

Appendix 1.11: Bureau Veritas audit report

**Regulatory proposal for the ACT electricity distribution network 2019-24
January 2018**

Disclaimer: On 1 January 2018, the part of ActewAGL that looks after the electricity network changed its name to Evoenergy. This change has been brought about from a decision by the Australian Energy Regulator. Unless otherwise stated, ActewAGL Distribution branded documents provided with this regulatory proposal are Evoenergy documents.



Bureau Veritas Certification

Management System Certification
Audit Report for the Main Audit

ActewAGL Trading as EVO Energy

Company Information			
Company's Name	ActewAGL trading as EVO Energy		
Address	cnr Oakden and Anketell street Greenway ACT		
Phone No.	0262483330	Fax No.	
Web Address	----		
ZIG Contract No(s).	2827362	-	-
Contact Information			
Contact Name			
Email Address			
Audit Information			
Audit Standard(s)	AS ISO 55001 :2015		
Industry Code(s)	Other		
No. of Employees	345	No. of Shifts	Single shift
Audit Type	Stage 2		
Certificate Expiry	NA		
Audit start date	8/11/2017	Audit end date	10/11/2017
Duration	5 days	Next Audit Date	November 2018
Team Leader	Rod Harrison		
Team Member(s)	NA		
Shift Pattern	Morning ✓	Evening -	Night -
Distribution	Audit Team / BV Certification office		

Summary of Audit Findings					
Number of Nonconformities recorded:		Major:	0	Minor:	3
Number of Observations	7	Number of Opportunities		5	
Is a follow up audit required?	No	Follow up audit start date		-	day(s)
Actual follow up date(s)			Start:	End:	
Based on current and previous audit results the audit day allocation is sufficient.					
Follow-up audit remarks: N/A					
Team Leader Recommendation:					
Standard	Recommendation				
AS ISO 55001:2014	Certification Recommended subject to a satisfactory corrective action plan				
Scope of Supply					
Scope Electricity Transmission and Distribution Assets.					
Accreditation	JAS-ANZ				
No. of Certs required	1				
Languages	English				
Further Instructions (additional certificate instruction or information for the office):					
The certificate to be issued should reflect the recent adjustment to the organisations name: <div style="text-align: center;"> ActewAGL Trading as EVO Energy </div>					

Audit Summary

Audit Objectives

The objectives of this audit are:

1. to confirm that the management system conformed with all the requirements of the audit standard;
2. to confirm that the organisation has effectively implemented its planned arrangements;
3. to confirm that the management system was capable of achieving the organisation's policies objectives.

Previous Audit Results

The results of the last audit of this system have been reviewed to ensure that appropriate corrections and corrective actions have been implemented to address any identified deficiencies.

No. of nonconformities from previous audit	Major	0	Minor	0
No. of nonconformities closed	Major	0	Minor	0
No. of nonconformities re-raised	Major	0	Minor	0

Executive Summary

The auditors conducted a review audit focusing on customer requirements, standard requirements and company procedures. The audit methods used were interviews, observations, sampling of activities and review of documentation and records.

The auditors conclude that, based on the documentation review, the organisation has established its management system in line with the requirements of the standard and demonstrated the ability of the system to achieve requirements for products and services within the scope and the organisation's policy and objectives.

Within the scope of the review it was evident that the Management System documentation is robust. It is the observation of the auditors that ActewAGL trading as EVO Energy, is recommended for certification

SUMMARY OF FINDINGS					
Finding No.	Grade	Standard	Clause	Finding Summary	Corrective Action Due Date
1	Minor NCR 1	ISO 55001:14	9.3	Minor NCR 1 – management review – applicable to the AMS: The Company conducted an AMS management review in Sept 17. It was a comprehensive assessment of the AMS but the assessment did not cover the trends and effectiveness of some management review inputs as per requirement of ISO 55001:2014 (e.g. internal audits; NCR process; performance monitoring; etc.). Note that the Company also conducts periodical management reviews based on ISO 9001:2008 but the process is separated from the AMS reviews.	10/02/18
2	Minor NCR 2	ISO 55001:14	10.2	Minor NCR 2 – non-conformities – applicable to the AMS: The Company conducted in Sept/Oct 17 internal audits on the documentation of the projects Stenberg Road and Bruce Sub-station. However none of the findings identified during the audits have been included in Guardian to date.	10/02/18
3	Minor	ISO 55001:2014	8.1	Minor NCR 3 - The HV testing environment at in the Greenway works area, has been in operation for many years, but would not comply with AS 2067 – 2016 (for Substations and High voltage installation exceeding 1kV). The compliance to ACTEWAGL operational electrical safety systems needs to be considered.	10/02/18
OBS-RH-1	OBS	ISO 55001:14	Asset Life Cycle	The Waste disposal Policy PR1347, is yet to consider eWaste from substation controls or obsolete switching elements such as the protection equipment from the Bruce switch station upgrade. The recycling of items that incorporate precious metals (such as gold and platinum) needs to be considered inline with the current waste review	Next audit
OBS-RH-2	OBS	ISO 55001:14	Awareness	The new ADMS does not nominate operator earth locations, and does not consider private generation. The switching plans reflect the requirement for field activities: test de-energised, complete safety checks, Note earths and prepare access permit. The observation is that it may loosely conform to the requirements of the Electrical Safety Rules (section 6.3 of the Blue Book), and consideration of the hierarchy of controls could be diminished without engineering for operator earths and consideration for working earths, and the permissions of system control.	Next audit
OBS-FC- 1	OBS	ISO 55001:14	Documented Information	OBS: Documented Information – applicable to the AMS: The Company has implemented a plan to review the entire documentation of the IMS with the intention to adjust it to comply with its Asset Management System and ISO 55001:2014. It was evidenced, during the audit that, the plan was in an advanced phase of implementation but it was not completed yet. It was also evidenced that a series of important AMS documentation were still in draft format (e.g. Asset Management System Framework, Asset Management System Description or Manual and Asset Information Strategy).	Next audit
OBS-FC- 2	OBS	ISO 55001:14	Management of change	OBS – management of change – applicable to the AMS: The Company has implemented a Management of Change process that is manually controlled (i.e. hard copy forms and control of information). However, the representatives of the Company have already recognized that the manual process is not very effective. Due to this fact, the Company has started to implement a plan to develop an electronic database that will control the Management of Change processes. The plan has not been fully implemented and the outcome of the current audit will help the representatives of the Company to improve even more the Management of Change database (i.e. please see OBS and OFI related to streamlining AMS documentation in the section of this report, PROCESS / ACTIVITY: Documented information because it is applicable to this section of the report, Management of Change).	Next audit

