with the Plant Manager (SCES) and Plant Manager (SCEN), review of relevant supporting documentation and a site visit, the review determined: Operational policies and procedures are documented through the SCE AMP, PPA with the client 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. Reliability and maintenance requirements are also set up in the AMP – SCE FY2022 – FY2025. There is an Operations and Maintenance Agreement between SCE and TECO and all remotely operated power stations. TECO runs a Regional Control Centre (RCC) which is managed 24/7/365 based at the Parkeston Power Station (PPS) in Kalgoorlie. SCES and SCEN are controlled from the RCC. Performance monitoring is driven by the requirements of the PPA with BHP Nickel West. 	A	1



ltem 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 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.		
			• SCEN's diesel storages onsite at both Mt. Keith and Leinster are maintained by BHP Nickel West and are used to power up the diesel generators when demand requires it.		
			• For SCE's southern region, the KNS and KNO LM6000 machines easily meet demand on a day-to-day basis. Major works are scheduled to align with outages at both BHP Nickel West facilities. SCE has a firm standby power agreement with Western Power to enable supply to be maintained to the BHP Nickel West operations in the event of unplanned and planned outage works.		
			• Market bidding in the Southern System uses weekly load forecasts provided by Nickel West together with machine capacity forecasts generated by SCE. Any surplus capacity is bid into the WEM.		
			SCADA is used to manage the dispatch instructions.		
			• Fuel gas is also sourced from BHP Nickel West. However, they have no obligation to provide fuel for generation for the WEM or any other third party.		
			• The weekly production performance meeting is used by TransAlta to review and assess performance, the current financial situation, any work carried out and any outages that have been experienced.		
5.2	4	Risk management is applied to prioritise operations tasks.	Through discussion with the Plant Manager (SCES) and Plant Manager (SCEN), review of relevant supporting documentation and a site visit, the review determined:	В	3
			• TransAlta maintains an All-Australia Risk Register for all TransAlta's facilities, including SCE.		
			• Risk assessments and risk quantification are carried out throughout TransAlta's business activities, including SCE assets based on criticality.		



ltem 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
			• SCE uses the corporate Total Safety Documents (TSD) system for its risk management. The dashboard provides access to the consequence guidelines, risk matrices and responsibilities.		
			• SCE uses a corporate risk register for all TransAlta Australia sites, which can be filtered to show only SCE 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.		
			• SCE'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.		
			• SCE uses the corporate TapRooT root cause analysis (RCA) tool to assess asset failures and significant near misses based on risk assessment.		
			The reviewer noted that actions identified for execution in the RCA Investigation Report #62481 associated with CO2 release (dated Feb. 2022 using corporate TapRooT tool) at SCEN were missed in the respective Synergi report and had not been escalated. The risk is escalated for SCE that is dependent on the operations by FIFO staff, which magnifies the likelihood of communication gaps during staff-to-staff handover.		
			Recommendation 5/2022		
			SCE to reassess the investigation bridging and escalation process from TapRooT root case analysis to the Synergi reporting system, to ensure all investigation reports are recorded and escalated as necessary, in the Synergi system.		
5.3	4	Assets are documented in an Asset Register including asset type, location, material, plans of components, and an assessment of	Through discussion with the Plant Manager (SCES) and Plant Manager (SCEN), review of relevant supporting documentation and a site visit, the review determined:	A	1



ltem 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
		assets' physical/structural condition and accounting data.	 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 SCE 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 BHP Nickel West to allow the operations outcomes to be validated by the customer. 		
5.4	4	Accounting data is documented for assets.	 Through discussion with the Plant Manager (SCES) and Plant Manager (SCEN), review of relevant supporting documentation and a site visit, the review determined: SCE are required to follow the corporate financial policies about project planning and purchasing. SCE uses SAP for the operational asset register. SAP is configured with a functional location structure, which sets out the hierarchy for all the assets. SCE also uses SAP for its materials master system. SCE 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. SCE depreciates its assets based on age. 	A	1



