Bushfire Mitigation Plan

UE-PL-0009

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1.1	Refer to Appendix H for detailed list of amendments in this revision to include any additional feedback from the Powercor approved BMP v11.2 dated 15 September 2025 and CitiPower BMP evaluation that may also be applied across the UE BMP.	Trevor Fisher Bushfire Mitigation Manager Dated: Oct 3, 2025 David Matassoni Network Management Systems and Bushfire Mitigation Manager Dated: Oct 3, 2025
2	Updated to respond to Energy Safe BMP evaluation received 29 July 2026 and 6 October 2026. Refer to Appendix H for detailed list of amendments in this revision. ***New and/or updated requirements are to be applied immediately from the date of publication***	David Matassoni Network Management Systems and Bushfire Mitigation Manager David Matassoni (Oct 19, 2026 11:44:44 GMT+11) Oct 19, 2026

- Any proposed change to this document, regardless of its materiality, must be submitted to Energy Safe for acceptance prior to it being formally internally approved and implemented.

- Provisional internal approval must be obtained before submitting to Energy Safe.

- Energy Safe acceptance of proposed changes must be coordinated via the Network Risk and Assurance Manager.

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1. Plan Introduction

1.1 Contacts

Table 1: Contacts

Responsibility	Title	Address	Contact Details
BMP Responsible Organisation	United Energy Distribution Pty Ltd ACN 064 651 029	40 Market Street Melbourne, 3000 Victoria	Phone: 1300 131 689
BMP Preparation	Network Risk and Assurance Manager	40 Market Street Melbourne, 3000 Victoria	Phone: 1300 131 689 United Energy | Home esv.ue.correspondence@ue.com.au
BMP Carrying Out	Network Risk and Assurance Manager	40 Market Street Melbourne, 3000 Victoria	Phone: 1300 131 689 United Energy | Home esv.ue.correspondence@ue.com.au
BMP Emergency Contact			Phone: 13 20 99 (24 x 7 emergencies and faults contact number for members of the public) There is no email address for the Network Control Centre (NCC)

1.2 Regulation Compliance Information

Table 2 provides a cross reference of the sections of the United Energy Bushfire Mitigation Plan (BMP), to the specific items required in Regulation 7 of the *Electricity Safety (Bushfire Mitigation) Regulations 2023*.

Table 2: Regulation Compliance Information

Regulation	7 – Prescribed particulars for bushfire mitigation plans – major electricity companies.	United Energy Plan Reference
7(1)(a)	the name, address and telephone number of the major electricity company;	Section 1.1
7(1)(b)	the position, address, email address and telephone number of the person who was responsible for the preparation of the plan;	Section 1.1
7(1)(c)	the position, address, email address and telephone number of the persons who are responsible for carrying out the plan;	Section 1.1
7(1)(d)	the email address (if any) and telephone number of the major electricity company's control room so that persons in the room can be contacted in an emergency that requires action by the major electricity company to mitigate the danger of bushfire;	Section 1.1
7(1)(e)	the telephone number of the major electricity company that members of the public can call in an emergency that requires action by the major electricity company to mitigate the danger of bushfire;	Section 1.1
7(1)(f)	the bushfire mitigation policy of the major electricity company to minimise the risk of fire ignition from its supply network;	Section 3.1

Regulation	7 – Prescribed particulars for bushfire mitigation plans – major electricity companies.	United Energy Plan Reference
7(1)(g)	the objectives of the plan to achieve the mitigation of fire danger arising from the major electricity company's supply network;	Section 3.2
7(1)(h)	a description, map or plan of the land to which the bushfire mitigation plan applies;	Sections 2.2 & 4.2
7(1)(i)	the preventative strategies and programs to be adopted by the major electricity company to minimise the risk of the major electricity company's supply networks starting fires;	Section 6 At the time of writing, there are no directions issued to United Energy under s141 of the *Electricity Safety Act 1998*
7(1)(j)	details of the preventative strategies and programs referred to in paragraph (i) (including details in relation to timing and location) by which the major electricity company will ensure that, in its supply network, each polyphase electric line originating from every zone substation specified in Schedule 1 has the required capacity;	Not Applicable – there are no mandated Rapid Earth Fault Current Limiters (REFCLs) located in United Energy
7(1)(k)	details of testing that will be undertaken before the specified bushfire risk period each year by which the major electricity company will ensure that its supply network can operate to meet the required capacity in relation to each polyphase electric line in accordance with paragraph (j);	Not Applicable – there are no mandated Rapid Earth Fault Current Limiters (REFCLs) located in United Energy
7(1)(l)	details of the preventative strategies and programs referred to in paragraph (i) (including details in relation to timing and location) by which the major electricity company will ensure that, within an electric line construction area, each electric line with a nominal voltage of between 1 kV and 22 kV that is constructed, or is wholly or substantially replaced, in its supply network is a covered or underground electric line;	Not Applicable - there are no Electric Line Construction Areas (ELCA) in United Energy
7(1)(m)	details of the preventative strategies and programs referred to in paragraph (i) by which the major electricity company will ensure that, in its supply network, each low voltage overhead electrical cable or wire that is constructed after the commencement of these Regulations in a hazardous bushfire risk area is insulated;	Section 6.7
7(1)(n)	details of the processes and procedures by which the major electricity company will ensure that the major electricity company installs and maintains in operation an Automatic Circuit Recloser in relation to each SWER line in its supply network;	Section 6.6
7(1)(o)	a plan for inspection that ensures that: i) the parts of the major electricity company's supply network in hazardous bushfire risk areas are inspected at intervals not exceeding 37 months from the date of the previous inspection. ii) the parts of the major electricity company's supply network in other areas are inspected at specified intervals not exceeding 61 months from the date of the previous inspection.	Section 6.2
7(1)(p)	details of the processes and procedures for ensuring that each person who is assigned to carry out inspections referred to in paragraph (o) and of private electric lines i) has satisfactorily completed a training course approved by Energy Safe Victoria; and	Section 6.9

Regulation	7 – Prescribed particulars for bushfire mitigation plans – major electricity companies.	United Energy Plan Reference
	ii) is competent to carry out such inspections;	
7(1)(q)	details of the processes and procedures for ensuring that persons (other than persons referred to in paragraph (p)) who carry out or will carry out functions under the plan are competent to do so;	Section 6.11
7(1)(r)	the operation and maintenance plans for the major electricity company's supply network: i) in the event of a fire ii) during a total fire ban day iii) during a fire danger period	Section 6.13 To Section 6.18
7(1)(s)	the investigations, analysis and methodology to be adopted by the major electricity company for the mitigation of the risk of fire ignition from its supply network;	Section 6.1 Section 8 Section 9.2 Section 9.3
7(1)(t)	details of the processes and procedures by which the major electricity company will; i) monitor the implementation of the bushfire mitigation plan; and ii) audit the implementation of the plan; and iii) identify any deficiencies in the plan or the plan's implementation; and iv) change the plan and the plan's implementation to rectify any deficiencies identified under subparagraph (iii) v) monitor the effectiveness of inspections carried out under the plan; and vi) audit the effectiveness of inspections carried out under the plan; and vii) before the specified bushfire risk period each year, report to Energy Safe Victoria the results of testing undertaken in that year in accordance with regulation (k);	Section 5, Section 10.1 Section 10.2 Section 5, Section 6.1, Section 8, Section 9.2, Section 9.3, Section 11 Section 5, Section 6.1, Section 8, Section 9.2, Section 9.3, Section 11 Section 5, Section 10.1 Section 10.2 Not Applicable – there are no mandated Rapid Earth Fault Current Limiters (REFCLs) located in United Energy
7(1)(u)	the policy of the major electricity company in relation to the assistance to be provided to fire control authorities in the investigation of fires near the major electricity company's supply network;	Section 6.15
7(1)(v)	details of processes and procedures for enhancing public awareness of; i) the responsibilities of the owners of private electric lines that are above the surface of the land in relation to maintenance and mitigation of bushfire danger; and ii) the obligation of the major electricity company to inspect private electric lines that are above the surface of the land within its distribution area.	Section 6.14 Section 6.9
7(1)(w)	a description of the measures to be used to assess the performance of the major electricity company under the plan.	Section 9
7(2)	In sub regulation (1)(l), covered, in relation to an electric line, means that a system of insulation is installed on any bare open wire forming part of the electric line.	Not Applicable- there are no Electric Line Construction Areas (ELCA) in United Energy

Regulation	7 – Prescribed particulars for bushfire mitigation plans – major electricity companies.	United Energy Plan Reference
7(3)	In sub regulation (1)(m)— electrical cable or wire means the whole or any part of a cable, wire or similar thing used or to be used for the purpose of transmitting, distributing or supplying electricity, but does not include— i) anything enclosing or supporting the cable, wire or similar thing; or ii) a cable, wire or similar thing directly used in converting electrical energy into another form of energy. *Insulated*, in relation to an electrical cable or wire, means an electrical cable or wire that is separated from any adjoining conductive material by a permanently affixed protective layer of non-conductive material.	Section 6.7
7(4)	In sub regulation (1)(o), supply network does not include a terminal station, a zone substation or any part of the major electricity company's underground supply network that is below the surface of the land.	Section 6.2.2
15 Exemptions	Energy Safe Victoria may, in writing, exempt a major electricity company from any requirements of these Regulations. An exemption under subdelegation (1) may specify conditions to which the exemption is subject	United Energy confirm there are no exemptions and conditions of exemptions from any of the requirements of the regulations.

Where amendments to the BMP are required by the *Electricity Safety Act 1998*, a revised BMP will be submitted to Energy Safe for acceptance.

1.3 Referenced Documents

All Incorporated Documents listed in Appendix E form part of the BMP. All other documents referenced throughout this Plan including the documents referenced in the Incorporated Documents, do not form part of this BMP.

2. Introduction

2.1 Legislation

Section 113A (1) of the *Electricity Safety Act 1998* requires that a major electricity company must prepare and submit to Energy Safe Victoria (Energy Safe) a plan every 5 years for the mitigation of bushfire in relation to the company's supply network.

In accordance with the *Electricity Safety (Bushfire Mitigation) Regulations 2023* this BMP provides the prescribed particulars as specified in Regulation 7.

A copy of the current accepted bushfire mitigation plan will be available for inspection:

a) on the company's intranet site

b) at the company's principal office in the State during ordinary business hours

c) on the company's website.

2.2 United Energy

The United Energy Distribution Pty Ltd (United Energy) network supplies electricity to customers in Melbourne's southeast and the Mornington Peninsula being the area described as part of the *Essential Services Commission (ESC)* licence dated 19 June 2025 and shown in Figure 1. Statistics regarding the United Energy distribution network are shown in Table 3.

Table 3: United Energy Distribution Network Statistics

Attribute	Statistic
Network area	1,472 Km^2
Length of overhead lines	9,997 km
Length of underground lines	3,557 km
Number of poles (all poles)	202,667
Number of zone substation transformers	116
Number of distribution substation transformers	14,384
Total number of customers	720,154
Customer density	489 customers per km^2
Network availability	99.99%



Figure 1: United Energy Distribution Area

3. Bushfire Mitigation Policy & Objectives

3.1 Bushfire Mitigation Policy

In accordance with the Bushfire Mitigation Policy (PO-0003) (refer Appendix F), United Energy (UE) is committed to providing our customers with safe, reliable, and affordable electricity network services through the application of an effective asset management framework. We are committed to bushfire mitigation activities and making our communities safer. Therefore, we design, construct, commission, operate, maintain, and decommission the network to minimise As Far As Practicable (AFAP) the bushfire danger arising from the supply network.

3.2 Objectives

The objectives of this BMP are to:

- Minimise the risk of fire starts from electrical assets.
- Achieve compliance with the relevant legislative and regulatory requirements while providing flexibility within the business to encourage innovation, continuous improvement, and the effective use of resources
- Define United Energy's approach to the management of the risk of bushfires caused by electricity assets
- Reference the policies and procedures that explain how United Energy achieves the commitments in the BMP in a single document
- Demonstrate a high level of commitment to meeting bushfire mitigation responsibilities
- Monitor and maintain the condition of the supply network considering developments in technical knowledge or the assessment of hazards.

4. Document Scope

4.1 Bushfire Mitigation Framework

United Energy's bushfire mitigation framework is shown in Figure 2 and demonstrates a comprehensive and whole of business approach to what is the biggest risk in the business. The proactive planning and scheduling of this program is based principally on a whole of asset life approach that includes design, construction, commissioning, operation, maintenance and decommissioning. The annual governance systems of vegetation, asset inspection and maintenance activities are supported by a regime of reporting and auditing.

The continuous improvement elements encompass a large body of proactive capital works, trialling and adoption of new technologies, and our response to audit outcomes.

The response aspects of the Plan include our operational processes to faults and Total Fire Ban (TFB) days, asset failure investigations, and fire start reporting.

The framework also has a significant aspect of proactive stakeholder management, including overhead Private Electric Lines (PEL) owners, Councils (vegetation management), other agencies, specific community messaging and our ongoing interface with customers.

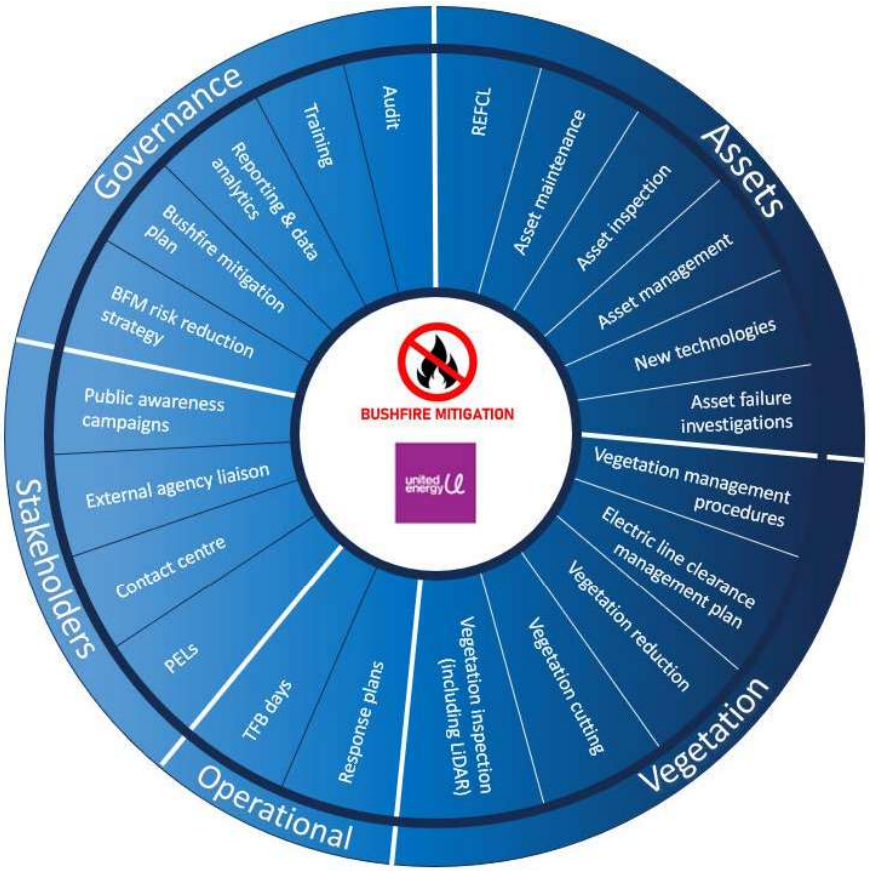

Figure 2: Bushfire Mitigation Framework

This BMP applies to assets across United Energy's supply network that could ignite a fire. Since electricity networks were first constructed, they have presented a potential source of fire ignition. As a result, extensive investigation has been undertaken, and continues, to identify causes and support preventative action.

This BMP forms part of the United Energy Electricity Safety Management Scheme (ESMS) (STR-0010) pursuant to section 113D of the Electricity Safety Act.

4.2 Electrical Network Map

The United Energy HV overhead network is shown in Figure 3 and is colour coded as follows:

66kV Sub-transmission Lines
22kV 3 Phase and 1 Phase Lines
6.6 or 11kV 3 Phase Lines
12.7kV SWER Lines

To maintain clarity, the LV overhead network has not been shown. Full network details are available from United Energy's Geographical Information System (GIS).