OBS-FC- 3	OBS	ISO 55001:14	Internal audits	OBS – internal audits – applicable to the AMS: The Company has conducted from 2014 to 2017 compliance audits of the AMS against the requirements of ISO55001:2014 (i.e. audits conducted by implementation consultants). However, the Company has not included in future internal audit schedules compliance audits of the AMS against the elements of ISO 5001:2014.	Next audit
OBS-FC- 4	OBS	ISO 55001:14	Internal audits	OBS – internal audits – applicable to the AMS: An audit of the documentation of the project Sternberg Road was conducted in September 17. However, one of the most interested parties of the project, the Project Manager of the project, has not received the audit report to date.	Next audit
OBS-FC- 5	OBS	ISO 55001:14	Internal audits	OBS – internal audits – applicable to the AMS: Internal audit checklists do not trigger the internal auditors to check competencies of employees of long-term sub-contractors.	Next audit
OFI-RH-1	OFI	ISO 55001:14	Operational planning and controls	Recent works at the Bruce switch station, have left numerous uncovered segments of the switchroom control panel escutcheon (150x100mm), and the presence on DC low voltage exists in an exposed state near behind the opening. The defect list has not captured this element.	Next audit
OFI-FC-1	OFI	ISO 55001:14	Documented Information	OFI - Documented Information – applicable to the AMS: Consider reviewing the entire documentation of the IMS with the intention to streamline and integrate the documentation related to asset management, quality, health& safety and environment (e.g. streamline documentation related to change management, producing technical standard, project management tools and configuration management – similar tools; streamline information about improvement suggestions and information included in Guardian; etc.).	Next audit
OFI-FC-2	OFI	ISO 55001:14	Outsourcing	OFI – outsourcing – applicable to the AMS: Consider centralizing in the Company's HO the internal audit process and audit records for the identified high-risk sub-contractors (i.e. sub-contractors performing long term and high-risk activities).	Next audit
OFI-FC-3	OFI	55001 ISO 55001:14	Non-conformities	OFI – NCRs and Guardian – applicable to the AMS: Consider developing criteria and structure for using Guardian to manage information about all types of suggestions for improvement, NCRs, incidents, improvements coming through the development of technical standards, information related to change management, etc. The auditor verified during the audit that the Company uses a series of different tools for improvements, change management, NCRs, etc. See OFI in section PROCESS / ACTIVITY: Documented information, related to streamlining Company's documentation and systems because the finding is applicable to the current item.	Next audit
OFI-FC-4	OFI	55001 ISO 55001:14	Non-conformities	OFI – NCRs included in Guardian – applicable to the AMS: Consider developing a system to link findings from audits, inspections, etc. to the respective information included in Guardian. Currently it is difficult to find NCRs in Guardian that came from, for example, specific audits.	Next audit

Audit Findings

The audit team conducted a process-based audit focussing on significant aspects/risks and objectives required by the standard(s). The audit methods used were interviews, observations, sampling of activities and review of documentation and records.

The onsite audit was started with an opening meeting which was attended by the senior management of the Organisation.

The audit findings were communicated to the management of the Organisation during the closing meeting, conclusion of the audit results and recommendations by the audit team were also discussed with the management team during the exit meeting.

- The management system documentation demonstrated conformity with the requirements of the audit standard and provided a structure to support implementation and maintenance of the management system,
- The Organisation has demonstrated the implementation and maintenance of its management system,
- The Organisation has demonstrated the establishment and tracking of appropriate key performance objectives and targets
- The internal audit programme has been implemented and demonstrates effectiveness as a tool for maintaining and improving the management system,
- Throughout the audit process, the management system demonstrated overall conformance with the requirements of the audit standard.

Nonconformities

Three minor Non-Conformities have been recorded.

Nonconformities detailed in this report shall be addressed through the organisation's corrective action process, in accordance with the relevant corrective action requirements of the audit standard, in actions to prevent reoccurrence, and complete records maintained.

Corrective actions to address identified **major** nonconformities shall be carried out immediately and BV Certification notified of the actions within 30 days. Our auditor may perform a **follow up visit** within 90 days to confirm the actions taken, evaluate their effectiveness, and determine whether certification can be granted or continued.

A Corrective Action Plan to address identified **minor** nonconformities shall be submitted to the BV Certification office within 90 days to confirm the actions planned. Corrective Action should then be carried out and records maintained with supporting evidence.

The responses to the nonconformities may be either in hard copy or electronically using the NCR herein (preferred) and forwarded to the BV Certification office.

At the next scheduled audit visit, the BV Certification audit team will follow-up on all identified nonconformities to confirm the effectiveness of the corrective actions taken and close out.

Observation

An area of concern, a process, document or activity that is currently conforming that may if not improved, result in a nonconforming system, product or service.

Opportunity for Improvement

A process / activity / document that, while currently conforming, could be improved to bring benefits to the client.

The information contained in this report is based on conditions observed and information provided during the audit process. Bureau Veritas Certification does not guarantee compliance with all statutes or relevant recognised standards nor does Bureau Veritas Certification guarantee that all risks and hazards have been identified within the areas and sites visited during the audit process.

This report is confidential and distribution is limited to the auditor, the Company and the Bureau Veritas Certification office.

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Only regulated electricity networks under AER			Compliance Y/N	Administration	Engineering standards	Asset Strategy	Asset network and performance	Service delivery	Assurance and Risk	Business systems (RIVA, Citworks)	Regulatory reporting	Outsourcing	Lines	Substations	Control room	Stores	Augmentation Planning																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												

AUDITOR NOTES / SIGNIFICANT AUDIT TRAILS

OPENING MEETING-

Lead Auditor: Rod Harrison

Auditor: Jose Flavio Coelho

Auditee:

[REDACTED]

Date: 8/11/17

Agenda

- Introductions
- Safety and emergency procedures
- Audit details
- Audit Plan
- Assessment methodology / communications / appeal process
- Confidentiality
- Grading of findings
- Audit reporting
- Customer feedback
- Questions & Answers

The organisational leadership have demonstrated commitment to the certification process and collectively share knowledge and experience in the implementation of systems.

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PROCESS / ACTIVITY: - Context**Auditor:**

Rod Harrison Lead Auditor

Jose Flavio Coelho – Auditor

Auditee:

Date: 8/11/17

Notes:

The context of the electricity entity is defined and reflected in the Annual Planning Reports. ActewAGL has used a ten-year planning horizon to prepare the demand and energy forecasts for its distribution asset. Energy demand remains at a constant level and is forecast to decrease slightly over the planning period due to the increasing proliferation of rooftop PV throughout the region, coupled with the increasing efficiency of electrical appliances, and the advent of new battery storage systems.

