

ENSMS Performance and Bushfire Preparedness Report

Part A: 01 July 2024 to 30 June 2025

Part B: 01 October 2024 to 30 September 2025

31 October 2025 – Issue 01
Approved By: Essential Energy



essentialenergy.com.au

Acknowledgement of Country

The lands on which we work and live is Country for 48 First Nations – from Wiljali Country on the plains of Far Western New South Wales (NSW), to Ngarigo Country in the high Snowy Mountains and Bundjalung Country on the sub-tropical North Coast, and more First Nations across the diverse landscape that is regional, rural and remote NSW and parts of southern Queensland.

We acknowledge the Traditional Custodians of the lands on which our company is located and where we conduct our business, and we acknowledge all Aboriginal and Torres Strait Islander peoples across Australia¹. We pay our respects to ancestors and Elders, past, present and emerging. We are committed to honouring Aboriginal and Torres Strait Islander peoples’ unique cultural and spiritual relationships to the land, waters and seas and their rich contribution to society.



¹ Essential Energy acknowledges that First Nation boundaries may change, and the spelling of First Nation names may vary, due to ongoing knowledge sharing and discussion. Also, clans, dialects or individual languages may exist within First Nations. This map is based on the AIATSIS Map of Indigenous Australia by David R Horton and the Reconciliation NSW map of Aboriginal Nations/Languages in NSW & ACT, as well as advice from a number of Local Aboriginal Lands Councils, First Nations Essential Energy employees and online research.

TABLE OF CONTENTS

ACKNOWLEDGEMENT OF COUNTRY	ii
INTRODUCTION	1
Context	1
Essential Energy Network Footprint	2
Background	3
PART A – ENSMS ANNUAL PERFORMANCE REPORT	4
Section 1 and 2	6
Tier 1 – Major Incidents	6
Tier 2 – Incidents	9
Tier 3 – Control failure near miss	13
<i>Network Asset Failures</i>	13
<i>Unintended contact, unauthorised access and electric shocks</i>	19
<i>Electric shock or arc flash incidents trends FY2021–FY2025</i>	22
<i>Contact with energised overhead (OH) network trends FY2021–FY2025</i>	22
<i>Contact with energised underground (UG) network trends FY2021–FY2025</i>	22
<i>Reliability and quality of supply</i>	23
<i>Reliability and quality of supply – critical infrastructure incidents</i>	24
<i>Network-Initiated Property Damage</i>	26
Tier 4 – Control implementation	27
<i>Amendments and improvements to Formal Safety Assessments</i>	27
<i>Design, construction and commissioning</i>	32
<i>Inspections (assets)</i>	33
<i>Inspections (vegetation)</i>	36
<i>Public electrical safety plans and activities</i>	38
<i>Internal audits</i>	42
<i>External audits</i>	45
PART B – BUSHFIRE PREPAREDNESS REPORT	47
Identification of hazardous bushfire areas	47
Commentary from AFAC for forthcoming bushfire season	48
Permanent / temporary declaration of areas by NSW RFS and network operator’s actions	49
AERIAL CONSUMER MAINS ON BUSHFIRE PRONE PRIVATE LAND (HV AND LV)	50
Low voltage (LV) private lines	50
High voltage (HV) private lines	50
Activities undertaken to manage the risk of aerial consumer mains on bushfire prone private land	50
BUSHFIRE INSPECTIONS, VEGETATION AND ASSET MAINTENANCE TASKS	54
GLOSSARY OF TERMS	59



LIST OF FIGURES

Figure 1: Network and asset lifecycle phases considered by the ENSMS	1
Figure 2: Essential Energy's network footprint and key locations	2
Figure 3: IPART Safety Performance Monitoring Framework	4
Figure 4: Key statistic trends from the ENSMS Performance Report	5
Figure 5: Unintended contact with the overhead and underground network trends FY2021–FY2025	22
Figure 6: Examples of Essential Energy's public safety campaign material	41
Figure 7: Previous and updated Bushfire Risk Priority Indicator classification across our footprint	48
Figure 8: Seasonal Bushfire Outlook	49
Figure 9: Powerlines and vegetation - balancing risk, cost, and amenity	54

LIST OF TABLES

Table 1: A1 Major Incidents	6
Table 2: A2 Incidents	9
Table 3: A3 Network asset failures	15
Table 4: A4 Vegetation contact with conductors	18
Table 5: A5 Unintended contact, unauthorised access and electric shocks	20
Table 6: A6 Reliability and Quality of Supply	23
Table 7: A7 Reliability and Quality of Supply – Critical infrastructure incidents	24
Table 8: A8 Network-initiated property damage events	26
Table 9: A9 Amendments and improvements to Formal Safety Assessments (FSA) or associated risk treatments	27
Table 10: A10 Design, construction and commissioning	32
Table 11: A11 Inspections (assets)	34
Table 12: A11 Asset corrective action tasks	35
Table 13: Breakdown of outstanding distribution OH tasks by severity at 30 June 2025	36
Table 14: A12 Inspections (vegetation) Aerial/Ground based	37
Table 15: A13 Public electrical safety plans and activities	38
Table 16: A14 Internal audits performed on any aspect of the ENSMS (as per AS 5577 clause 4.5.4)	42
Table 17: A15 External audits performed on any aspect of the ENSMS (as per AS 5577 clause 4.5.4)	46
Table 18: Bushfire Risk Priority Indicator classifications	47
Table 19: B1 Aerial consumer mains on bushfire prone private land (HV and LV)	51
Table 20: Outstanding private LV task status	53
Table 21: B2 Pre-summer bushfire inspections	54
Table 22: B3 Vegetation tasks	55
Table 23: Status of vegetation tasks identified through the PSBI program	55
Table 24: B4 Asset tasks	56
Table 25: Status of asset tasks identified through PSBI program	58



Introduction

This document is the Annual Performance Report for the Essential Energy Electricity Network Safety Management System (ENSMS) Report.

It is produced to meet the requirements set out in the Independent Pricing and Regulatory Tribunal (IPART) *Electricity Networks Reporting Manual – Safety management system performance measurement* (October 2024). As such, it is intended to provide sufficient information for IPART or members of the public and our customers to assess our performance against our ENSMS objectives to manage the risk arising from the design, construction, commissioning, operation, maintenance and decommissioning of the electricity network to people, property and the environment, so far as is reasonably practicable.

The Report is structured in two parts:

- ▶ Part A sets out the annual safety performance for the period 1 July 2024 to 30 June 2025
- ▶ Part B sets out our bushfire preparedness activities undertaken for the period 1 October 2024 to 30 September 2025

The timeframes for Parts A and B differ due to the relative focus of the content. Part A is aligned to financial year; whereas Part B is aligned to fire season.

Context

We build, operate and maintain an electricity network that services regional, rural and remote communities across 95 per cent of New South Wales (NSW) and parts of southern Queensland. Essential Energy’s network delivers power to more than 957,000 homes and businesses, 170 hospitals, and 1,250 schools.

We aim to continuously improve safety performance for employees, contractors and the community, while also striving to deliver on other customer priorities including reliability and affordability.

The ENSMS is critical to delivery of network safety outcomes given it translates safety objectives into effective and efficient actions for the control of safety risks associated with the electricity network. These risks include public and worker safety, bushfire and other environmental impacts, safety risks arising from any loss of electricity supply, and risks to public property and network assets. The ENSMS applies a ‘Plan-Do-Check-Act’ approach, supporting continuous improvement in all aspects of safety performance and practices.

Figure 1 depicts the ‘whole of lifecycle’ approach to safety that is taken by the ENSMS.

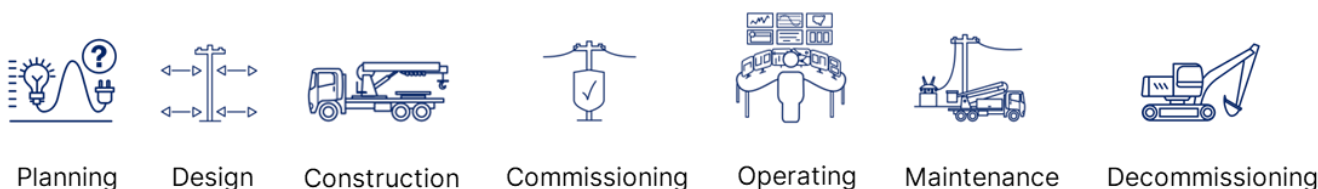


Figure 1: Network and asset lifecycle phases considered by the ENSMS

The ENSMS works in harmony with other key management systems within the business, including the:

- ▶ Asset Management System;
- ▶ Work Health and Safety Management System; and
- ▶ Environmental Management System.

Essential Energy Network Footprint

Our network footprint covers 95 per cent of New South Wales and parts of southern Queensland, traversing 737,000 square kilometres of diverse landscape from the desert to the coast, across alpine to sub-tropical.

Figure 2 shows that we operate from close to 100 depots and offices throughout NSW.

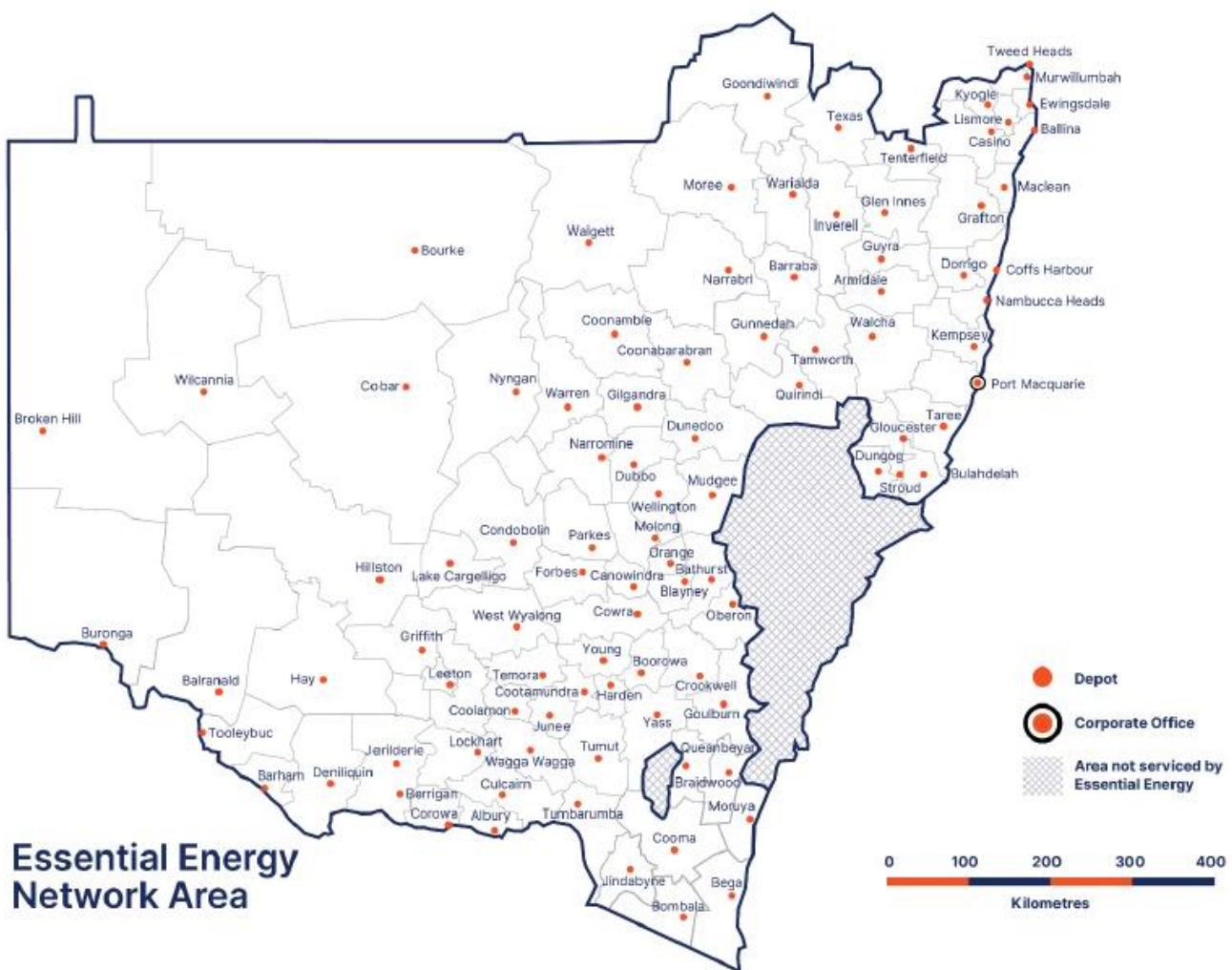


Figure 2: Essential Energy's network footprint and key locations

Background

As critical infrastructure that is co-located in the communities it serves, the safety risks associated with an electricity network need to be managed accordingly. This is a core function of a Distribution Network Service Provider (DNSP).

The hazards associated with an electricity network have the potential to cause harm to network and other workers, the public and the environment. Contact with electrical energy can cause significant and fatal injuries and arcing may start fires in adjacent vegetation. In addition to these hazardous events, the loss of supply in some circumstances can result in harm, particularly to vulnerable persons dependent on electricity supplied medical equipment, and populations that have a greater risk of impact from heat illness.

Electricity network operators must take account of all these hazards and take steps to manage them so far as is reasonably practicable².

We operate and maintain a safety management system which provides a systematic approach to the identification, analysis and control of hazards associated with the electricity network. This includes reporting incidents to our industry regulator within specified timeframes and collating incident data to provide a view of the overall safety performance.

The performance measures contained in this report are a combination of leading measures (that indicate future performance) and lagging measures (that indicate past performance) of the safety of our electricity network. These are consistent with the expectations of our regulator, IPART.

² This is a key concept in safety management and is a requirement in law in many jurisdictions. It requires ensuring that all 'reasonably practicable' measures to manage safety are in place, where the limit of what is reasonably practicable involves weighing the risk against the measures necessary to eliminate or reduce it, in what is essentially a benefit-cost comparison.

Part A – ENSMS Annual Performance Report

Part A reports against a framework of safety performance indicators defined within IPART’s *Electricity Networks Reporting Manual – Safety management system performance measurement* as per Figure 3.

