2014/19 V.3

UNITED ENERGY

FIRE PREVENTION PLAN

We value: safety, accountability, communication, collaboration, empowerment and respect

Liability Disclaimer

This Fire Prevention Plan (‘the Plan’) has been prepared to inform relevant stakeholders of the asset management approach, processes and strategies applied to the management of the United Energy (UE) Electricity Network to prevent fire ignition emanating from the UE supply network.

This Plan has also been prepared for the purposes of the Electrical Safety Act (1998) and the Electricity Safety (Bushfire Mitigation) Regulations 2013 (Vic) and may be referred to as a 'Bushfire Prevention Plan' to satisfy the purposes of these legislative requirements.

Some of the information and statements contained in the Plan are comprised of, or are based on, assumptions, estimates, forecasts, predictions and projections made during UE’s annual asset management planning cycle. In addition, some of the information and statements in the Plan are based on actions that UE currently intends it will take in the future. Circumstances will change, assumptions and estimates may prove to be wrong, events may not occur as forecasted, predicted or projected, and UE may, at a later date, decide to take different actions to those it currently intends to take.

Except for any statutory liability which cannot be excluded, UE will not be liable, whether in contract, tort (including negligence), equity or otherwise, to compensate or indemnify any person for any loss, injury or damage arising directly or indirectly from any person using, or relying on any content of, the Plan.

When considering any part of the Plan, persons should take appropriate expert advice in relation to their own circumstances and must rely solely on their own judgement end expert advice obtained.

December 2015

Signatories (Version 3.0 - issued December 2015)

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Issue	Name of Plan	Date Issued	Prepared by
1.0	2014/15 First Issue	10/06/2014	T. Fisher
2.0	2014/19 Second Version	25/08/2014	T. Fisher
3.0	2014/19 Third Version	20/12/2015	T. Fisher

Notes / Changes

Names and titles updated and some minor changes throughout document.

The major additions/alterations to the 2014/19 Plan (third version) from the previous (second version) are listed below.

Item	Page	Section	Amendment
FPP	All	Throughout Document	Change in title and responsibilities from 'Electric Line Clearance and Fire Prevention Manager to the 'Fire Prevention Manager'.
FPP	8	Regulation Compliance Information (Regulation 7A)	Addition of new prescribed requirements – Regulation 7A.
FPP	10	Fire Prevention Policy	Addition of documented Fire Prevention Policy.
FPP	33	FPP2: Management Structure Procedure	Role and Responsibilities and Attachment 1 – Fire Prevention Management Structure updated.
FPP	38	FPP3: Management Reporting Procedure	The sub-heading 'Procedure' has now been altered to reflect current practice
FFP	40	FPP5: HBRA Fire Prevention Index Procedure	Addition of the following paragraphs and attachments • Index Monitoring • Additional Index Monitoring (During Fire Season) • Reporting of Indexing Items (During Fire Season) • Attachment 2: HBRA Look Forward Index Report • Attachment 3: HBRA Audit Spreadsheet
FPP	40	FPP5: HBRA Fire Prevention Index Procedure	Alteration to Attachment 1: HBRA Fire Prevention Index Table to reflect the inclusion of: • Code 55 vegetation in the calculation as indexing after two working days during the declared period, and; • Reinforcing that code 56 vegetation indexes after six weeks of identification
FPP	57	FPP9: Technology Implementation and Development Procedure	Under 'General' Information included on the addition of RECFL on the UE Network
FPP	61	FPP11: Training and Competence Procedure	Specifically detailing the training requirements for Asset Inspection both overhead cyclic and other forms of asset inspection.

Item	Page	Section	Amendment
FPP	64	FPP12: Monitoring and Review Procedure	The sub-heading 'Fire Prevention Management System Audit' has now been merged into the sub section 'Energy Safe Victoria Audt'. Addition of the following paragraphs to the existing – • HBRA Summer Audit Program, and; • Attachment1: 2014/19 — Vegetation Code • Definitions and Actions • HBRA Summer Audit Program • Attachment1: 2014/19 — Vegetation Code Definitions and Actions
FPP	83	FPP18: Network Assets Preventative Programs Procedure	The addition of information documenting UE's inspection of traditionally ground type assets, including the employee qualifications, scope of inspection and transition plan.
FPP	97	FPP25: Private Overhead Electric Lines Procedure	Under 'Current Year' update to the plan in relation to inspection requirements for POELS.
FPP	97	FPP25: Private Overhead Electric Lines Procedure Referral'	Removal of 'Attachment 9: Letter From ESV – dated 21 April 2011 in Relation to POEL Line Defects – Customer
FPP	109	FPP26: Operational Contingency Plans Procedure	The inclusion of the current 2015/16 TFB/Code Red Settings within the procedure and includes additional section titled – Changes to Protection Settings – Red Hill/ Main Ridge Area