Interested parties of the regulated business are far reaching, and include Regulators, Energy generators, Territory and Federal Government operations, industry, consumers, technical and engineering entities. The generation, transmission and distribution of electrical energy is changing rapidly with new advances in technology. Emerging technologies are impacting on all parts of the supply chain, such as:

- Generation – traditional hydro and thermal generation is being supplemented by wind and solar generation, and emerging technologies such as fuel-cells, biomass generation and geothermal generation
- Transmission – large capacity transmission lines are required to transport bulk energy from power stations to load centres.
- Distribution – areas of new development within the ACT such as greenfield estates are all reticulated with underground cables and underground pits.
- Distributed Energy Resources (DER) include localised embedded generation and energy storage facilities provided by a variety of small grid-connected devices.

ActewAGL's service standards obligations arise mainly from the application of the ACT Utilities (Technical Regulation) Act 2014 (the Act). The Act requires ActewAGL to comply with all relevant industry and technical codes, any directions by the Independent Competition and Regulatory Commission (ICRC) or the ACT Technical Regulator. Relevant codes include the Consumer Protection Code, the Electricity Distribution Supply Standards Code (2013) and the Electricity Transmission Supply Code (2016). The Utilities (Technical Regulation) (Electricity Transmission supply code) Approval 2016 specified minimum requirements for the distribution entity: Technical codes, security, Network safety, authorizations and emergency management. The level of electricity asset security for electricity supply, has generated the need for a second point of supply to the ACT, and the design of 132kV transmission line and substation are underway phase.

The network reliability measures and standards are adopted from the Supply Standards Code and the referred Australian Standards therein which set out parameters for electricity supply through the ActewAGL network. The minimum distribution supply reliability standards are detailed in the Supply Standards Code, Schedule 2. These metrics are reported annually against targets, and reliability mapped against planned and unplanned events:

- SAIDI: System Average Interruption Duration Index. The ratio of total customer minutes interrupted to total customers served. This is a performance measure of network reliability, indicating the total minutes, on average, that customers are without electricity during the relevant period.
- SAIFI: System Average Interruption Frequency Index. The ratio of total customer interruptions to total customers served. This is a performance measure of network reliability, indicating the average number of occasions each customer is interrupted during the relevant period.
- CAIDI: Customer Average Interruption Duration Index. The ratio of total customer time interrupted to total customer interruptions. Measured in minutes and indicates the average duration an affected customer is without power. CAIDI = SAIDI/SAIFI.

Conclusions and information:

Asset types for ActewAGL, are defined as:

Asset Type	Nominal Voltage	Quantity
Bulk Supply Points	330/132 kV	2
	132/66 kV	1
Transmission Lines	132 kV	189 km Overhead
	132 kV	6 km Underground
Sub-transmission Lines	66 kV	7 km overhead
Switching Stations	132 kV	2
Zone Substations	132/11 kV	12 (+ 1 mobile substation)
	66/11kV	1
Power transformers	132/11 kV	28
	66/11 kV	3
Feeders	22 kV	2
	11 kV	248
22/0.415 kV Substations	22 kV & 400 V	18
11/0.415 kV Substations	11 kV & 400 V	5,079
Number of transmission towers and pole structures	132 kV	917
	66 kV	52
Number of poles	22 kV, 11 kV and 400 V	50,685
Circuit km of distribution overhead lines	22 kV, 11 kV and 400 V	2,365 km
Circuit km of distribution underground cables	11 kV and 400 V	2,946 km
Number of customer connections	22 kV	2
	11 kV	25
	400 V / 230 V	191,454
Coverage area		2,358 km ²
System maximum demand		633 MW
Telecommunications network		Fibre optic and radio

PROCESS / ACTIVITY: - Leadership**Auditor:** Rod Harrison**Auditee:****Date:** 8/11/17**Notes:**

The Asset Management Strategy has been established and communicated. Leadership and knowledge are demonstrated, in the depth of information, commitment to improvement and assignment of asset management scope and responsibilities.

The Electricity Distribution Asset Management Policy (version 6.1), has been established in relation to management of operational assets of the electricity distribution system, and includes the following asset classes:

- zone substations
- transmission system
- distribution system
- secondary systems (SCADA/protection/communications)
- operational technology systems
- revenue metering
- ActewAGL Distribution (AAD) property and
- Fleet.

The policy is available to interested parties:

- ActewAGL intranet
- ActewAGL internet (policy summary)
- incorporate key elements into relevant staff training and information sessions
- incorporate into relevant contracts
- display of key elements of the policy at company premises.

The organisation has defined its roles, responsibilities and authorities, at senior levels, and an organisational chart demonstrates the interactions. Key positions and responsibilities in asset management are as follows:

- General Manager Energy Networks (GMEN): Overall responsibility for Energy Networks to the executive and board.

Responsible to the GMEN:

- Branch Manager Asset Strategy: Responsible for Strategic Network Planning, Forecasting and Network Capability Analysis, Regulatory Compliance, Asset Information Systems, Assets Standards and Acceptance, Asset Management Systems development, Asset Management Strategy & Planning, Implementation and Audit.
 - Branch Manager Asset and Network Performance: Network Control, Management of Primary and Secondary Systems Assets, Delivery of Program of Works
 - Branch Manager Works Delivery: Responsible for Works Packaging and Scheduling, Construction & Maintenance Management, Management of Works Crews, Logistics, Contracts and Fleet Management.
 - Branch Manager Customer Connections: Energy Markets, Metering and Metering Reform, Contact Centre, Network Connection Services.
 - Branch Manager Business Transformation: Change Management and Business Improvement
 - Branch Manager Strategic Project Services: Manage the introduction of new strategic business niches.
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PROCESS / ACTIVITY: Technical specifications and standards**Auditor: Jose Flavio Coelho****Attendees:** [REDACTED]**Date: 09/11/17****Notes****Documents and Activities:**

- Interviews
- Technical specifications and standards – they set requirements as for example for design, procurement, etc. – narrow all external and internal requirements and tailor them in a set of specifications and standards for the Company.
- Manual template process PR4861.11 v.2.0 - used to produce standards - the design process according to ISO standards is applied for the development of standards - risk approach and FMEA have been used to develop any technical standards.
- Evidenced the list of technical specification and standards – includes product specification and life cycle
- Example of tech. specification – the concrete pole itself or the specification to produce the pole used for procurement processes.
- Example of the Tech. Standards – how to use or construct or produce the product or for example the concrete pole – it contains the analysis of the life cycle of the product.
- Sampled the technical standard for Quality of Supply Strategy SM11150 v1.0 (i.e. power quality) – clear definition of the specific requirements.
- Sampled Technical Specification for Ground Mounted Transformer and Pad mounted Substations SM11145 v.4.0 – specify the technical requirements during all stages of the life cycle of the products

Conclusions and information:

- Note: See information about the Management of Change in the section of this report: Management of change because the findings and information there are applicable to this section or item.
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PROCESS / ACTIVITY: - Planning**Auditor:** Rod Harrison**Auditee:****Date:** 8/11/17**Notes:**