Part A is structured around the four ‘Tiers’ defined in Figure 3 as follows:

- ▶ Section 1 describes Tier 1 indicators (Major incidents)
- ▶ Section 2 describes Tier 2 indicators (Minor incidents)
- ▶ Section 3 describes Tier 3 indicators (Control failure near misses)
- ▶ Section 4 describes Tier 4 indicators (Control implementation)

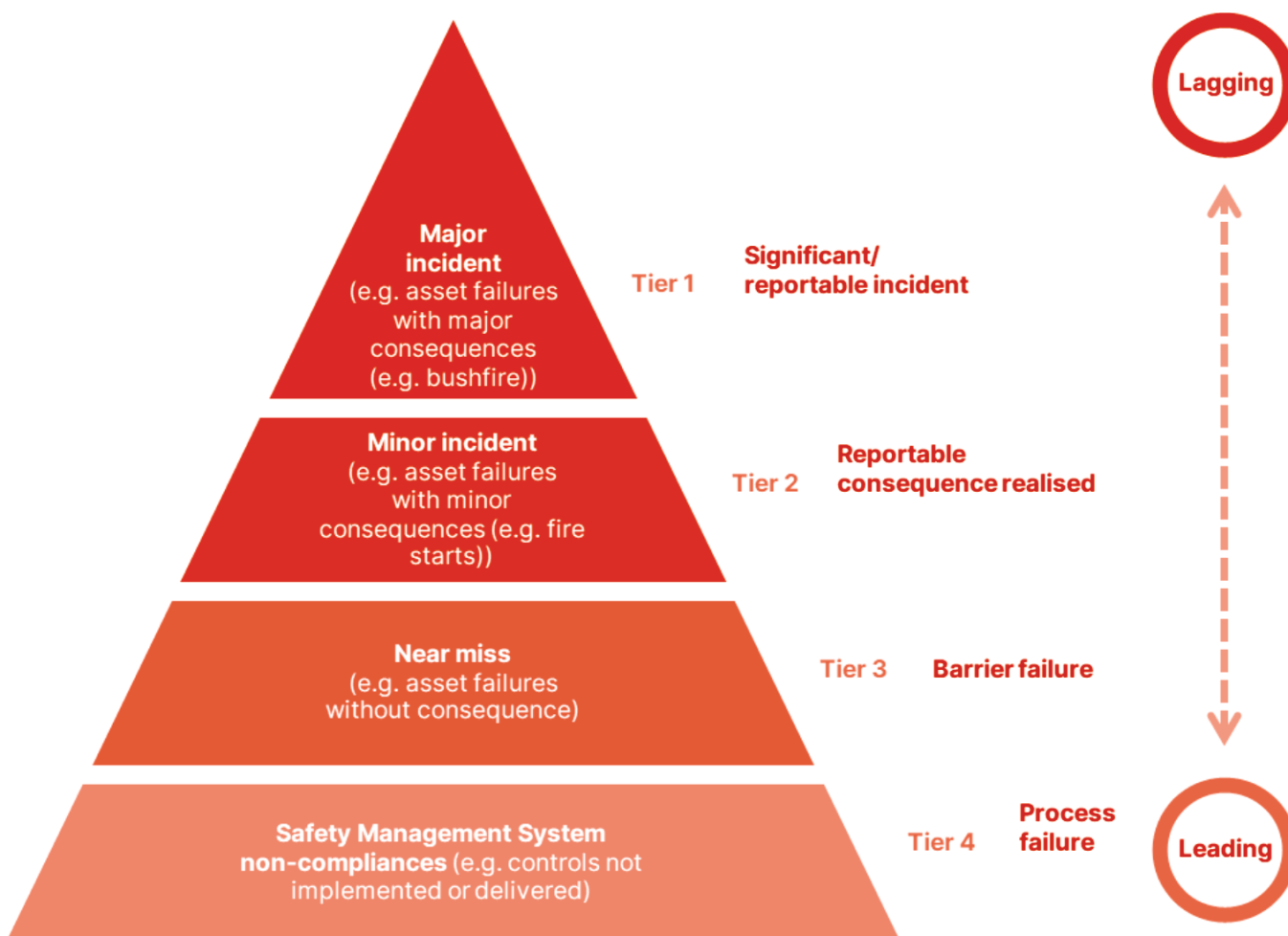


Figure 3: IPART Safety Performance Monitoring Framework

Trends of the key statistics from this report, FY2025, and from previous reporting periods are shown in Figure 4.

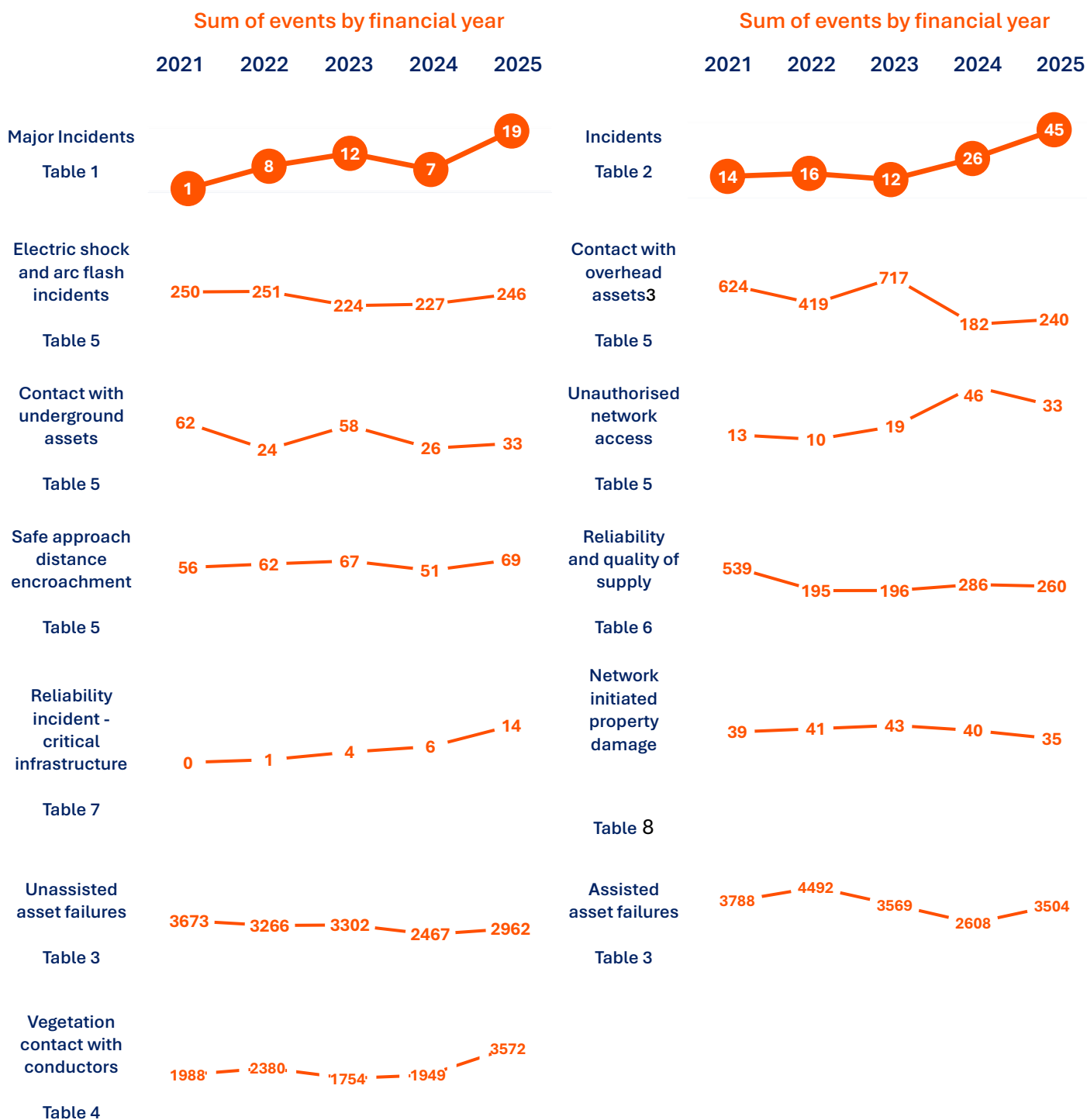


Figure 4: Key statistic trends from the ENSMS Performance Report

³ Step change resulting from update to reporting methodology to align with the IPART reporting guidelines

Section 1 and 2

These tables summarise electricity network-related incidents that resulted in harm to the public, our workers, network assets, public or private property, or the environment. Table 1 and Table 2 are a record of these incidents that have been reported to IPART in accordance with the *Electricity Networks Reporting Manual – Incident Reporting* (October 2024).

Tier 1 – Major Incidents

Major Incidents are defined as those that have resulted in significant consequences such as fatalities, life changing or life-threatening injuries where the electricity network was the cause of the incident, for example due to an asset failure. Major Incidents also include incidents resulting in significant loss of property such as major bushfires that were started by the network, as well as significant power outages.

Table 1 provides a brief description of all Major Incidents that occurred on or involved our network during the reporting period.

Table 1: A1 Major Incidents

ESSNM ⁴ OBJECTIVE	DESCRIPTION OF MAJOR INCIDENT REPORTED UNDER THE INCIDENT REPORTING REQUIREMENTS
Safety of members of the public	<ul style="list-style-type: none"> ▶ Public worker, undertaking crop spraying activities in an aircraft, contacted network conductors and impacted the ground resulting in a fatality. ▶ Low hanging wires in paddock, person made contact while riding a motorcycle resulting in a fatality.
Safety of persons working on the network	▶ Nil
Protection of property - Third party property	▶ Nil
Protection of property - Network property ⁵	▶ Nil
Safety risks arising from loss of electricity supply	<ul style="list-style-type: none"> ▶ 17 October 2024 — High winds caused failure of multiple transmission towers on the shared transmission network supplying Broken Hill. The 220kV transmission supply from Buronga to Broken Hill is radial with no permanent power supply alternatives to this isolated region. This was the first interruption of several over the duration of the event. ▶ 20 October 2024 — Essential Energy was directed to load shed by Transgrid to perform maintenance on backup generators following the earlier failure of transmission towers supplying the Broken Hill region.

⁴ *Electricity Supply (Safety and Network Management) Regulation 2014*

⁵ Network property damage events in this table are not considered Major Incidents in the IPART Incident Reporting Manual



ESSNM ⁴ OBJECTIVE	DESCRIPTION OF MAJOR INCIDENT REPORTED UNDER THE INCIDENT REPORTING REQUIREMENTS
	<ul style="list-style-type: none"> ▶ 21 October 2024 — Interruptions caused by failure of the backup generators within Transgrid’s zone substation, following the earlier failure of transmission towers supplying the Broken Hill region. ▶ 25 October 2024 — Transgrid requested load shedding to allow investigation of an issue with their backup generation. Final large interruption as part of the Broken Hill event. ▶ 17 November 2024 — Widespread storms across the Central West, North West Slopes, and Orana Regions impacted the network in multiple locations resulting in interruptions to more than 5,000 customers for more than four hours. Severe lightning damaged the overhead network and caused high volumes of interruptions. ▶ 17 November 2024 — Intense lightning and storms in the Wagga Wagga Region impacted the Essential Energy sub-transmission and upstream Transgrid transmission network. This resulted in supply interruption to the Wagga Wagga Base Hospital for over two hours. Urgent maintenance in the area required the sub-transmission network to be in an abnormal state which restricted availability of secondary sub-transmission supply. Damage to Transgrid's upstream protection equipment also extended the duration of the interruption. ▶ 8 December 2024 — This is a continuation of widespread storms that had affected the Riverina area; however it had by now migrated North East. Again, this resulted in damage to the network and widespread supply interruptions. There were multiple and widespread events of vegetation on the lines, poles and cross arms affected by storm impacts. ▶ 8 December 2024 — Heavy storms in the Lismore area caused vegetation to impact multiple lines. Feeders supplying the Lismore Base Hospital were among those impacted. ▶ 15 January 2025 — Wide spread storms across NSW impacted the electrical network causing many large interruptions due to high wind, heavy rain and lightning. ▶ 18 January 2025 — Intense storm activity on the Mid North Coast of NSW caused several large interruptions. Vegetation impacts were significant as well as lightning and extreme winds. ▶ 23 January 2025 — Severe thunderstorm activity on the NSW North Coast & Northern Rivers areas caused widespread outages. Lightning, heavy rain and wind impacted the network and surrounding vegetation which caused many significant interruptions. ▶ 30 January 2025 — Widespread storm activity in the New England, Mid North Coast and Northern Tablelands regions impacted the network. Storms and lightning impacted the sub transmission and distribution network causing multiple large interruptions affecting more than 5,000 customers for greater than 4 hours. ▶ 9 February 2025 — A wind event affected the network in North Western NSW. Extreme winds caused pole and conductor failures on the sub transmission and distribution networks affecting the Nyngan, Warren and Narromine Areas. This caused interruption to more than 5,000 customers for greater than four hours. ▶ 6 March 2025 — Tropical Cyclone Alfred was approaching southeast Queensland and Northeastern NSW. During this period extremely strong easterly winds and rain generated on the southern front of the cyclone were focused on northeastern NSW for several days. Areas from the Mid North Coast to the Queensland border were affected with the largest impacts North of Ballina in the Byron, Ewingsdale and Tweed areas. Wind and rain impacted vegetation and the overhead network causing widespread interruptions. The persistent extreme weather hampered some restoration efforts due to safety. Customers affected by the event fluctuated during this period as sections of network were restored and further interrupted by the ongoing weather conditions. Greater than 5,000 customers were affected by this event until 5:30pm, 11 March 2025.

ESSNM ⁴ OBJECTIVE	DESCRIPTION OF MAJOR INCIDENT REPORTED UNDER THE INCIDENT REPORTING REQUIREMENTS
	<ul style="list-style-type: none"> ▶ 20 May 2025 — Mid North Coast flooding resulted in more than 5,000 customers off for greater than 4 hours. ▶ 21 May 2025 — Mid North Coast flooding resulted in more than 5,000 customers off for greater than 4 hours. ▶ 30 May 2025 — 66kV pole failure near Quirindi resulted in more than 5,000 customers off for greater than 4 hours.

17 of the 19 major incident events relate to supply interruptions affecting > 5,000 customers. Each of these were as a result of significant climate-related events including the Broken Hill outages where the initiating event were the Transgrid 220kV transmission tower failures that occurred during high winds.

Tier 2 – Incidents

Incidents are defined in the IPART Electricity Networks Reporting Manual (October 2024) as incidents that result in safety consequences such as hospitalisation and a person receiving care from a health care professional, where the electricity network was the cause of the incident, for example due to an asset failure. This category also includes lower-level impacts to public property (such as smaller fires) and smaller power outages.

Table 2 provides descriptions of all Incidents that occurred on or involved our network during the reporting period.

Table 2: A2 Incidents

ENSMS OBJECTIVE	DESCRIPTION OF EACH INCIDENT REPORTED UNDER THE INCIDENT REPORTING REQUIREMENTS
<p>Safety of members of the public</p>	<ul style="list-style-type: none"> ▶ Timber streetlight pole failed/broke at ground level resulting in pole landing on passing vehicle, causing substantial damage to the vehicle and minor injuries to driver and passenger. ▶ Member of the public sustained a shock and burns after they contacted the overhead network with a steel post. The steel post was being erected for TV reception for their motorhome (RV). Medically treated in hospital.
<p>Safety of persons working on the network</p>	<ul style="list-style-type: none"> ▶ Crew were replacing a network pole and crossarm after a public motor vehicle impact. While shifting the tension on the slings holding a crossarm being held aloft by a crane to transfer the cables onto the new pole, the slings detached from the crane hook and then the cross arm fell, striking the Electricity Network Operator (ENO) worker in the stomach and arms. Worker sustained fractured ribs and certified as unfit for work for a period. ▶ ENO Worker using a vacuum cleaner suffered muscle cramping and lower back pain when bending down and cleaning inside a padmount substation. Prescribed medical treatment and certified unfit for work for a period. ▶ ENO worker digging around a pole during pole inspection when they suffered a muscle strain to groin. Injury diagnosed as hernia and required surgery. ▶ ENO worker sustained crush injury to right forearm while lifting a composite power pole off a pole trailer. Fracture and lacerations treated at hospital. Certified unfit for work for a period. ▶ ENO worker was working aloft in an Elevated Work Platform (EWP) changing a low-voltage (LV) pin arm. While lifting a conductor off the existing crossarm they suffered a middle back strain. Certified unfit for work for a period. ▶ ENO worker climbing a pole using a ladder suffered a strain injury to their knee. Medical assessment sought and prescribed treatment. Certified unfit for work for a period. ▶ ENO worker undertaking asset inspection duties using a powered drill when their glove became entangled in the rotating drill chuck causing their hand to be entrapped and rotated. Worker taken to hospital for medical assessment and treatment. Surgery for displacement of the thumb, fingers and wrist. ▶ ENO worker undertaking asset inspection duties and digging around a pole when they suffered sharp pain in the lower back. Diagnosed with bulging disc and prescribed treatment and certified unfit for work for a period. ▶ ENO worker conducting earth testing received splinter in left thumb. Splinter became infected requiring medical treatment. Certified unfit for work for a period.