ltem 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
5.5	4	Operational costs are measured and monitored.	 Through discussion with the Plant Manager (SCES) and Plant Manager (SCEN), review of relevant supporting documentation and a site visit, the review determined: SCE uses load forecasts from its customers to develop its operational cost forecasts. SCE'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 TransAlta's parent company is Canadian, all financial management is completed for a calendar year financial year. There is monthly reporting of actual costs against the budget. 	A	1
5.6	4	Staff resources are adequate and staff receive training commensurate with their responsibilities.	 There is menting reporting or detail costs against the budget. Through discussion with the Plant Manager (SCES) and Plant Manager (SCEN), , review of relevant supporting documentation and a site visit, the review determined: SCE'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. SCE staff also have a quarterly staff appraisal where training needs can be identified. 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. SCE's training requirements are very comprehensive. However, at the time of the review, the reviewer noted that the management of compliance training, 	С	3



ltem 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
			 more than 50 overdue training requirements of staff for the SCEN network, dating from September 2021 to September 2022. At SCES (including Goldfields Power Pty Ltd staff), there were approximately 20 overdue training requirements for mainly four staff personnel dating from March 2022. This indicates that SCE may need to improve their method to identify and categorise the training requirements of their staff and/or if the escalation process of overdue training needs improvement to drive appropriate outcomes. <i>Recommendation 6/2022</i> SCE to review the overdue compliance training of network staff and take corrective action to ensure mandatory and required training is completed in a timely manner. Also, refer recommendation 7/2022 in criteria 6.3 below. 		
6		ASSET MAINTENANCE		В	2
6.1	4	Maintenance policies and procedures are documented and linked to service levels required.	 Through discussion with the Plant Manager (SCES) and Plant Manager (SCEN), 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. SCE's service levels are set out in the PPA with its customer. 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. SCE's Maintenance Management System uses SAP PM (Plant Maintenance) to manage the maintenance program. 	A	1



ltem 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
			 SCE's customer is informed of planned outages as required and output tracked in real time. SCEN and SCES do not have Standard Operating Procedures as such, but instead use maintenance plans stored within SAP which sets out the steps required to complete the cyclical maintenance activities. 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. Both SCES and SCEN are monitored remotely via 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 Plant Manager (SCES) and Plant Manager (SCEN), 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) Dissolved Gas Analysis (on transformers) 	В	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
		 Thermography 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. However, SCE does not have a dedicated Maintenance Planner to schedule 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. The reviewer observed during site visit and by discussion with the Plant Manager that Warehouse Inventory Management and tracking of spares could be improved at SCE as no minimum and maximum stock levels are maintained against the available inventory items. An improvement opportunity is to establish minimum and maximum stock levels for critical inventory spares. SCE South Region Plant Manager advised that he has recently successfully implemented an Inventory Management System. 		



ltem 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
6.3	4	Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule.	 Through discussion with the Plant Manager (SCES) and Plant Manager (SCEN), review of relevant supporting documentation and a site visit, the reviewer determined: SCE has emergency corrective and preventative maintenance plans for all its assets at all four sites. 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 SCE's operations systems can be logged into remotely. There is a weekly maintenance meeting to discuss the maintenance work coming up in the next three weeks. However, SCE does not have a dedicated Maintenance Planner to schedule the work based on the priority of the required maintenance work and available resources. Maintenance plans are not being completed on schedule. The reviewer raised concerns around the adequacy of staff resources based on the increasing number of open work orders unchanged for more than 180 days being consistently above target for all sites at SCES and SCEN. Maintenance meetrics showing outstanding work of 10 months for KNO. This could be due to multiple reasons: Understaffing Lack of a dedicated site-based maintenance planner Poor work order prioritisation Service levels of assets may require to be reassessed Targets may be over-aggressive. 	C	3



ltem 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
			Besides, the maintenance metrics for various other criteria seem to be grossly wrong such as Alarm Equipment Work Outstanding by 1,800 months at SCES. Records of such grossly wrong numbers are an indication that the maintenance metrics dashboard is not being maintained for all sites. This is unacceptable and the reviewer recommends corrective action to address mis-represented maintenance metrics dashboards for all four sites. There are also many overdue maintenance work orders at the time of the review that need to be assessed and closed out or prioritised, Recommendation 7/2022		
			 TransAlta to review the overdue work orders at SCES and SCEN to reassess priorities and review the adequacy of staffing levels to close out open work orders. 		
			 TransAlta to perform a root cause analysis and implement corrective action to achieve appropriate work order completion outcomes and to take control of the maintenance metrics possibly with a dedicated Maintenance Planner. 		
6.4	4	Failures are analysed and operational/maintenance plans adjusted where necessary.	Through discussion with the Plant Manager (SCES) and Plant Manager (SCEN), review of relevant supporting documentation and a site visit, the reviewer determined:	В	2
			 SCE 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 SCE 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 BHP Nickel West when they occur.		