Complex planning for the establishment, operations, maintenance and augmentation of the electricity network, is well defined and documented on an annual frequency. The Annual Planning report defines the plan and objectives for operating and managing the distribution asset:

- System maximum demand during the 2016 calendar year was 619 MW. Peak summer demand for the 2017 calendar year was 633 MW. This occurred on 10 February 2017 when ambient temperature reached 41°C. This was considerably hotter than the previous 2016 summer. Peak winter demand for the 2017 calendar year was 624 MW. This occurred on 7 August 2017.
- The requirement for a second 132/11 kV 30/55 MVA transformer and 11 kV switchboard at East Lake Zone Substation to meet load growth in the East Lake / Kingston / Airport / Pialligo / Fyshwick area has been confirmed.
- The Second Point of Supply to the ACT project scope has been confirmed to proceed and will include a new TransGrid 330/132 kV bulk supply point substation at Stockdill Drive, West Belconnen, and a new 132 kV transmission line section to connect it to ActewAGL's Canberra–Woden 132 V line.
- The requirement for the installation of additional reactive support in the northern part of the 11 kV network has been identified. This replaces the requirement for 132 kV reactive support.
- Generation capacity of the Mount Majura Solar Farm has increased from 2.3 MW to 3.6 MW. Generation capacity of the Mugga Lane Waste Transfer Station bio-gas generator has increased from 3.0 MW to 4.0 MW. Generation capacity of the Belconnen Transfer Station bio-gas generator has increased from 2.0 MW to 3.0 MW.
- A new 10.1 MW solar farm developed by Impact Investment Group (Williamsdale Solar Farm) has been commissioned and permanent connection has been made to the new Tennent 132/11 kV 15 MVA Zone Substation. The mobile substation installed at Angle Crossing was subsequently removed from service and is being retained as a system spare.
- A proposal has been developed to decommission the Fyshwick Zone Substation 66 kV assets and convert it to an 11 kV switching station supplied from East Lake Zone Substation.
- The requirement for a third 132/11 kV 30/55 MVA transformer at Gold Creek Zone Substation by 2021 has been identified.
- Under the Power of Choice legislation, ActewAGL Distribution ceased to be a metering services provider as from 1 December 2017.

Asset specific plans reviewed

- Asset assessment criteria specified, assessed and monitoring methods determined in +30 plans
- Primary Asset - High Voltage Underground Cables
- Secondary Systems – Zone substation protection
- Risk based approach – Assessment of asset conditions in Asset plans
 - o Asset classification
 - o Criticality
 - o Age and condition profile
 - o Technical criteria
 - o Failure history
 - o FMEA process (resides in the asset specific plan)
 - o Generation of the asset activities annual plan (program of works) – condition monitoring strategy

Asset Specific strategies reviewed

- Bruce switching station (critical node) – project to upgrade protection conditioning
 - o SCADA and communication systems aging report
 - o Technological enhancement assessment
 - o Compliance obligation for the NER – external communication
 - o Business case review
 - o Commissioning and acceptance testing framework
 - o Project closure and asset capture
- Sternberg UG test and replacement (outsourced)
 - o Feeder audit – cable project
 - o Works contract
 - o Tender evaluation report
 - o Executed contract
 - o Design audit report
 - o Cost estimates, variation reviews
 - o Incident and reporting framework

Conclusions and information:

Note: The regulated framework is a significant driver for funding approvals by the AER, and substantial annual comparative analysis is undertaken and documented for planning purpose.

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PROCESS / ACTIVITY: GIS; ADMS; Citiworks; RIVA (i.e. Meeting the intended outcomes for key asset setups, system interrelationships)

Auditor: Jose Flavio Coelho

Attendees: [REDACTED]

Date: 09/11/17

Notes

Documents and Activities:

- Interviews
- Asset Information System Description (v.1.1 – draft document).
- Interactions between IT supporting systems process are mapped in the business domain section of the Target definition DCUP (version 1 dated 19/03/2015).
- Citiworks database (works management – execution and monitoring of works orders).
- Cityworks – work order management system for assets – used as an action database for assets
- Electricity network map (ARC FM) geographical database contains asset information (ESRI).
- The ARC FM identifies conflicts of reviewed information in the database. This is corrected every morning based on reports from the database.
- Asset management planning tool RIVA – produces analysis of data for asset, change and improvement.
- ADMS – Advanced Distribution Management System (SCADA management, network switching).
- ADMS (asset operation system) – includes Network monitoring and control, SCADA, Faults, etc. - only explanation was given about the process. Verified the following information:
 - Bruce sub-station
 - Protection relays
 - ADMS sends work orders to Cityworks based on fault works
- RIVA produces an annual plan that is scheduled and released in Citiworks for execution, in the PoW Program of works (216-2017).
- RIVA – asset planning tool or asset optimizing system including maintenance of assets during the life of assets:
 - Sampled the secondary systems (protection relays at Bruce Sub-station) - including life expectancy based on specific maintenance approach and current condition
 - Sampled the Circuit breaker Fyshwick 8HB including life expectancy based on specific maintenance approach and current condition
 - Behind each asset there is a FMEA assessment and consequently the identification of criticality or critical assets
- Actual vs planned elements for maintenance activities are not automated, and subject to human interaction.
- Examples of planned asset activities against actual works, and updated records on life cycle.
- AGL system integration chart v. 1.5 July 16 – shows the integration of tools as GIS, ArcFM, RIVA, etc.
- GIS (geographical information system) and ARC FM (database that uses GIS information to map the network) – evidenced the mapping of:
 - Distribution substations
 - Low voltage pillars
 - Underground cables
 - Overhead lines and pole hardware
 - Secondary systems (protection, SCADA, communications)
 - Transmission
 - Earthing
 - Zone substations
- LIDAR – scanning tool used to provide information to Cityworks (inspection system using helicopters for helping to define maintenance approach for assets) - only explanation was given about the process
- Maintenance of IT systems (i.e. intangible assets) has been done based on plans held by the Asset Information Team
- The IT Disaster Recovery Plan v.4.0 Aug 17 has been used if there is an IT issue (e.g. virus)
- Back-up is done every 15 minutes of data

Conclusions and information:

- Nothing has come to the attention of the auditor that would not allow him to conclude that the AMS electronic supporting tools (e.g. GIS; ADMS; Citiworks; RIVA; etc.) have not been effectively integrated and implemented as per internal and ISO 55001:2014 requirements.