Key Contacts List

These are the prescribed contact particulars to satisfy the regulatory requirement (ref. clause 7(1)(a) (b), (c), (d) and (da) of the Electricity Safety (Bushfire Mitigation) Regulations 2013.

Clause	Name	Position	Address	Telephone
7(1)(a)	United Energy (UE)	Major Electricity Company	Level 1, 43-45 Centreway, Mt. Waverley, Victoria 3149.	(B/H) 8540 7888 (A/H) 132 099
7(1)(b)	Trevor Fisher	Fire Prevention Manager		
7(1)(c)	Ross Musgrove	General Manager Service Delivery (Acting), United Energy		
7(1)(d)	UE Network Coordination (24 Hr)	Network Control Centre (NCC)		

Contents

Regulation Compliance Information (Regulation 7)

The purpose of this section is to provide assistance to quickly locate in this plan the prescribed particulars as required by the Electricity Safety (Bushfire Mitigation) Regulations 2013, regulation 7.

Regulation	Requirement	Reference in this Plan
7(1)	For the purposes of section 113A (2)(b)of the Act, the following are the prescribed particulars.	
7(1)(a)	The name, address and telephone number of the major electricity company.	See Key Contacts List on page 3
7(1)(b)	The name, position, address and telephone number of the person who was responsible for the preparation of the plan.	See Key Contacts List on page 3
7(1)(c)	The name, position, address and telephone number of the persons who are responsible for carrying out the plan.	See Key Contacts List on page 3
7(1)(d)	The 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.	See Key Contacts List on page 3
7(1)(da)	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.	See Key Contacts List on 3
7(1)(e)	The bushfire mitigation policy of the major electricity company to minimise the risk of fire ignition from its supply networks.	Policy 1
7(1)(f)	The objectives of the plan to achieve the mitigation of bushfire danger arising from the major electricity company's supply network.	Policy 1.2
7(1)(g)	A description, map or plan of the land to which the Bushfire Mitigation Plan applies.	Policy 1.8
7(1)(h)	The preventative strategies to be adopted by the major electricity company to minimise the risk of the major electricity company's supply networks starting fires.	Policy 1.10, Policy 17
7(1)(i) 7(1)(i)	A plan for inspection that ensures that – the parts of the major electricity company's supply network in bushfire risk areas are inspected at intervals not exceeding 37 months from the date of the previous inspection; and	 FPP6
7(1)(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;	FPP18
7(1)(j)	Details of the processes and procedures for ensuring that each person who is assigned to carry out the inspections referred to in paragraph (i) has satisfactorily completed a training course approved by Energy Safe Victoria and is competent to carry out such inspections;	Policy 12 and FPP11