ENSMS OBJECTIVE	DESCRIPTION OF EACH INCIDENT REPORTED UNDER THE INCIDENT REPORTING REQUIREMENTS
	<ul style="list-style-type: none"> ▶ While climbing a pole, an apprentice Linesman dislocated their patella when repositioning themselves and the pole platform. ▶ ENO worker drilling a network pole when their glove caught in the spinning chuck/bit. Sustained broken left thumb requiring medical treatment and certified unfit for work for a period. ▶ ENO contractor undertaking works for the LV service main replacement program. In the process of climbing a network pole they fell to the ground. Fractures sustained, certified unfit for work for a period.
<p>Protection of third-party property</p>	<ul style="list-style-type: none"> ▶ 30 October 2024: A header has contacted a high voltage Single-wire Earth Return (SWER) conductor resulting in a crop and stubble fire 100 ha in size. ▶ 4 November 2024: A weathered high voltage timber crossarm has failed resulting in a grass and scrub fire beside the highway 24 ha in size. ▶ 5 November 2024: An unidentified downstream fault caused several trip and reclose actions, resulting in an upstream bridging connection overheating. This overheated connection is suspected of causing the grass fire on private property 121 ha in size. ▶ 23 November 2024: Motor vehicle impact with pole caused both the pole and live high-voltage (HV) conductors to fall to the ground and start a grassfire 14 ha in size. ▶ 8 December 2024: A corroded steel conductor tie has failed in extreme winds (in excess of 100kmh), which caused a steel 12.7 kV SWER conductor to fall in close proximity to the ground. Fault restoration is suspected to have caused a flashover through contact with dry stubble resulting in a 20-ha fire in a stubble paddock. ▶ 26 December 2024: A weathered timber crossarm has failed, allowing a high voltage conductor to contact the ground and is the suspected ignition source of the fire which burnt approximately 16 ha on private property. ▶ 4 January 2025: Dry lightning is suspected to have caused a fire in the vicinity of Essential Energy assets. Lightning strikes are also suspected to have caused the failure of two high voltage timber crossarms and the failure of one conductor. Rural Fire Service (RFS) determined the size of fire to be 23 ha. ▶ 5 January 2025: A failed high voltage conductor is suspected to have caused a fire approximately 12 ha. ▶ 15 January 2025: A timber pole failed during a storm event. The pole had evidence of carrot rot. The impact of the pole is suspected to have initiated a fire that destroyed a house in excess of \$100K. ▶ 18 January 2025: A high voltage conductor failed under a 2-bolt aluminium stirrup clamp, falling to ground resulting in a 20 ha fire in a grazing/fallow paddock. Failure cause possibly due to fault current from vegetation impact on high voltage conductors a day prior during a storm event. ▶ 18 January 2025: Vegetation contact is suspected to have caused a high voltage conductor failure resulting in 38 ha grass and scrub fire. ▶ 26 January 2025: A high voltage conductor contacted the ground due to a broken insulator and is suspected to have caused a fire 21 ha in size. ▶ 27 January 2025: A high voltage conductor contacted the ground due to a suspected broken crossarm and has resulted in a stubble fire 32 ha in size.

ENSMS OBJECTIVE	DESCRIPTION OF EACH INCIDENT REPORTED UNDER THE INCIDENT REPORTING REQUIREMENTS
	<ul style="list-style-type: none"> ▶ 19 March 2025: Fire in the vicinity of blown high voltage fuse. RFS reports indicate fire size is approximately 247 ha.
<p>Safety risks arising from loss of electricity supply</p>	<ul style="list-style-type: none"> ▶ 10 November 2024: A direct lightning strike destroyed a 66kV pole which supports the 892 radial sub-transmission feeder from Lismore 132kV Zone Substation (ZS) to Woodburn ZS and Broadwater Sugar Mill. Storm conditions that night restricted access for repairs which extended the duration of the interruption. This exceeded the Major Event Day (MED) threshold. ▶ 17 November 2024: Storms across Central NSW caused lightning, high wind and vegetation impacts and damage to the network resulting in widespread supply interruptions and a declared MED. ▶ 7 December 2024: Storms and a mini cyclone across the Riverina area resulted in damage to the network and widespread supply interruptions. There were multiple and widespread events of vegetation on the lines, poles and cross arms affected; this is typical of an extreme and wide spread storm event. The MED threshold was exceeded in this instance. ▶ 8 December 2024: This weather event was a continuation of the storms that had affected the Riverina area moving north east. Lightning directly impacted the sub-transmission network with various other storm impacts in the region. Failures were typical of extreme storm events with high volumes of interruptions occurring within a small time space of time. Challenging weather conditions also prevented access for repairs. ▶ 15 January 2025: Wide spread storms across NSW impacted the electrical network causing many large interruptions due to high wind, heavy rain and lightning. The combined wide spread storm impacts contributed to exceed the MED threshold. ▶ 16 January 2025: Wide spread storms across NSW continued into the night of the 15th into the 16th which impacted the electrical network causing many large interruptions due to high wind, heavy rain and lightning. The combined wide spread storm impacts contributed to exceed the MED threshold. ▶ 18 January 2025: Intense storm activity on the Mid North Coast of NSW caused several large interruptions. Vegetation impacts were significant as well as lightning and extreme winds. The combined impacts of these events contributed to exceeding the MED threshold. ▶ 23 January 2025: Severe thunderstorm activity on the NSW North Coast & Northern Rivers areas caused widespread outages. Lightning, heavy rain and wind impacted the network and surrounding vegetation causing many significant interruptions. The combined impacts of these events exceeded the MED threshold. ▶ 30 January 2025: Widespread storm activity in The New England, Mid North Coast and Northern Tablelands regions impacted the network. Storms and lightning impacted the sub transmission and distribution network causing multiple large interruptions which combined to exceed the MED threshold. ▶ 6 March 2025: First of multiple days where the network was significantly impacted by Tropical Cyclone Alfred as it approached southeast Queensland and Northeastern NSW. During this period extremely strong easterly winds and rain generated on the southern front of the cyclone were focused on northern NSW for several days. Areas from the Mid North Coast to the Queensland boarder were affected with the largest impacts North of Ballina in the Byron, Ewingsdale and Tweed areas. Wind and rain impacted vegetation and the overhead network causing widespread interruptions. The persistent extreme weather hampered some restoration efforts due to safety. The combined impacts of this event caused the daily System Average Interruption Duration Index (SAIDI) to exceed the MED threshold ▶ 7 March 2025: The severity of weather conditions during the approach of Tropical Cyclone Alfred increased causing further interruptions in the Northeast of NSW. Further extreme wind

ENSMS OBJECTIVE	DESCRIPTION OF EACH INCIDENT REPORTED UNDER THE INCIDENT REPORTING REQUIREMENTS
	<p>and rain impacted vegetation and the network causing widespread interruptions. The persistent extreme weather hampered some restoration efforts due to safety. The combined impacts of this event caused the daily SAIDI to exceed the MED threshold.</p> <ul style="list-style-type: none"> ▶ 8 March 2025: Severe weather conditions due to Tropical Cyclone Alfred continued to impact Northeastern NSW. Persistent wind and rain impacted vegetation and the network causing ongoing interruptions. The volume of customers off stabilised then began to reduce through restoration efforts at this stage. Although the persistent extreme weather hampered some restoration due to safety. The combined impacts of this event caused the daily SAIDI to exceed the MED threshold. ▶ 19 May 2025: Multiple faults: 66kV pole failure Broken Hill region; vegetation in 33/11kV conductors at Pacific Palms ▶ 20 May 2025: Flooding across Mid North Coast. ▶ 21 May 2025: Flooding across Mid North Coast. ▶ 22 May 2025: Flooding across Mid North Coast. ▶ 30 May 2025: 66kV pole failure near Quirindi affected more than 5,000 customers, resulting in a MED.

Tier 3 – Control failure near miss

Failure of electricity network assets, particularly functional failure where assets stop performing a required function, for example supporting electrical conductors at a prescribed height above the ground, or the carriage of electrical energy from source to load, can result in a dangerous release of energy.

Eliminating all asset failures is not practically achievable, and we manage these risks so far as is reasonably practicable.

Various inspections are performed on our assets to identify conditions that lead to asset failure. Analysis of inspection data and failure rates influence replacement programs to manage the risk that is associated with failure. These tables demonstrate how effective the inspection and maintenance programs are in minimising asset failures.

This section sets out events such as an asset failure or where a worker, member of the public or livestock or a pet came into contact with the network, but that did not result in a safety consequence that meets the criteria reported in Sections 1 and 2 above. These are categorised as ‘near misses’ and are reported across six tables:

- ▶ **Table 3:** sets out near misses related to functional failures of network assets
- ▶ **Table 4:** sets out near misses related to trees or branches (vegetation) contacting overhead wires (conductors)
- ▶ **Table 5:** sets out near misses related to unintended contact, unauthorised access and electric shocks originating from network assets. *Unintended contact* describes incidents such as construction or agricultural vehicles contacting overhead or underground conductors. *Unauthorised access* describes incidents such as trespass onto the Essential Energy network e.g. into zone substations
- ▶ **Table 6:** sets out near misses related to electric shocks, due to specific causes related to network assets and workmanship and near misses related to the quality of the electricity supply
- ▶ **Table 7:** sets out near misses due to supply interruptions to *critical infrastructure* e.g., hospitals and road tunnels
- ▶ **Table 8:** sets out network-initiated property damage events, for example where public property including cars, buildings, crops or livestock have been damaged by the network
- ▶ **Table 8:** also includes events where non-electrical assets belonging to Essential Energy have been damaged by the network e.g., damage to Essential Energy vehicles or buildings.

The remainder of this section provides a brief description of each of the tables, to explain the terms used and provide some context for the reported performance. This is followed by each of the tables that sets out the performance for the reporting period.

NETWORK ASSET FAILURES

Table 3 lists those asset failures that occurred on our network during the reporting period, split by the major asset types. These are reported in the context of the total population for each asset type and the 5-year average annual failure numbers.

For each asset type, the table reports the failures that occurred during the reporting period, broken out by:

- ▶ Unassisted and assisted failure types, where:
 - › unassisted failures are those considered to be within our control. For example, failures caused by asset degradation and aging due to corrosion, termite attack and wood decay.

- › assisted failures are those attributed to external causes, for example vehicle impacts, vandalism, lightning, fires and storms that resulted in wind speeds in excess of relevant design standards.
- ▶ Whether the failure resulted in a fire, or no fire; and
- ▶ If the failure did result in a fire, was the fire limited to the asset (Contained), or did it spread to the surrounding environment (Escaped)

Table 3: A3 Network asset failures

PERFORMANCE MEASURE	POPULATION	FIVE-YEAR AVERAGE ANNUAL FUNCTIONAL FAILURES	FUNCTIONAL FAILURE TOTAL FY2025 ⁶	ANNUAL FUNCTIONAL FAILURES (FOR REPORTING PERIOD)					
				UNASSISTED			ASSISTED		
				NO FIRE	FIRE		NO FIRE	FIRE	
					Contained	Escaped		Contained	Escaped
Towers	200	0	0	0	0	0	0	0	0
Poles (including streetlighting columns/poles and stay poles)	1,412,876	599	694	153	5	7	464	56	9
Pole top structures									
Pole top structures - crossarms	1,492,910	720	810	359	8	12	426	2	3
Pole top structures - insulators	4,549,636	233	285	72	12	9	185	1	6
Pole top structures - conductor ties	4,639,412	172	177	140	2	3	31	0	1
Conductor HV ⁷ (inc. sub-transmission) OH ⁸	157,777	1,069	943	147	3	39	692	0	62

⁶ This column is the sum of the columns to the right.

⁷ High voltage (HV)

⁸ Overhead (OH)

PERFORMANCE MEASURE	POPULATION	FIVE-YEAR AVERAGE ANNUAL FUNCTIONAL FAILURES	FUNCTIONAL FAILURE TOTAL FY2025 ⁶	ANNUAL FUNCTIONAL FAILURES (FOR REPORTING PERIOD)					
				UNASSISTED			ASSISTED		
				NO FIRE	FIRE		NO FIRE	FIRE	
					Contained	Escaped		Contained	Escaped
Conductor HV (inc. sub-transmission) UG ⁹	3,274	42	30	15	2	4	9	0	0
Conductor LV ¹⁰ OH	24,956	702	1,158	277	2	4	870	0	5
Conductor LV UG	7,898	278	193	72	0	4	115	1	1
Service line OH	686,681	1,760	1,567	973	0	1	580	11	2
Service line UG	258,271	137	403	0	0	0	403	0	0
Power transformers	756	1	1	1	0	0	0	0	0
Distribution transformers	144,699	926	274	174	1	2	93	0	4
Reactive plant	243	7	2	2	0	0	0	0	0
Switchgear – zone / sub-transmission / transmission substation	11,716	10	10	9	0	0	1	0	0

⁹ Underground (UG)

¹⁰ Low voltage (LV)

PERFORMANCE MEASURE	POPULATION	FIVE-YEAR AVERAGE ANNUAL FUNCTIONAL FAILURES	FUNCTIONAL FAILURE TOTAL FY2025 ⁶	ANNUAL FUNCTIONAL FAILURES (FOR REPORTING PERIOD)					
				UNASSISTED			ASSISTED		
				NO FIRE	FIRE		NO FIRE	FIRE	
					Contained	Escaped		Contained	Escaped
Switchgear - distribution OH	388,515	842	761	626	1	17	98	2	17
Switchgear - distribution ground based	78,157	32	37	34	0	0	1	2	0
Protection relays or systems	5,528	30	29	29	0	0	0	0	0
Zone/ sub-transmission / transmission substation SCADA system	316	43	23	23	0	0	0	0	0
Zone/ sub-transmission/ transmission protection batteries	714	17	8	8	0	0	0	0	0
Network standalone power systems (SAPS)	3	1	1	1	0	0	0	0	0

Increases in some asset categories for both assisted and unassisted failures for FY2025 can be attributed to extended periods of significant wet weather and flooding in the preceding three years and the impacts of ex-tropical Cyclone Alfred in the reporting period, as noted in A2 – Tier 2 Incidents.

Table 4 breaks out the numbers and causes of vegetation contact with conductors into the following categories:

- ▶ ‘Grow in’ vegetation is any vegetation that has grown into the minimum clearance space around the conductors, allowing potential contact to occur. This might come from trees that are below, to the side or above electricity network conductors.
- ▶ ‘Fall in’ vegetation is usually dead, diseased, or dying vegetation from trees surrounding or above the electricity network conductor that has fallen onto the conductor e.g. dead branches that fall onto electricity network conductors when they drop from a nearby tree.
- ▶ ‘Blow in’ vegetation is usually branches that have been picked up by high winds from some distance away from electricity network conductors and which has been ‘blown into’ the conductors.