PROCESS / ACTIVITY: Documented information**Auditor: Jose Flavio Coelho****Attendees:** [REDACTED]**Date: 09/11/17****Notes****Documents and Activities:**

- The Company has an intranet where the IMS portal located. The IMS includes the HSEQ and Asset Management systems.
- Organizational structure for the Corporation and Energy Networks Division (within the scope of the AMS).
- Review management system documentation and framework
 - Intranet repository for asset information and process (i.e. called IMS)
 - Electricity distribution Asset Management Policy (version 6.1)
 - Asset Management System Framework (draft document)
 - Asset Management Strategy (version 2.16)
 - Asset Management Objectives (version 2.8)
 - Asset Management System Description or Manual (draft document)
 - Asset Information Strategy (draft)
 - Asset Management System Configuration Management (version 3.2)
 - Annual Planning Report 2016
 - Annual Planning Report 2017 (draft document)
 - Asset Management Communication Plan (version 1)

Conclusions and information:

- OBS: Documented Information – applicable to the AMS: The Company has implemented a plan to review the entire documentation of the IMS with the intention to adjust it to comply with its Asset Management System and ISO 55001:2014. It was evidenced, during the audit that, the plan was in an advanced phase of implementation but it was not completed yet. It was also evidenced that a series of important AMS documentation were still in draft format (e.g. Asset Management System Framework, Asset Management System Description or Manual and Asset Information Strategy).
 - OFI - Documented Information – applicable to the AMS: Consider reviewing the entire documentation of the IMS with the intention to streamline and integrate the documentation related to asset management, quality, health& safety and environment (e.g. streamline documentation related to change management, producing technical standard, project management tools and configuration management =- similar tools; streamline information about improvement suggestions and information included in Guardian; etc.).
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PROCESS / ACTIVITY: Resourcing, competency and awareness**Auditor: Jose Flavio Coelho****Attendees:** [REDACTED]**Date: 09/11/17****Notes****Documents and Activities:**

- Interviews
- Asset Management System Framework (version 0.7)
- Asset Management Information Systems Description
- Annual Planning Report 2016 – addresses resources for projects element 7
- Financial and human resources requirements:
 - From December to Feb of each year the Company plans the budget (e.g. for 16/17 Capex AUD\$83M and Opex AUD\$28M).
- Deloitte assure the financial statements of the Company – note that the assurance statement from Deloitte for the 16/17 financial year was not available during the audit for verification.
- Competence and awareness:
 - Awareness:
 - Corporate induction program (2 days) – compulsory to everyone that joins the Company.
 - Everyone has an employee handbook that includes the training program for all new employees.
 - Refresher courses are given every two years to everyone.
 - RTO for electrical works - RTO accreditation documentation was not available during the audit for verification.
 - There is a Learning and Development page in the Intranet. There are core (legal) and mandatory (required by the business) training that employees need to conduct according to their position description.
 - AURION software controls the competencies – human resources flags the expire dates of core competencies to managers in a regular basis
 - The HR is responsible for developing a 3-year training and competency plan. The achievement of competencies by employees is based on periodical on-job assessment of employees.
 - IMS PR4821v. 5.0 – Training and Competency Policy
- Contractor management manual SM4608 v.4.0 – competencies of sub-contractor employees are provided to the Company during the procurement process – during the duration of the contract the company confirms the maintenance of the competencies of the employees of the sub-contractors based on regular audits and HSEQ leadership engagement
- Competencies Training Management procedure v.5.0 + other procedures (e.g. Competencies training and awareness policy; Apprentice Training management procedure; Training administration procedure; Training evaluation procedure; and, EHSQ training needs analysis)
- Delegation of authorities PO4402 v.3.0 and related documentation.

Conclusions and information:

- Nothing has come to the attention of the auditor that would not allow him to conclude that the training and competency processes have not been effectively implemented as per internal and ISO 55001:2014 requirements.
-

PROCESS / ACTIVITY: Communication and reporting**Auditor: Jose Flavio Coelho****Attendees:** [REDACTED]**Date: 09/11/17****Notes****Documents and Activities:**

- Interviews
- Annual Planning Report 2016 – most important communication tool related to asset management – analysis of data relating to regulatory reporting in ACT for asset integrity
- Asset Management Communication Plan v.1.02 – list all communications tools used by the company
- In a monthly basis the Company uses different tools to report AMS performance base on KPIs
- Sampled some of the regulatory compliance reports:
 - The Company produces around 80 different statutory reports
 - Annual RIN (regulatory information notice) report 15/16 – provided to the Australian Energy Regulator – provides evidences to the regulator of the effectiveness of the operations and maintenance of the assets
 - Category Analysis RIM report 15/16
 - Utility license annual report – analysis of data relating to regulatory reporting in ACT for asset integrity and monitoring of trends
 - Annual technical compliance report
 - IPART (NSW regulatory compliance requirements)
 - CAIDI: Customer Average Interruption Duration Index. The ratio of total customer time interrupted to total customer interruptions. Measured in minutes and indicates the average duration an affected customer is without power. CAIDI = SAIDI/SAIFI.

Conclusions and information:

- Nothing has come to the attention of the auditor that would not allow him to conclude that the communication and reporting tools used by the Company have not been effectively implemented as per internal and ISO 55001:2014 requirements.
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PROCESS / ACTIVITY: - Operations – Safety Week activities (HV testing and calibrations)**Auditor:** Rod Harrison**Auditee:** [REDACTED]**Date:** 9/11/17**Notes:**

The organisation has established a test cell for verifying the integrity of High Voltage operating equipment (fiberglass sticks, gloves, barriers), and services the units for internal and external parties, for use in maintaining the network. The articles are placed in test units and 45,000 volts are applied for 60 seconds, to observe any breakdown. The test enclosure has been constructed from cyclone fence, and cutout switches applied to the entry door. Earth bonding is present on the front and door of the cage, but not the rear or side of the cage. The HV testing environment would not comply with AS 2067 – 2016 for High voltage installation exceeding 1kV. The compliance to ACTEWAGL operational electrical safety systems needs to be considered (mNCR- 3). The exclusion zones within the area are not being observed and the housekeeping requires attention.

- Records of test for the “Electrical Safety of operating sticks”
- Calibration evidence of the High Voltage supply transformer.

PROCESS / ACTIVITY: - Operations – Asset inspections (Pole inspection activity – pole 35695)**Auditor:** Rod Harrison**Auditee:** [REDACTED] plus two trainee asset inspectors**Date:** 9/11/17**Notes:**

The LV domestic distribution network runs on the rear boundaries between domestic house blocks. Asset inspection of CCA treated pole (asset #35695) was observed. Physical access to the pole was restricted by domestic brick walls within 200 mm of the pole on 3 sides, making below ground inspection very difficult.