Regulation	Requirement	Reference in this Plan
7(1)(k)	Details of the processes and procedures for ensuring that persons (other than persons referred to in paragraph (j)) who carry out or will carry out functions under the plan are competent to do so.	Policy 12 and FPP11
7(1)(l)	The operation and maintenance plans for the major electricity company's supply networks –	Policy 17.3
7(1)(l)(i)	in the event of a fire.	FPP8, FPP26, FPP27
7(1)(l)(ii)	during a day of total fire ban: and	FPP26 and FPP27
7(1)(l)(iii)	during a fire danger period.	FPP8, FPP26, FPP27
7(1)(m)	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.	Policy 15, FPP16 and Policy 16, FPP17 and Policy 17.1, FPP18
7(1)(n)	Details of processes and procedures by which the major electricity company will –	
7(1)(n)(i)	monitor the implementation of the Fire Prevention Plan.	Policy 1.9, FPP1, FPP2 and FPP6
7(1)(n)(ii)	audit the implementation of the Fire Prevention Plan.	Policy 1.9, FPP1, FPP2 and FPP6
7(1)(n)(iii)	identify any deficiencies in the plan or the plan's implementation.	Policy 1.9, FPP1, FPP2 and FPP6
7(1)(n)(iv)	change the plan and the plan's implementation to rectify any deficiencies are identified under subparagraph (iii).	Policy 1.9, FPP6
7(1)(n)(v)	monitor the effectiveness of inspections carried out under the plan.	Policy 1.10, FPP6
7(1)(n)(vi)	audit the effectiveness of inspections carried out under the plan.	Policy 1.10, FPP1, FPP2, FPP6 and FPP11
7(1)(o)	The policy of the major electricity company in relation to the assistance to be provided to be provided to fire control authorities in the investigation of fires near the major electricity company's supply network.	Policy 15, FPP16 and Policy 9, FPP8
7(1)(p)	Details of processes and procedures for enhancing public awareness of –	
7(1)(p)(i)	The responsibilities of the owners of private overhead electric lines in relation to maintenance and mitigation of bushfire danger.	Policy 18.3, FPP25
7(1)(p)(ii)	The obligation of the major electricity company to inspect private overhead electric lines within its distribution area.	Policy 18.3, FPP25
7(1)(q)	A description of the measures to be used to assess the performance of the major electricity company under the plan.	Policy 7, FPP5, FPP6 FPP16

Regulation Compliance Information (Regulation 7A)

In addition to the above prescribed particulars the Electricity Safety Act, has been updated and as of the 29 June 2015 regulation 113A (3) has now been included. This new regulation states;

"A major electricity company must cause the prescribed information about its accepted bushfire mitigation plan to be made available for inspection—

(a) on the company's Internet site; and

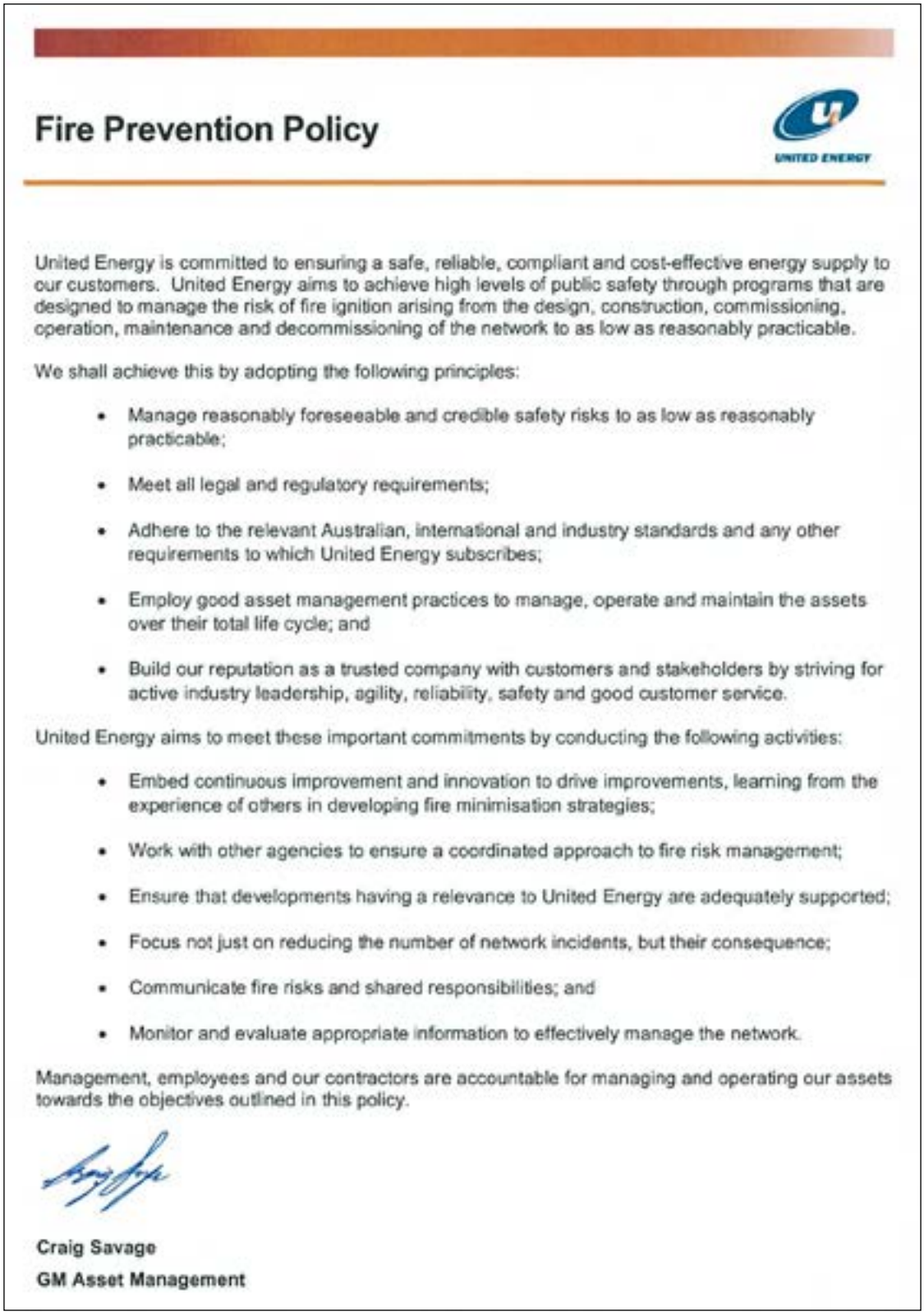
(b) at the company's principal office in the State during ordinary business hours."