Table 4: A4 Vegetation contact with conductors

PERFORMANCE MEASURE	EVENT COUNT				
	1 July 2024 – 30 June 2025	1 July 2023 – 30 June 2024	1 July 2022 – 30 June 2023	1 July 2021 – 30 June 2022	1 July 2020 – 30 June 2021
Fire starts – grow in	0	9	0	0	0
Fire start – fall in and blow in	39	24	26	25	22
Interruption – grow in	261	210	229	158	132
Interruption – fall-in and blow in	3,272	1,706	1,499	2,197	1,834

A marked rise in interruptions attributed to vegetation incidents was experienced in FY2025. This increase is primarily due to an unusually severe period of adverse weather affecting Eastern Australia during the summer months.

Two significant outliers were observed in January and March 2025. In January, severe storms impacted the Mid North Coast of New South Wales, resulting in considerable damage from heavy rainfall, flash flooding, and strong winds. Furthermore, in early March 2025, Ex-Tropical Cyclone Alfred affected Southeastern Queensland and Northeastern New South Wales with substantial flooding and intense winds.

These weather events led to a pronounced escalation in interruptions to the Essential Energy network, as vegetation was displaced or deposited onto infrastructure. The considerable impact of these natural occurrences should be recognised as a key factor contributing to the elevated interruption frequency.

UNINTENDED CONTACT, UNAUTHORISED ACCESS AND ELECTRIC SHOCKS

Table 5 displays events that resulted in electric shocks that were not classified as ‘Major Incidents’ or ‘Incidents’ in accordance with IPART’s *Electricity Networks Reporting Manual – Incident Reporting (October 2024)*. Table 5 also records instances of unintended or unauthorised contact or close access to the electricity network that had the potential to result in an electric shock.

Examples of events included in Table 5 include:

- ▶ Member of the public receiving an electric shock (not classified as a Major Incident or Incident), due to a faulty network connection to a residence;
- ▶ Tipper truck contacting overhead powerlines while operating;
- ▶ Construction excavator contacting underground powerlines while operating;
- ▶ Theft of copper earth wires from power poles; and
- ▶ Construction scaffolding erected too close to the network.

Table 5: A5 Unintended contact, unauthorised access and electric shocks

DETAIL	EVENT COUNT				
	1 July 2024 – 30 June 2025	1 July 2023 – 30 June 2024	1 July 2022 – 30 June 2023	1 July 2021 – 30 June 2022	1 July 2020 – 30 June 2021
Electric shock and arc flash incidents originating from network assets including those received in customer premises					
Public	246	207	202	219	231
Public worker	4	2	5	9	4
Network employee / network contractor	2	4	3	9	2
Accredited Service Provider ¹¹	1	1	0	0	0
Livestock or domestic pet	16	13	14	15	13
Contact with energised overhead network asset (e.g. conductor strike)					
Public road vehicle	117	74	423	305	401
Plant and equipment	26	39	181	113	91
Agricultural and other	97	69	112	156	130
Network vehicle	0	0	1	0	2
Contact with energised underground network asset (e.g. conductor strike)					
Plant and equipment	27	22	54	37	55
Person with handheld tool	6	4	4	4	7
Unauthorised network access (intentional)					
Zone / BSP ¹² / Transmission substation / switching station	5	2	0	2	0
Distribution substation	12	27	9	4	8
Towers / poles	14	9	8	8	4
Other (e.g. communication sites)	2	8	2	2	1

¹¹ Accredited Service Providers are persons who have been accredited through a NSW Government-recognised accreditation scheme, to undertake contestable work on the Essential Energy network

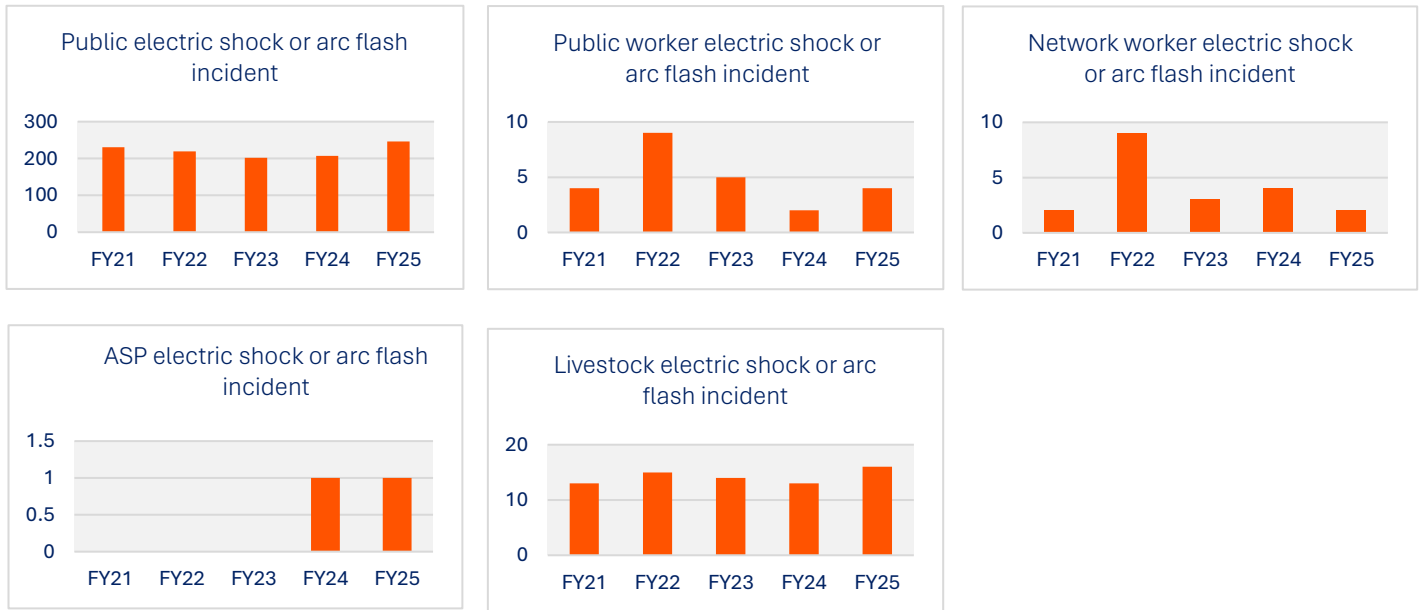
¹² Bulk supply point

DETAIL	EVENT COUNT				
	1 July 2024 – 30 June 2025	1 July 2023 – 30 June 2024	1 July 2022 – 30 June 2023	1 July 2021 – 30 June 2022	1 July 2020 – 30 June 2021
Safe Approach Distance (SAD)					
Network employee / network contractor	3	4	7	5	1
Accredited Service Provider	13	12	7	6	3
Public	9	9	5	11	11
Public Worker	44	26	48	60	41

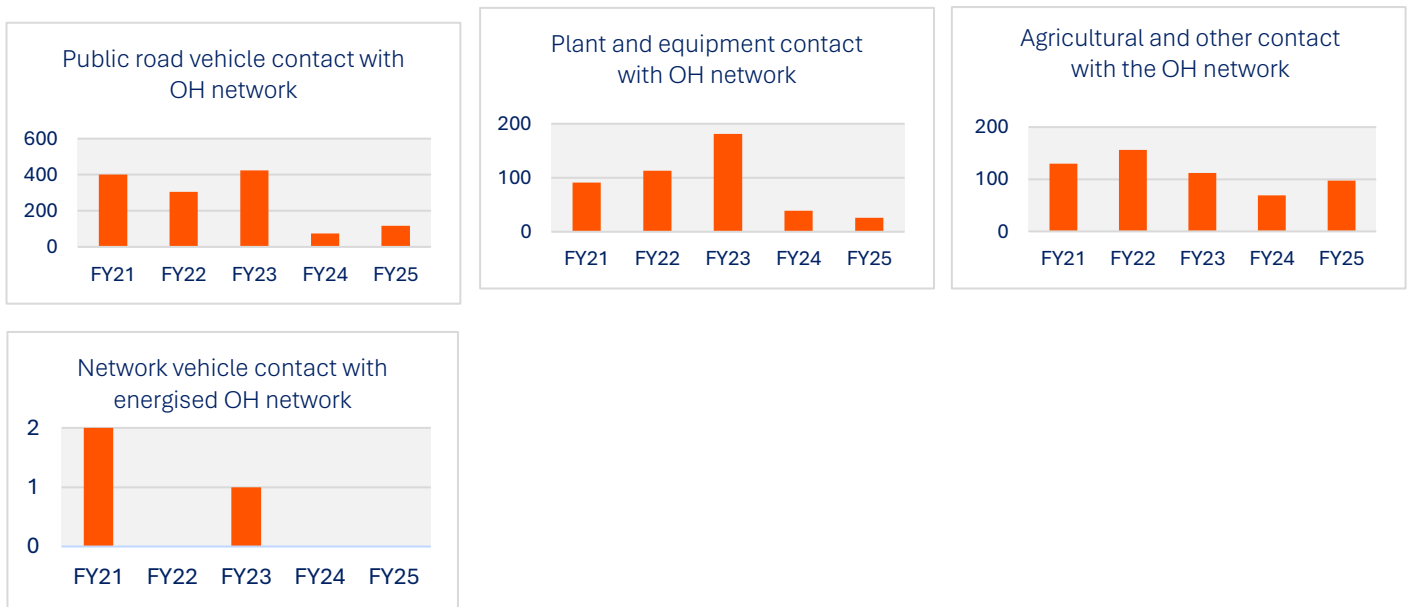
The trends for electric shock, contact with the energised overhead network, and contact with the underground network for the reporting periods FY2021 – FY2025 are shown on the next page in Figure 5.

Of note, there has been a step change in the reported number of incidents involving contact with the electricity network resulting from aligning the reporting methodology with IPART’s *Electricity Networks Reporting Manual - Safety management system performance measurement – October 2024*.

ELECTRIC SHOCK OR ARC FLASH INCIDENTS TRENDS FY2021–FY2025



CONTACT WITH ENERGISED OVERHEAD (OH) NETWORK TRENDS FY2021–FY2025



CONTACT WITH ENERGISED UNDERGROUD (UG) NETWORK TRENDS FY2021–FY2025

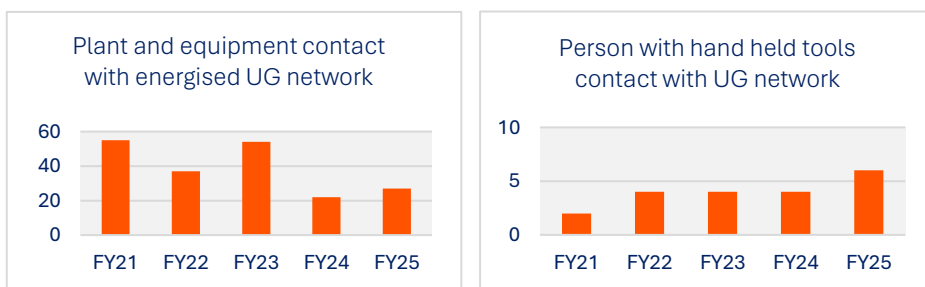


Figure 5: Unintended contact with the overhead and underground network trends FY2021–FY2025

RELIABILITY AND QUALITY OF SUPPLY

Table 6 details occurrences of:

- ▶ Three types of events that resulted in increased risk of electric shocks that were not classified as Major Incidents or Incidents in accordance with IPART’s *Electricity Networks Reporting Manual - Incident Reporting (October 2024)* but resulted in dangerous network conditions (high voltage into low voltage, reverse polarity, and neutral integrity due to poor work practices or incorrect procedure).
- ▶ Events resulting in sustained (longer than 10 minutes) network voltages that either exceed or are lower than the limits prescribed in the Australian Standard *AS61000.3.100-2011 Limits—Steady state voltage limits in public electricity systems*.
- ▶ Electric shocks that were caused by a defective neutral connection that resulted from asset defects or failures, but were not reportable incidents under IPART’s *Electricity Networks Reporting - Incident Reporting (October 2024)* (Neutral integrity due to asset defect or failure).

Table 6: A6 Reliability and Quality of Supply

PERFORMANCE MEASURE	EVENT COUNT				
	1 July 2024 – 30 June 2025	1 July 2023 – 30 June 2024	1 July 2022 – 30 June 2023	1 July 2021 – 30 June 2022	1 July 2020 – 30 June 2021
High voltage into low voltage	30	23	25	21	21
Sustained voltage excursions outside emergency range	40	100	17	6	344
Reverse polarity	0	3	3	1	3
Neutral integrity due to poor workmanship or incorrect procedure	3	3	1	2	2
Neutral integrity due to asset defect or failure	187	157	150	165	181

RELIABILITY AND QUALITY OF SUPPLY – CRITICAL INFRASTRUCTURE INCIDENTS

Table 7 details events where supply was lost to critical infrastructure, which are defined as:

- ▶ Peer group A1, A2, A3 and B hospitals;
- ▶ Road tunnels on motorways that have emergency evacuation systems;
- ▶ Events and buildings where more than 5,000 people could be affected by an outage; and
- ▶ Other community infrastructure determined by the network operator to be of National, State or Regional significance.

Table 7: A7 Reliability and Quality of Supply – Critical infrastructure incidents

TYPE OF CRITICAL INFRASTRUCTURE (EG. HOSPITAL TUNNEL)	MINUTES OF SUPPLY LOST	CAUSE	CONSEQUENTIAL SAFETY IMPACTS ASSOCIATED WITH SUPPLY ISSUE
EWE3B21 St Helena Tunnel No.1	83	8 July 2024 — Load shed requested by Transgrid	There were no safety impacts reported from this incident
EWE3B12 St Helena Tunnel No.2	77	8 July 2024 — Load shed requested by Transgrid	There were no safety impacts reported from this incident
Port Macquarie Base Hospital	65	8 November 2024 — Lost mains to building, running on generator. No Fault, likely overload	There were no safety impacts reported from this incident
Wagga Wagga Base Hospital	232	17 November 2024 — Intense lightning and storms in the Wagga Wagga Region impacted the Essential Energy sub-transmission and upstream Transgrid transmission network. This resulted in supply interruption to the Wagga Wagga Base Hospital for over two hours. Urgent maintenance in the area required the sub-transmission network to be in an abnormal state which restricted availability of secondary sub-transmission supply. Damage to Transgrid's upstream protection equipment also extended the duration of the interruption.	There were no safety impacts reported from this incident
THN3B8 Tugun Bypass	75	27 November 2024 — HV bond burnt in half and fell into LV at sub 3440	There were no safety impacts reported from this incident
Lismore Base Hospital	181	8 December 2024 — Heavy storms in the Lismore area caused vegetation to impact multiple lines. Feeders supplying the Lismore	There were no safety impacts reported from this incident

TYPE OF CRITICAL INFRASTRUCTURE (EG. HOSPITAL TUNNEL)	MINUTES OF SUPPLY LOST	CAUSE	CONSEQUENTIAL SAFETY IMPACTS ASSOCIATED WITH SUPPLY ISSUE
		Base Hospital were among those impacted.	
PER3B8 Ski Tube	18	21 December 2024 — Transgrid advise that their information indicates that there may be a fault with TX2.	There were no safety impacts reported from this incident
PER3B8 Ski Tube	19	15 January 2025 — Transgrid TX2 at Munyang tripped	There were no safety impacts reported from this incident
Port Macquarie Base Hospital	81	30 January 2025 — Tree in mains, HV wire down at pole 9021	There were no safety impacts reported from this incident
Albury Base Hospital	32	31 January 2025 — TX2 Oil Temperature Trip	There were no safety impacts reported from this incident
Port Macquarie Base Hospital	36	30 April 2025 — Large gum tree fell onto conductors one span before A43854. Ground very wet	There were no safety impacts reported from this incident
PER3B8 Ski Tube	9	19 April 2025 — Transgrid TX2 at Munyang tripped	There were no safety impacts reported from this incident
PER3B8 Ski Tube	6	13 May 2025 — Trip of TX 2 at Munyang – RTS without explanation as to cause.	There were no safety impacts reported from this incident
Manning Base Hospital	4	21 May 2025 — Floods, isolated via Supervisory Control and Data Acquisition (SCADA) for safety.	There were no safety impacts reported from this incident

Essential Energy continues to improve its identification of critical loads in our Distribution Management System and how we identify and prioritise these loads in the event of an outage. We identified in last year’s report that there would likely be a higher number of critical infrastructure loss of supply incidents reported for the FY2024-25 period due to the changes in our processes around understanding critical loads across our networks. This increase has been observed as predicted.