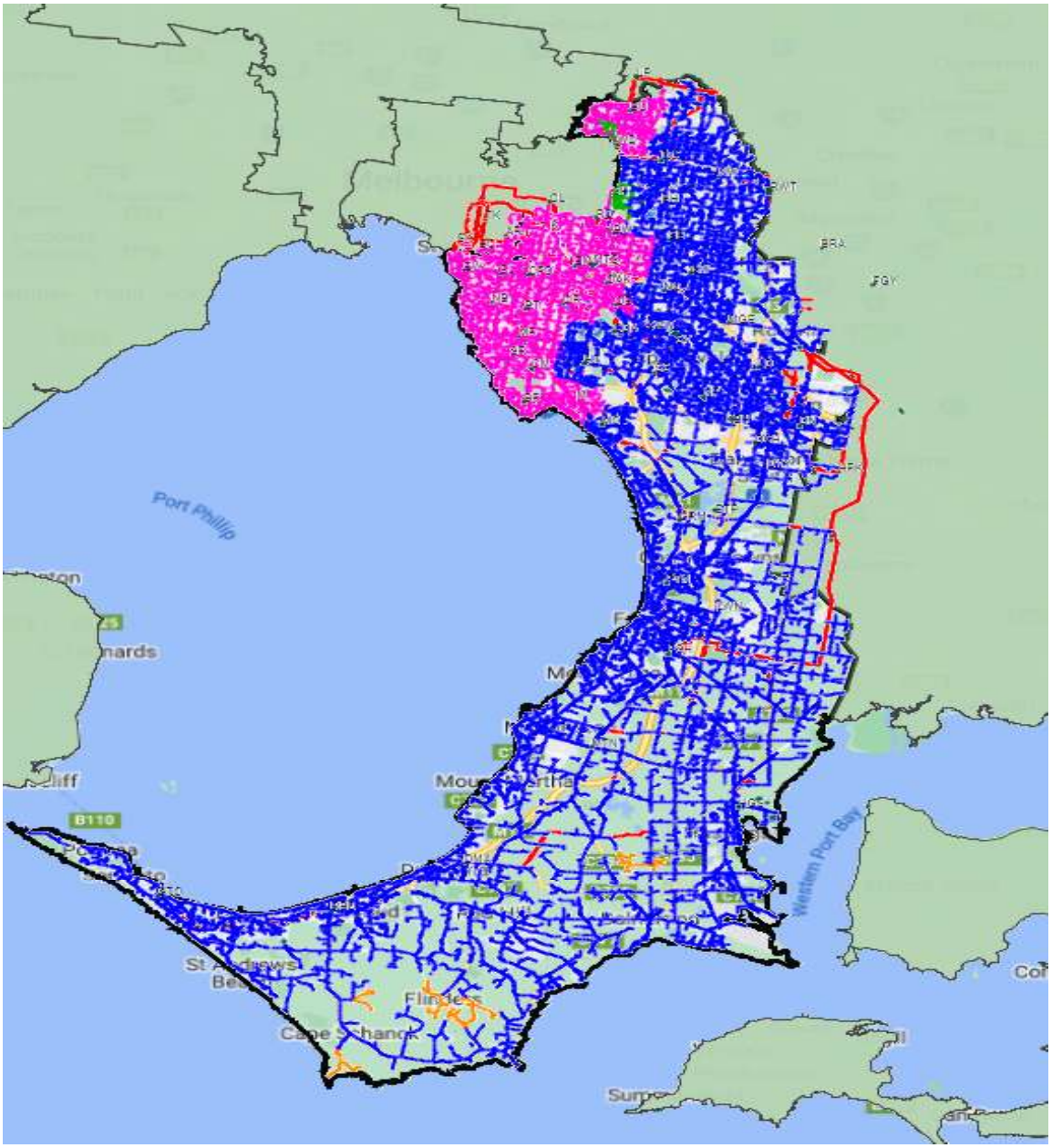

Figure 3: United Energy Overhead Network

4.3 Bushfire Risk Areas

The bushfire risk areas in United Energy's operating region are shown in Figure 4. These areas are updated as part of the Country Fire Authority (CFA) Fire Hazard Mapping Project and will change as areas are reviewed by the CFA across the state.

Approximately 9% of United Energy assets are located in Hazardous Bushfire Risk Areas (HBRA) based on pole population.

United Energy's Low Bushfire Risk Area (LBRA) supply network is considered lower risk for fire ignition leading to bushfire, as assessed by the CFA, because it is largely limited to irrigated land and built-up towns with small, well-maintained blocks and insufficient ground fuel to sustain a fire. Additional bushfire mitigation controls have however been implemented for the United Energy's HBRA supply network.

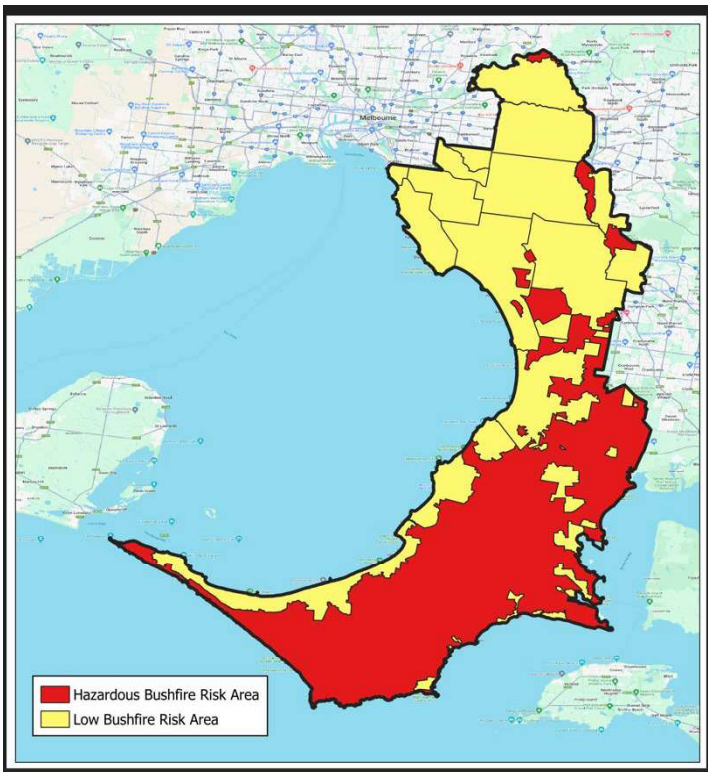

Figure 4: Bushfire Risk Areas

5. Management Structure

The implementation and control of Bushfire Mitigation (BFM) related activities are discharged via many roles throughout United Energy. Each role has a position description which lists the key activities. The carrying out of bushfire related activities contained within this Plan is overseen by the Network Risk and Assurance Manager.

The Bushfire Mitigation Committee provides governance and oversight of the systems and activities undertaken by United Energy in achieving its key commitments to reducing the bushfire risk as far as practicable. The Committee:

- Reviews LBRA and HBRA fire start network performance and bushfire incidents
- Monitors delivery of bushfire risk critical control reviews
- Reviews bushfire mitigation assurance findings and actions
- Reviews performance of LBRA and HBRA asset inspection, maintenance and vegetation management activities
- Monitors delivery of key risk reduction improvement initiatives and proactive asset replacement programs
- Identifies improvement opportunities
- Ensures that developments having a relevance to fire risk reduction are adequately supported.

The Committee management structure consists of key executive and line management, and business representatives who, as part of their responsibilities, have a significant role in outworking the various bushfire mitigation functions and key activities. Refer to Sections 10 and 11 for further information relating to the committee's governance and oversight of bushfire mitigation reporting, monitoring and review.

6. Bushfire Mitigation Strategies and Programs

United Energy has developed policies, strategies, frameworks, plans, procedures, and work instructions to support its bushfire mitigation activities. These are described in the following sections.

6.1 Fire Start Performance Summary

United Energy's network performance for ground and asset related fire ignitions has remained relatively consistent for the past 5-years, as shown in Figure 5. In the 2-years prior to 2026, United Energy has seen an increase in the number of reported fire ignition incidents predominantly associated with the assets referred to below.

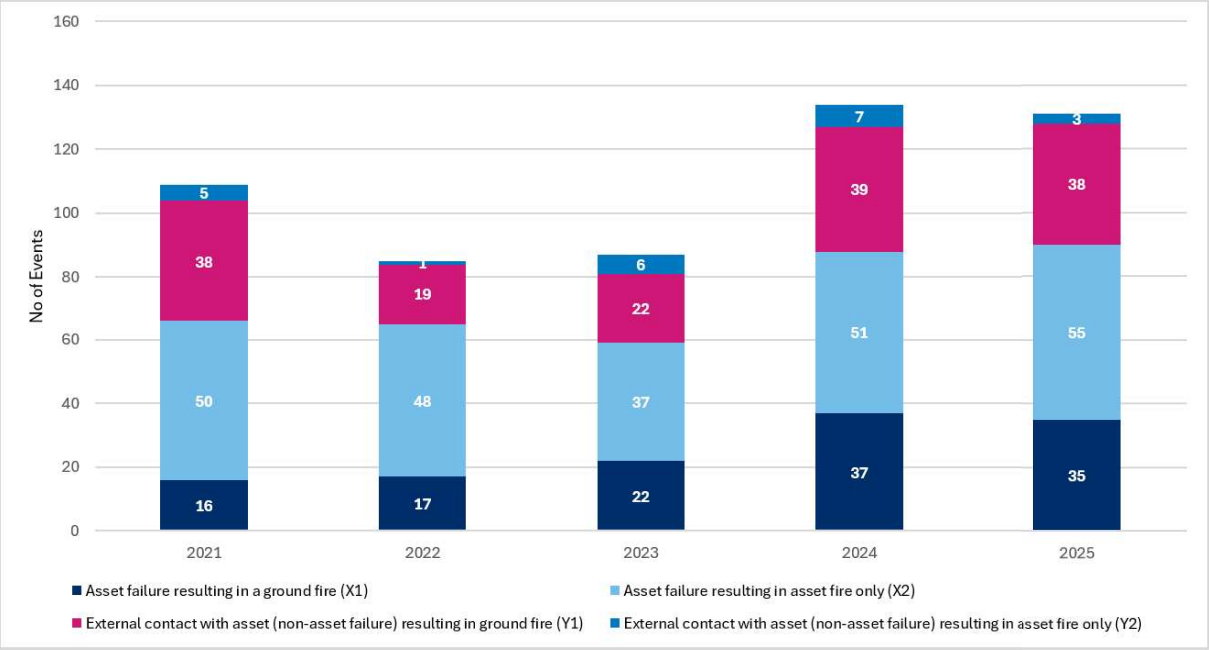

Figure 5: Ground and asset fire performance

United Energy's top four asset failure categories causing ground and asset fire ignition are shown in Figure 6 include:

- Pole top structures - crossarm (leakage) and LV FOLCBs
- Overhead conductor and connections (specifically connections)
- Poles / Towers - leakage
- LV service lines.

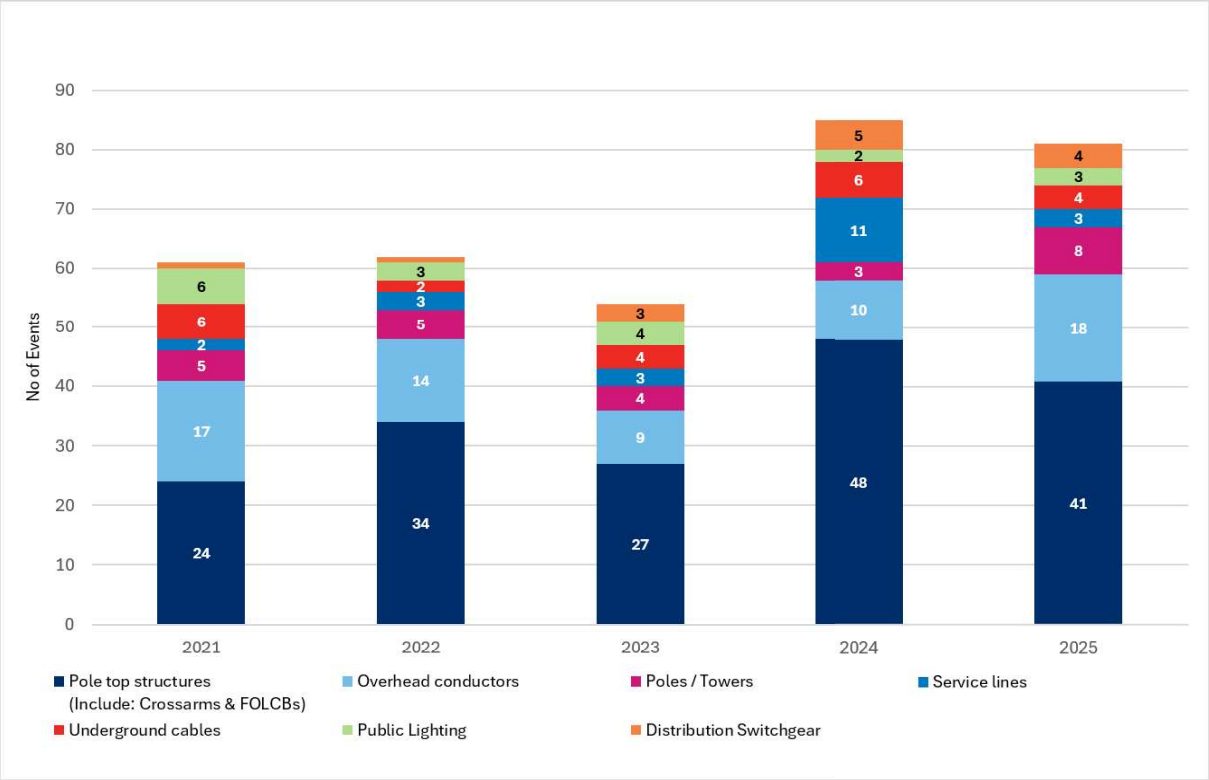

Figure 6: Top 7 asset categories for ground and asset fire start events

For each of the four leading asset categories, the AFAP assessments undertaken by United Energy in 2026 concluded that the benefit of implementing a proactive program would be disproportionate to the level of risk reduction achieved. Accordingly, United Energy has not identified any preventative strategies and programs for these categories.

United Energy will continue to rely on its inspection and maintenance procedures as the key controls for condition monitoring, inspection, assessment and replacement of assets to optimise asset performance.

In relation to fire ignition performance arising from external contact (refer Figure 7), the contributing factors consist of:

- Vegetation (United Energy and Council) blow in / outside clearance space being the majority
- Vehicle / Plant / Equipment (third party) contacts
- Wildlife.

United Energy have the following controls in place to mitigate fire ignition from these causes:

- Vegetation Management – inspection and cutting programs
- Look up and live/ No Go Zone procedures
- Asset design and maintenance procedures.

United Energy will continue to monitor and assess network performance for fire ignitions and will take action where it is determined to be practicable to do so.

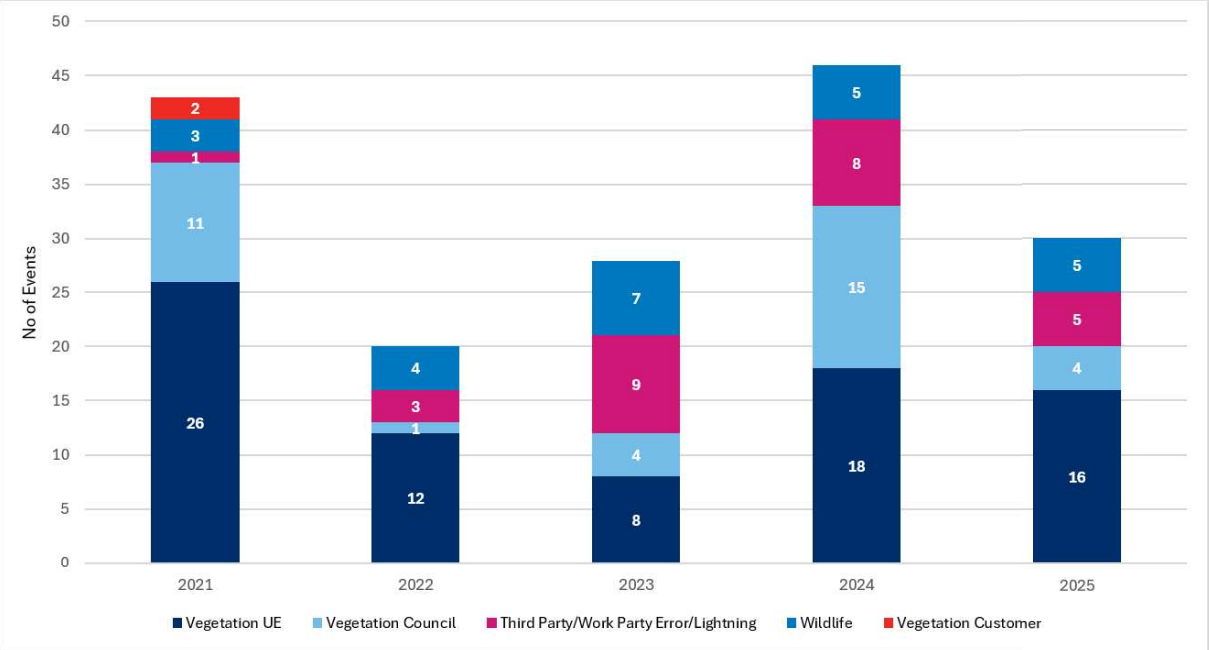

Figure 7: External contacts resulting in fire ignition

6.2 Monitoring Asset Condition

Preventative maintenance strategies have been created for the United Energy supply network assets consisting of asset management plans and maintenance procedures. These plans and procedures were developed from Reliability Centred Maintenance (RCM) methodologies and involve undertaking on-condition tasks based on a program of condition monitoring of the supply network assets. The RCM rules are configured in United Energy's Asset Management System, SAP, which automatically generates time-based work orders for inspection and maintenance planning.