ltem 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
			 There is a KPI on the SAP dashboard for repeat failures on the same equipment. Failures are analysed but as noted in criteria 6.3 above, the maintenance/operational plans are not always being applied as shown by the maintenance metric dashboard not being accurate and the high number of overdue work orders. This is an improvement opportunity for this criteria. 		
6.5	4	Risk management is applied to prioritise maintenance tasks.	 Through discussion with the Plant Manager (SCES) and Plant Manager (SCEN), 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 SCE 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 SCE 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. As noted in criteria 6.3 above, risk management of planned and unplanned maintenance at the plants but it is not always being applied as shown by the maintenance metric dashboard not being accurate and the high number of overdue work orders. This is an improvement opportunity for this criteria. 	В	2
6.6	4	Maintenance costs are measured and monitored.	 Through discussion with the Plant Manager (SCES) and Plant Manager (SCEN), 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. 	A	1



ltem 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
			Maintenance costs are tracked and monitored through the monthly financial reports.		
7		ASSET MANAGEMENT INFORMATION	N SYSTEM	А	1
7.1	4	Adequate system documentation for users and IT operators.	Through discussion with the Head of Operations and the Plant Manager (SCES) and Plant Manager (SCEN), review of relevant supporting documentation and a site visit, the reviewer determined:	A	1
			• SCE 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.		
			 SCE uses the corporate Total Safety Documents (TSD) system for its risk management. The dashboard provides access to the consequence guidelines, risk matrices and responsibilities. 		
			• SCE 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.		
			SCE 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. 		
7.2	4	Input controls include appropriate verification and validation of data entered into the system.	Through discussion with the Head of Operations and the Plant Manager (SCES) and Plant Manager (SCEN), review of relevant supporting documentation and a site visit, the reviewer determined:	A	1
			Calculations are checked using financial settlement data and raw data.		



ltem 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
			 SCE conducts daily and ongoing monitoring of its contract compliance. Levels of Service are covered under the PPA and the SCE Transmission Network Access Agreement with Western Power. 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. 		
7.3	4	Logical security access controls appear adequate, such as passwords.	The reviewer confirmed that access to the SCE'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
7.4	4	Physical security access controls appear adequate.	 Through discussion with the Plant Manager (SCES) and Plant Manager (SCEN), review of relevant supporting documentation and site visits, the reviewer determined: Physical access to the SCE 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. 	A	1



ltem 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
			• Physical access to the corporate office is physically secured with identification passes.		
7.5	4	Data backup procedures appear adequate and backups are tested.	 Through discussion with the Senior Contract Specialist, 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
7.6	4	Key computations related to licensee performance reporting are materially accurate.	 Through discussion with the Plant Manager (SCES) and Plant Manager (SCEN), 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. 	A	1



ltem 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
			 Monthly operation outcomes are included in the monthly invoices to BHP Nickel West to allow the operations outcomes to be validated by the customer. 		
7.7	4	Management reports appear adequate for the licensee to monitor licence obligations.	Through discussion with the Plant Manager (SCES) and Plant Manager (SCEN), review of relevant supporting documentation and site visits, the reviewer determined:	A	1
			• 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.		
			• SCE'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 considers 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 annual estimate. This financial pack provides overall profit and loss information and details of the capital expenditure program.		
			• In addition, SCE 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. SCE'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	The reviewer confirmed that access to the SCE's servers is strictly controlled and a ticket needs to be lodged to gain access. Staff are only able to interface	А	1



ltem 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
		access or theft by persons outside the organisation.	 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. 		
8		RISK MANAGEMENT		А	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 Plant Manager (SCES) and Plant Manager (SCEN), review of relevant supporting documentation and site visits, the reviewer determined: TransAlta an All-Australia Risk Register for all of TransAlta's facilities, including SCE. An Environmental Health and Safety team of two people is employed to serve SCE and the other TransAlta subsidiaries. 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 SCE assets. SCE 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. 	A	1



ltem 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
8.2	4	Risks are documented in a risk register and treatment plans are actioned and monitored.	 Through discussion with the Plant Manager (SCES) and Plant Manager (SCEN), 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. SCE uses the corporate risk register for all TransAlta Australia sites, which can be filtered to show only SCE risks. The Risk Register details specific hazards and controls for SCE. Dashboard links provide access to the individual risk assessments recorded in SCE'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. SCE uses the corporate Total Safety Documents (TSD) system for its risk management. The dashboard provides access to the consequence guidelines, risk matrices and responsibilities. SCE 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). 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. SCE has a site Hazard and Risk Register. The register provides detailed site specific risks] and includes descriptions of the treatment or action required to mitigate the risk. SCE'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 	В	2