NETWORK-INITIATED PROPERTY DAMAGE

Table 8 details events where public or network property was damaged, and it is considered that there is a reasonable likelihood that the damage was caused by the network.

Table 8: A8 Network-initiated property damage events

DETAIL	EVENT COUNT				
	1 July 2024– 30 June 2025	1 July 2023– 30 June 2024	1 July 2022– 30 June 2023	1 July 2021– 30 June 2022	1 July 2020– 30 June 2021
Third party property (assets including vehicles, buildings, crops, livestock)					
Damage (e.g. Fire, Physical impact or Electrical)	35	40	43	41	39
Network property (including non-electrical assets including vehicles, buildings)					
Damage (e.g. Fire, Physical impact or Electrical)	8	3	0	0	1

Tier 4 – Control implementation

This section sets out Essential Energy’s performance in planning, implementing, reviewing, and delivering key safety risk controls, as set out in the ENSMS. It is structured as follows:

- ▶ Table 9 details amendments and improvements made to Essential Energy’s suite of Formal Safety Assessments and associated risk treatments during the reporting period
- ▶ Table 10 sets out activities undertaken in connection with design, construction and commissioning work on the Essential Energy network
- ▶ Table 11 sets out activities undertaken and outstanding in relation to asset inspections
- ▶ Table 11 sets out asset ‘corrective action tasks’
- ▶ Table 13 shows the counts of outstanding distribution overhead tasks by CAT1, CAT2, CAT3 and CAT3A
- ▶ Table 14 sets out activities undertaken and outstanding in relation to vegetation inspections
- ▶ Table 15 sets out activities undertaken in relation to public electrical safety awareness.
- ▶ Table 16 and Table 17 set out internal & external audit activities respectively performed on aspects of the ENSMS

AMENDMENTS AND IMPROVEMENTS TO FORMAL SAFETY ASSESSMENTS

Essential Energy continues to update its formal safety assessments (FSA). The formal safety assessment structure consists of multiple formal safety assessments on a three-yearly review cycle addressing the hazards arising from planning, design, construction, operation, maintenance and decommissioning of the electricity network.

These include; Worker Safety, Public Safety, Network Assets, Work Impact on Property, Bushfire, Loss of Supply and two compliance demonstrations that describe how the Workplace Health and Safety management system (WHSMS) and Environmental management system (EMS) comply with the requirements of AS 5577:2013 *Electricity network safety management systems*.

We continued with the program of cyclic FSA reviews during FY2025, with a comprehensive review of the Loss of Supply FSA undertaken.

Table 9 describes amendments and improvements to Formal Safety Assessments (FSAs) during FY2025.

Table 9: A9 Amendments and improvements to Formal Safety Assessments (FSA) or associated risk treatments

FSA	AMENDMENTS / IMPROVEMENTS
Worker Safety	<ul style="list-style-type: none"> ▶ The worker safety FSA is current and is due for review in March 2028. Control implementation checks continue to be performed through site safety interactions and critical control effectiveness is reported to the Executive and Board.
Public Safety	<ul style="list-style-type: none"> ▶ In response to the Extreme residual risk, Public Safety risk is reviewed every six months, and the relevant treatments reviewed and considered. ▶ The FY2026 Public Safety Treatment Plan (PSTP) has been developed to manage the risk so far as is reasonably practicable (SFAIRP). The PSTP focusses on industry engagement and collaboration, industry and public education and communication, and the promotion of network visibility tools such as aerial and pole markers. ▶ The Public Safety Working Group (PSWG) continues to provide oversight and guidance over the PSTP delivery. The delivery of the previous PSTP targeting industry groups of Community General Public and Agribusiness have been fully

FSA	AMENDMENTS / IMPROVEMENTS
	<p>implemented. This group meets bi-monthly and is chaired by our Safety Advisory and Assurance team.</p> <ul style="list-style-type: none"> ▶ These treatments have seen a positive influence in the number of Category One incidents (fatalities and serious injuries) involving contact with our network by the public. ▶ The previous Public Safety Formal Safety Assessment has shifted from a static document to a live system which is managed within TotalSAFE¹³.
<p>Network Assets</p>	<ul style="list-style-type: none"> ▶ The cyclic review of the Network Assets is scheduled for FY2026. There have been no updates made to the Network Assets Formal Safety Assessment in this reporting period. <p>Perceptions of electrical risk in agricultural workers</p> <ul style="list-style-type: none"> ▶ Our partnership with SafeWork NSW to investigate the perceptions of electricity risk in agricultural workers concluded in FY2025, with final reports published by the research partner Deakin University¹⁴. The authors found: <ul style="list-style-type: none"> › The prevalence of contact with the electricity network is likely higher than reported › There is a demand from agricultural workers to improve the visibility of our electricity network. › There is evidence that agricultural workers are aware of the risk of contact and choosing to proceed with agricultural operations regardless. › There is evidence that the concept of exclusion zones and obligations to comply to them is not appreciated by agricultural workers. › There are reasonably practicable controls available to agricultural persons conducting a business or undertaking (PCBU) to manage this risk that are not being implemented. ▶ We reviewed the research report and identified actions to integrate the findings into our management of risk of agricultural contact. ▶ We are continuing to work with SafeWork NSW to convert the findings of this research into tangible improvements. <p>Mobile Asset Assessment Vehicle Implementation</p> <ul style="list-style-type: none"> ▶ In FY2025, we funded and commenced the implementation of a program to utilize the Mobile Asset Assessment Vehicle (MAAV) for detecting voltage present on assets in urban areas. This program follows a 10-week pilot conducted in FY2023 over a limited section of our footprint. The objective of the program is to identify and repair assets where elevated voltage may be present, for example a metallic streetlight column that has become energised due to insulation failure. <p>ENA timber pole condition assessment project</p>

¹³ TotalSAFE is the application used to capture information relating to Essential Energy’s Health, Safety and Environment Management Systems. It is available to all Essential Energy employees. TotalSAFE captures and stores data related to incidents, near misses and safety concerns, as well as audits, inspections, site safety interactions and contractor management. It’s also used to record corrective actions.

¹⁴ Report can be viewed here <https://www.safework.nsw.gov.au/resource-library/whs-research/Electrical-hazards-on-australian-farms-rapid-review-of-electrical-perceptions-in-agriculture.pdf>

FSA	AMENDMENTS / IMPROVEMENTS
	<ul style="list-style-type: none"> ▶ We participated in an Energy Networks Australia (ENA) project to evaluate alternative methods for condition assessment of timber poles. ENA engaged a researcher from the University of Queensland to investigate alternative methods available to assess the condition of timber poles. The researcher considered enhanced sound, dig, drill methods, acoustic analysis, x-ray and mechanical tests. Inspection technology providers were invited to perform a set of tests on a small sample of poles (n=7) and then the poles were loaded to failure and autopsied. The results of the failure loading and autopsy were used to verify the condition assessments provided by the various technologies. The author noted that predictions of timber strength were highly variable amongst all the technologies under evaluation. ▶ We are continuing to work with industry to improve our collective understanding of opportunities to improve the effectiveness of condition monitoring of timber poles to manage the rate of failure of poles.
Protection of property	<ul style="list-style-type: none"> ▶ No update. The cyclic review of the Network Assets Formal Safety Assessment planned for FY2026 will assess the risk of impact to property arising from our electricity network.
Loss of supply	<ul style="list-style-type: none"> ▶ Review of the Loss of Supply FSA was conducted over FY2025, which incorporated our improved understanding of the dependency of vulnerable populations during loss of supply events. The Loss of Supply FSA identified 107 control implementations against the hazards that can result in a loss of supply safety risk and 21 treatments. <p>Treatment Priority:</p> <ul style="list-style-type: none"> ▶ Improve control effectiveness <ul style="list-style-type: none"> › Controls where there is a potential to improve control effectiveness across the system of control for the safety risk of loss of supply. ▶ Network resilience enhancements <ul style="list-style-type: none"> › The identification of critical loads, understanding of demographics and the distribution of customer vulnerability. Improvements to network control devices and control systems to increase penetration of remotely operable equipment. Provision of mobile generation to improve response capacity. ▶ Safety consequences of loss of supply <ul style="list-style-type: none"> › Our staff chaired the ENA Safety Consequences of Loss of Supply Working Group, which has the objective of improving network operators’ understanding of the safety consequences of loss of supply in the Australian operating context. Phase 2 of a research project was delivered by the CSIRO in FY2025, which provided an Australia-wide framework for relative assessment of communities to the safety consequences of loss of supply. The next phase will involve ingestion of the output data for our footprint and determining whether it would be reasonable to operationalise the framework in tactical and strategic decision making. ▶ Enhanced identification of critical loads <ul style="list-style-type: none"> › A risk treatment identified in the Loss of Supply FSA and the Broken Hill outage post incident review was enhanced identification of critical loads and tagging of critical loads. A risk treatment is currently underway to identify and tag all loads

FSA	AMENDMENTS / IMPROVEMENTS
	<p>that meet the criteria of infrastructure of national, state or regional significance for improved management and response.</p>
<p>Bushfire</p>	<p>▶ The Bushfire FSA was reviewed in the previous reporting period and given the recency of this review there has been no updates since.</p> <p>Bushfire Treatments</p> <p>We have continued to deliver the treatments identified in the previous review of the Bushfire Formal Safety Assessment. Monitoring of the delivery of treatments is conducted through governance committees.</p> <p>▶ Early Fault Detection pilot</p> <ul style="list-style-type: none"> › We are in the delivery phase of a pilot to provide Early Fault Detection (EFD) coverage of approximately 300kms of distribution network. Planned installations of EFD devices on the Essential Energy electricity distribution network were not completed in FY2025 due to delays introduced by weather. The installations planned for FY2025 will be completed in FY2026 with the balance of devices. › The objective of the pilot will be to validate performance and implementation effort estimates of EFD technology on our network to form the basis for an evaluation of a broader deployment. <p>▶ Implementation of Bushfire Risk Priority Area Transition Project</p> <ul style="list-style-type: none"> › We have updated our bushfire consequence modelling using an industry agreed approach to estimating bushfire loss values and have identified that the geographic distribution of fire consequence has shifted from our previous modelling. Considering these findings, we have delivered a project to design the transition implementation of the specific asset and vegetation inspection and maintenance program requirements that manage bushfire risk in our high bushfire risk areas. › We have developed a transition plan for these programs, with the most material impact being the requirement to cut corridors to remove all vegetation overhanging overhead powerlines. The transition plan is being implemented over an 8-year period (FY2025 to FY2033) and is underway, with the number of vegetation management areas that have been cut clear-to-sky being above the FY2025 transition target. To enable the transition plan, the Australian Energy Regulator (AER) approved \$63.8M contingent project application for the vegetation transition.
<p>Environment</p>	<p>Our Environmental Management System supports our ability to identify and enable Environmental control measures. There have been multiple improvements to the management system throughout the reporting period.</p> <p>Policy and Procedure Updates</p> <p>▶ Multiple policy reviews and amendments were conducted during FY2025, with 15 environmental policies updated, including:</p> <ul style="list-style-type: none"> › CECM1000.10f - HSE Manual: Hazardous Materials – PCBs Management › CECM1000.10p - HSE Manual - Pollution Incident Response Management Plan › CECM1000.10g - HSE Manual: Spills and Leaks Management › CERM1000.75a - HSE Operational Guideline: Oil or Fuel Spill Remediation › CECM1000.75 - HSE Manual Waste

FSA	AMENDMENTS / IMPROVEMENTS
	<p>Environmental Risk Assessment Enhancements</p> <ul style="list-style-type: none"> ▶ ChemAlert¹⁵ system improvements: <ul style="list-style-type: none"> › Risk profile re-evaluation of 98 chemical register substances › Updated Safety Data Sheets (SDSs) and Corporate Risk Matrix integration › Addition of 11 newly approved products to the chemical register ▶ Plan to review risk assessments for 120 additional chemicals in the coming reporting year <p>Incident Management and Analysis</p> <ul style="list-style-type: none"> ▶ Comprehensive incident tracking with 436 environmental incidents recorded during FY2025 ▶ Improved incident classification using the Incident Classification Rating (ICR) system ▶ Enhanced spill management with categorisation by size (large, medium, small, insignificant) ▶ Wildlife interaction monitoring separate from vehicle collisions <p>Environmental Assessment Capabilities</p> <ul style="list-style-type: none"> ▶ Completion of 32 environmental impact assessments including Review of Environmental Factors (REFs) ▶ Six Conservation Risk Assessments prepared for maintenance work in National Park Estate ▶ External expertise engagement for environmental assessments and approvals <p>Contaminated Land Management (CLM)</p> <ul style="list-style-type: none"> ▶ Transition from formal CLM program to best practice management for low to moderate risk sites ▶ Site remediation activities at multiple locations including transformer storage bunds and fuel storage areas ▶ Industry recognition as a finalist in the ALGA Best Contaminated Site Assessment Project Award <p>Waste Management Improvements</p> <ul style="list-style-type: none"> ▶ Structured waste tracking with disposal of 11.25 tonnes of asbestos, 9.75 tonnes of restricted soil waste, and 2,602 tonnes of pole waste ▶ Increased recycling efforts with 27per cent of poles being recycled (700 tonnes) ▶ Enhanced waste categorisation and management procedures <p>Heritage Management</p> <ul style="list-style-type: none"> ▶ Implementation of Heritage Asset Management Strategy (HAMS) to satisfy obligations under the Heritage Act ▶ Whole-of-life management approach for heritage assets including maintenance, divestment, and performance

¹⁵ ChemAlert is the application used to manage chemical safety across Essential Energy's operations. It is available to all Essential Energy employees. ChemAlert provides access to SDSs, chemical risk assessments, and inventory management tools. It supports safe handling, storage, and disposal of hazardous substances, and helps ensure compliance with relevant health, safety, and environmental regulations.

FSA	AMENDMENTS / IMPROVEMENTS
	<p>Sustainability Integration</p> <ul style="list-style-type: none"> ▶ Climate change response strategy with commitments to building climate resilience and facilitating net zero transition ▶ Development of emissions net zero transition plan and circular economy approach ▶ First-time reporting to mandatory climate-related financial disclosure standards <p>Resource Enhancement</p> <ul style="list-style-type: none"> ▶ Environmental Services team expansion with two new positions approved for FY2026 ▶ Expertise development including international engagement through CIGRE committee participation ▶ External service provider engagement for additional environmental assessment support <p>Legislative Compliance</p> <ul style="list-style-type: none"> ▶ Adaptation to legislative changes including amendments to State Environmental Planning Policy ▶ Successful engagement with Department of Planning, Housing and Infrastructure on regulatory frameworks ▶ Regulatory advocacy resulting in more consistent frameworks for critical infrastructure

DESIGN, CONSTRUCTION AND COMMISSIONING

Table 10 details metrics relating to the design, construction and commissioning of new or altered network assets during the reporting period. This includes ‘contestable’ designs and installation, undertaken by Accredited Service Providers (ASP), which are reviewed and certified by us.