- SWMS and JRA completed (online document)
- CCA treated spotted gum, 9.5m, 6kn rated, installed in 1985.
- Work order 260871 Priority 3 with a level 4 non-visual inspection. Asset records verified.
- New technology has been implemented for pole strength assessment. “Thors Hammer” (Groundline Engineering), is used as a percussion impact to verify pole strength from diameter and foundation information. The data is uploaded into CitiWorks database for asset inspection details.
- SM1188 Pole and Line inspection manual

PROCESS / ACTIVITY: - Operations – Protection systems upgrade project (Bruce Switching Station)**Auditor:** Rod Harrison**Auditee:** [REDACTED] – Secondary Systems Manager**Date:** 9/11/17**Notes:**

Upgrades to the protection systems and feeded connections included the replacement of 6 x 132 Kv GCB. The project completed with some minor outstanding works, has the site in good condition, with technological enhancements.

- JRA completed (#31537)
- WF 13100 for generic work methods and Switchroom access
- WF13101 for Asset inspection
- Waste disposal Policy PR1347
- Recent works have left numerous uncovered segments of the switchroom control panel escutcheon (150x100mm), and the presence on DC low voltage exists in an exposed state near behind the opening. (OFI-RH-1)
- Citiworks defects report and work order plan for upgrade commissioning.
- The Waste disposal Policy PR1347, does not consider eWaste from substation controls or obsolete switching elements such as the protection equipment from the Bruce switch station upgrade. The recycling of items that incorporate precious metals (such as gold and platinum) needs to be considered inline with the current waste review (OBS-RH-1)

PROCESS / ACTIVITY: - Operations – Network operation centre – ADMS (Advanced Distribution Management System)**Auditor:** Rod Harrison**Auditee:** [REDACTED] - Branch Manager Asset Performance**Date:** 9/11/17**Notes:**

The ADMS has been implemented since February 2016, replacing the ENMAC system. The system is used to operate the electricity network, as the real time interface to electricity network status, asset schematics, connectivity and switching. The system is supported by ARCFM which manages the accuracy of the network topology, elements and physical location information. The system continues to be managed through data defect rectification (ie: updating the accuracy of information relating to changes, and identified inaccuracies). It is understood, that while the complete network is mapped, the HV network accuracy is at approximately 95%, and the LV network is at approximately 80%. The branch plan is to manage change and increase the immediate accuracy of the network to 100% immediate accuracy, with a focus on labelling and load flow modelling.

- Asset and network performance – branch plan 2017-18
- Initiative brief (#083) describes the data / configuration issues affecting ADMS accuracy for load flow studies. This is identified as an objective for improvement to ensure the system achieves its full potential.
- Electrical Network Alteration notices #12773, project 20004904, work pack 306580. To install a new Gas switch in HV at pole 31092.
- Citworks view of data for asset 31092
- Design for HV reticulation drw 32599-14-055

PROCESS / ACTIVITY: - Operations – Control room – Outage planning, Network access and HV switching**Auditor:** Rod Harrison**Auditee:** [REDACTED] – Control room manager**Date:** 9/11/17**Notes:**

The Advanced Distribution Management System is used develop switching plans for outage management. The process has required operators to have a change in the logical process, automating some areas (such as reverse switching), and requiring additional human interactions in others (such as the site based decision on operator earth placement). The ADMS does not classify all assets, but rather identifies critical elements for electricity flow (ie: conductors, switches etc).

The development of a switchin plan, considers:

- The schematics of the network
- Confirms impacts on the network (including critical priorities)
- Evaluates other work areas under conditions
- Evaluates the load shift on network from re-routed currents
- Allows for SCADA and recloser interactions
- Indicates status of switchgear, and DT
- Simulates the impact to the network
- Validates isolation points
- Records network asset integrity issues (such as hot joints on asset 6257 ABS), and evaluates the work around to prevent overuse.

The new ADMS does not nominate operator earth locations, and does not consider private generation. The switching plans reflect the requirement for field activities: test de-energised, complete safety checks, Note earths and prepare access permit. This may not conform to the requirements of the Electrical Safety Rules (section 6.3 of the Blue Book), and consideration of the hierarchy of controls could be diminished without engineering for operator earths and consideration for working earths. (OFI-RH-2)

PROCESS / ACTIVITY: - Operations – Discharge testing of HV feeder cables**Auditor:** Rod Harrison**Auditee:****Date:** 9/11/17**Notes:**

The Asset specific plan for HV underground cables, records the health of the ANTHONYROLF HV feeder as critical. The feeder is 17987 meters with a large number of HV joints in 35 sections, installed approximately 20 years ago. A large number of unassisted feeder failures in April and May 2017 have resulted in the ACT energy regulator enquiry regarding the incidents. It is understood that the issue has been isolated to failed joints, and the life cycle of the cable has been reduced. The process of discharge testing the feeders has required the upskilling of technicians in the use of test equipment, and the hiring of additional test equipment for the testing. An external service provider will undertake the analysis of test results.

Similar issues found in other feeders have resulted in replacement of the Sternberg feeder cable, and the ANUBELM is planned for replacement.

- Padmount transformer 9739 and 9736, CT installation and discharge test monitoring activity
- Work request 4104007174
- Switching plan 161016664
- Access authority 16100445 – two operator earths recorded.
- Calibration on the CT collector and recorder were unavailable, but reported as new.

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PROCESS / ACTIVITY: Management of change**Auditor: Jose Flavio Coelho****Attendees:** [REDACTED]**Date: 09/11/17****Notes****Documents and Activities:**

- Interviews
- Asset Management Framework SM4200 v. 2.0 and related documentation
- Asset Management Configuration Management – for changes in the AMS documentation
- Process Change Model – for OT (operational technology) area
- ICT Change Management Procedure – operational changes
- The Company has implemented a electronic database for Change Management – pilot will be ready for Christmas
- Sampled the following changes:
 - Bruce Sub-station
 - AMS implementation as per ISO 55001:2014
 - Project for Fixed Price Customer Offers:
 - Initial communication with customers
 - Initial internal meeting
 - Initial workshop (i.e. assessing of risks)
 - Design and options analysis
 - Project approvals
 - Commissioning
 - Project closure and measurement of effectiveness

Conclusions and information:

- OBS – management of change – applicable to the AMS: The Company has implemented a Management of Change process that is manually controlled (i.e. hard copy forms and control of information). However, the representatives of the Company have already recognized that the manual process is not very effective. Due to this fact, the Company has started to implement a plan to develop an electronic database that will control the Management of Change processes. The plan has not been fully implemented and the outcome of the current audit will help the representatives of the Company to improve even more the Management of Change database (i.e. please see OBS and OFI related to streamlining AMS documentation in the section of this report, PROCESS / ACTIVITY: Documented information because it is applicable to this section of the report, Management of Change).
- Note: The finding included in section PROCESS / ACTIVITY: Documented information = OFI - Documented Information – applicable to the AMS: Consider reviewing the entire documentation of the IMS with the intention to streamline and integrate the documentation related to asset management, quality, health& safety and environment (e.g. streamline documentation related to change management, producing technical standard, project management tools and configuration management -- similar tools; streamline information about improvement suggestions and information included in Guardian; etc.