Item no. 8.3	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements) 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. As noted in section 5.2 above, the reviewer noted that actions identified for execution in the RCA Investigation Report #62481 associated with CO2 release (dated Feb. 2022 using corporate TapRooT tool) were in fact missed in the respective Synergi report because of human error and had also failed to be escalated, which is indicative of failure in the process. <i>Refer recommendation 5/2022.</i> SCE uses the corporate TapRooT root cause analysis tool to assess asset failures and significant near misses based on risk assessment.	Process and Policy Rating	Performance Rating
9 9.1	2	CONTINGENCY PLANNING Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks.	SCE 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	A	1



ltem 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
			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.		
			SCE's corporate Emergency Response Guide for emergencies sets out the internal and external contacts for managing incidents and emergencies. Contingency procedures covering various aspects of asset operation and maintenance have been developed.		
			The reviewer sighted the SCE Emergency Response Plan (GAS.02.140). SCE uses BHP Nickel West's emergency services to achieve the appropriate response times as outlined in the procedure. There is also a document GAS.03.1052 Climate Affecting Work that sets out how environmental conditions are managed.		
			 The hierarchy of site drills to be undertaken is as follows: Tabletop exercise Functional exercise Full scale exercise 		
			The reviewer sighted examples of completed drills and exercises in the audit period. SCE schedule 2 drills per year for each site (SCE South and North), which is in accordance with their procedure. The latest drill was in April 2022 in Mt. Keith co-ordinated and contributed by BHP Nickel West. The procedure also requires SCE to complete one Tabletop Exercise annually per site. A Full Scale Exercise was also completed in 2018 at Leinster.		
			The review found that contingency plans are documented, tested and understood.		



ltem 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		А	1
10.1	4	The financial plan states the financial objectives and strategies and actions to achieve the objectives.	SCE 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
			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.		
10.2	4	The financial plan identifies the source of funds for capital expenditure and recurrent costs.	SCE 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 the power stations through additional capital investment. The costed schedule for capital purchases provides clarity for SCE's major expenditure into the future and provides a basis for optimisation of that spend. The forecast expenditure has been developed by SCE 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).	SCE works to a calendar year for its financial planning, budgeting processes and reporting. This is due to TransAlta's parent company being a Canadian company. Annual budgets are approved for use by November of the preceding year. SCE 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



ltem 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 experience over the past 20 years has given SCE sufficient knowledge to form the basis of the annual budget development and review. The MRF supplements this process and is used for identifying and planning for large capital and O&M Administration expenditure items.		
			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 SCE has with its customer. The monthly reports data is extracted from SAP, the corporate financial system used by SCE. The data extracted and reported is based on a transactional level. There is a monthly meeting to discuss the business finances. In addition, SCE 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.	SCE 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	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	А	1



ltem 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
		and corrective action taken where necessary.	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.		
11		CAPITAL EXPENDITURE PLANNING		Α	1
11.1	4	There is a capital expenditure plan that covers issues to be addressed, actions proposed, responsibilities and dates.	Capital expenditure planning is included in SCE's annual budgeting process. SCE'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
			SCE 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 SCE plants 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 SCE plants through additional capital investment. The costed schedule for capital purchases provides clarity for SCE's major expenditure into the future and provides a basis for optimisation of that spend. The forecast expenditure has been developed by SCE considering the stage of the contract life.		