The greatest opportunity to influence network safety occurs during the planning and design phase of the network lifecycle. These metrics track the safety assessments and audits on those assessments, and safety reviews undertaken on Level 1 (work to extend or increase the capacity of the overhead and underground network) and Level 2 (work on overhead or underground service lines) ASP projects.

Table 10: A10 Design, construction and commissioning

PERFORMANCE MEASURE	EVENT COUNT				
	1 July 2024 – 30 June 2025	1 July 2023 – 30 June 2024	1 July 2022 – 30 June 2023	1 July 2021 – 30 June 2022	1 July 2020 – 30 July 2021
Designs for which Safety in Design (SiD) Reports have been completed	853	1,180	913	984	809
Designs for which SiD Reports have been audited	110	118	91	984 ^[a]	90
Contestable designs certified	1,634	1,881	1,877	1,947	1,915

PERFORMANCE MEASURE	EVENT COUNT				
	1 July 2024 – 30 June 2025	1 July 2023 – 30 June 2024	1 July 2022 – 30 June 2023	1 July 2021 – 30 June 2022	1 July 2020 – 30 July 2021
Contestable level 1 project safety reviews performed	106	398	398	584	447
Contestable level 2 project safety reviews performed	0	0	0	9	0
Project closeout reports completed for contestable projects	1,027	1,421	1,220	1,250	1,266
Project closeout reports completed for non-contestable projects	2,465	3,237	2,906	4,541	3,736
Project closeout reports audited for contestable projects	0	0	0	0	0
Project closeout reports audited for non-contestable project	1 ^[a]	775	1,268	4,541	3,736

^[a]The EAM upgrade was driven by Essential Energy’s Amplify program, which focuses on enhancing core business and operational capabilities through modern enterprise systems and digital technologies. The new EAM system was implemented to:

- ▶ Deliver a stable and future-ready foundation for managing assets and work activities.
- ▶ Support additional asset and work types beyond the initial scope.
- ▶ Evolve asset and works management capabilities to meet growing operational demands.

To address the system-related issues, a manual intervention process has been developed to close out reports within WACS, and proactive efforts are underway to resolve known errors. Reporting is expected to normalise in the next period.

INSPECTIONS (ASSETS)

Table 11 details asset inspections undertaken during the reporting period and Table 12 details ‘corrective action tasks’ addressing conditions identified from inspections undertaken during the reporting period or within previous reporting periods, that fell due during the reporting period. Within the ‘corrective action tasks’ section of Table 12:

- ▶ Tasks identified are those that were reported during the reporting period,
- ▶ Tasks achieved are those that were completed during the reporting period,
- ▶ Cancelled tasks are tasks that were not required due to equipment being placed out of service, or task deemed not required,

- ▶ Open tasks are tasks that were identified prior to or during the reporting period, but that did not fall due during the reporting period, and
- ▶ Outstanding tasks are tasks that fell due during the reporting period, but that weren't completed.

Table 11: A11 Inspections (assets)

PERFORMANCE MEASURE	INSPECTION TASKS				
	Annual Target	Achieved	Cancelled	Open	Outstanding
Zone Substations	10,237	7,653	31	2,644	782
Distribution Substations ¹⁶	7,578	3,345	68	3,166	2,074
Distribution OH	433,089	467,080	907	8,642	62,347
Distribution UG	14,544	12,471	515	7	942
Network standalone power systems (SAPS)	2	2	0	0	0

¹⁶ Excludes OH substations corrective tasks, OH substation corrective tasks are included in the Distribution OH row

Table 12: A11 Asset corrective action tasks

PERFORMANCE MEASURE	CORRECTIVE ACTION TASKS			
	Tasks Identified (All Categories)	Achieved	Open	Outstanding
Zone Substations	4,021	3,172	820	212
Distribution Substations	9,083	5,930	19,889	765
Distribution OH ¹⁷	255,127	135,110	606,794	12,137
Distribution UG	5,070	4,362	7,601	695
Network Standalone Power Systems (SAPS)	3	4	0	1

Despite extensive Protected Industrial Action (July–December 2024) and 16 Major Event Days — 10 of these occurring post-Christmas 2024 — Distribution OH inspections exceeded the annual target by approximately 8%, demonstrating strong performance. However, Zone and Distribution Substations carry notable outstanding volumes, reflecting the business’ deliberate prioritisation of ‘Safety Commitment’ activities to address the highest safety risks throughout the period of industrial action. Over the same period, constrained resources and sodden ground conditions limited field access and disrupted corrective throughput, driving a consistent increase in the volume of outstanding CAT3 tasks.

The corrective action pool — particularly for Distribution OH — has expanded significantly to 600,000+ open tasks, the result of deferred work and higher inspection find rates; while not all corrective tasks directly map to FY2025 outstanding activities, they feed the broader pipeline and will shape FY2026 ENSMS reporting.

With operational teams only recently able to fully deploy travel strategies across the state, a priority-based recovery program is underway through March 2026:

1. CAT3 PSBI corrective activities — targeting completion before 1 October (subject to inspection/packaging delays from further climate-driven events);
2. P1 Bushfire corrective activities — driving As Low As Reasonably Practicable (ALARP) before 1 October with continued focus throughout the bushfire season;
3. remaining CAT3 and CAT3A tasks — prioritised by age, starting with the oldest overdue (including standalone CAT3A nearing nine months overdue); and
4. miscellaneous CAT3/CAT3A — managed via works-packaging rules for items falling overdue within nine months.

¹⁷ Excludes OH substations corrective tasks, OH substation corrective tasks are included in the Distribution Substations row

Table 13 shows the counts of outstanding distribution overhead tasks by CAT1, CAT2, CAT3 and CAT3A severity tasks; and for other non-safety risk categories. These tasks are tracked and managed internally with focus on reducing outstanding tasks.

Often, outstanding tasks exist due to situations such as weather events preventing work or combining and/or scheduling the tasks as capital works to be completed. In these instances, additional controls are implemented to manage the risk for example the creation of operational restrictions on switchgear.

Table 13: Breakdown of outstanding distribution OH tasks by severity at 30 June 2025

SEVERITY	COUNT OF OUTSTANDING TASKS
CAT1 (48 hours)	41
CAT2 (30 days)	152
CAT3 (QLD) (6 months)	29
CAT3 (9 months)	7,346
CAT3A (2 years)	1,025
Other non-safety risk categories	3,544
Total	12,137

INSPECTIONS (VEGETATION)

Table 14 details vegetation inspection tasks undertaken during the reporting period. The table includes two types of vegetation inspections; those undertaken using aerial inspection methods and those undertaken using ground-based inspection methods.

Table 14 does not include the 119,124 aerial inspections carried out as part of the Pre-Summer Bushfire Inspection (PSBI) program across our P1 bushfire risk areas (parts of our network considered the highest bushfire risk). Table 21 in Part B of this report provides detail of our pre-summer bushfire inspection program.

Other terms used in Table 14 are similar to those used in Table 11.

Table 14: A12 Inspections (vegetation) Aerial/Ground based

BUSHFIRE RISK CATEGORY	POPULATION (TOTAL SPANS)	TARGET	ACHIEVED	OUTSTANDING
Aerial				
P1 ¹⁸	0	0	0	0
P2 ¹⁹	0	0	0	0
P3 ²⁰	0	0	0	0
P4 ²¹	0	0	0	0
Total	0	0	0	0
Ground-based				
P1	108,735	31,598	31,899	0 ²²
P2	381,361	138,217	102,009	36,208
P3	646,271	299,160	193,239	105,921
P4	646,911	651,812	498,856	152,956
Total	1,783,278	1,120,787	826,003	295,085

The level of outstanding ground-based inspections is attributed to two main events:

1. Vegetation ‘Contractor A’ and Essential Energy have mutually agreed to terminate their current contractual arrangement in the Southeast. This joint decision allows Essential Energy to explore alternative service delivery models. Consequently, several Vegetation Management Areas (VMAs) previously managed by Contractor A are being reassigned to other Contractors and being rescoped as part of the transition.
2. The delivery of the ground-based inspection program was also severely impacted by ex-Tropical Cyclone Alfred in late February and multiple flood events across the East Coast and Western parts of NSW in the last quarter of the financial year.

As we manage Contractor A's exit from the Southeast and transition to new operational models, we will prioritise the timely completion of high priority tasks, specifically PSBI, Fall-In Risk, and other "Stream 1²³" deliverables. Adherence to the schedule for all tasks remains a continuous focus in the Southeast with support from our current contractors.

¹⁸ Areas considered to be high bushfire risk

¹⁹ Areas considered to be moderate bushfire risk

²⁰ Areas considered to be low bushfire risk

²¹ Areas considered non-bushfire prone

²² We achieved 301 more tasks than targeted (achieved minus target)

²³ Stream 1 focuses on ensuring all bushfire-related vegetation management tasks in Priority 1 (P1) areas are completed or actively managed by 1 October 2025. This includes clearing any overdue inspection, high-risk grow-in (A1, A2), and fall-in tasks, as well as completing actions identified during Pre-Summer Bushfire Inspections (PSBI).

PUBLIC ELECTRICAL SAFETY PLANS AND ACTIVITIES

Table 15 details activities undertaken as part our Public Electrical Safety Awareness Plan (PESAP). This outlines the programs and activities initiated and performed in order to promote public safety awareness and education relating to the electricity network.

Table 15: A13 Public electrical safety plans and activities

NETWORK OPERATOR PUBLIC SAFETY PROGRAMS / CAMPAIGNS	DETAILS
<p>Overview – 2024-2025 Public Electrical Safety Awareness Plan (PESAP)</p>	<p>Our annual Public Electrical Safety Awareness Plan (PESAP) seeks to raise awareness and understanding of the hazards associated with the network to minimise public safety risks. The Plan targets six key at-risk community segments:</p> <ul style="list-style-type: none"> ▶ general public ▶ agribusiness ▶ building and construction ▶ emergency services ▶ aviation ▶ transport. <p>During the year, our campaigns and activities focused on the risks across the top three at-risk segments:</p> <ul style="list-style-type: none"> ▶ agricultural equipment and machinery contacting overhead powerlines ▶ general public vehicles contacting power poles and powerlines ▶ construction machinery contacting the underground electricity network.
<p>Public safety incidents</p>	<p>Public safety incidents decreased by 8.2% year on year. Whilst reported injuries rose 33%, there were 20% fewer fatalities (four), and 66% fewer life-threatening injuries recorded.</p> <p>We saw an increase in injuries involving the general public from motor vehicle accidents with nine more than FY2024, though there were fewer fatalities and life-threatening injuries. One fatality was recorded in the aviation segment. There were no agribusiness injuries.</p> <p>Awareness and education campaigns targeting the general public and agribusiness segments focused on reducing fatalities and life-threatening events, and these risks have decreased as a result. A new treatment plan will maintain our agribusiness activities and increase targeted activities for the aviation segment in partnership with industry bodies.</p>

NETWORK OPERATOR PUBLIC SAFETY PROGRAMS / CAMPAIGNS	DETAILS
	<p>The public use of drones around the network, and in caravan parks, where encroachment to the network is common, are identified emerging risks. During the year, a member of the public received a serious electrical injury from encroaching on the network with an object in a caravan park. We identified actions to address these emerging risks in our June 2025 risk review to implement for future education activity.</p>
<p>Public safety presentations</p>	<p>We delivered in-person safety awareness talks to more than 5,200 people during the year. Participants represented a range of industry sectors, including construction, emergency services, transport, local government engineering and telecommunications. These talks provided sector-specific risk and incident awareness and education, including providing tools and resources to manage and mitigate workplace electricity safety risks.</p> <p>We delivered three free webinars during National Safe Work Month 2024 to approximately 200 participants representing councils, construction and agricultural companies, tertiary education, and fire and rescue agencies. The webinars addressed the theme ‘Safety is everyone’s business’ for three at-risk segments:</p> <ul style="list-style-type: none"> ▶ agribusiness, ▶ building and construction, and ▶ emergency services first responders.
<p>Agricultural Safety Research</p>	<p>In collaboration with SafeWork NSW, Deakin University and the National Centre for Farmer Health, we completed research into the risk perceptions of electrical hazards on Australian farms. The research from 253 online survey participants and 50 face to face interviews found that:</p> <ul style="list-style-type: none"> ▶ approximately 30% of respondents (n=240) had experienced, or knew someone who had experienced, an electrical incident causing fatality or injury, with overhead powerlines the primary hazard. ▶ while farmers generally understand the risks posed by electricity, familiarity and frequency of exposure often lead to complacency. ▶ respondents felt that electricity safety is underrepresented in farm safety discussions compared to other hazards.

NETWORK OPERATOR PUBLIC SAFETY PROGRAMS / CAMPAIGNS	DETAILS
	<ul style="list-style-type: none"> findings reinforced our focus on prioritising electricity safety in the agribusiness sector.
<p>Agricultural and Aviation Safety</p>	<p>We continue to work closely with a range of agricultural industry related groups, associations, and publishers to promote and reinforce safety messages relating to working near the electricity network with machinery. Key messages included “Look up and Live”, “Plan ahead”, and “Aerial markers improve powerline visibility”. We also promoted safety messages relating to aviators working in the agricultural sector with the key message “Don’t wing it with powerlines”.</p> <p>Industry groups and publications included NSW Farmers Association, Aerial Application Association of Australia, Australian Grain and Cottongrower.</p> <ul style="list-style-type: none"> Mediums included digital and print advertising, radio, targeted email newsletters and attendance at events such as NSW Farmers Annual Conference, AgQuip, Henty and Primex.
<p>General Public Safety</p>	<p>The theme ‘Stay, Call. Wait’ shaped our general public campaign activities, helping people to remain safe if their vehicle comes into contact with the electricity network. The message encourages people to stay in their vehicle, call triple zero for help, and wait for emergency services to arrive and give the all-clear before they exit. The campaign was delivered across digital and social media networks, including video content.</p> <p>Additional awareness campaigns targeting community safety during storms and floods were also promoted across radio and digital advertising, combined with ‘always on’ commentary through social media networks. These messages were re-emphasised during the severe weather events that impacted many – and again throughout the summer as severe weather events impacted communities during the year.</p> <ul style="list-style-type: none"> A Bushfire Safety Kit was developed and promoted in the lead up to the bushfire season to promote awareness of the electrical risks and encourage people to plan ahead in the event of bushfires on their property.
<p>Electricity Safety Week</p>	<p>Each year, Electricity Safety Week teaches students from Kindergarten to Year Six how to be safe around electricity and raises awareness of electrical hazards. The education program is run each September, providing schools with</p>

NETWORK OPERATOR PUBLIC SAFETY PROGRAMS / CAMPAIGNS	DETAILS
	<p>curriculum-aligned teaching resources developed in collaboration with the Department of Education.</p> <p>In 2024, 876 schools (97 per cent of primary schools from our network area) registered for the program. This year's program focused on safety around renewable energy sources, such as community batteries and solar power. New classroom activities were introduced to support teacher and student engagement with these topics.</p>