Operational documents for developing, reviewing and implementing asset management plans and maintenance procedures are set out in:

- Developing, Updating or Retiring an Asset Management Plan (PR-0009). This procedure outlines the process/actions to be followed when an Asset Management Plan (AMP) or Maintenance Procedure related to electrical network assets is reviewed or a new AMP or Maintenance Procedure is developed.
- Electricity Safety Management Scheme (STR-0010).

These documents outline how United Energy identifies needs, develops and manages policies and provides a systematic process through the identification of strategic, operational and program/project level risks to:

- determine accountability for risks
- provide an assessment of controls and the control environment
- analyse and evaluate risks
- manage the risks to AFAP levels.

The inspection and assessment of the condition of all parts of the supply network assets are included in the scope of the inspection as described in Section 6.2.1and 6.2.2, excluding terminal stations, zone substations and parts of the underground supply network that are below ground level. The Asset Inspection Manual (UE-MA-2003) documents the measurements and records that will be taken to assess the asset condition. Identified defects shall be assigned the designated defect priority and rectified as detailed within the Asset Inspection Manual (UE-MA-2003).

The Maintenance Procedure - Poles and Towers (PR-5062.01) [ID] details the scheduled inspection and maintenance required for poles and towers to ensure all assets are inspected on the supply network at least every 37 or 61-months. This procedure includes the process to manage the inspection of poles and towers where the asset is inaccessible during its inspection cycle, until the full inspection is completed for compliance.

United Energy will inspect and maintain the supply network assets it owns that are shared with other major electricity companies in accordance with this Plan. United Energy will also inspect and maintain its supply network assets located on third-party owned infrastructure in accordance with this Plan.

For supply network assets located within terminal stations and zone substations, United Energy will maintain asset management plans and maintenance procedures for each asset class. These plans and procedures will specify the

inspection and maintenance requirements for preventative and condition-based inspection, assessment and maintenance activities, including the applicable inspection intervals.

United Energy will inform Energy Safe, on a quarterly basis, of any proposed changes to maintenance documents referenced within the BMP that have an effect on the way United Energy manages its BFM activities. Should any proposed changes result in a need to update the BMP, a revised BMP will be submitted to Energy Safe for review and acceptance as described in Section 11.

6.2.1 Pole and Tower Inspection

Pole and Tower inspection is carried out in a dedicated program conducted over the cycles (referred to as cyclic inspections) described in Table 4.

Table 4: Asset Inspection Cycle

Asset Type	Type of Inspection	Inspection Frequency		
		LBRA	HBRA	Tolerance
All Serviceable poles	Full inspection	5 years	3 years	+ one month
Limited Life poles	Full inspection	1 year	1 year	+ one month
Towers	Full Inspection	5 years	3 years	+ one month
	Detailed Above Ground Inspection	5 years	5 years	+ one month
PELs	Full Inspection	5 years	3 years	+ one month

Poles

A full inspection (including inspection of above-ground assets) undertaken by asset inspectors on site, shall include the inspection of electrical assets between poles and/or other structures to include these key activities:

- assessment of pole condition from ground level to two metres above
- visual assessment of pole condition from two metres above ground level to the top of the pole using binoculars
- an aerial view of the top face of all wooden crossarms is undertaken using a pole-cam or drone to assess the crossarm condition. Other associated defects that are clearly visible in the photograph will also be identified and reported
- assessment of pole condition below ground level
- identifying wood destroying insects
- undertaking of preservative treatment of hardwood poles
- assessment of the surrounding area for safety issues.

Towers

A full inspection (including inspection of above-ground assets) undertaken by asset inspectors on site, shall include the inspection of electrical assets between towers and/or other structures to include these key activities:

- visual assessment of all components of a tower and its attachments from ground level to the top of the tower
- assessment of tower footing condition below ground.

A detailed above ground inspection will include a close-range detailed inspection and assessment undertaken by a suitably qualified line worker climbing the tower. The inspection will include all above ground components of the tower and its attachments, footings and the completion of a condition assessment report.

Further information relating to the full inspection of poles and towers is defined within the Maintenance Procedure - Poles and Towers (PR-5062.01) [ID].

Operational instructions for inspecting, testing and assessing assets shall be undertaken in accordance with the Asset Inspection Manual (UE-MA-2003). This manual describes the various types of electrical assets and the observations or tests necessary to identify and assess their condition. It also gives a detailed description of items that need to be identified for replacement or repair. The manual sets out criteria for categorising the priority for remedial maintenance actions, and the reporting and information recording requirements.

Operational instructions for the inspection of poles and towers located in inaccessible locations will be undertaken in accordance with Management of Notifications & Asset Risk (UE-PR-0266). This procedure allows for a risk assessment to be undertaken if the asset is not accessible. The risk assessment will consider when access is expected to become available for the inspection and a workflow for the inspection to be completed.

The maintenance team will prepare the asset inspection program using the inspection notifications established within SAP and will monitor the performance of the contractor in adhering to the delivery of the inspection program. Each maintenance plan covers all the poles and towers within a specific electrically isolatable section of the supply network. The Inspection & Maintenance Plan (UE-PL-5001) outlines the process that United Energy will undertake to manage the delivery of the inspection and maintenance activities.

6.2.2 Above Ground Asset Inspection

In addition to the inspection of poles and towers, other above ground assets are also inspected as described in Table 5. The Asset Inspection Manual (UE-MA-2003) details all relevant work instructions except for indoor substations and the testing of Single Wire Earth Return (SWER) earths which is detailed in the Maintenance Procedure Distribution Transformers (UE-PR-5071.01) and the Asset Management Plan Earthing Systems (UE-PL-5078) respectively. Identified defects are assigned repair priorities as detailed within the Asset Inspection Manual (UE-MA-2003).

Table 5: Other Above Ground Asset Inspection Cycles

Asset Type	Inspection Timeframes	
	HBRA	LBRA
Pole type substations and switchgear Pole type substations are visually inspected for condition and ground clearances. Clearances are visually assessed and measured where required with an approved device. Pole mounted switchgear are visually inspected.	3 years (+ one month)	5 years (+ one month)
LV services LV services are visually inspected for condition using stabilised binoculars. Clearances are visually assessed and measured where required with an approved device.	3 years (+ one month)	5 years (+ one month)
Conductors Conductors and associated hardware (such as spreaders and spacers) are visually inspected for condition using stabilised binoculars. Clearances are visually assessed and measured where required with an approved device.	3 years (+ one month)	5 years (+ one month)
LV pillars and cabinets LV pillars & LV cabinets are visually inspected for condition, safety and security.	3 years (+ one month)	5 years (+ one month)
Substation and Switching stations - Property maintenance inspection Ground Type, Indoor, and Kiosk substations and HV switching stations are visually inspected for condition. including hot spot, oil and gas level checks.	6 months	6 months
Substation and Switching stations - Electrical inspection Ground Type, Indoor, and Kiosk substations and HV switching stations are visually inspected by the completion of inspection tasks to identify defects of all electrical assets by a competent authorised electrically trained person.	3 years (+ three month)	5 years (+ three month)
SWER Earths Single Wire Earth Return (SWER) earthing systems subject to routine testing to assess earthing integrity include: • **isolating substations** • **distribution substations.**	2 years 6 years	Not Applicable – there are no SWER systems in United Energy LBRA

Asset Type	Inspection Timeframes	
	HBRA	LBRA
Pole top assemblies Pole top assemblies are inspected for condition from the ground using stabilised binoculars as well as an elevated camera where required. The inspection extends from ground line to the pole top and includes assessment of all pole top assets including conductors, insulators, cross-arms and attachments; pole mounted plant and equipment; earthing systems and covers; underground cable and cover guards; public lighting etc.	3 years (+ one month)	5 years (+ one month)

6.2.3 Notification Reassessment

Where a defect notification is at risk of not being completed by its required compliance due date, the maintenance team shall undertake a formal notification reassessment. The reassessment shall determine whether the defect risk remains acceptable and whether a revised rectification date can be approved, having regard to network safety and fire start risks.

The reassessment shall be completed in accordance with Management of Notifications & Asset Risk (UE-PR-0266). Requests for an extension of time shall be assessed by the Maintenance Team as follows:

- Unserviceable poles: an on-site re-inspection shall be completed by a United Energy accredited asset inspector.
- Other pole-top defects: a desktop assessment shall be completed by the Maintenance team, incorporating a review of recent photographic evidence.

Following completion of the reassessment, the relevant defect notification attributes, including the priority rating and scheduled completion date, shall be updated in SAP.

6.2.4 Resistograph Non-Destructive Wood Pole Inspection

In July 2024, United Energy implemented the resistograph (RESI) drill to replace the traditional intrusive drilling (13mm drill) used in the current sound, dig and drill (SDD) method as part of the normal wood pole cyclic full inspection testing to assess wood pole condition.

The RESI drill works as a resistograph to measure timber resistance from wood poles to detect rot and decay in determining the sound wood thickness of the outer timber.

For wood poles, where the serviceability condition has been assessed as unserviceable following the full inspection (sound, dig and drill), using the RESI drill (alternative to WoodScan), an additional condition-based assessment using the 4-point method is undertaken to confirm the veracity of the serviceability assessment.

The 4-point methodology requires the inspection and measurement at 4 locations 90° apart (2 additional locations to the 2-point methodology completed on all poles) and using the average of the 4 measurements to calculate the section modulus of the pole.

This additional test will not alter the assessed unserviceable condition of the pole but will support confirming the priority rating and timeframe to replace or reinforce the pole.

Operational instructions for the use of the RESI drill to determine the condition assessment of assets are contained in the Asset Inspection Manual (UE-MA-2003).

6.2.5 LiDAR Conductor Clearance Inspections

In line with the annual aerial Light Detection and Ranging (LiDAR) inspection surveys, United Energy has leveraged remote sensing and software tools to generate a 3D digital model of assets and the surrounding environment data to identify potential conductor clearance breaches as described in the Maintenance Procedure – Conductors Aerial Line Clearances (PR-5064.02).

The LiDAR methodology and approach is used to assess overhead conductor clearances at the pole or in-span to ensure minimum clearances are maintained for the following scenarios:

- Conductor to Ground clearances
- Pole Top and Midspan Circuit to Circuit Clearances
- Pole Top and Midspan Phase-to-Phase Clearances
- HV/Sub-transmission Phase-to-phase Clearances on all T-on, T-off and two-way T-offs.

The LiDAR excludes capturing conductor clearances from buildings and structures.

As the use of LiDAR technology for determining potential conductor clearance breaches is in its early days of maturity, the LiDAR methodology will be used to complement the existing United Energy cyclic ground-based inspections by asset inspectors for identification of potential conductor clearance defects.

6.2.6 Thermal Imaging

Thermal imaging technology is used to assist identify assets exhibiting elevated temperatures or causing leakage currents. The adoption of this technology can assist in preventing asset failures which could result in a fire start.

The thermographic inspection program includes inspection of zone substations (ZSS), all sub-transmission lines, selected sections of distribution overhead HV feeders (from ZSS up to 6 km of the feeder backbone line) and distribution plant at intervals detailed in Table 6. Any LV network assets attached to the distribution overhead HV feeders or distribution plant being inspected will also undergo thermographic inspection.

Table 6: Thermographic inspection program intervals

Asset Description (criteria)	Interval	
	HBRA	LBRA
Distribution overhead HV feeders: • 80% of Feeder Capacity • ≥ 2,500 customers • Dedicated Commercial / Industrial Feeders • Critical customers[1]	12-monthly	12-monthly
Sub-transmission lines Feeders with an average fault history of > 3-faults/annum	3-yearly	3-yearly
All other distribution overhead HV feeders	5-yearly	5-yearly
Indoor/Kiosk/Ground Distribution substations (hot spot check)	6-monthly	6-monthly
Zone substation (phase and earth connections)	Yearly	Yearly

[1] Note - the list of feeders with critical customers is provided by the Network Planning team.

Thermal imaging is undertaken using vehicle or aerial mounted equipment for overhead network assets whilst hand-held devices are used within indoor substations.

Operational procedures for conducting thermal imaging inspections are contained within the Maintenance Procedure – Distribution Thermographic Inspection (UE-PR-5060.01) and the Maintenance Procedure – Zone Substation Thermographic Inspection (UE-PR-5060.04). Procedures for prioritising defects identified through thermal imaging are contained within the Maintenance Procedure – Distribution Thermographic Inspection (UE-PR-5060.01), the Maintenance Procedure – Zone Substation Thermographic Inspection (UE-PR-5060.04) and the Asset Inspection Manual (UE-MA-2003).

6.2.7 Conductor condition assessment

In February 2026, United Energy introduced a new HV conductor inspection methodology to identify and assess deterioration of overhead conductors. The methodology uses drones fitted with cameras, supported by a machine learning algorithm, to automatically detect defects or damage in ACSR conductors, including pitting, broken strands and galvanic corrosion.

The inspection outcomes will be used to validate conductor condition and support the initiation and prioritisation of proactive HV conductor replacement programs. This approach will complement United Energy's existing ground-based cyclic inspection and maintenance programs where sections of conductor have been identified with high-priority defects, where high volumes of conductor failures require investigation, or where conductors impacted by bushfires require survey and condition assessment.

6.2.8 Priority 3 Re-inspections

The priority 3 (P3) re-inspections for open P3 notifications in LBRA will be conducted at the relevant pole locations to comply with the requirements in the Asset Inspection Manual (UE-MA-2003). These inspections will include a visual inspection of the P3 item(s). The visual inspection will be conducted using a drone, inspection stick or elevated mast. All inspection outcomes, defect notifications, photographs, and any changes to priority or asset details identified during the inspection must be recorded in SAP.

6.2.9 Line Condition Observation Program

The annual Line Condition Observation (LCO) program is undertaken as an additional layer of assurance to the cyclic asset inspection program using employees from across the business to make visual observations of poles and pole top

assets for obvious defects within targeted high-risk areas (HBRA) leading up to and into the fire declaration period by 1 December. As the LBRA network is considered a lower risk for fire ignition leading to a bushfire, the LCO is not undertaken in LBRA.

United Energy's LBRA network is considered lower risk for fire ignition leading to bushfire, as assessed by the CFA, because it is largely limited to irrigated land and built-up towns with small, well-maintained blocks and insufficient ground fuel to sustain a fire. Additional bushfire mitigation controls have however been implemented for United Energy's HBRA network.

A sample size calculator is used to gauge the sample size selection and associated confidence level. Each year the sample size is assessed to achieve an acceptable level of confidence and acceptable error margin, with typical values being 95% confidence and up to 5% error margin.

The sample volumes are derived using a statistical sample size from which the targeted sites are determined using the following criteria:

- Areas with high fire risk danger (i.e. HBRA)
- Poles outside townships
- Feeders with a high fault history per kilometre. (Once an area is targeted)
- Feeders and substations that are heavily loaded. (Once an area is targeted)
- Older assets. (Once an area is targeted)
- Excluded assets that have been inspected within the last 12 months.

Line condition observations utilise the use of drones to capture pole top asset images which are then assessed by desktop assessment. Operational procedures are contained within the Line Condition Observation Program Procedure (PR-0025).

6.3 Priority Classifications

The defect priority classification applies to all defects found on the supply network. Asset defects identified by the inspection program or reported from internal or external sources are assessed for their associated risk and prioritised for remedial action.

The Asset Inspection Manual (UE-MA-2003) details the application of defect ratings and timeframes associated with inspection and maintenance requirements of the various network assets.

All identified defects will be recorded, monitored and reported through the creation of notifications within the SAP maintenance management system.

This manual sets out the criteria for classification of defects as shown in Table 7.

Table 7: Defect Classification

Priority	Response Times[1]	Definition / Assessment	Action
Priority 1 (P1)	Treated as a network fault. Rectification or Make Safe within 24 hours	An immediate risk to — • Public safety • Fire ignition • Supply reliability	Phoned into Dispatch immediately after identification. Dispatch creates a P1 notification and Trouble Order (for fault crew to attend). Inspector to record Trouble Order number for future reference.

[1] Note: all time periods mentioned in the table are based on calendar days.