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PROCESS / ACTIVITY: Internal Audits**Auditor: Jose Flavio Coelho****Attendees:** [REDACTED]**Date: 09/11/17****Notes****Documents and Activities:**

- Interviews

Internal audit process confirms compliance with all regulatory requirements applicable to the Company (i.e. please see the section **PROCESS / ACTIVITY: Communication and reporting** in this report because it shows the reporting tools that address compliance with applicable requirements for the Company).

- Management Systems Audit PR4862 v.4.0
- Audit schedule 2017 – no plans for auditing against the elements of the standard - However the Company has done assessment in 2014, 2015, 2016 and 2017
- Sampled the audits of some projects:
 - Sternberg Road location - Replacement of Underground cable (6.5 Km) – cable was failing a lot before:
 - It was used the change management process for the project + project management tools
 - The project has effectively completed Sept 17
 - The company conducted an audit of the project Aug 17 based on the documentation – 3 opportunities and 1 minor NCR
 - Bruce sub-station – Upgrade of the sub-station to a new technology (more reliable sub-station):
 - It was used the change management process for the project + project management tools
 - The project has effectively completed Sept 16
 - The company conducted an audit of the project Aug 17 based on the documentation – 3 opportunities and 2 minor NCRs and 1 major NCR

Conclusions and information:

- OBS – internal audits – applicable to the AMS: The Company has conducted from 2014 to 2017 compliance audits of the AMS against the requirements of ISO55001:2014 (i.e. audits conducted by implementation consultants). However, the Company has not included in future internal audit schedules compliance audits of the AMS against the elements of ISO 5001:2014.
 - OBS – internal audits – applicable to the AMS: An audit of the documentation of the project Sternberg Road was conducted in September 17. However, one of the most interested parties of the project, the Project Manager of the project, has not received the audit report to date.
 - OBS – internal audits – applicable to the AMS: Internal audit checklists do not trigger the internal auditors to check competencies of employees of long-term sub-contractors.
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PROCESS / ACTIVITY: Management Review**Auditor: Jose Flavio Coelho****Attendees:** [REDACTED]**Date: 09/11/17****Notes****Documents and Activities:**

- Interviews
- Management review and corporate governance PR4804 v.6.0
- WHSEQ Management manual SM4601 v.5.0 – section about management reviews
- Asset Management Committee meeting July 17
- Last management review including ISO 55001 dated from Sept 17.

Conclusions and information:

- NCR – management review – applicable to the AMS: The Company conducted an AMS management review in Sept 17. It was a comprehensive assessment of the AMS but the assessment did not cover the trends and effectiveness of some management review inputs as per requirement of ISO 55001:2014 (e.g. internal audits; NCR process; performance monitoring; etc.). Note that the Company also conducts periodical management reviews based on ISO 9001:2008 but the process is separated from the AMS reviews.

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PROCESS / ACTIVITY: Outsourcing and Procurement**Auditor: Jose Flavio Coelho****Attendees:** [REDACTED]**Date: 09/11/17****Notes****Documents and Activities:**

- Interviews
- Procurement manual SM5020 v.4 and related documentation
- List of suppliers is managed using BICON – includes approval and re-approval of suppliers
- For services: Each engagement requires of sub-contractors to provide evidence of the maintenance of documentation. In addition to that, if it is a long-term contract, contractors are periodically checked through audits, inspections, etc. Contract managers are responsible for maintaining the competency of sub-contractors and confirm their ability to provide services based on HSEQ requirements.
- For products: Each supplier has a specific contract that is re-assessed every three months (i.e. sometimes the periodicity of re-assessment is different depending the contract).
- Outsourcing is managed by the Contracts and Procurement branch. Procurement management manuals detail the requirement.
- Due to time limitations, the Company was not able to provide records to the auditor, during the current audit, demonstrating that sub-contractor working in the Stenberg project (i.e. the sub-contractor that tested the cables) followed the ActewAGL's HSEQ MS and AMS requirements.

Conclusions and information:

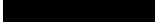
- OFI – outsourcing – applicable to the AMS: Consider centralizing in the Company's HO the internal audit process and audit records for the identified high-risk sub-contractors (i.e. sub-contractors performing long term and high-risk activities).
 - Note 1: Due to time limitations, the Company was not able to provide records to the auditor, during the current audit, demonstrating that sub-contractor working in the Stenberg project (i.e. the sub-contractor that tested the cables) followed the ActewAGL HSEQ MS and AMS requirements.
 - Note 2: See information about the Internal audit process of sub-contractors included in the section of this report PROCESS / ACTIVITY: Internal audit because the findings and information there are applicable to this section or item.
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PROCESS / ACTIVITY: Non-conformity, incidents and impacts, continual improvement**Auditor: Jose Flavio Coelho****Attendees:** [REDACTED]**Date: 09/11/17****Notes****Documents and Activities:**

- Interviews
- WHSEQ Management manual SM4601 v.5.0 – section about incidents, NCR and corrective actions
- Guardian database – location of all logged NCRs, incidents, etc.
- Guardian reporting (e.g. database used to help to manage incident, actions, risks/opportunities, audits, etc.)
- Improvement, non-conformities and corrective actions are all recorded in the Guardian database (Cintelate).
- Asset failure / damage / some identified opportunities are also recorded in the Guardian database (Cintelate).
- Sampled the NCR from audits:
 - Sternberg Road location - Replacement of Underground cable (6.5 Km) - The Company conducted an audit of the project Aug 17 based on the documentation – 3 opportunities and 1 minor NCR.
 - Bruce sub-station – Upgrade of the sub-station to a new technology (more reliable sub-station) - The company conducted an audit of the project Aug 17 based on the documentation – 3 opportunities and 2 minor NCRs and 1 major NCR
- Sample INC 11791 - exposed protective armour of a cable (Stenberg):
 - Immediately action taken – inspection carried out
 - Investigation – lack of identification of the root of the cables
 - Corrective action – update procedures and electrical safety rules (including training) = life cycle adjust due to incident.