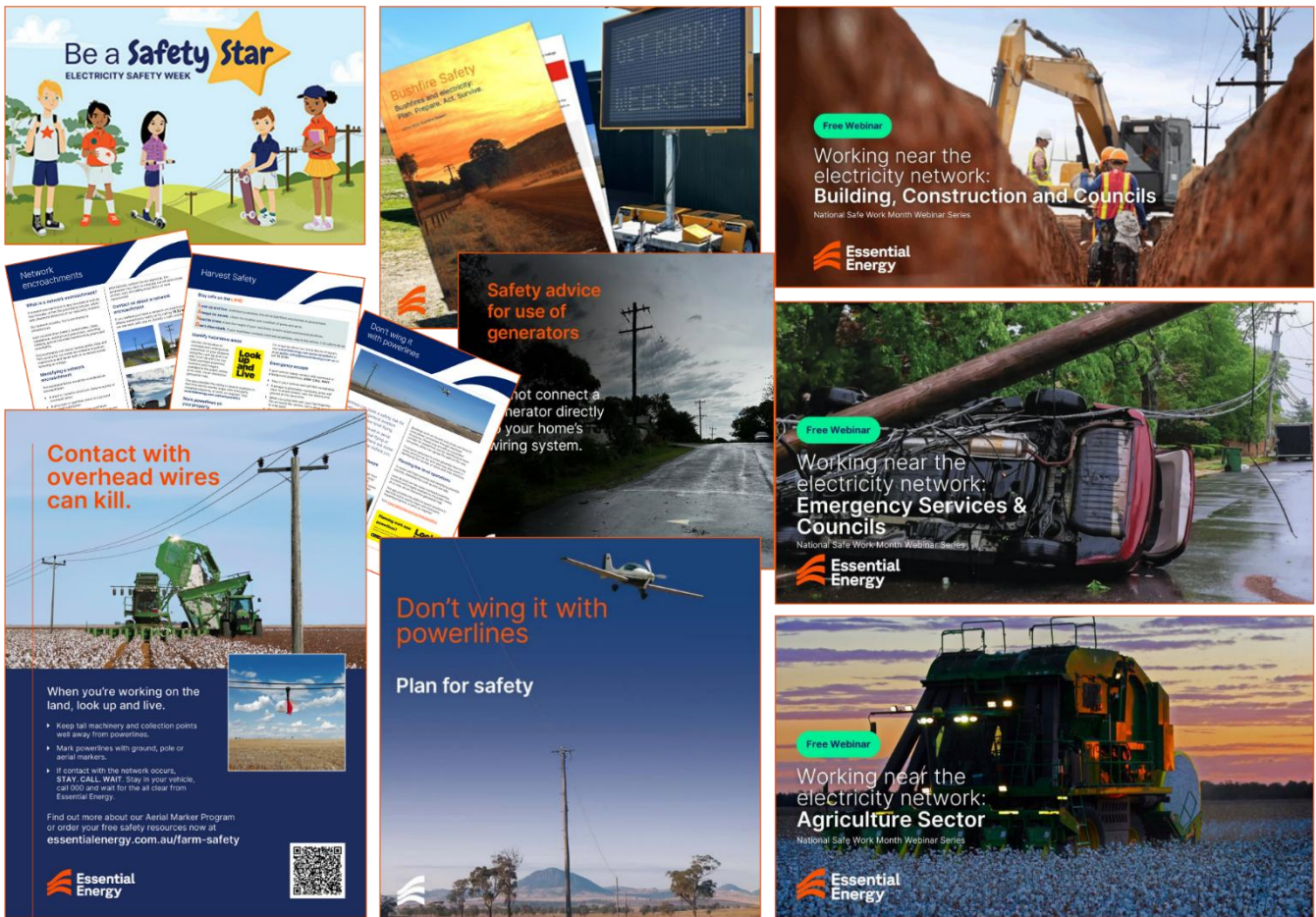


Figure 6: Examples of Essential Energy's public safety campaign material

INTERNAL AUDITS

Table 16 details internal audits performed on any aspects of the ENSMS during the reporting period.

Table 16: A14 Internal audits performed on any aspect of the ENSMS (as per AS 5577 clause 4.5.4)

AUDIT SCOPE	IDENTIFIED NON-COMPLIANCES	ACTIONS
<p>Vegetation Management Assurance Program Assessment of the completeness and effectiveness of the second line assurance program Essential Energy has in place over its vegetation management activities.</p>	<p>The following non-compliances were identified in the final audit report issued March 2025; Adequacy of ‘Program Compliance Auditor’ (PCA) Process – PCAs are currently not completing regular assurance tasks due to a delivery backlog:</p> <ul style="list-style-type: none"> ▶ Assurance over the vegetation function is currently compromised ▶ Reporting gaps are impacting the PCA capability ▶ PCAs are situated in designated operational areas and their activities are confined to these specific geospatial locations. <p>Enterprise Governance Framework – Misalignment between enterprise guidance and delivery team outcomes:</p> <ul style="list-style-type: none"> ▶ Absence of clear roles & responsibilities for vegetation program assurance processes 	<ul style="list-style-type: none"> ▶ Develop a backlog contingency plan that prioritises PCA roles, ensuring that the PCA function remains active regardless of maintenance delivery requirements across all Vegetation Program operational areas. ▶ By collaborating Asset Management and Operations, further refine the PCA function within CEOP2508.04 to include measurable targets, clearly defined audit requirements/process whilst also allowing capacity for some ad-hoc sampling. <ul style="list-style-type: none"> ▶ Governance enforced workshops to be established to ensure collaboration between Asset Management and Operations in development/handover of the Annual Audit Plan. ▶ Develop a clear RACI framework for Vegetation Management assurance processes which define reporting lines between Asset Management and Operations stakeholders.

AUDIT SCOPE	IDENTIFIED NON-COMPLIANCES	ACTIONS
	<ul style="list-style-type: none"> ▶ Procedure owners have no visibility over delivery execution and its evolving risk landscape ▶ Absence of workstream collaboration (in the form of governance lines) is obstructing flow of critical information ▶ Inconsistent interpretation of procedural documents across delivery team 	
<p>This audit was to assess the design and delivery of Essential Energy’s Operational Assurance Program. The key objectives of the program are to:</p> <ul style="list-style-type: none"> ▶ Provide assurance over the design and operating effectiveness of implemented controls relating to operational teams. ▶ Monitor, analyse, and report on key risk areas in the operational environment, in line with Essential Energy’s enterprise risks. ▶ Coach and mentor in the development, and continual improvement of implemented controls relating to key risk areas within the operational environment. ▶ The aim of the Operational Assurance and Risk (OAR) Program is to complete around 40 depot sites annually in addition to multiple zone substation sites and other focus areas of the business as required, including management requested ad-hoc reviews 	<p>No non-compliances were identified in the audit report issued April 2025</p>	<ul style="list-style-type: none"> ▶ Nil

AUDIT SCOPE	IDENTIFIED NON-COMPLIANCES	ACTIONS
<p>Strategic Inventory Management</p> <p>The audit will consider Essential Energy’s inventory management processes and whether overall inventory strategies support the financial health and operational performance of the business.</p>	<p>The following non-compliance was identified in the final audit report issued May 2025.</p> <p>Inventory reporting deficiencies and insufficient management of slow and obsolete stock</p> <ul style="list-style-type: none"> ▶ Current reporting does not fully comply with the reporting policy, resulting in ad-hoc KPI tracking and informal performance updates, including monitoring slow and obsolete inventory items. ▶ There are data challenges due to unstructured, incomplete datasets. Although available in PowerBI, key metrics such as inventory turnover, material verification dates, supplier lead times, and project delays due to inventory issues are not formally monitored and reported on. 	<ul style="list-style-type: none"> ▶ Establish a data management framework to map the critical pieces of information and key inputs that will be used for reliable analysis and map accountability with various teams to ensure accurate and timely capturing of information to provide wholistic insights into inventory management performance. ▶ Develop data sources for KPI targets to enable informed monitoring and decision making. Where industry benchmarks are not available or comparable, utilise regional performance metrics to assign and assess KPI targets. ▶ Review and leverage current PowerBI analytics available to develop and deploy a reporting framework aligned with the CEP0009.02 policy to ensure regular monitoring of key KPIs, such as inventory turnover, slow and obsolete inventory percentages, and delivery performance. Integrate these KPIs into formalised monthly management dashboards and performance reviews.

EXTERNAL AUDITS

During FY2025 there were two external audits performed:

- ▶ IPART Loss of Supply and Bushfire Risk Management audit
- ▶ Queensland Electrical Safety Office (QLD ESO) Electricity Safety Management System (ESMS) Annual Audit

Table 17 details external audit performance on any aspect of the ENSMS during the reporting period and sets out the findings from these audits, along with the recommendations and agreed actions.

Table 17: A15 External audits performed on any aspect of the ENSMS (as per AS 5577 clause 4.5.4)

AUDIT SCOPE	IDENTIFIED NON-COMPLIANCES	ACTIONS
<p>IPART ENSMS Audit</p> <p>Scope as per Notice of Audit Direction issued by IPART in July 2024.</p> <ul style="list-style-type: none"> ▶ Assessment of loss of supply Formal Safety Assessments ▶ Assessment of bushfire risk management ▶ Assess implementation of bushfire risk management ▶ Assess implementation, measurement and evaluation of bushfire risk management ▶ Assess implementation of bushfire risk audit recommendations <p>The audit was carried out in accordance with the criteria in IPART’s Electricity networks audit guideline – Safety management systems audits, October 2023.</p>	<p>No non-compliances were identified in the independent audit report issued February 2025.</p>	<p>Nil</p>
<p>QLD ESO ESMS Annual Audit</p> <p>Scope: All aspects of the Electricity Safety Management System (ESMS) audited in accordance with the Queensland Audit and Governance Guide.</p> <p>Auditor Selected ESMS Risk Items:</p> <ul style="list-style-type: none"> ▶ HV/LV OHPL Third party contact with overhead network ▶ Unassisted Asset Failure of pole-top equipment 	<p>No non-compliances were identified in the independent audit report issued November 2024.</p>	<p>Nil</p>

Part B – Bushfire Preparedness Report

Part B of the report demonstrates our bushfire preparedness, leading up to the 2025 bushfire season, covering the period 1 October 2024 to 30 September 2025.

Part B is structured as follows:

- ▶ Section 5 describes the bushfire risk profile across our supply area
- ▶ Section 6 identifies the permanent and temporary fire risk declarations by Rural Fire Service and outlines the actions taken in response
- ▶ Section 7 describes the scope of private lines ('aerial consumer mains') on bushfire prone land
- ▶ Section 8 describes the status of our pre-summer bushfire inspections, vegetation and asset maintenance tasks

Identification of hazardous bushfire areas

Bushfire prone lands have been identified across our network footprint. The bushfire-prone lands are further segmented into bushfire risk classifications based on scientific bushfire risk modelling. The modelling considers the impact of fires, which may originate from network assets.

Bushfire Risk Priority Indicator classifications (P1, P2, P3, and P4) are applied and determine:

- ▶ Bushfire mitigation work priorities;
- ▶ Pre-summer bushfire inspection (PSBI) requirements;
- ▶ Investment program priorities;
- ▶ Operational procedures and practices; And
- ▶ Vegetation management strategy.

The Bushfire Risk Priority Indicator classifications are defined in Table 18.

Table 18: Bushfire Risk Priority Indicator classifications

BUSHFIRE RISK PRIORITY INDICATOR CLASSIFICATION	DEFINITION
P1	High risk severity
P2	Moderate risk severity
P3	Lower risk severity
P4	Non-bushfire prone

The Bushfire Priority Zone Transition (BPT) project was completed and transferred to the business for delivery in July 2025. This followed the AER's determination in June 2025 regarding the contingent project application to fund the eight- year vegetation transition work in newly upgraded P1 areas. Details of the AER decision can be found here: [AER approves costs for Essential Energy's bushfire risk reclassification contingent project | Australian Energy Regulator \(AER\)](#)

The maps below show the change to P1 areas across the network. Newly upgraded P1 areas require vegetation clear-to-the-sky, to complete this work alongside the usual cyclic vegetation work is forecasted to take eight years between FY2026-FY2033.

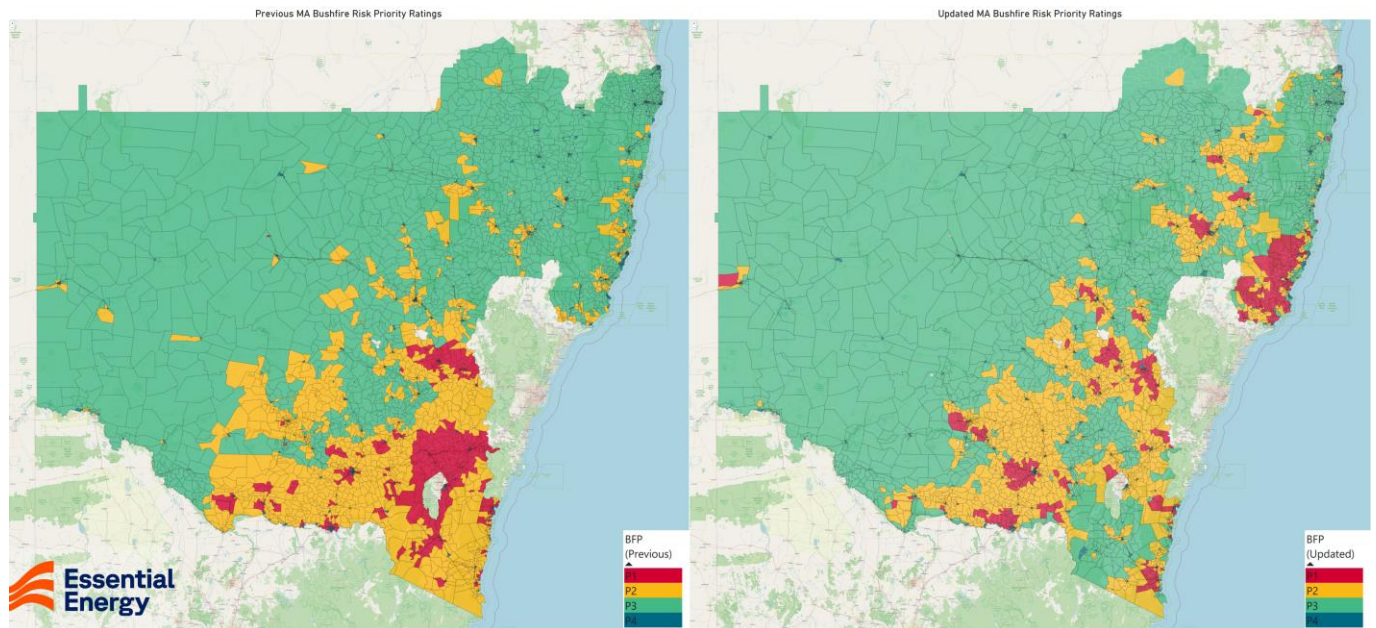


Figure 7: Previous and updated Bushfire Risk Priority Indicator classification across our footprint

Commentary from AFAC for forthcoming bushfire season

Figure 8 shows the fire outlook for spring 2025, with our electricity network footprint having average bushfire risk for the lead into the bushfire season (grey colour). This Seasonal Outlook was developed by Australian and New Zealand National Council for Fire and Emergency Services (AFAC)²⁴, the Bureau of Meteorology, Queensland Fire Department, NSW Rural Fire Service (NSW RFS), ACT Emergency Services Agency, ACT Parks and Conservation Service, Country Fire Authority, Department of Energy, Environment and Climate Action VIC, Tasmania Fire Service, SA Country Fire Service, Department of Fire and Emergency Services, Department of Biodiversity, Conservation and Attractions WA, and Bushfires NT.