Priority	Response Times[1]	Definition / Assessment		Action
Priority 42 (P42)	UE and PEL Assets within 42 days of being reported	The defect has been determined to be of a condition that will allow rectification within the response time.		P42 SAP Notification raised
Priority 2 (P2)	UE and PEL Assets within 32 weeks (224 days) of being reported.	The defect has been determined to be of a condition that will allow rectification within the response time.		P2 SAP Notification raised – For further guidance on Priority refer to the Damage Code Matrix in the Asset Inspection Manual (UE-MA-2003).
Priority 3 (P3)	UE and PEL Assets within 3 years (1095 days) of being reported.	HBRA	LBRA	P3 SAP Notification raised – For further guidance on Priority refer to the Damage Code Matrix in the Asset Inspection Manual (UE-MA-2003).
		This priority should not be used in High Bushfire Risk Areas (HBRA). These items should be raised as POPP	The defect has been determined to be of a condition that will allow rectification or reassessment within the response time	
Priority Opportunistic (POPP)	Rectification on an opportunistic basis when other work is being performed on the same pole – this may not occur before the next inspection cycle.	HBRA	LBRA	POPP SAP Notification raised – For further guidance on Priority refer to the Damage Code Matrix in the Asset Inspection Manual (UE-MA-2003).
		These items will have been assessed to be of a condition that it should not fail before the next inspection cycle (three years).	These items will have been assessed to be of a condition that it should not fail before the next inspection cycle (five years).	
No Priority (PN)	Network Information only	This priority is used to identify items for possible replacement programs, non-standard items of low risk i.e. Brown/Grey pin type insulators or during Works Packaging where additional works are being performed in alignment with Planned Opportunistic and maintenance guidelines UE GU 2660		'No Priority' (PN) SAP Notification raised – For further guidance on Priority refer to the Damage Code Matrix in the Asset Inspection Manual (UE-MA-2003).

6.4 Remedial Maintenance

United Energy's maintenance programs are generated from several different sources, the main one being the asset inspection program (refer Section 6.2).

Maintenance defects can also be raised via:

- Employees or contractors
- Customer calls
- Line condition observations
- BFM vegetation inspections/audits.

Refer Section 10.2 for more information on audits.

6.4.1 Defect Management

Maintenance works identified through the inspection program, audits, observations or raised by customers are issued for remediation. Resources are scheduled to match the needs of the issued projects to achieve the required response times. The defect priority and rectification timeframes are detailed in Section 6.3.

6.4.2 Faults/Fault Follow-up

Customer fault calls are received by the United Energy Customer Contact Centre 24 hours a day, 7 days a week. Likewise, fault calls may also be received by United Energy's Network Control Centre directly from asset inspectors, operators, and emergency services. The Dispatch Group has responsibility for prioritising trouble orders and assigning to field crews.

Trouble orders will be prioritised as P0 to P8 as outlined in Table 8, using the following principles:

- Safety of the public and our workforce
- Customer satisfaction
- Supply reliability and quality
- Field crew workload management – including stand-down impacts.

There are two trouble order classifications:

- Supply faults which relate directly to supply issues including all supply fail, part supply fail, dim lights, and intermittent supply.
- Non-Supply faults which include faults which may or may not have supply impacts such as wires down, car hit pole, wire low, animal on asset etc.

Priorities assigned to trouble orders are detailed in Electricity Call Out Procedure (UE-PR-9352).

When a fault crew or Asset Inspector identifies a Priority 1 (P1) requiring immediate/urgent repairs defect, the fault crew or asset inspector will make safe as far as practicable and immediately contact the Network Control Centre (NCC). The NCC will raise a P1 SAP notification capturing the relevant details and notify the Faults Delivery Manager who will arrange for the defect to the rectified within 24 hours, in accordance with priority classifications set out in section 6.3.

Where the fault crew have undertaken partial or temporary repairs, a Priority 42 SAP Notification is created stating the timeline that the repairs are required to be completed. An email is also sent to *FaultFollowup@ue.com.au* confirming the requirement for the follow up repairs. In circumstances where the technical review of a follow-up item deems there is the potential for a fire start and the item is in a HBRA, a risk assessment is undertaken to determine if any actions are required for a TFB day.

United Energy will respond to trouble orders within the on-site response timeframes outlined in Table 8. These response times will vary in circumstances involving significant damage caused by storms, severe weather or other events outside United Energy's control. In all circumstances, United Energy will respond within the relevant timeframes as far as practicable and as soon as practicable.

Table 8: Trouble Order Priority Assignment

Priority	On Site Response Timeframe	Description (Non-exhaustive examples only)
Priority 0	30 Minutes	Feeder / ACR Faults
Priority 1	1 Hour	Critical Report, Electric Shock, Fire, Loss of Neutral-Urgent (Day light hours only), Meet Fire/Police, Neutral Fail, Pole Down, Predicted Wire Down, Scout Live, Smoke/Burning, Sparking/Arcing, Underground Cable, Wire Down
Priority 2	2 Hours	Line Fuse, HV Substation Fault, LV Substation / Circuit Fault, Dim Lights, Emergency Services, Hot/Melted, Hazard, LV Backbone connection, Pole Broken, Potential Brown Out
Priority 3	3 Hours	AMI Meter Last Gasp, All Supply Failure, Intermittent Supply, Loss of Neutral Urgent, Loss of Phase (Business hours only), Low Wire, Part Supply Failure
Priority 4	4 hours	Disconnect (fault), HVI, Leaking, Loss of Neutral – Other/active (Business hrs only), Reconnect after fault / defect
Priority 5	24 Hours	Fuse Insertion, DNP Fuse Insertion, No Hot Water, Pole Leaning, Scout Safe, Tree On Wire, Voltage Complaint
Priority 6	Within 5 business days	Animal, Disconnect Customer, Disconnect for Non-Payment, Foreign Object, Meter, Tree Near Assets, Vandalism

Priority	On Site Response Timeframe	Description (Non-exhaustive examples only)
Priority 7	Refer to Business KPI/GSL	Area Street Light Out, Auto Overload Protection Scheme operation, Load Management, Light Patrol – NCC Only, No Go Zone, Single Street Light Out, TV Interference, Voltage Referral, Watchman Light Out
Priority 8	Used in conjunction with another clue	Fascia, Fuse, Install, Life Support Customer, Meter Panel/ Switchboard, Pillar, Pit, POA/FOLCB/FMB, Pole, Pole Replacement, Premise, Wire Pole to House Wire, Pole to Pole, Raiser Bracket, Remove, Replace, Service, Transformer, Crossarm

6.4.3 Audits/Observations

Asset defects identified during audits/observations will be referred to the Engineering and Maintenance group. The Maintenance group will assess the associated risk, prioritise the defect for rectification, and raise an SAP notification to initiate remedial action within the timeframes specified in section 6.3.

6.4.4 Non-Cyclic Maintenance

Maintenance items identified out of cycle relating to faults/follow up will be reported direct to the NCC as outlined in section 6.4.2. All other out-of-cycle maintenance items identified through the ad-hoc inspection programs, field observations, audits, or customer reports will be referred to the Maintenance group. The Maintenance group will assess the associated risk, prioritise the defect for rectification, and raise an SAP notification to initiate remedial action within the timeframes specified in section 6.3.

6.5 Rapid Earth Fault Current Limiters (REFCLs)

6.5.1 REFCL Installations

United Energy has installed REFCLs at Mornington (MTN) and Dromana (DMA) zone substations to reduce the bushfire risk in the areas supplied by these stations. These REFCLs are not mandated as per the requirements of the *Electricity Safety (Bushfire Mitigation) Regulations 2023* but were justified on the principles of AFAP noting that MTN and DMA combined represent over 55% of United Energy's total network bushfire risk. United Energy also has a REFCL installed at Frankston South (FSH) zone substation however the primary driver for this installation was supply reliability with FSH representing less than 1% of the total network bushfire risk.

6.5.2 REFCL Operating Modes and Setting Groups at MTN and DMA

Earth Fault Discrimination Mode

When Earth Fault Discrimination Mode is enabled and a sustained fault is detected, the REFCL will momentarily close the Neutral Earth Resistor (NER) circuit breaker allowing earth fault protection to clear the fault (if it can detect it). If earth fault protection does not clear the fault, and it is located by the REFCL, the REFCL will trip the feeder containing the fault even when Earth Fault Discrimination Mode is enabled.

When Earth Fault Discrimination Mode is disabled and a sustained fault is detected and located, the REFCL will trip the feeder with the fault without closing the NER circuit breaker.

If a fault is detected but cannot be located, the REFCL will close the NER circuit breaker regardless of the operating mode.

Earth Fault Discrimination Mode is selected on an individual feeder basis.

Sensitivity Setting Group

REFCLs can be operated with three levels of sensitivity with the highest sensitivity used on TFB days as outlined in Table 9.

Table 9: REFCL sensitivity groups (MTN and DMA)

Setting Group	Sensitivity	Comments
3	Highest sensitivity (~0.7A)	Optimal settings for bushfire safety.
2	Very high sensitivity (~1A)	Optimal settings for network reliability.
1	High sensitivity (~2A)	Used when the network has high capacitive imbalance. Can also be used during REFCL testing.
No REFCL	SEF protection (~9A)	If the fault is downstream of an ACR higher sensitivity is achieved.

REFCL Application

Table 10 lists the REFCL settings that United Energy use under different conditions subject to various exceptions.

Table 10: REFCL Application on United Energy 22kV polyphase networks (MTN and DMA)

Condition	Earth Fault Discrimination Operating Mode	Sensitivity Setting Group	Explanation
TFB days, including when fire danger rating is "Catastrophic" when FDI is 30 or greater	Disabled	Highest sensitivity (3)	Optimal settings for bushfire safety.
All other times i.e. no TFB declaration	Enabled	Very high sensitivity (2)	Optimal settings for network reliability.
Abnormal network conditions	Enabled or Disabled	High sensitivity (1)	Under certain conditions, such as switching or fault finding, it might be necessary to reduce REFCL sensitivity, enable earth fault discrimination (if not already enabled), or take the REFCL out of service in accordance with operational procedures. This can occur at any time, even on TFB days, to facilitate fault finding and restoration of customer supply when supply restoration is the overwhelming objective (including the temporary connection of generators / microgrids).

Other Operating Modes

Other operating modes are also available and used in special circumstances:

- For live line work, the REFCL is placed into an operating mode that trips the feeder containing the fault faster.
- If certain components of the REFCL are unavailable, the REFCL can be operated in a mode with certain features disabled. Although this reduces REFCL performance, it allows the REFCL to remain in service resulting in superior safety performance compared to standard protection systems.
- Specific situations such as testing or maintenance.

6.5.3 REFCL Operating Modes and Setting Groups at FSH

Earth Fault Discrimination Mode

When Earth Fault Discrimination Mode is enabled and a sustained fault is detected, the REFCL will close the NER circuit breaker allowing earth fault protection to clear the fault (if it can detect it). If earth fault protection does not clear the fault, and it is located by the REFCL, and the REFCL still detects the presence of a fault with the NER circuit breaker closed, the REFCL will trip the feeder containing the fault even when Earth Fault Discrimination Mode is enabled.

When Earth Fault Discrimination Mode is disabled and a sustained fault is detected and located, the REFCL will trip the feeder with the fault without closing the NER circuit breaker.

If a fault is detected but cannot be located, the REFCL will close the NER circuit breaker regardless of the operating mode.

Earth Fault Discrimination Mode is selected on a whole of zone substation basis, (unlike MTN and DMA where it is selected on an individual feeder basis).

Sensitivity Setting Group

Only one sensitivity setting group is available, (unlike MTN and DMA where three setting groups are available).

REFCL Application

Table 11 lists the REFCL settings that United Energy use under different conditions subject to various exceptions.

Table 11: REFCL Application on United Energy 22kV polyphase networks (FSH)

Condition	Earth Fault Discrimination Operating Mode	Sensitivity Setting Group	Explanation
TFB days, including when fire danger rating is "Catastrophic" when FDI is 30 or greater	Disabled	High sensitivity	Optimal settings for bushfire safety.
All other times i.e. no TFB declaration	Enabled	High sensitivity	Optimal settings for network reliability.
Abnormal network conditions	Enabled or Disabled	High sensitivity	Under certain conditions, such as switching or fault finding, it might be necessary to enable earth fault discrimination (if not already enabled) or take the REFCL out of service in accordance with operational procedures. This can occur at any time, even on TFB days, to facilitate fault finding and restoration of customer supply when supply restoration is the overwhelming objective (including the temporary connection of generators / microgrids).

Other Operating Modes

Other operating modes are not available at FSH. The REFCL at FSH substation is an earlier generation REFCL compared to MTN and DMA and has reduced functionality and performance. FSH REFCL does not offer multiple setting groups for sensitivity, it does not provide the possibility of faster trip times for live line work, it does not use the Inverter for fault confirmation tests, when the REFCL closes the NER circuit breaker it is necessary for the NER circuit breaker to be manually opened to return the REFCL to service and it is not possible to keep the REFCL in service with any faulty REFCL component.

6.5.4 Performance Caveats

There are instances (including TFB days) where the expected performance cannot be guaranteed and/or achieved or the REFCL may need to be taken out of service due to one or more unexpected constraints. Such instances are:

- During network augmentation, asset replacement, maintenance, testing or repair.
- When network switching requires parallels with feeders.
- Any single phase switching of the following distribution assets will require the NER circuit breaker to be closed (bypassing REFCL operation):
  - Greater than two kilometres of bare overhead line.
  - Greater than one hundred metres of cable.
- Should any of the REFCL backup protection systems be required to activate due to an unforeseen contingent event.
- The REFCL will be taken out of service if the REFCL is faulty and/or its performance becomes unpredictable which could impact network reliability or safety.
- Load transfers, that result in network capacitance exceeding the rating of the arc suppression coil or resulting in result in very high capacitive imbalance.
- Repeating or restriking faults or multiple independent faults (as can occur during a major storm) that the REFCL is unable to clear.

- Operation of the REFCL is likely to significantly impact supply reliability e.g. unexpected loss of network hardening.

United Energy has deployed REFCLs with the intention to achieve the maximum level of bushfire safety performance whilst maintaining operational capability of the network where possible, having regard to the safety and other benefits of customers not losing electricity supply. The choice of operating mode is determined by the relative fire risk and the condition of the network.

United Energy endeavours to keep its REFCLs operational for as much of the year as possible and attempts to minimise the impact of any REFCL component failure as follows:

- When planned works require the REFCL to be taken out of service, this activity is undertaken at a time when the risk is reduced, for example outside high bushfire risk periods.
- When operational activities require the REFCL to be taken out of service, the time the REFCL is out of service is minimised by controlling devices remotely.
- When a REFCL component is not available for service, United Energy will attempt to continue operating the REFCL in a mode that disables certain features while keeping the REFCL in service. Although this reduces the performance of the REFCL, it still provides superior performance compared to conventional network protection.
- When abnormal network switching or other network abnormality results in high capacitive imbalance, the sensitivity of the REFCL is reduced in preference to taking the REFCL out of service.

Instructions for the restoration of supply is contained within the Total Fire Ban Day Action Plan (UE-PL-0009.1) [ID].

6.5.5 Energy Safe Operating Policy

On 6 December 2024, Energy Safe released the *Operating Rapid Earth Fault Current Limiters (REFCLs) Policy* which outlines their minimum expectations about how distribution businesses should operate REFCLs installed on their networks in Victoria, unless an alternative approach is demonstrated to be more appropriate for their circumstances.

The United Energy REFCLs installed on the network are not prescribed as mandated in accordance with *part A of the Electricity Safety Act 1998* and the *Electricity Safety (Bushfire Mitigation) Regulations 2023, section 7(j),* and are therefore not subject to achieve the 'required capacity' performance standards specified within Energy Safe's Policy.

United Energy is reviewing the requirements set out in Energy Safe's Policy to further demonstrate our approach for operating REFCLs. United Energy will implement the REFCL transition plan as outlined in Table 12 which identifies the key milestones to demonstrate and support United Energy's REFCL operating approach in accordance with the requirements of the policy.

Whilst this transition plan is being outworked, United Energy will continue to operate its REFCLs as described above which is based on the extensive leading-edge development and implementation work undertaken by United Energy over the past 16-years.

United Energy will continue to evaluate the use of REFCLs on other parts of its network and exploring the introduction of new technology to minimise hazards and risks as far as practicable in accordance with our general duties. Should any proposed changes to United Energy's REFCL operating approach result in a need to update the BMP, a revised BMP will be submitted for review and acceptance by Energy Safe in accordance with the *Electricity Safety Act 1998*.