In response to this additional requirement, the Electricity Safety (Bushfire Mitigation) Regulations 2013, have been amended. Regulation 7A has been added relating to Major Electricity Company bushfire mitigation plans being made publicly available. The section below provides assistance in locating specific information in this plan.

Regulation	Requirement	Reference in this Plan
7(A)	For the purposes of section 113A(3) of the Act, the following are the prescribed particulars.	
7(A)(a)	The name, address and telephone number of the major electricity company.	See Key Contacts List on page 3
7(A)(b)	The telephone number that members of the public can call in an emergency that requires action by the company to mitigate the danger of bushfire.	See Key Contacts List on page 3
7(A)(c)	The company's bushfire mitigation policy;	Policy 1
7(A)(d)	The objectives to achieve the mitigation of bushfire danger arising from the major electricity company's supply network.	Policy 1.2
7(A)(e)	The description, map or plan of the land to which the Bushfire Mitigation Plan applies.	Policy 1.8
7(A)(f)	The company's preventative strategies and programs to be to minimise the risk of the major electricity company's supply networks starting fires.	Policy 1.10, Policy 17
7(A)(g)	The company's plan for inspection of its supply network.	FPP6, FPP18
7(A)(h)	Details of the processes and procedures for ensuring that each person who is assigned to carry out the inspections referred to in paragraph (g) has satisfactorily completed a training course approved by Energy Safe Victoria and is competent to carry out such inspections.	Policy 12 and FPP11
7(A)(i)	Details of the processes and procedures for ensuring that persons (other than persons referred to in paragraph (h)) who carry out or will carry out functions under the plan are competent to do so.	Policy 12 and FPP11
7(A)(j)	The company's operation and maintenance plans for its supply network in the event of a fire, during a total fire ban day and during a fire danger period	FPP8, FPP26, FPP27
7(A)(k)	The investigations, analysis and methodology adopted by the company for the mitigation of the risk of fire ignition from its supply network	Policy 15, FPP16 and Policy 16, FPP17 and Policy 17.1, FPP18

Regulation	Requirement	Reference in this Plan
7(A)(l)	The company's policy in relation to the assistance to be provided to fire control authorities in the investigation of fires near the company's supply network;	Policy 9, FPP8
7(A)(m)	Details of processes and procedures for enhancing public awareness of –	
7(A)(m)(i)	the responsibilities of owners of private electric lines that are above the surface of the land in relation to maintenance and mitigation of bushfire danger.	Policy 18.3, FPP25
7(A)(m)(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	Policy 18.3, FPP25

1 Fire Prevention Policy



Fire Prevention Policy

United Energy is committed to ensuring a safe, reliable, compliant and cost-effective energy supply to our customers. United Energy aims to achieve high levels of public safety through programs that are designed to manage the risk of fire ignition arising from the design, construction, commissioning, operation, maintenance and decommissioning of the network to as low as reasonably practicable.

We shall achieve this by adopting the following principles:

- Manage reasonably foreseeable and credible safety risks to as low as reasonably practicable;
- Meet all legal and regulatory requirements;
- Adhere to the relevant Australian, international and industry standards and any other requirements to which United Energy subscribes;
- Employ good asset management practices to manage, operate and maintain the assets over their total life cycle; and
- Build our reputation as a trusted company with customers and stakeholders by striving for active industry leadership, agility, reliability, safety and good customer service.