²⁴ AFAC, the National Council for fire and emergency services, is the independent, member-based body that supports fire and emergency management organisations across Australia and New Zealand.



Seasonal Bushfire Outlook Spring 2025



■ Increased risk of fire

Figure 8: Seasonal Bushfire Outlook

Permanent / temporary declaration of areas by NSW RFS and network operator's actions

Fire season district declaration notifications from NSW RFS are monitored closely by Essential Energy.

Essential Energy undertakes a number of actions in preparation for the bushfire season. These include:

- ▶ Producing a pre-fire season communication plan for our employees. For example, the primary communications included information on:
 - › the early start to the Bushfire Danger Period;
 - › the procedures in place to be followed in periods of higher fire danger;
 - › how to enrol in receiving SMS Total Fire Ban updates; and
 - › information on access to the RFS Hazards Near Me app, and where to contact for further information.
- ▶ A briefing on the upcoming fire season is conducted with key business leaders. This includes expected early starts to the fire danger period and the research from the Bureau of Meteorology (BOM), Australian and New Zealand National Council for Fire and Emergency Services (AFAC) and Natural Hazards Research Australia (NHRA). This provides an opportunity to refresh staff awareness of the relevant Essential Energy policies for days of elevated fire risk.

- ▶ Issuing an Essential Energy Safety Brief to employees on the early start to the fire season to ensure appropriate risk mitigation measures are put in place.
- ▶ Monitoring and reviewing of research into fires and the changing climatic conditions via relationships with organisations such as the BOM, AFAC, NHRA and universities.
- ▶ Conducting regular operational Bushfire Preparedness meetings to assess maintenance task priorities, including prioritisation of tasks associated with the annual network Pre-Summer Bushfire Inspections in high fire risk areas.
- ▶ Pre-season briefing presentations from NSW RFS management to key managers and senior leaders, including seasonal outlooks.

Aerial consumer mains on bushfire prone private land (HV and LV)

Low voltage (LV) private lines

Our Asset Inspectors undertake regular ground-based patrols of LV private lines as part of routine network asset inspections. Customers are notified of any maintenance tasks identified on a private line.

As an example, in the Part B reporting period 2024-2025, we inspected 31,758 private poles resulting in the identification of 2,151 private maintenance tasks that required follow up notification and consultation with our customers.

We have a dedicated private lines team that manages customer engagement regarding notifiable tasks to ensure safety related matters are dealt with. Hardship arrangements are available for customers who may have limited financial means to deal with the costs of maintenance of private lines.

We have processes in place to regularly review private line tasks to ensure they are correctly classified as private tasks and customers receive the appropriate information to deal with maintenance of their assets.

High voltage (HV) private lines

We communicate annually with High Voltage Customers (HVCs) connected to our network about their obligations to implement a suitable safety management system or plan. This includes drawing specific attention to their obligation to maintain private electrical installations such that they mitigate the risk of these assets becoming a source of bushfire ignition.

Activities undertaken to manage the risk of aerial consumer mains on bushfire prone private land

Table 19 details the activities undertaken to manage the risk of aerial consumer mains on bushfire prone private land. This is broken into performance measures describing activities relating to LV private lines and HVCs.

Table 19: B1 Aerial consumer mains on bushfire prone private land (HV and LV)

PERFORMANCE MEASURE	EVENT COUNT									
	1 October 2024 – 30 September 2025		1 October 2023 – 30 September 2024		1 October 2022 – 30 September 2023		1 October 2021 – 30 September 2022		1 October 2020 – 30 September 2021	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
LV private lines checked by the network operator	37,391	31,758	30,043	28,586	23,271	28,562	25,195	22,250	27,330	22,549
Number of directions for bushfire risk mitigation issued to LV customers by the network operator	N/A	2,151	N/A	1,529	N/A	1,439	N/A	1,460	N/A	1,266
Number of directions for bushfire risk mitigation issued to LV customers by the network operator that have exceeded the timeframe for rectification in the direction notice and remain unresolved	N/A	187	N/A	44	N/A	89	N/A	121	N/A	212
HV customers ²⁵ (metering point count) advised to	258	295	242	278	218	254	198	245	189	192

²⁵ For this section HV customers includes load and generator customers

PERFORMANCE MEASURE	EVENT COUNT									
	1 October 2024 – 30 September 2025		1 October 2023 – 30 September 2024		1 October 2022 – 30 September 2023		1 October 2021 – 30 September 2022		1 October 2020 – 30 September 2021	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
undertake pre-season bushfire checks in accordance with ISSC 31										
HV customers (metering point count) providing statements of compliance with ISSC 31	295	294	278	271	254	227	245	223	192	189
HV customers (metering point count) requiring additional risk mitigation prior to the start of the reporting year	N/A	1	N/A	7	N/A	27	N/A	22	N/A	3
HV customers (metering point count) where additional risk mitigation has been completed prior to start of the reporting year	N/A	1	N/A	6	N/A	27	N/A	22	N/A	3

The status of the 187 outstanding private LV tasks reported in row 3 of Table 19 is shown below. We actively manage the progress of these tasks up to and throughout the statutory Bushfire Danger Period.

Table 20: Outstanding private LV task status

STATUS	SUB-STATUS	COUNT OF TASKS
Awaiting Information	Completed - Paperwork Incomplete	12
	Council	4
	Depot Site Visit	11
Customer Support	Approved Support Arrangement	2
	Closed Support Assessment	1
Disused Asset	Sent To Customer	4
	Sent To Design	1
	Customer Request	2
In Progress	ASP And Date Confirmed	23
	ASP Engaged No Date	53
	Customer Called	32
	No ASP Engaged	33
Rectify & Recover	Essential Energy to Complete	8
Under Investigation	Customer Resolutions	1
	TOTAL	187

Bushfire inspections, vegetation and asset maintenance tasks

We undertake specific preparation activities ahead of the bushfire season. Tables 21 – 25 provide a summary of the leading indicators of bushfire preparedness ahead of the bushfire season. These indicators provide an insight into our preparations for the upcoming bushfire season and the discipline applied to the management of tasks that could impact the performance of the electricity network.

Table 21 describes the status of pre-summer bushfire inspections, predominately undertaken via aerial inspection methods and with inspection status as described in Table 14.

Table 21: B2 Pre-summer bushfire inspections

PRE-SUMMER BUSHFIRE INSPECTIONS	POPULATION (POLES)	TARGET	ACHIEVED	OUTSTANDING
Inspections	118,704	118,704	118,704	0

Table 22 describes the status of vegetation tasks as of 30 September 2024.

For Table 22 to Table 24 the following definitions apply:

- ▶ Identified – tasks that are identified through the Pre-Summer Bushfire Inspection program and other inspection programs in P1 bushfire risk priority areas;
- ▶ Achieved – identified tasks that have been completed;
- ▶ Open – identified tasks that are not yet complete, but are within the rectification timeframes for the task; and
- ▶ Outstanding – identified tasks that are not yet complete and exceed the rectification timeframes for the task. Tasks that have been identified through the Pre-Summer Bushfire Inspection program shall be completed prior to the commencement of the statutory Fire Danger Period.

Vegetation / asset task categorisation and bushfire risk priority area categorisation is used to prioritise vegetation / asset task completion to reduce the likelihood of vegetation contact with the network or asset failure. The commentary relating to the delivery and monitoring of the vegetation inspection and treatment program that accompanies Table 14 applies to delivery and monitoring of vegetation treatment tasks.



Figure 9: Powerlines and vegetation - balancing risk, cost, and amenity

Table 22: B3 Vegetation tasks

BUSHFIRE RISK PRIORITY CATEGORY	STATUS	ENCROACHMENT CLASSIFICATION				FALL IN RISK TREES ²⁶
		A1 ²⁷	A2 ²⁸	A3 ²⁹	A4 ³⁰	
P1	Identified	1,412	1,900	3,448	5,601	29
	Completed	878	1,246	2,080	3,609	26
	Open	531	637	1,256	1,738	2
	Outstanding	3	17	112	254	1

Table 23 shows the status of the vegetation tasks identified through the PSBI program. Note that this year’s PSBI program covered our previous and updated Bushfire Risk Priority Areas (refer Figure 7). All vegetation tasks identified through the PSBI program were treated similarly regardless of the reported Bushfire Risk Priority Area rating.

Table 23 Status of vegetation tasks identified through the PSBI program

BUSHFIRE RISK PRIORITY CATEGORY	PRE-SUMMER BUSHFIRE INSPECTION VEGETATION TASK STATUS			
	Identified	Achieved	Open	Outstanding
P1	383	367	0	16

Table 24 details the status of asset tasks identified through the Pre-summer Bushfire Inspection Program and other inspection programs as of 30 September 2025.

²⁶ Fall in risk trees are blow-in/fall-in vegetation hazards as defined in ISSC3

²⁷ A1 vegetation has encroached as far as 75-100% into the minimum vegetation clearances, as defined in *ISSC3 Guide for the Management of Vegetation in the Vicinity of Electricity Assets* (ISSC3)

²⁸ A2 vegetation has encroached as far as 50-75% into the minimum vegetation clearances, as defined in ISSC3

²⁹ A3 vegetation has encroached as far as 25-50% into the minimum vegetation clearances, as defined in ISSC3

³⁰ A4 vegetation has encroached as far as 0-25% into the minimum vegetation clearances, as defined in ISSC3

Table 24: B4 Asset tasks

BUSHFIRE RISK PRIORITY CATEGORY	STATUS	CAT 1 ³¹	CAT 2 ³²	CAT 3 ³³	CAT 3A ³⁴	CAT 4 ³⁵	TOTALS
P1	Identified	2,650	794	8,429	2,824	2,867	17,564
	Completed	2,598	728	6,890	2,462	3,533	16,211
	Open	-	31	2,931	2,838	11,821	17,603
	Outstanding	2	11	1,181	67	156	1,417
P2	Identified	7,353	1,665	17,048	6,064	6,647	38,777
	Completed	7,260	1,562	11,675	5,296	7,194	32,987
	Open	1	73	9,871	6,235	37,364	53,544
	Outstanding	2	14	2,124	261	700	3,101
P3	Identified	11,167	2,565	22,357	8,155	6,656	50,900
	Completed	11,030	2,461	17,137	7,951	4,173	42,752
	Open	1	91	12,881	8,977	48,482	70,432
	Outstanding	-	46	2,726	432	1,261	4,465
P4	Identified	6,131	1,620	13,907	5,943	2,909	30,510
	Completed	6,030	1,499	9,830	5,235	2,007	24,601
	Open	1	65	6,489	4,970	16,499	28,004
	Outstanding	-	32	1,239	303	824	2,398
Un-classified	Identified	197	71	812	143	184	1,407

³¹ CAT 1 (Emergency) task to rectify asset condition that presents an immediate risk to safety, should be rectified within 48 hours

³² CAT 2 (Urgent) task to rectify asset condition that is expected to deteriorate rapidly to present a risk to safety, should be rectified within 1 month

³³ CAT 3 (Risk – near term) task to rectify asset condition that is expected to deteriorate within the near term and present risk to safety, should be rectified within 9 months

³⁴ CAT 3A (Risk – medium term) task to rectify asset condition that is expected to deteriorate within the medium term, or tasks that present a low risk of failure, but present a high consequence of failure, should be rectified within 2 years

³⁵ CAT 4 (Condition assessment) tasks that present a low risk within the reassessment period (4.5 years)

BUSHFIRE RISK PRIORITY CATEGORY	STATUS	CAT 1 ³¹	CAT 2 ³²	CAT 3 ³³	CAT 3A ³⁴	CAT 4 ³⁵	TOTALS
	Completed	193	55	653	83	79	1,063
	Open	-	1	189	99	175	464
	Outstanding	-	1	47	2	10	60
Total	Identified	27,498	6,715	62,553	23,129	19,263	139,158
	Completed	27,111	6,305	46,185	21,027	16,986	117,614
	Open	3	261	32,323	23,119	114,341	170,047
	Outstanding	4	104	7,317	1,065	2,951	11,441

Table 25 shows the tasks that we identified through our PSBI program. These tasks are a subset of the tasks shown in Table 24. Note that identified tasks in this table may not sum to the values entered in completed, open and outstanding tasks cells due to tasks being cancelled.





Table 25: Status of asset tasks identified through PSBI program

BUSHFIRE RISK PRIORITY CATEGORY	STATUS	CAT 1	CAT 2	CAT 3	CAT 3A	CAT 4	TOTALS
P1	Identified	42	93	2,173	1	-	2,309
	Completed	37	86	1,811	1	-	1,935
	Open	-	-	1	-	-	1
	Outstanding	-	1	358	-	-	359
P2	Identified	1	3	57	-	-	61
	Completed	1	3	30	-	-	34
	Open	-	-	-	-	-	-
	Outstanding	-	-	24	-	-	24
P3	Identified	-	-	8	-	-	8
	Completed	-	-	-	-	-	-
	Open	-	-	-	-	-	-
	Outstanding	-	-	8	-	-	8
Total	Identified	43	96	2,238	1	-	2,378
	Completed	38	-	1,841	1	-	1,880
	Open	-	-	1	-	-	1
	Outstanding	-	1	390	-	-	391

This year the PSBI program experienced material delays from the outset due to inability to safely fly the targeted areas in a period of sustained storm weather that included two significant outlier events in January and March 2025. In January, severe storms impacted the Mid North Coast of New South Wales, resulting in considerable damage from heavy rainfall, flash flooding, and strong winds. Furthermore, in early March 2025, Ex-Tropical Cyclone Alfred affected Southeastern Queensland and Northeastern New South Wales with substantial flooding and intense winds.

Glossary of Terms

TERM	DEFINITION
AER	Australian Energy Regulator
AFAC	Australian and New Zealand Council for Fire and Emergency Services
ALARP	As Low As Reasonably Practicable
ASP	Accredited Service Providers
BOM	Bureau of Meteorology
BPT	Bushfire Priority Zone Transition
BSP	Bulk Supply Point
CLM	Contaminated Land Management
DNISP	Distribution Network Service Provider
EAM	Enterprise Asset Management
EFD	Early Fault Detection
EMS	Environmental Management System
ENA	Energy Networks Australia
ENO	Electricity Network Operators
ENSMS	Electricity Network Safety Management System
EWP	Elevated Work Platform
FSA	Formal Safety Assessment
HAMS	Heritage Asset Management Strategy
HV	High-voltage
HVCs	High Voltage Customers
ICR	Incident Classification Rating
IPART	Independent Pricing and Regulatory Tribunal
LV	Low-voltage
MAAV	Mobile Asset Assessment Vehicle
MED	Major Event Day
NHRA	Natural Hazards Research Australia
OH Network	Overhead Network
PCBU	Person Conducting a Business or Undertaking
PESAP	Public Electrical Safety Awareness Plan
PSBI	Pre-Summer Bushfire Inspections
PSTP	Public Safety Treatment Plan
PSWG	Public Safety Working Group
REF	Review of Environmental Factors
RFS	Rural Fire Service
SAIDI	System Average Interruption Duration Index
SAPS	Standalone Power System
SCADA	Supervisory Control and Data Acquisition
SDS	Safety Data Sheet
SFAIRP	So Far As Is Reasonably Practicable
SiD	Safety in Design
SWER	Single-wire Earth Return
UG Network	Underground Network
VMA	Vegetation Management Areas
ZS	Zone Substation

-  essential-energy
-  EssentialEnergyAU
-  essential_au
-  essentialenergytv

essentialenergy.com.au