Table 12: REFCL Policy transition plan - key milestones for period 2025 to 2031

Key Milestones	Required to be completed by
1. Review Energy Safe's Operating REFCLs Policy requirements and provide Energy Safe with United Energy's approach to include: – a definition for the activity covered by scheduled maintenance and emergency works for all planned or unplanned works – an outline of the circumstances that apply to 'out-of-service' REFCLs.	30 November 2025 Complete - submitted to Energy Safe
2. Review the existing United Energy REFCL record keeping and reporting to demonstrate, where practicable, the REFCL record keeping and reporting policy requirements and advise Energy Safe accordingly.	30 November 2025 Complete - submitted to Energy Safe
3. Review the existing maintenance procedure for REFCLs to demonstrate, where practicable, the Operating REFCL policy testing and maintenance requirements and advise Energy Safe accordingly.	31 March 2026 Complete - submitted to Energy Safe
4. Develop and install seven REFCL compatible earth fault indicators at existing ACR sites on REFCL protected networks to assess the technical solution's functionality,	30 November 2026

Key Milestones	Required to be completed by
compatibility and efficacy to demonstrate that network improvement objectives are achievable.	
5. Develop for Energy Safe's consideration, a position paper informed by a risk assessment (AFAP) for the United Energy REFCL operating mode approach (considering outcomes of item 4) that assesses and demonstrates the safety risk, reliability performance, and costs.	31 December 2026
6. Continue to research and explore future REFCL compatible technology that has potential to support extending and improving the functionality to minimise risk AFAP.	Ongoing

REFCL enhanced technology improvement initiative

United Energy will initiate a trial for the use of REFCL compatible earth fault detection technology providing the ability to detect earth faults on REFCL protected networks to understand is effectiveness if it were to be used in conjunction with the Earth Fault Discrimination Mode disabled.

The installation of REFCL compatible earth fault indication (7 units) at or past each of the nominated existing ACR sites commenced in September 2026 and is planned to be completed by 30 November 2026.

As part of the enhanced technology trial, United Energy will undertake a risk assessment (AFAP) to assess the safety risk, reliability performance, and costs of REFCL protected networks to ensure improvement objectives are able to be achieved and identify any future improvement opportunities for consideration, as applicable.

6.6 SWER ACRs

United Energy's SWER systems will be protected by a SWER ACR which has programable and remote reclose settings, including existing, new or augmented (split) overhead SWER systems.

SWER ACRs will be inspected and maintained to comply with the Automatic Circuit Reclosers and Remote Controlled Gas Switches Maintenance Manual (UE-MA-2610). This manual specifies the inspection and maintenance requirements for preventative and condition-based inspection, assessment and maintenance activities, including the applicable inspection intervals.

6.7 Low Voltage Overhead Electrical Cable/wire

United Energy will construct or replace new overhead low voltage lines with insulated electrical cable or wire in HBRA to comply with the Distribution Network Construction Standard (UE-ST-2000) and the *Electricity Safety (Bushfire Mitigation) Regulations 2023*.

6.8 Vegetation Management

United Energy will be responsible for the management of vegetation around power lines and other electricity assets in the supply network. In urban locations the Councils are managers of public land and shall be responsible for keeping trees clear of electric lines.

United Energy's vegetation activities are managed in accordance with the Electric Line Clearance (Vegetation) Management Plan.

United Energy's accepted Electric Line Clearance (Vegetation) Management Plan outlines the management processes, programs and cycles for maintaining clearances between vegetation and network assets.

6.9 Private Electric Lines

Inspections

United Energy has obligations under the *Electricity Safety Act 1998* to inspect PELs that are above the surface of land within its distribution area, other than any prescribed parts of these lines as defined in *Regulation 9 of the Electricity Safety (Bushfire Mitigation) Regulations 2023*. Points of Supply definitions are determined as per the *Electricity Safety Act 1998*. PELs are inspected to identify any defects, or infringing vegetation, which may affect the fire and/or electricity safety of the line.

Electricity Safety (Bushfire Mitigation) Regulations 2023

The *Electricity Safety (Bushfire Mitigation) Regulations* were amended in 2023, which included additional requirements associated with overhead PELs:

- inspection of clearances
- hazard tree inspection by qualified arborists.

Inspections are undertaken to include the prescribed standards of inspection contained in section 11 of the *Electricity Safety (Bushfire Mitigation) Regulations 2023*.

United Energy meets the required outcomes of regulation 11(1)(j), 11(1)(k) and 11(1)(l) by utilising the inspection techniques shown below.

1. The condition of hardwood PEL poles located in concrete is determined by drilling down at an angle to inspect the condition of the pole below concrete level to determine the millimetres of wood free of decay and the presence of termites.
2. The condition of treated pine PEL poles is determined by assessing the degree of external rot and also measurement of the pole girth.
3. The condition of steel PEL poles is determined by a visual inspection and a structural assessment using a ball pein hammer at or just below the ground level (up to 200mm excavation if possible) to ensure that the pole retains 75% of steel thickness in the corroded area when compared against a non-corroded area on the pole.

Operational procedures for United Energy's PEL inspection program are contained within the following documents:

- Maintenance Procedure Private Electric Lines (PR-5062.02)
- Asset Inspection Manual (UE-MA-2003).

In accordance with the *Electricity Safety (Bushfire Mitigation) Regulations 2023*, a notification of intention to inspect the PEL (see Appendix C) is issued to the property owner, occupier, customer and or available property representative not less than 21 days and not more than 45 days before entering property to inspect the line.

United Energy asset inspectors will attempt to liaise with PEL owners regarding the PEL inspection requirements before commencing any work. If the PEL owner is not home or is not spoken to, the asset inspector is required to leave a pamphlet informing PEL owners that an inspection of their PEL was undertaken and issue a Private Line Inspection Report (PLIR) notifying of any defects found. United Energy will monitor the defect rectification process through to completion as outlined in the Maintenance Manual LV Private Overhead Electric Lines (UE-MA-2620).

For any identified defect/s, in accordance with Maintenance Manual LV Private Overhead Electric Lines (UE-MA-2620) the Asset Inspector will record the maintenance defect notification along with defect photos in the United Energy SAP system. PEL inspection data details are recorded in the United Energy GIS/SAP database including follow-up actions.

For defects that are hazardous or requiring urgent attention (likely to fail within one week), the Maintenance Planner and/or United Energy Dispatch team will be contacted immediately for action which may include disconnection of the PEL.

PELs are also inspected in accordance with the requirements within the *Electricity Safety (Bushfire Mitigation) Regulations 2023*, for non-compliant vegetation within the minimum clearance space. If a potential hazard tree is identified during any inspection it is referred to the Vegetation Management group to allow for an assessment by a suitably qualified arborist to determine if the tree is to be classified as a hazardous tree. PEL owners will be notified of any non-compliant or hazardous vegetation identified.

Disconnection

All PELs located in HBRAs that are identified as having a fire risk defect, in accordance with the TFB Defect Disconnection Guide in the Maintenance Manual LV Private Overhead Electric Lines (UE-MA-2620), will be disconnected on declared TFB days.

Where a PEL defect in a HBRA has not been rectified or has exceeded its priority timeframe, the PEL will be allocated to a work crew with instructions to disconnect and reconnect the line on TFB days. PELs will be disconnected before 10:00am on the declared TFB day and will not be reconnected until the TFB day has ended or the fire danger has subsided, in accordance with the Total Fire Ban Actions (UE-PR-9365) procedure.

The list of potential disconnections will be made available to the NCC via a disconnection spreadsheet and maintained from 1 October until the end of the declared fire season by the Maintenance and Asset Inspection group.

Operational procedures for the identification and rectification of defective LV PELs are contained within the Maintenance Manual LV Private Overhead Electric Lines (UE-AM-2620).

The specific actions for the management of PELs with outstanding urgent fire defects, on days of TFB, are contained in the Total Fire Ban Day Action Plan (UE-PL-0009.1) [ID].

6.10 New Technologies

United Energy is committed to continuous improvement. This often involves trialling or developing new technologies such as the adoption of new network materials or the application of drones or artificial intelligence to improve inspection and maintenance practices, which if successful and meets AFAP requirements will be adopted as normal business practice. United Energy will keep Energy Safe informed of inflight initiatives (listed below) and new initiatives on a quarterly basis.

6.10.1 SWER broken conductor detection

United Energy is continuing to work with industry partners (Powercor Australia Ltd) to develop technology to detect and isolate SWER broken conductors.

6.10.2 Crossarm condition assessment trial

United Energy is evaluating the use of technology to improve the assessment of wood crossarm condition. United Energy is trialling the use of image-recognition machine learning algorithm to identify a wood crossarm condition defect and severity. The trial will run through to the end of 2026, following which a change assessment will be completed for implementation.

6.11 Resourcing

United Energy ensures appropriate resources are available to carry out the activities outlined in this Plan.

A detailed asset inspection program, of the following years work, is developed and provided to our asset inspection service provider to enable them to plan their resource requirements to meet the program's needs.

United Energy is responsible for the overall vegetation management program including LiDAR inspection with sub-contractor/s engaged to complete the cutting tasks.

6.12 Training

United Energy has an established and documented system to ensure that employees and contractors who are working on or near the electricity network are suitably competent and adequately trained to carry out their duties.

The key steps that United Energy has in place to manage competency, and training requirements for employees are illustrated in Figure 8.

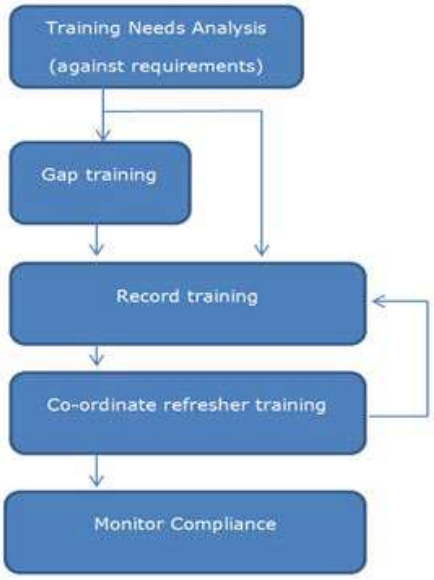

Figure 8: Competency and Training Process

Within United Energy, training standards for workers who work on or near the supply network must be established through the *Victorian Electricity Supply Industry (VESI) Skills and Training Reference Committee* to support alignment with national training requirements.

United Energy shall use the *VESI Skills and Training Guideline and Matrix*, which defines the agreed training requirements for workers accessing VESI supply networks. These requirements provide consistency, compliance and portability across the MECs by outlining required competencies, qualifications and common VESI training standards. Further information is available on the *VESI website (vesi.com.au)*.

Further detail is provided in the Qualification and Training Requirements for Network Access (UE-PR-310.001) procedure, which shall define the qualifications, licensing and technical training requirements for all employees and service providers who work on, near, or require access to the United Energy supply networks. These requirements meet the national competence standards, VESI skills, training and competency standards, the VESI Skills and Training framework, Victorian electrical licensing requirements and United Energy standards.

United Energy will coordinate any specifically identified employee training requirements through its enterprise training arrangements. Where significant additional training requirements are identified for service providers, these requirements will be documented and managed through the relevant contract agreements.

Ongoing competency

United Energy uses the ESI Worker system to record and verify worker training and competency. This supports ongoing competency management and workforce portability through mutual recognition of agreed industry training standards. Training records can be viewed in the ESI Worker system to confirm that a worker holds current training and competency for the task being undertaken. Further information can be located at *VESI.com.au* – *ESI Worker*

Where audit findings identify any training related gaps, such as incomplete competency evidence, overdue refresher training, inconsistent application of inspection requirements, or the need for further mentoring or reassessment, corrective actions will be initiated as required. Refer to section 10.2 for further detail on audit processes.

The training programs for specific job roles in bushfire mitigation activities are described below.

Asset Inspection

All Asset Inspectors are required to meet the training requirements as specified in the *VESI Skills and Training Matrix*. These training requirements are confirmed by United Energy when an application request is made for an Asset Inspector to work on the network.

All asset inspectors working on the United Energy network must hold a *Certificate II in ESI Asset Inspection and Testing (UET20621)*, or an equivalent version, to meet the requirements of *regulation 7(1)(p)(i) of the Electricity Safety (Bushfire Mitigation) Regulations 2023*. All formal training must be delivered by a Registered Training Organisation (RTO).

Where this qualification has been obtained in another Australian state or territory, asset inspectors must complete an induction covering United Energy's supply network requirements, including relevant procedures. This induction must be delivered by a person who holds a *Certificate IV in Training and Assessment*. The *VESI Skills and Training Matrix* stipulates the requirements and frequency of refresher training for Asset Inspectors. The matrix is available at *www.vesi.com.au*.

Vegetation Management

All training requirements for vegetation management are covered in the Electric Line Clearance (Vegetation) Management Plan.

Line Work

The *VESI Skills and Training Matrix* stipulates the required qualifications and refresher training for Lineworkers. The Service Provider must arrange training in accordance with the training for the Lineworker role referenced in the matrix, maintain records of all training completed, and record the training in the ESI Worker system for compliance.

Line worker apprentices are engaged in bushfire mitigation activities from time to time. This provides experience in a broad range of tasks. When companies engage apprentices, they work under the *VESI Apprentice Supervision Guidelines* as published on the VESI website *www.vesi.com.au.*

Thermal Imaging Inspections

All thermographic inspectors working on the United Energy network must hold a national qualification *Conduct surveys using Thermovision techniques (UETDRSB004)* or have successfully completed a *Level 2 Infrared Thermographer* course, or hold an equivalent qualification accepted by United Energy.

Thermal imaging inspections shall be undertaken by suitably, trained and competent external service providers, consistent with the Technical Officer role requirements defined in the *VESI Skills and Training Matrix*. The matrix specifies role requirements and refresher training frequency and is available at *www.vesi.com.au*.

Technical Standards

United Energy's Plant and Standards Implementation group provide a monthly document management communication to all impacted employees and service providers regarding both new and updated design and construction of network assets / standards. If a significant new technical standard is being introduced, then specially convened information sessions will be conducted.

All service providers or other external persons associated with works on United Energy assets can register with United Energy to gain “read only” access to United Energy’s technical standards.

6.13 Liaison with Other Organisations

United Energy will coordinate BFM activities and emergency management response with relevant organisations which can include the following:

- Energy Safe
- CFA
- Fire Rescue Victoria (FRV)
- State Emergency Service (SES)
- Department of Energy, Environment and Climate Action (DEECA)
- Emergency Management Victoria (EMV)
- Municipalities
- Mutual Aid Plan Planning Committee (MAPPC)
- Bureau of Meteorology (BOM)
- Other Distribution/Transmission Network Operators.

UE will undertake operational and emergency response activities in the event of a major event or emergency as outlined in:

- the Incident Management Procedure (UE-PR-0251) which outlines the internal incident management process, detailing the procedures for incident notification, reporting, investigation, and follow-up actions, and
- the Crisis Management Plan (JEQA4UJ443MT-154-386) which provides an overview of the approach to anticipating, responding, recovering, and learning from crisis events relating to fire, whereby loss prevention and/or reduction is the primary outcome.

These documents include the responsibilities for communications with emergency services and other relevant organisations during events such as:

- Loss of the Network Control Centre
- Major supply outages
- Major plant faults
- Lack of supply capacity (load shedding)
- Fires and incidents.

6.14 Public Awareness

To maintain community awareness of bushfire hazards, United Energy provides information to the public concerning various BFM activities. United Energy is committed to enhancing public awareness of:

- the potential risks associated with overhead PELs
- the risks of planting inappropriate vegetation near electrical lines
- vegetation species suitable for planting near powerlines
- inspection timeframes
- other fire related matters.

As part of its Vegetation Management and PEL inspection programs, United Energy makes the following information available to its customers, via the United Energy website:

- Trees, powerlines and your property
- Your private overhead electric lines.

United Energy will undertake annual BFM communication as part of the summer preparedness which is communicated prior to, and throughout the fire season. The communication will be outworked using various forms and channels including social media posts, traditional media releases, newspaper articles & advertisements, radio advertisements & interviews, TV interviews and face to face meetings with various stakeholders.

United Energy releases communications to Registered Electrical Contractors (RECs) through ‘Tech Talk’ newsletters within our service territory, to raise awareness and appreciation of the importance of PEL maintenance works and complying with United Energy’s processes. Further information to support the RECs can be found through the United

Energy website Registered Electrical Contractor (REC) resources | United Energy and our REC helpline, which is available 24 hours a day, 7 days a week.

For details of communication with overhead PEL owners refer to Section 6.9.

6.15 Assistance Provided to Fire Agencies

There are three firefighting services, operating within United Energy's service area:

- Forest Fire Victoria (FFV) - who are responsible for state forests and parks.
- FRV - who are responsible for metropolitan areas and regional cities and is resourced largely by full-time staff.
- CFA - who are responsible for all rural areas and is resourced by full-time staff and volunteers.

United Energy will provide assistance and work with the relevant fire control agency in the investigation of fires near our supply network.