ltem 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
11.2	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 SCE through additional capital investment. The costed schedule for capital purchases provides clarity for SCE's major expenditure into the future and provides a basis for optimisation of that spend. The forecast expenditure has been developed by SCE considering the stage of the contract life. The PPA in place with BHP Nickel West contains provisions for expansions and upgrades of the facilities to accommodate customer requirements.		1
11.3	4	The capital expenditure plan is consistent with the asset life and condition identified in the asset management plan.	SCE are required to follow the corporate financial policies with regard to project planning and purchasing. 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 SCE plants through additional capital investment. The costed schedule for capital purchases provides clarity for SCE's major expenditure into the future and provides a basis for optimisation of that spend. The forecast expenditure has been developed by SCE considering the stage of the contract life.		1
11.4	4	There is an adequate process to ensure that the capital expenditure plan is regularly updated and actioned.	SCE are required to follow the corporate financial policies for project planning and purchasing. Capital expenditure planning is included in SCE's annual budgeting process. SCE'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
12		REVIEW OF ASSET MANAGEMENT S	STEM		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.	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 August 2022. This asset management system review confirmed that the supporting asset management system is kept current.		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 durin	ng 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 du	ring 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	
4/2022	Environmental Analysis			
C2	Compliance with statutory and regulatory requirements. Operational Emissions Thresholds" are defined in the Environmental operating licence. In discussions with the Plant Manager, the reviewer was informed that TransAlta does not measure real-time emissions from the plant operation for assessing and reporting environmental compliance at any of its facilities. This is done through desktop calculations based on monthly gas and diesel fuel usage. The reviewer queried the Plant Manager to justify any fuel quality variations and fuel combustion performance variations that may impact emissions besides fuel usage. Industry practice is to take real-time measurements at least annually by external testing Consideration should be given to periodic external testing to validate the calculation of emissions based on fuel usage.	TransAlta should review the current methodology for emissions reporting and establish if this method is acceptable to establish compliance with the environmental licensing requirements, including periodic external testing to validate the methodology.	Nil	



Table of Current Review Asset System Deficiencies and Recommendations						
A. Resolved duri	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			
5/2022	Asset Operations (Investigations)					
	Risk management is applied to prioritise operations tasks.					
C2	SCE uses the corporate TapRooT root cause analysis (RCA) tool to assess asset failures and significant near misses based on risk assessment.	SCE to reassess the investigation bridging and escalation process from TapRooT root case analysis	Nil			
	The reviewer noted that actions identified for execution in the RCA Investigation Report #62481 associated with CO2 release (dated Feb. 2022 using corporate TapRooT tool) were missed in the respective Synergi report and had not been escalated. The risk is escalated for SCE that is dependent on the operations by FIFO staff, which magnifies the likelihood of communication gaps during staff-to-staff handover.	dated Feb. 2022 e Synergi report hat is dependent				
6/2022	Asset Operations (Training)					
СЗ	Staff resources are adequate and staff receive training commensurate with their responsibilities. SCE's training requirements are very comprehensive. However, at the time of the review, the reviewer noted that the management of compliance training,	SCE to review the overdue compliance training of network staff and take corrective action to ensure mandatory and required training is completed in a	Nil			
	especially mandatory and required training, needed improvement. There were more than 50 overdue training requirements of staff for the SCES network, dating from September 2021 to September 2022.	timely manner.				
	At SCEN (including Goldfields Power staff), there were approximately 20 overdue training requirements for mainly four staff personnel dating from March 2022.					
	This indicates that SCE may need to improve their method to identify and categorise the training requirements of their staff and/or if the escalation process of overdue training needs improvement to drive appropriate outcomes.					



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	
7/2022	Asset Maintenance				
C3	Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule.There is a weekly maintenance meeting to discuss the maintenance work coming up in the next three weeks. Maintenance staff visit the site every day and conduct inspection rounds. However, SCE does not have a dedicated Maintenance Planner to schedule the work based on the priority of the required maintenance work and available resources.The reviewer also raised concerns around the adequacy of staff resources based on the increasing number of open work orders unchanged for more than 180 days being consistently above target for all sites at SCES and SCEN. Maintenance metrics showing outstanding work of 10 months for Mt. Keith and 14 months for Leinster operations, 16 months for KNS and 6 months for KNO. This could be due to multiple reasons:OUnderstaffing OLack of a site-based maintenance planner OOPoor work order prioritisation OOService levels of assets may require to be reassessed OTargets may be over-aggressive.	a) b)	TransAlta to review the overdue work orders at SCES and SCEN to reassess priorities and review the adequacy of staffing levels to close out open work orders. TransAlta to perform a root cause analysis and implement corrective action to achieve appropriate work order completion outcomes and to take control of the maintenance metrics possibly with a dedicated Maintenance Planner.	Nil	



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 included our 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;
 - o physically inspect the key assets and infrastructure; and
 - o 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