Conclusions and information:

- OFI – NCRs and Guardian – applicable to the AMS: Consider developing criteria and structure for using Guardian to manage information about all types of suggestions for improvement, NCRs, incidents, improvements coming through the development of technical standards, information related to change management, etc. The auditor verified during the audit that the Company uses a series of different tools for improvements, change management, NCRs, etc. See OFI in section PROCESS / ACTIVITY: Documented information, related to streamlining Company's documentation and systems because the finding is applicable to the current item.
 - NCR – non-conformities – applicable to the AMS: The Company conducted in Sept/Oct 17 internal audits on the documentation of the projects Stenberg Road and Bruce Sub-station. However none of the findings identified during the audits have been included in Guardian to date.
 - OFI – NCRs included in Guardian – applicable to the AMS: Consider developing a system to link findings from audits, inspections, etc. to the respective information included in Guardian. Currently it is difficult to find NCRs in Guardian that came from, for example, specific audits.
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NON CONFORMITY REPORT				
TO BE COMPLETED BY BV	DATE	ORGANISATION	ZIG CONTRACT NO.	NCR NUMBER
	10/11 /17	ActewAGL	2827362	NCR # 1
		HO		
	NON CONFORMITY OBSERVED DURING		Main	
	NON CONFORMITY OBSERVED IN PROCESS		9.3	
	Management review			ISO 55001 :2014
	NON CONFORMITY – SUMMARY FINDING:			
	The Company conducted an AMS management review in Sept 17. It was a comprehensive assessment of the AMS but the assessment did not cover the trends and effectiveness of some management review inputs as per requirement of ISO 55001:2014 (e.g. internal audits; NCR process; performance monitoring; etc.). Note that the Company also conducts periodical management reviews based on ISO 9001:2008 but the process is separated from the AMS reviews			
	GRADE	LEAD ASSESSOR	ASSESSOR	ORGANISATION REP.
	Minor	Rod Harrison	Jose Flavio Coelho	
TO BE COMPLETED BEFORE				
10/02/2018				
TO BE COMPLETED BY THE ORGANISATION	ROOT CAUSE ANALYSIS (What failed in the system to allow this NC to occur?)			
	CORRECTION & CORRECTIVE ACTION (What is done to solve this problem and to prevent recurrence)			
	VERIFICATION OF CORRECTIVE ACTIONS	DATE OF COMPLETION		
	ORGANISATION REPRESENTATIVE			
TO BE COMPLETED BY BV	VERIFICATION OF CORRECTIVE ACTIONS	DATE	STATUS	ASSESSOR
	AUDITOR COMMENTS			

NON CONFORMITY REPORT				
TO BE COMPLETED BY BV	DATE	ORGANISATION	ZIG CONTRACT NO.	NCR NUMBER
	10/11 /17	ActewAGL	2827362	NCR # 2
		HO		
	NON CONFORMITY OBSERVED DURING		Main	
	NON CONFORMITY OBSERVED IN PROCESS		10.2	
	Outsourcing			ISO 55001:2014
	NON CONFORMITY – SUMMARY FINDING:			
	The Company conducted in Sept/Oct 17 internal audits on the documentation of the projects Stenberg Road and Bruce Sub-station. However none of the findings identified during the audits have been included in Guardian to date			
	GRADE	LEAD ASSESSOR	ASSESSOR	ORGANISATION REP.
	Minor	Rod Harrison	Jose Flavio Coelho	
TO BE COMPLETED BEFORE				
10/02/2018				
TO BE COMPLETED BY THE ORGANISATION	ROOT CAUSE ANALYSIS (What failed in the system to allow this NC to occur?)			
	CORRECTION & CORRECTIVE ACTION (What is done to solve this problem and to prevent recurrence)			
	VERIFICATION OF CORRECTIVE ACTIONS	DATE OF COMPLETION		
	ORGANISATION REPRESENTATIVE			
TO BE COMPLETED BY BV	VERIFICATION OF CORRECTIVE ACTIONS	DATE	STATUS	ASSESSOR
	AUDITOR COMMENTS			

NON CONFORMITY REPORT				
TO BE COMPLETED BY BV	DATE	ORGANISATION	ZIG CONTRACT NO.	NCR NUMBER
	10/11 /17	ActewAGL	2827362	NCR # 3
		HO		
	NON CONFORMITY OBSERVED DURING		Main	
	NON CONFORMITY OBSERVED IN PROCESS		8.1	
	Management review			ISO 55001 :2014
	NON CONFORMITY – SUMMARY FINDING:			
	<p>The HV testing environment at in the Greenway works area, has been in operation for many years, but would not comply with AS 2067 – 2016 (for Substations and High voltage installation exceeding 1kV). The compliance to ACTEWAGL operational electrical safety systems needs to be considered.</p>			
	GRADE	LEAD ASSESSOR	ASSESSOR	ORGANISATION REP.
	Minor	Rod Harrison	Rod Harrison	[REDACTED]
TO BE COMPLETED BEFORE				
10/02/2018				
TO BE COMPLETED BY THE ORGANISATION	ROOT CAUSE ANALYSIS (What failed in the system to allow this NC to occur?)			
	CORRECTION & CORRECTIVE ACTION (What is done to solve this problem and to prevent recurrence)			
	VERIFICATION OF CORRECTIVE ACTIONS	DATE OF COMPLETION		
	ORGANISATION REPRESENTATIVE			
TO BE COMPLETED BY BV	VERIFICATION OF CORRECTIVE ACTIONS	DATE	STATUS	ASSESSOR
	AUDITOR COMMENTS			

CLOSING MEETING:**Auditor:** Rod Harrison**Attendees:**

██████████ – Principle Asset Management Systems Engineer
██████████ – Branch Manager Environment Quality and systems
██████████ - Branch Manager Asset Performance (Acting GM)
██████████ – Secondary Systems manager

Date: 10/11/17**Notes:**

Closing meeting covered all of the points noted in the summary of findings and the process / activity notes. The auditor observed that as the Scope of the Asset Management System is appropriate. Dates for the next audit were discussed and need to be confirmed.

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*****End of Report*****

NEXT VISIT PLAN									
Lead Auditor: Rod Harrison (RH)				Audit Type: Surveillance 1					
Team Member(s):				Audit Start Date: 7 November 2018					
				Audit Finish Date: 10 November 2018					
				Audit to be conducted against the following standard(s)					
				1. AS ISO 55001: 2014					
Date	Time	Activity	Process	Auditor (Initials)					
Travel	8 to 12	Brisbane to Canberra		RH					
	1200	Opening meeting		RH					
	1pm	Annual planning report review	Context Interested Parties Analysis of data Reporting	RH					
	2pm	Asset Management processes	Augmentation process Replacement / refurbishment process	RH					
	3pm	Objectives	Intended outcomes for programs	RH					
	3pm	Risk and opportunities	FMEA Asset implementation process Aging cables analysis	RH					
	4pm	Review days activities		RH					
	830 to 400pm	Operational planning and control	Communications control room (Fyshwick) Control room operations ADMS switching. Field inspections of assets and inspection and maintenance activities Works activities OH/UG Substations Project works Outsourced activities	RH					
	800	Internal Audits							
	830	Management Review							
	900	Non-conformity, incidents and impacts, Continual improvement							
	1000	Closing meeting		RH					
	1100 to 3pm	Travel	Time TBA	RH					
		Reporting	offsite	RH					
		Report consolidation	offsite	RH					