United Energy's Emergency Management Liaison Officers (EMLOs) are available to attend fire agency command centres and provide information or assistance with issues relating to our distribution assets. An EMLO is a person that acts as a go-between or the link between two organisations to communicate and coordinate their activities.

Emergencies

Any requests for resources to assist fire agencies are coordinated by the Network Controller, from United Energy's NCC.

Fire emergencies are communicated directly to the NCC via a direct phone number for emergency services organisations. The NCC will liaise with the fire agencies to understand the extent of the fire emergency. The NCC will assess the fire emergency priority assignment (refer section 6.4.2) and will dispatch a Fault Crew to the response.

United Energy will work with the relevant fire control agency to provide safe access to a fire or accident scene involving United Energy assets. This can include de-energisation of electrical assets upon request.

Further detail of actions to be undertaken in the event of a major event or emergency are contained in the Incident Management Procedure (UE-PR-0251) and Crisis Management Plan (JEQA4UJ443MT-154-386).

United Energy also has representation on the State Control Centre (SCC) electricity industry roster for EMLOs. An EMLO will provide the technical or subject matter expertise relating to the electricity industry and embeds an EMLO into the SCC to provide face-to-face coordination.

Information Exchange

There are several different forums for information exchange that take place between the fire agencies and United Energy.

A Regional Integrated Fire Management Planning Committee operates in each Region. Each committee includes representatives from the FRV, local fire brigades, FFV, DEECA, and local municipalities. A United Energy representative may either attend committee meetings or provide written reports on the status of United Energy's Bushfire Mitigation Program upon request.

In October each year prior to the fire danger period, the annual pre-season briefing is held by Emergency Management Victoria (EMV) at the State Control Centre to provide a briefing and forecast for the coming season. Information presented includes the likely severity of the season and identification of high-risk areas. This information day is attended by Victorian electricity distributors (including United Energy), transmission operators and representatives from Energy Safe.

Information relating to the fire season declaration dates is provided to United Energy by CFA both through the receipt of Fire Season Declaration notices and also through discussions with CFA's Regional Community Safety Managers.

6.16 Total Fire Ban Days

United Energy has a Total Fire Ban Day Action Plan (UE-PL-0009.1) [ID] which is invoked on TFB days. The Plan contains BFM strategies to be employed on days of extreme fire weather conditions to minimise the risk of a fire ignition being caused by United Energy's electricity network and is implemented under the direction of the Network Control Centre Manager with assistance from the Emergency Manager.

PELs which are in HBRAs and have a fire risk defect which are not rectified are disconnected on days of TFB (refer section 6.10). PEL's will be disconnected prior to 10am on the declared TFB day to comply with the Total Fire Ban Actions (UE-PR-9365). These lines are not reconnected until the end of the TFB or until the fire danger has subsided.

For works involving welding, cutting, grinding, or use of naked flame, permits from the appropriate organisation (e.g. CFA, FRV, and FFV) are used and adhered to.

Enhanced Protection and Suppression Settings on Total Fire Ban days

Enhanced TFB day protection settings will be applied to nominated protection devices with remote capability in HBRA being feeder circuit breakers, 3 phase ACRs and SWER ACRs to reduce the fault energy in the event of a fault.

The enhanced TFB day protection settings are applied to all SWER ACRs with remote capability, regardless of the location.

If unforeseen circumstances, such as communication failure, prevent devices being remotely set to their required modes, the following controls will be deployed in consideration with network events on the day:

- setting the upstream device to an enhanced setting; or
- manual suppression of impacted devices, which will be undertaken in a prioritised manner.

The enhanced protection and suppression settings will be applied to the devices outlined in the TFB Catastrophic Day HBRA Feeder Action List Xcel workbook in accordance with procedure Total Fire Ban Actions (UE-PR-9365).

6.17 Declared Fire Danger Period

During the Declared Fire Danger Period, United Energy will continue with normal operation of its electrical assets. The majority of United Energy's operational and maintenance activities are configured to be undertaken for the full 12 months of the year, irrespective of the Declared Fire Danger Period.

There are however some activities that are specific to the Declared Fire Danger Period. These include:

1. Vehicle movement Off-road (refer Appendix B).
2. Use of spark arresters on non-vehicular heat engines equipment such as hoggers, chainsaws and generators (refer Appendix B).
3. Fire Fighting Equipment to be carried (refer Appendix B).
4. Line Condition Observation Program -This is a series of observations undertaken across the supply network (refer Section 6.2.8).

6.18 Fire Management

In the event of a fire, United Energy will undertake operational and maintenance activities to manage the risks associated with the supply network. These activities will include:

- receiving notifications from, or providing notifications to, the relevant fire control agency regarding a fire event;
- liaising with the relevant fire control agency to assess risks and initiate actions relating to asset patrols, reinstatement of assets and restoration of supply following the fire event;
- dispatching field crews for fault rectification, field operations to disconnect or reconnect supply, or other activities directed or requested by the relevant fire control agency to enable access to the fire ground;
- deploying Emergency Management Liaison Officers to the Incident Control Centre, where established by the relevant fire control authority, to provide a single coordination and communication point with the NCC; and
- managing the fire event in accordance with the Incident Management Procedure (UE-PR-0251) and Crisis Management Plan (JEQA4UJ443MT-154-386).

7. Program Timing

United Energy will maintain a consolidated BFM program milestones document that identifies key BFM activities and specifies the dates by which those activities shall be completed. A copy of the BFM program milestones document is included in Appendix A.

The cyclic pole asset inspection program uses the Network Analytics Platform (NAP), which integrates with SAP to determine the next inspection due date, identify poles requiring inspection within the required compliance timeframe, optimise inspection routes to support efficient field delivery, and generate inspection orders in SAP.

For other inspections, including LV pillars, thermography and SWER earth testing, SAP maintenance plans will be established for each inspection program. These maintenance plans will define the inspection requirements and timeframes for the relevant asset classes, in alignment with the asset maintenance procedures described in Section 6.2. The asset inspection program will be scheduled and delivered using dates generated from SAP maintenance plans to ensure compliance with required inspection timeframes.

Remedial maintenance and asset replacement/modification is completed in accordance with the priority classification referred to in Section 6.3 and the Asset Inspection Manual (UE-MA-2003).

Timing of vegetation management activities are undertaken in accordance with United Energy's Electric Line Clearance (Vegetation) Management Plan.

8. Fire Investigation

Any fire starts initiated by United Energy assets will be reported to Energy Safe in accordance with the *Energy Safe Incident and Safety Performance Reporting Guidelines - Major electricity companies*.

The NCC identifies any fire starts from outage information or from external advice and notifies the Emergency Manager who investigates each situation according to the information provided. The Emergency Manager then sends details to the Network Risk & Assurance team for checking and collation and forwarding to Energy Safe in accordance with the *Energy Safe Incident and Safety Performance Reporting Guidelines - Major electricity companies*.

Fire start statistics and any material fires initiated by United Energy's network are communicated at the annual BFM post season review.

United Energy will report fire starts as described and referenced in section 9.2 and will comply with the requirements stipulated in Energy Safe's *Incident and Safety Performance Reporting Guidelines - Major electricity companies* and the *Energy Safe Incident reporting and site preservation guidelines* located on the Energy Safe website: *website: Energy Safe Victoria | Energy Safe Victoria*

The procedure ensures that United Energy meets its responsibilities to employees, customers, members of the public and regulatory requirements.

Any fire starts attributed to assets are investigated, analysed and reported in accordance with the Asset Failure Investigation and Reporting Procedure (PR-5060.01) as outlined in section 9.3.

9. Key Measures

9.1 Asset Maintenance and Vegetation Performance Measures

Asset Maintenance Performance

United Energy will use the Asset Maintenance Compliance Measure (AMCM) to monitor and assess compliance with asset inspection and maintenance requirements under the BMP. The AMCM measures whether inspection and maintenance activities are completed within the target timeframes specified in relevant procedures.

An explanation of how the AMCM is calculated is provided in Appendix D.

The AMCM target for HBRA shall be maintained at greater than or equal to 99.5% in HBRA throughout the year. The objective is to maintain the AMCM at 100% throughout the fire declaration period. This will be monitored and in instances where this is not achieved, actions will be implemented to rectify as soon as possible.

The AMCM target for LBRA shall be maintained at greater than or equal to 99.5% throughout the year.

This key measure is monitored, recorded and reported monthly by the Risk and Assurance team and will be reviewed quarterly by the Network Safety and Reliability and Bushfire Mitigation Committees.

Vegetation Performance

Vegetation compliance is measured as a discrete count of LBRA and HBRA Vegetation Priorities (VPs) outstanding clearance of encroaching vegetation, as reported to Energy Safe.

9.2 Fire Starts

Ground and Asset Fires

The recording of ground and asset fires associated with asset failures is a key measure used to monitor the efficacy and performance of United Energy's BMP strategies and maintenance practices and programs.

United Energy will use the following key measures to monitor ground and asset fire performance (refer section 6.1):

- Asset failures resulting in ground fire
- External contact with asset (non-asset failures) resulting in ground fire
- Asset failures resulting in asset fire only
- External contact with asset (non-asset failures) resulting in asset fire only.

Performance against key measures is monitored, recorded and reported monthly. The Network Safety and Reliability Committee will review this information along with any identified improvement opportunities on a quarterly basis. The targets shall be set annually based on the actual performance for the previous ten years directly preceding the year which

the targets are being set and trended using a line of best fit using statistical analysis methods to enable the projection for each target.

Reporting of ground and asset fires will be undertaken as they occur and reported to Energy Safe in accordance with the *Energy Safe Incident and Safety Performance Reporting Guidelines - Major electricity companies*. United Energy will report fire start incidents in accordance with the following documents:

- The Incident Management Procedure (UE-PR-0251) outlines the internal incident management process, detailing the procedures for incident notification, reporting, investigation, and follow-up actions.
- The ESV/AER and Cintellate Incident Reporting Procedure (PR-0018) outlines the process and responsibilities for updating Cintellate with accurate and current records of reportable incidents that occur on the supply network.
- The Reporting of Electrical Incidents Guideline (GU-0018) will guide United Energy in interpreting legislative requirements, categorising incidents for record keeping, and ensuring the consistent and timely reporting of electrical incidents to Energy Safe.

F Factor scheme

United Energy use the F Factor scheme (Ignition Risk Units (IRU)) as a key measure, along with United Energy's ground and asset fire performance results to assess and improve how we minimise risk associated with ground fires. The IRU fire starts target used by United Energy to monitor performance is set by the Australian Energy Regulator (AER) annually, based on an average of fire starts over the previous 5-years on the supply network.

These key measures are monitored, recorded and reported monthly by the Risk and Performance team and will be reviewed quarterly by the Network Safety and Reliability and Bushfire Mitigation Committees (refer to section 10.1).

9.3 Asset Failures

The Asset Failure Investigation and Reporting Procedure (PR-5060.01) outlines the procedure for investigating asset failures. Asset failures and failure trends will be analysed to identify potential improvements to maintenance procedures, technical standards, work practices and preventative actions which all contribute to risk management strategies. United Energy will investigate asset failure in accordance with the Asset Failure Investigation and Reporting Procedure (PR-5060.01), where investigation of failed assets will primarily be the responsibility of the Network Asset Management team.

Where there is an asset failure that attributes to a fire ignition that are reportable in accordance with *regulation 28 of the Energy Safe Incident and Safety Performance Reporting Guidelines - Major electricity companies* an 'Asset Failure Cause Assessment' or a 'Asset Failure Investigation Report' will be undertaken where the asset:

- has not performed as intended with an unknown mode of failure, or failed in an unusual manner, or identifies a potential systemic issue; or
- failed involving any ground fire in Electricity Line Construction Areas; or
- failed involving any ground fire in LBRA/HBRA > 1000m^2; or
- failure is an unassisted wood pole failure (fire).

Any recommendations or actions identified through an asset failure assessment or investigation will be recorded in Cintellate and assigned to a responsible officer for management and close-out within a specified timeframe.

9.4 BFM Milestones

United Energy has produced a set of BFM program milestones which specify the completion dates required for key BFM activities. These BFM activities are:

- Submit the Electric Line Clearance Management Plan (if required) to Energy Safe.
- Conduct an annual BFM post season review.
- Submit the BMP (if required) to Energy Safe.
- Complete the annual internal compliance audit of the BMP.
- Complete the PEL mail out to United Energy customers.
- Conduct the annual summer pre-season briefing to Senior Management.
- Complete the Line Condition Observation program.

The achievement of these milestones is monitored, and a copy of the BFM Program Milestones is included in Appendix A.

10. Reporting, Monitoring and Auditing

10.1 Report and Monitoring

The Bushfire Mitigation Committee provides governance of the bushfire mitigation processes and fire season readiness activities, which include:

- Reviewing network LBRA and HBRA fire start and F-factor trends
- Reviewing the business's fire summer preparedness actions
- Reviewing the effectiveness of critical controls relating to bushfire risk management
- Reviewing the performance of LBRA and HBRA asset inspection, maintenance and vegetation management activities
- Monitoring delivery of key risk reduction improvement initiatives and proactive asset replacement programs
- Proposing new initiatives and trials, monitoring progress and actions
- Endorsing of bushfire related policy.

A quarterly report is prepared for the Bushfire Mitigation Committee to monitor the bushfire performance (key measures), strategy, plans, maintenance programs, new technology and asset replacement improvement programs and preparedness activities. There are no United Energy LBRA fire summer preparedness actions or improvement programs identified.

Reporting processes are established which ensures that all levels of the BFM management structure, including executive management levels and Energy Safe, are informed of the status of UE's preparedness and fire performance.

The reporting process incorporates requirements for:

- Prior to the Declared Fire Danger period
- During the Declared Fire Danger period
- On Total Fire Ban days.

Reporting and monitoring arrangements for TFB days are contained in the Total Fire Ban Day Action Plan (UE-PL-0009.1) [ID].

BFM Status Report

The BFM Status report will include the AMCM (refer to section 9.1 and Appendix D) and outstanding vegetation (VP1 and VP2) in HBRA is used to monitor and review the United Energy bushfire performance as contained within the BMP. This report measures the status of a range of BFM activities against maintenance procedure compliance and priority compliance timeframes (refer to section 6.2 and 6.3). Reported activities include asset inspection (including cyclic, PELs and thermography inspections), priority maintenance and vegetation Code (VP1 and VP2) outside policy clearance programs.

The BFM status report shall be provided to senior management and employees involved in the Bushfire Mitigation Committee and BFM activities.

The BFM Status report shall be compiled and reported monthly, outside the Declared Fire Danger Period and then reverts to weekly reporting during the Declared Fire Danger Period. The frequency of this reporting enables close monitoring by United Energy management and operational teams.

The frequency of this reporting is sufficient to enable the detection and rectification of any situation that could jeopardise the achievement of a state of full preparedness by the start of the Declared Fire Danger Period.

Asset Maintenance Compliance Measure

HBRA

United Energy's strategy to manage the AMCM (HBRA) is to closely monitor the key inspection and maintenance programs associated with the at risk BFM program. The AMCM is compiled and reported monthly, outside the Declared Fire Danger Period and then reverts to weekly reporting during the Declared Fire Danger Period. This weekly reporting is provided to Energy Safe via OSIRIS. The AMCM (HBRA) is reported on quarterly basis at the Bushfire Mitigation Committee.

United Energy describes the AMCM performance measure and will monitor performance as outlined in section 9.1.

LBRA

United Energy's strategy to manage the AMCM (LBRA) is to monitor the key inspection and maintenance programs. The AMCM (LBRA) is compiled monthly and reported on quarterly basis at the Bushfire Mitigation Committee.

United Energy describes the AMCM performance measure and will monitor performance as outlined in section 9.1.

Asset Inspection

The Asset Inspection program is monitored by the Asset Inspection Group.

An automated daily exception report is generated from SAP and distributed by e-mail to relevant employees who monitor the asset inspection program. The Asset Inspection Group investigates any overdue towers and associated assets (including PEL poles) to ensure they are inspected and actions implemented to improve the process.

Maintenance

An automated daily maintenance report is generated from SAP (via a Tableau report) and distributed to the United Energy Risk and Assurance team and the Maintenance team. The United Energy Maintenance group monitor for any outstanding maintenance items, including a forward view of items coming due, to ensure the defects are rectified in accordance with the timeframes specified in the Asset Inspection Manual (UE-MA-2003).

Vegetation Clearance

United Energy will produce a weekly report which is distributed to senior management, Risk and Performance and Vegetation team representatives. This report provides program status updates on all LBRA and HBRA inspection and cutting vegetation management programs.

Status reporting on identified HBRA VP1 and VP2s outstanding is included into the BFM Status report.