- Electricity Industry Act 2004
- Electricity Industry (Metering Code) 2012
- Economic Regulation Authority (Licensing Funding) Regulations 2014
- Electricity Compliance Reporting Manual (February 2022, June 2020 and July 2018)
- Electricity Generation Licence EGL13
- Electricity Transmission Licence ETL4
- Electricity Distribution Licence EDL3
- Electricity Retail Licence ERL7

Asset Planning

- Asset Management Plan SCE
- Power Purchasing Agreement between SCE and BHP Billiton Nickel West
- 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

- Operating Area Maps for the licences
- Post Audit Implementation Plan (2019)
- Performance and Compliance Reports to the ERA for 2017/18, 2018/19 and 2019/20 and acknowledgment of receipt
- Information on fees paid to the ERA (amounts and dates paid)
- AFE Policy document
- AFE (Authorisation For Expenditure) Standards
 document
- Capital Actuals June 22 spreadsheet
- AFE Policy document
- AFE (Authorisation For Expenditure) Standards document
- Capital Actuals June 22.xlsx spreadsheet



Asset Creation and Acquisition

- GAS.07.1342 PROCUREMENT GOVERNING PRINCIPLES
- Financial Policy 230 (a) PP&E (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 (example)
- Asset Sale Process (example)

Environmental Analysis

- 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.03.0820 ENVIRONMENTAL ASPECTS, HAZARD IDENTIFICATION, RISK
- GAS.03.0876 HAZARDS, NEAR MISSES
 AND INCIDENT REPORTING
- GAS.03.1061 SITE ENVIRONMENTAL LICENCES
- GAS.04.1398 ENVIRONMENTAL MANAGEMENT ASSESSMENT AND DETERMINING CONTROLS
- GAS.03.0876 HAZARDS, NEAR MISSES
 AND INCIDENT REPORTING
- GAS.03.1061 SITE ENVIRONMENTAL LICENCES
- TransAlta FY22 emissions register
- 2020-21_NPI_Emission_Report
- NPI reports Site summary reports
- Annual Environment Reports 2021 for each site (6)
- EHS&T 2022 Programme
- Notifiable Events Reports (example)

Capital Expenditure Planning

 Australia Capital Detail 2022 L01 Final.xlsx (Long range forecast 2018-20

Asset Maintenance

- GAS.06.1324 Maintenance Work Management
- PPS047 Operations and Maintenance Agreement with SCE
- View live on SAP:
- Structured asset register
- List of maintenance plans and examples
- Examples of maintenance records
- Maintenance Policy Engineering Standard Example
 List

Asset Operations

- GAS.09.1404 MANAGEMENT OF CHANGE (MOC) GUIDELINE
- PPS047 Operations and Maintenance Agreement with SCE
- Visit to PPS control room SCADA
- Structured asset register
- List of maintenance plans and examples
- Example maintenance record
- Maintenance Policy Engineering Standard Example List Operational procedures
- Performance test reports
- Weekly production reports
- 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 V2.9
- 9666-MAN-002 Phase 2 Training Manual for Dispatch Scheduler (004)
- 9666-SPC-007 Phase 2 Dispatch PLC Functional Description Rev 1

Asset Management Information System

- SAP PM (Plant maintenance) work schedules
- Safety Performance Reporting for its incident reporting
- 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)
- Information Security Policy
- Data backup policy



Contingency Planning

- TA Emergency Management Standard
- TAC.02.0023 CORPORATE EMERGENCY MANAGEMENT STANDARD.
- TAC.07.0130 TSMS ELEMENT 11 -EMERGENCY MANAGEMENT
- GAS.03.0913 EMERGENCY RESPONSE GUIDE.pdf
- EMERGENCY RESPONSE PLAN
- CYCLONE MANAGEMENT PLAN
- Synergi History of Drills/ Evacuation Drills

A3. Key Contacts

The licensee's representatives participating in the audit were:

- Hari Sridhar Senior Contracts Specialist
- Kristian Myhre Commercial Manager
- Nigel Feletti Lead ESHT (Environment Safety Health Training)
- David Paul Plant Manager (SCEN)
- Peter Murray Plant Manager (SCES)

A4. Consultants

NAME AND POSITION	Hours
Geoff White - Director	70
Susan Smith - Manager	70
Tanuja Sanders – Engineering Consultant	40
TOTAL	180

END OF REPORT

Financial Planning

- SCE_Jun22 (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 (Spreadsheet shows budget vs actual costs for each TransAlta Australia site for June 2022)