Energy Safe

United Energy's reporting schedule to Energy Safe, on its BFM activities, is listed below:

- Electric Line Clearance (Vegetation) Management Plan. (supplied every 5 years, minimum).
- Bushfire Mitigation Plan (supplied every 5 years, minimum).
- AMCM and Vegetation Compliance in HBRA and REFCL operational data (reported weekly during the Declared Fire Danger period).
- Vegetation clearance report for LBRA and HBRA on a weekly basis (period 1 September to 30 April) and monthly for all other times.
- Ground and asset fire starts (reported as they occur).
- Fire start statistics (reported to Energy Safe as per the Energy Safe reporting requirements).
- Safety Program Report (Quarterly).
- REFCL Performance Report (supplied annually).

Reporting on issues found through Energy Safe audit processes are carried out on request.

10.2 Auditing

United Energy provides information for the preparation of audit and inspection programmes as per the procedure Developing the Annual Consolidated Audit Program Procedure (PR-0017).

Considering the range of audit and inspection programmes conducted across the organisation, each programme is required to determine the:

- scope of review or focus area
- classification of review activity as Audit or Inspection
- training/competency/qualification requirements of the auditors/inspectors.
- frequency of review activities
- method of selecting or prioritising the items/aspects to review.

United Energy undertakes a program of system audits to validate the effectiveness of BFM processes, policies and systems used to manage or monitor BFM activities; these will include:

- Internal audits of the BFM management programs and processes which are undertaken by Audit Services Team. These audits are conducted to an internal audit schedule.
- The external pre-bushfire period inspection and audit conducted to verify, prior to the specified bushfire risk period, United Energy's compliance with inspection and maintenance approach documented in its BMP.

Audit improvement findings and recommendations identified by the internal or external audit shall be recorded in Cintellate and assigned to a responsible officer who will be responsible to manage, action and close-out within a specified timeframe.

Other audits undertaken are described below.

Asset Inspection Audits

United Energy's asset inspection service provider shall develop and implement a self-audit program that they manage and maintain. Any findings from the audit will require a follow up audit of all inspectors where sub-standard work is identified. An intensified audit program shall then be established for that inspector until the attainment of satisfactory results. Additionally, the service provider engages an independent third party to audit the performance of their asset inspectors.

United Energy Maintenance Service Officers shall undertake its own independent audit program for monitoring the performance of asset inspectors. Operational procedures for these audits are contained within the Asset Inspection Audit Framework (UE-PR-5051).

To manage auditing and compliance for asset inspection field activities, United Energy shall maintain a tiered audit framework that describes the asset inspection auditing principles which shall be adopted and implemented by the service provider, as outlined in the Asset Inspection Audit Framework (UE-PR-5051).

The Asset Inspection Audit Program shall incorporate a systematic and structured process to deliver thorough and consistent audits. The program will use a risk-based selection criteria, and evaluates key factors including the accuracy, completeness, adherence to procedures and the quality of inspection findings. The Maintenance Team will convene annually in November, to determine and develop the upcoming calendar year inspection audit schedule plan based on historical findings, trends, and network requirements.

The data quality and field audits will be undertaken to ensure coverage and adherence to the Asset Inspection Manual (UE-MA-2003) and inspection scope assessing for compliance to:

- United Energy technical standards
- Company procedures and processes
- Statutory regulations, government acts and codes of practice
- Safety and hazards
- Works practices and accepted workmanship standards.

The audit framework sets out how the audit sample size shall be determined by referencing the *Australian Standard AS 1199.1-2003 (Sampling procedures for inspection by attributes)* using a tiered audit structure and a 4% "Acceptable Quality Limit" based upon the inspector competencies and historic performance to derive the relevant number of audits as outlined in Table 13.

Table 13: Asset Audit Framework

	Frequency	Audit Sample (Poles)[1]
Long-Term Conforming (Advanced)	1 Audit every 2 months	Inspection Level 1
Short-Term Conforming (Standard)	1 Audit per month	Inspection Level 1
New	1 Audit per month	Inspection Level 2
Non-Conforming	1 Audit per month	Inspection Level 2
Under Review	1 Audit every Inspection Pack	Inspection Level 3

[1]Note the inspection levels are detailed in Appendix 1 of the Asset Inspection Audit Framework (UE-PR-5051).

United Energy's asset inspection service provider shall establish an appropriate framework for promotion and demotion within levels based on the Audit performance and quality results. As a minimum all Inspectors under review or newly trained inspectors shall be treated as 'New' until their audit results have promoted them to Short-term Conforming (Standard) status.

The service provider shall manage the audit program to verify the effectiveness of inspections and the competence of persons assigned to carry out inspections under the BMP. The audits shall assess adherence to approved processes, work practices and confirm that inspectors demonstrate the required skills and knowledge for asset inspection activities. Auditors undertaking these audits shall hold the following competencies:

- Certificate II in ESI – Asset Inspection and Testing
- Experienced in everyday asset inspection activities
- Current authority to work on the United Energy network
- Current VESI refresher training

- Detailed knowledge and understanding of the Asset Inspection Manual and United Energy policies and procedures for Asset Inspection
- Certificate IV in Workplace Assessment and Training (preferred).

The Asset Inspection Audit Framework (UE-PR-5051) documents the rules for determining the volume of poles that shall be audited under the tiered audit framework.

The United Energy asset inspection service provider will monitor and report the results of their completed audits (including PEL inspections) and corrective actions proposed/undertaken in their monthly asset inspection report.

Maintenance Audits

Maintenance project field audits are undertaken by the Service Delivery Maintenance Group, who have an audit program that includes random audits of completed projects, to ensure that the relevant technical standards and design specifications have been achieved in the finished project. Any additional audits are completed upon request.

This program results in a number of maintenance projects being audited each year.

The Service Delivery Maintenance Group have a structured audit program that audits key maintenance works. Audits are conducted in all areas, tracked monthly and form approximately 3% of the nominated activity. Audit activity is reviewed based on non-conformance trends identified. Additionally, as part of United Energy's pre-summer program of activities an external resource is engaged to do an inspection audit (~1%) of the network.

The field auditors undertaking these audits will have the following key knowledge and skill competencies necessary to perform the role:

- Detailed knowledge of distribution networks
- Detailed knowledge of overhead and underground policies, procedures and work practices
- Detailed knowledge of metering and servicing policies, procedures and work practices
- Strong stakeholder management skills.

Vegetation Audits

United Energy's Vegetation Quality and Engagement Team audit the activities and effectiveness of our vegetation management contractor in accordance with a documented audit schedule. The field auditors require, as a minimum, the national competency '*Certificate II in ESI – Powerline Vegetation Control*' qualification to undertake the auditing function.

The effectiveness of the vegetation management controls shall be assessed through a comprehensive annual audit program to assure compliance with the elements of the approved Electric Line Clearance (Vegetation) Management Plan.

The control effectiveness assessment audits undertaken to quantify the inspection / cutting performance use the following criteria metrics to rate the scale of effectiveness:

- Completion the inspection program
- The number of non-compliant vegetated spans identified / cut
- The number of non-compliant spans that have become non-compliant since the last inspection.

Field audits are undertaken on a weekly basis, with reports prepared to confirm quality of inspection, cutting and degree of compliance.

To ensure systemic compliance is maintained during the declaration period, additional audits are undertaken which include:

- Pre-summer audits of the HBRA 66 kV supply network before the declaration date using aerial or ground based inspections.
- Inspection of at least 1% of HBRA spans using either United Energy's Vegetation Quality and Engagement Team or contractors.

United Energy's Vegetation audit activities are detailed within the Electric Line Clearance (Vegetation) Management Plan.

11. Reviewing

The United Energy BMP will be reviewed to consider the network fire ignition and performance identified through the monitoring, review and identification of potential improvements. A change assessment will be undertaken to determine whether United Energy is required to submit a revised BMP to Energy Safe in accordance with *section 107 of the Electricity Safety Act 1998*, and if required a revised BMP will be submitted to Energy Safe for acceptance of the proposed changes to the BMP. A review of the BMP will consider various inputs, some of which will include:

- Changes in Regulation.

- Pre Summer Season Briefing – this briefing is held before the start of the fire declaration period. Attendees include United Energy senior managers, corporate risk personnel, internal auditors, and key personnel involved in the BFM program. It provides an opportunity to report on preparedness of key BMP activities and to plan contingencies, if the need arises, to meet the requirements of the plan.
- Post Summer Season Debrief – this debrief is held at the end of the fire danger period to review performance. Attendees include United Energy senior managers, corporate risk personnel, internal auditors, and key personnel involved in the BFM program. Presentations are delivered on the business's performance during the fire season in each of the key BFM activities. Improvement opportunities are discussed and included into the BMP if required.
- Actions and improvement opportunities identified through the Bushfire Mitigation Committee.
- Monitoring, review and assessment of asset fire start performance through investigations and non-compliance.
- Changes associated with risk reviews, mitigation controls and formal safety assessments to minimise the risk of fire starts.
- Maintenance changes associated with Incorporated Documents.
- Proposed modifications to the supply network.
- Internal and external audit findings.
- Technology changes.

United Energy will identify control deficiencies through audits (refer Section 10.2), asset failure and fire investigations (refer Sections 8, 9.2 and 9.3), and the review of performance trends (refer Section 6.1). United Energy will implement identified control improvements where practicable and will update the BMP to reflect those improvements.

12. Referenced Documents

Table 14: Internal References

Title	Document No.
Asset Failure Investigation Procedure	PR-5060.01
Asset Inspection Audit Framework	UE-PR-5051
Asset Inspection Manual	UE-MA-2003
Asset Management Plan Earthing Systems	UE-PL-5078
Automatic Circuit Reclosers and Remote Controlled Gas Switches Maintenance Manual	UE-MA-2610
Bushfire Mitigation Policy	PO-0003
Crisis Management Plan	JEQA4UJ443MT-154-386
Developing the Annual Consolidated Audit Program Procedure	PR-0017
Developing, Updating or Retiring an Asset Management Plan	PR-0009
Distribution Network Construction Standard	UE-ST-2000
Electric Line Clearance (Vegetation) Management Plan	
Electricity Call Out Procedure	UE-PR-9352
Electricity Safety Management Scheme	STR-0010
ESV/AER and Cintellate Incident Reporting Procedure	PR-0018
Incident Management Procedure	UE-PR-0251
Inspection and Maintenance Plan	UE-PL-5001
Line Condition Observation Program Procedure	PR-0025
Maintenance Manual LV Private Overhead Electric Lines	UE-MA-2620
Maintenance Procedure – Conductors Aerial Line Clearances	PR-5064.02

Maintenance Procedure Distribution Transformers	UE-PR-5071.01
Maintenance Procedure – Distribution Thermographic Inspection	CPPAL-PR-5060.01
Maintenance Procedure - Private Electric Lines	PR-5062.02
Maintenance Procedure - Poles and Towers [ID]	PR-5062.01
Maintenance Procedure – Zone Substation Thermographic Inspection	UE-PR-5060.04
Management of Notifications & Asset Risk	UE-PR-0266
Minimising Fire Start Risk on Total Fire Ban Days	PR-0016
Qualification and Training Requirements for Network Access	UE-PR-310.001
Reporting of Electrical Incidents Guideline	GU-0018
Total Fire Ban Actions	UE-PR-9365
Total Fire Ban Day Action Plan [ID]	UE-PL-0009.1
Trees, powerlines and your property	
Your private overhead electric lines	

Table 15: External References

Title	Document No.
Australian Standard AS 1199.1-2003 (Sampling procedures for inspection by attributes)	
Certificate II in ESI Asset Inspection and Testing	UET20621
Certificate IV in Training and Assessment	
Country Fire Authority Act 1958	
Country Fire Authority Regulations	
Electricity Safety Act	1998
Electricity Safety (Bushfire Mitigation) Regulations	2023
Electricity Safety (Electric Line Clearance) Interim Regulations	2025
Energy Safe Incident and Safety Performance Reporting Guidelines - Major electricity companies	July 2022
Incident reporting and site preservation guidelines	2024
Knapsack Spray Pumps	AS 1687 - 1991
National Qualification Certificate II in Asset Inspection and Testing	UET20621
Operating Rapid Earth Fault Current Limiters (REFCLs) Policy	
Portable Fire Extinguishers	AS 1841.2 - 1997
VESI Apprentice Supervision Guidelines	
VESI Skills and Training Guideline and Matrix	
VESI website – ESI Worker	
Victorian Electricity Supply Industry (VESI) Skills and Training Reference Committee	

13. Definitions

Table 16: Terms and Definitions

Term	Definition
Defective PEL	The inspection of PELs in accordance with the *Electricity Safety (Bushfire Mitigation) Regulations* may identify defects on the customers PEL requiring maintenance
F Factor Scheme (IRU)	The scheme initiated by the Victorian government and administered by the AER is designed to incentivise Victorian electricity distribution businesses to reduce the risk of bushfires originating from electricity distribution assets. The IRU calculates the risk associated with these asset fires based on the geographic location of the fire and the time of the fire relative to the fire danger rating day, irrespective of the size or damage caused by the fire.
Failed in an unusual manner	Characterises an asset failure that deviates significantly from established reliability profiles, historical performance data, or manufacturer expectations. This includes failures occurring outside of the predicted "bathtub curve" (e.g., premature infant mortality of a long-life asset), failures involving multiple simultaneous mechanisms, or those resulting in unexpected physical manifestations.
Fire Danger Period	A period declared under section 4 of the Country Fire Authority Act 1958 to be a fire danger period
Functional Failure	The inability of a system to perform its mission because of deviations from its expected behaviour
Has not performed as intended with an unknown mode of failure	A condition where an asset is unable to meet its required performance standards or has ceased to operate entirely (Functional Failure), yet the specific physical or mechanical process, such as fatigue, corrosion, or electrical tracking, that led to the transition from a functional to a failed state has not yet been diagnosed.
Identified a potential systemic issue	Refers to the discovery of a common underlying vulnerability, such as a design flaw, manufacturing defect, or environmental sensitivity, that is likely to affect an entire population or sub-class of assets. It indicates that the observed failure or degradation is not a stochastic (random) event, but rather a predictable outcome of shared characteristics across the fleet.
Limited Life Pole	Pole capacity has been reduced and requires additional controls, such as more frequent inspection to remain in service.
Network Analytics Platform (NAP)	NAP is an analytics engineer that integrates with SAP to assess asset attributes, determine compliant inspection due dates, optimise field routes, generate inspection orders within SAP.
Preventative maintenance	Preventative maintenance is planned maintenance carried out on network assets at scheduled intervals, or based on asset condition, to reduce the likelihood of failure, deterioration, or unsafe operation.
Private Electric Line	Any low voltage overhead line used to take electricity from the point of supply, whether or not that line is vested in the electricity supplier
Proactive asset replacement	Proactive asset replacement programs are planned strategies that replace assets prior to failure based on risks.
United Energy	United Energy Distribution Pty Ltd
Serviceable Pole	NIL concerns over the pole's ability to meet the asset management objectives and can remain in service.
Total Fire Ban Day	A day that has been declared to be a day of total fire ban day under section 40(1) of the Country Fire Authority Act 1958
Trouble Order	A work order used to manage the investigation and rectification of network faults or asset defects.

Table 17: Acronyms, and abbreviations

Acronyms, abbreviations	Definition
ACR	Automatic Circuit Recloser
ACSR	Aluminium Conductor, Steel Reinforced
AER	Australian Energy Regulator
AFAP	As Far As Practicable
AMCM	Asset Maintenance Compliance Measure
AMI	Advanced Metering Infrastructure
AMP	Asset Management Plan
AS	Australian Standard
BFM	Bushfire Mitigation
BMP	Bushfire Mitigation Plan
BOM	Bureau of Meteorology
CCT	Circuit
CFA	Country Fire Authority
CP	CitiPower
CPPAL	CitiPower and Powercor
DEECA	Department of Energy, Environment and Climate Action
DFDP	Declared Fire Danger Period
DNP	Disconnection Non-Payment
DRN	Dromana
EF	Earth Fault
ELCMP	Electric Line Clearance Management Plan
EM	Emergency Manager
EMLO	Emergency Management Liaison Officer
EMV	Emergency Management Victoria
ESA	Electricity Safety Act
ESI	Electricity Supply Industry
ESMS	Electricity Safety Management Scheme
Energy Safe	Energy Safe Victoria
FDI	Fire Danger Index
FFV	Forest Fire Victoria
FOLCB	Fused Overhead Line Connector Box
FRV	Fire Rescue Victoria
FSD	Fused Switch Disconnector
FSH	Frankston South
GIS	Geographical Information System
HBRA	Hazardous Bushfire Risk Area

Acronyms, abbreviations	Definition
HV	High Voltage
HVI	High Voltage Injection
ID	Incorporated Document
IRU	Ignition Risk Unit
LBRA	Low Bushfire Risk Area
LCO	Line Condition Observation
LIDAR	Light Detection and Ranging
LV	Low Voltage
MA	Manual
MAPPC	Mutual Aid Plan Planning Committee
MEC	Major Electricity Company
MTN	Mornington
NCC	Network Control Centre
NER	Neutral Earth Resistor
P1	Priority 1
P42	Priority 42
P2	Priority 2
P3	Priority 3
PAL	Powercor Australia Limited
PEL	Private Electric Line (previously POEL – Private Overhead Electric Line)
PL	Plan
PLIR	Private Line Inspection Report
PN	Priority Notification for Information
PO	Policy
POPP	Priority Opportunistic
PR	Procedure
RCM	Reliability Centred Maintenance
REC	Registered Electrical Contractor
REFCL	Rapid Earth Fault Current Limiter
RESI	Resistograph
RTO	Registered Training Organisation
SCC	State Control Centre
SDD	Sound, Dig and Drill
SES	State Emergency Service
ST	Standard
SWER	Single Wire Earth Return
TFB	Total Fire Ban

Acronyms, abbreviations	Definition
TV	Television
UE	United Energy
VESI	Victorian Electricity Supply Industry
VP1	Vegetation Priority 1
VP2	Vegetation Priority 2
ZSS	Zone Substation

Appendix A: BFM Program Milestones

Table 18: BFM Program Milestones

Item No.	BFM Milestone Description	Activity	Responsible Officer/Business Stream	Required to be Completed by
1	Submit Electric Line Clearance (Vegetation) Management Plans to Energy Safe.	Management Plan submission is a regulatory requirement.	Head of Vegetation Management	As required by Regulation 9 of the Electricity Safety (Electric Line Clearance) Regulations 2026
2	Conduct the annual Post Summer Season Debrief.	Review previous fire season.	Head of Network Risk and Performance	31 May
3	Conduct annual internal audit of the BFM Plan.	Identify areas for auditing and undertake audit	Head of Audit Services	30 September
4	Submit BFM Plan to Energy Safe.	BFM Strategy plan submission is a regulatory requirement.	Network Risk and Assurance Manager	As required
5	Complete mail out to United Energy overhead PEL customers.	Letters will raise awareness / importance of overhead PEL maintenance works with overhead PEL owners.	Network Risk and Assurance Manager	30 November
6	Conduct the annual Pre Summer Season Briefing.	Review the upcoming fire season preparedness.	Head of Network Risk and Performance	30 November
7	Complete Line Condition Observation program.	Ensure program of observations are completed.	Network Risk and Assurance Manager	1 December

Appendix B: Vehicle Fire Equipment & Vehicle Movement

B.1 Vehicle Fire Equipment & Vehicle Movement

Declared Fire Danger Period & Total Fire Ban (TFB) Days

This applies for all United Energy personnel including contractors and sub-contractors when travelling off-road. All drivers will be advised that vehicles with hot exhausts entering grassed areas can initiate fires.

Definition of Off-road

"Vehicle travelling off a formed roadway or a paved or gravel surface".

During "Declared Fire Danger Periods" - for all travel on non-formed roadways or surfaces other than paved or gravel surfaces, a risk assessment must be undertaken.

The following checks will be included:

- Vehicle Clearance – Check that grass and other combustible material will not come in prolonged contact with the vehicle exhaust system whilst accessing/leaving the work site.
- Vehicles will be checked to ensure they are fitted with an efficient exhaust silencing device.
- Vehicles will be checked to ensure no grass or other combustible material is trapped on or near the exhaust system, both before going off-road and before leaving the work site.
- Vehicles must carry the prescribed fire suppression equipment prescribed in the Country Fire Authority Regulations i.e. At least one knapsack spray pump or stored pressure fire extinguisher of at least 9 litres capacity. (See below for more details).
- Check the worksite before leaving, looking for any signs of possible ignition.

Other Items for Consideration:

- During "Declared Fire Danger Periods", off–road activities will be limited as much as possible.
- Vehicles with greater ground clearance i.e. 4-wheel drive vehicles, are preferred to be used when travelling off-road.
- Drivers are to use already formed roads/tracks where possible, to access the work site, to limit contact with combustible material (If risk assessed as safe to do so).
- At the work site, park vehicles in areas where there is the least amount of combustible fuel.

B.2 Total Fire Ban Days (TFB)

On Total Fire Ban (TFB) days - Off-road activity will be restricted to emergency/fault situations and other works necessary to maintain the United Energy supply network, which is risk assessed as safe to undertake.

Requirements applicable to the following items are described in procedure Minimising Fire Start Risk on Total Fire Ban Days (PR-0016):

- Fire Fighting Equipment; and
- Non-Vehicular Heat Engines (Examples: Generators, Hoggers, Chainsaws etc.)

Appendix C: Overhead PEL Inspection Notification Letter

Notice of Inspection

Date:

To the Occupier,
Address
Address

In accordance with section 113F of the Electricity Safety Act 1998, please be advised that between xx/xx/xxxx and xx/xx/xxxx, our Asset Inspector will inspect all private electric lines above the surface of land on the property you occupy, except for those parts of the lines that are installed after the point at which they are connected to a building or other structure (not including a pole).

The inspection may reveal that defects exist and maintenance is required on a private electric line on the property that you occupy.

If this is the case, we will give the owner written notice of the maintenance work that is required to be carried out.
Please contact our Service provider Business Support Officer, XXXX XXXXXXX – Asset Inspection, on:

Office: P: (03) 9173-6797
Email: UEDPOEL@zinfra.com.au

If you have any queries with respect to this notice.

Regards,
Craig Smith
UE Asset Inspection Planner Auditor

Figure 9: Overhead PEL Inspection Notification Letter

Appendix D: United Energy Asset Maintenance Compliance Measure

Asset Maintenance Compliance Measure

An example of how the Asset Maintenance Compliance Measure (HBRA) is calculated in Table 19.

Table 19: Asset Maintenance Compliance Measure - HBRA

Asset Index Category	Description of Measure	HBRA		
		Items NOT completed by procedure date	Items completed by procedure date plus items not completed procedure date	AMCM by Category (for reporting period)
Asset Inspection	Total no of assets inspected	0	925	100%
Asset Defects (P42)	Number of P42 Defects	0	431	100%
Asset Defects (P2)	Number of P2 Defects	0	142	100%
Total AMCM				100%

An example of how the Asset Maintenance Compliance Measure (LBRA) is calculated in Table 20.

Table 20: Asset Maintenance Compliance Measure - LBRA

Asset Index Category	Description of Measure	LBRA		
		Items NOT completed by procedure date	Items completed by procedure date plus items not completed procedure date	AMCM by Category (for reporting period)
Asset Inspection	Total no of assets inspected	0	3163	100.00%
Asset Defects (P42)	Number of P42 Defects	2	81	99.26%
Asset Defects (P2)	Number of P2 Defects	0	1246	100.00%
Total AMCM				99.26%

Appendix E: Bushfire Mitigation Plan Documents

Table 21 lists the documents that United Energy will not change without first seeking Energy Safe approval and are the only documents that form part of the BMP. Documents referenced within these documents do not form part of the BMP. Documents which are Incorporated Documents have been marked with a superscript [ID].

Table 21: Bushfire Mitigation Plan Documents

Count	Document Title	Document Number	Revision Number	Date
1	Maintenance Procedure - Poles and Towers [ID]	PR-5062.01	2	13 October 2026
2	Total Fire Ban Day Action Plan [ID]	UE-PL-0009.1	3	13 October 2026

Appendix F: Bushfire Mitigation Policy

Bushfire Mitigation Policy

CitiPower, Powercor and United Energy are committed to providing our customers with **safe, reliable and affordable** supplies of electricity and network services through the application of our Integrated Network Management System. We are committed to bushfire mitigation activities and making our communities safer. Therefore, we design, construct, commission, operate, maintain and decommission the network to minimise as far as practicable the **bushfire danger** arising from the electricity network.

We will achieve our commitment by adopting the following principles:

- **Minimise fire ignition** risks as far as practicable.
- Apply a **risk-based approach** to optimise the management and development of our network and systems.
- **Comply** with all relevant legislative and regulatory requirements as well as Australian and industry standards and any other requirements to which we subscribe.
- Continuously improve our management systems and activities by **embracing innovation and technology** to enhance our reputation, leading the industry in adopting and promoting network management practices where it makes sense to do so.

We meet these important commitments by conducting the following activities:

- **Monitor and evaluate** appropriate metrics to effectively manage network performance.
- Focus on **reducing** the number of network fire risk **incidents** and their **consequence**.
- Ensure that **developments** having a relevance to fire risk reduction are adequately **supported.**
- Work with our communities and other agencies to ensure a **coordinated approach** to fire risk management.
- Maintain an accepted **bushfire mitigation plan.**

We strive for excellence in everything we do and are always **accountable** for our own performance including the management and operation of our network to achieve the commitments outlined in this Policy.

This Policy is to be read in conjunction with the **Network Management Policy** and the **Network Safety Policy.**

Glen Thomson
General Manager Electricity Networks

October 2025
PO-0003

Figure 10: Bushfire Mitigation Policy

Appendix G:Revision History

Table 22: Revision History

Rev No.	Revision Summary	Date
1	Initial new version	Aug 7, 2024
1.1	Revisions responding to Energy Safe's Powercor and CitiPower BMP Energy Safe evaluation response dated 13 May, 18 June, 18 July, 22 July and 31 July 2025 that may also be applied across the UE BMP. • Updated Document Control to include CEO approval • Section 1.1 – Update BMP preparation title • Section 1.2 – Included regulation 15 Exemptions in table • Section 1.3 – Updated to clarify reference to Incorporated Documents • Section 2.2 – Updated network statistics • Section 5 – Included description of BMC governance and oversight activities. • Section 6 – Included statement regarding communication of changes to maintenance documents and reference to ESA 1998 for BMP revisions. • Section 6.1 – Included paragraph to clarify scope of inspection and assessment for network assets. • Section 6.1.1: – Updated table to include Tower and PEL inspection frequencies – Under full inspection included inspection of above-ground assets and inspection on site. – Updated aerial view for crossarm condition to include other defects were identified in photo. – Included references to Tower inspections • Section 6.1.2 – Included references for clearance assessments • Section 6.1.4 – Included reference to Resistograph non-destructive wood pole inspections. • Section 6.1.5 – Included references to LiDAR Conductor Clearance Inspections • Section 6.1.6 – Amended to include additional clarification for Thermographic inspection intervals • Section 6.1.7 – Provided detail to clarify the approach for the delivery of the line condition observation program. • Section 6.2: – Amended to describe the distribution network assets to align with regulation – Added reference to recording defects in SAP. • Section 6.4 – Amended to reflect updated maintenance document references • Section 6.5 - Incorporated plan and commitments for response to ESV Operating REFCL Policy • Section 6.6 – Amended to commit to maintaining SWER ACRs for network changes • Section 6.9 – Amended PEL steel poles inspection requirements, reference documents and rearranged format and structure of information • Section 6.10 – Amended to include: – General update for developing new technology – Updated references to completed initiatives – Include reference to conductor and crossarm condition assessment trials	Oct 6, 2025

Rev No.	Revision Summary	Date
	• Section 6.12 - General update and included additional detail relating to Asset Inspector VESI training, National qualifications and competency • Section 6.14 – Included reference to United Energy website for REC information. • Section 6.15 – General update to format and information structure • Section 6.16 – Amended to include enhanced protection and suppression settings on TFB days • Section 6.17 – General additions and amendments to format and information structure • Section 6.18 – Included information on fire management activities • Section 8 – Included references to ESV reporting guidelines • Section 9: – General update and inclusion of measures where available – 9.1 Updated to include key measures for AMCM and how monitor, review and report. – 9.2 Update for ground and asset fires, including F-Factor and IRU monitoring and review. • Section 9.3 – Updated to provide further detail for Asset Investigation approach for fire ignition including analysis and reporting. • Section 10.1 – Included detail to outline the role of the Bushfire Mitigation Committee and defining the BFM Status and AMCM reporting. • Section 10.2 – Amended to include Audit program details such as volumes, coverage, frequency, scope and auditor competence for Asset Inspection, Maintenance programs and Vegetation. • Section 11 – General update to strengthen commitment to BMP reviews • Section 12 – Updated reference documents • Appendix A – New section for Total Fire Ban Day Action Plan • Appendix C – New section outlining Vehicle Fire Equipment & Vehicle Movement • Appendix E – New section showing AMCM calculation and report • Appendix F – Updated Incorporated Documents revisions • Appendix G – New section included updated Bushfire Mitigation Policy (PO-0003)	
2	Revisions responding to Energy Safe BMP evaluation received 29 July 2026 and 6 October 2026. • Document Control – Updated requirement for Energy Safe acceptance before any BMP change implementation. • Section 1.1 – Updated contact numbers • Section 1.2 – Updated wording and section refs in Table 2 “United Energy Plan Reference” column and added sentence regarding BMP amendments • Section 2.2 – Updated wording to include ESC reference and Table 3 ‘Statistic” column volumes • Section 3.1.- Minor wording updates • Section 3.2 – Added objective dot point on “monitor and maintain the condition of the supply network…” • Section 4.1 – Added “commissioning” to asset life approach and amended wording of paragraph on fire ignition for clarity. • Section 4.3 – Included new paragraph covering LBRA • Section 5 – Amended wording to include “LBRA and HBRA” and added sentence referring to section 10 and 11	Oct 19, 2026

Rev No.	Revision Summary	Date

	• Section 6.1 – New section covering Fire Start Performance Summary added and "2026" time stamp added to the AFAP assessments and data for ground and asset related fire ignitions
	• Section 6.2 – Wording changes and expanded for clarity and updated reference to Section 11
	• Section 6.2.1 –
	  – Table 4 – Removed word 'Serviceable' from 'limited life poles' and renamed 'Close Inspection' to 'Detailed Above Ground Inspection'
	  – Expanded on inspection of towers.
	• Section 6.2.2 – Added confirmation that there are no SWER systems in United Energy LBRA to Table 5
	• Section 6.2.3 - New section for Notification Reassessment
	• Section 6.2.4 – Expanded and reworded to clarify that 4-point RESI drill inspection is for unserviceable poles only
	• Section 6.2.6 –
	  – Added sentence to confirm that "Any LV network assets attached to these assets will also undergo a thermographic inspection."
	  – Table 6 – Added Indoor/Kiosk/Ground Distribution and Zone substation rows and updated inspection intervals.
	• Section 6.2.7 – New section for Conductor condition assessment
	• Section 6.2.8 – New section for Priority 3 Re-inspections
	• Section 6.2.9 – Amended to include LBRA network approach
	• Section 6.3 Table 7 – Updated to include reference document.
	• Sections 6.4.3, and 6.4.4 – Minor rewording for clarity
	• Section 6.4.2 – Amended to clarify Faults/Fault Follow-up for P1 and trouble orders
	• Section 6.5.5 Table 12 – Amended milestone 4 date to 30th November 2026 per ESV
	• Sections 6.6, 6.7 and 6.8 – Minor rewording for clarity
	• Section 6.9 – Disconnection section amended for clarity of TFB day actions
	• Sections 6.10.1 and 6.10.2 respectively covering early fault detection and smart meter detection algorithms removed
	• Section 6.10.2 Crossarm condition assessment trial – Added trial period till end of 2026
	• Section 6.11 – Added LiDAR inspection to overall vegetation management program responsibilities
	• Section 6.12 – Amended for clarity and to include further detail on competencies by activity type
	• Section 6.13 - Minor amendment and rewording for clarity
	• Section 6.14 - Minor amendment and rewording for clarity of annual BFM communication prior to, and throughout the fire season.
	• Section 6.15 – Updated NCC liaison with fire agencies
	• Section 6.16 – Amended for clarity of PELs and application of protection and suppression settings on TFB days
	• Sections 6.17, 6.18, 7 & 8 – Amended for clarity
	• Section 9.1 – Added AMCM target for LBRA
	• Sections 9.2 and 9.3 – Restructured and amended for clarity
	• Section 10.1 –
	  – Review of LBRA and HBRA area activities expanded on for clarity	

Rev No.	Revision Summary	Date
	– BFM Status Report reporting requirement removed from Energy Safe reporting schedule. • Section 10.2 – – Amended for clarity and expanded on internal management of audit findings, including the use of the Cintellate system, – Amended asset inspection audits including service provider relationship – Clarified Vegetation Audits HBRA 66 kV supply network. • Section 11 - – Entire section reworded for clarity – "Post Fire Season Review" renamed to "Pre Summer Season Briefing". • Section 12 – Updated to include all referenced documents • Section 13 - Updated to include all relevant definitions and acronyms • Appendix A – New section for BFM Program Milestones • Appendix D - United Energy Asset Maintenance Compliance Measure tables updated to reflect current measures • Appendix E Table 21 – Incorporated document list revisions and revision dates updated.	