United Energy aims to meet these important commitments by conducting the following activities:

- Embed continuous improvement and innovation to drive improvements, learning from the experience of others in developing fire minimisation strategies;
- Work with other agencies to ensure a coordinated approach to fire risk management;
- Ensure that developments having a relevance to United Energy are adequately supported;
- Focus not just on reducing the number of network incidents, but their consequence;
- Communicate fire risks and shared responsibilities; and
- Monitor and evaluate appropriate information to effectively manage the network.

Management, employees and our contractors are accountable for managing and operating our assets towards the objectives outlined in this policy.

Craig Savage
GM Asset Management

1.1 Introduction

UE is committed to operating its electricity network in full compliance with the requirements of the Act and Regulations administered by Energy Safe Victoria (ESV). Due to prevailing weather conditions and country environments conducive to fires UE acknowledges the need to act proactively in designing and operating its electricity distribution assets to prevent fire ignition. Being an authority in the distribution of electricity in its franchise area, UE acknowledges its responsibility to the local community by considering all relevant practical technologies available to prevent fires.

The creation of this plan and the policies and procedures herein demonstrate the commitment from all levels of management within UE to the minimisation of fires due to electricity assets. Whether the terms minimisation or prevention are used, the aim of this plan is to be a primary reference for all fire-related policies and procedures and to manage the fire ignition risk using approved techniques.

These policies and procedures are communicated to all UE employees, Service Providers (SP) and subcontractors and stringently enforced at the design, construct, commission, operate, maintain and decommission stages.

A copy of this plan, approved by ESV, will be available for inspection at Level 1, 43-45 Centreway, Mt. Waverley during normal business hours and on UE's website www.ue.com.au. The availability for inspection extends to the corporate systems (SAP and GIS) upon reasonable request for information regarding the location of the UE supply network assets excluding commercially sensitive material. An authorised UE officer is required to supervise all SAP and GIS inspections granted to the public.

Fire History

Three significant and devastating days of fires have ravaged significant parts of Victoria from 1977 to 2009.

- 12 February 1977
  There were 68 separate fires reported in Victoria on that day, 16 of which were major.
- 16 February 1983
  There were 180 separate fires reported in Victoria on 'Ash Wednesday', the majority of which were major. Twenty-nine were alleged to involve electricity assets. Seventy people perished because of these fires in South Australia and Victoria.
- 7 February 2009
  The devastating 'Black Saturday' fires on the 7 February 2009 were the worst fires in Australia's history costing 173 lives and destroying over 2,000 dwellings in fires that raged throughout the northern and eastern areas in the outer suburbs and small towns within 100km of Melbourne.

Following the 2009 'Black Saturday' bushfires, the State Government of Victoria established the 2009 Victorian Bushfires Royal Commission to investigate the causes and responses to the bushfires in an effort to learn from these tragic events to reduce the likelihood and impact of future bushfires. In its July 2010 Final Report, the Royal Commission concluded that five of the eleven major fires that it investigated were started by power lines. The Royal Commission made 67 recommendations, of which eight (Recommendations 27 to 34) related to reducing the likelihood of power lines starting catastrophic bushfires.

The Powerline Bushfire Safety Taskforce was established in August 2010 to recommend to the Victorian Government how to maximise the value to Victorians from the Royal Commission recommendations. The PBST presented its final report to the Victorian Government on 30 September 2011. The Victorian Government accepted the recommendations made by the Taskforce and in December 2011 announced a package of initiatives including high performance Automatic Circuit Reclosers (ACRs) and Rapid Earth Fault Current Limiters (REFCLs).

As a result of the Victorian Bushfire Royal Commission and Recommendation 33, Energy Safe Victoria (ESV) has directed UE under section 141(2)(d) of the *Electricity Safety Act (1998)* and via letters dated 4 January 2011 to amend its *Electricity Safety Management Scheme* (ESMS) to include the development (or reinforcement) of plans and procedures in relation to the fitting of spacers/spreaders, vibration dampers and armour rods. The current status of the progress of these programs are now reported through the UE ESMS reporting regime.

1.2 Objectives

The objective of this Plan is to clearly define the policies and procedures of UE in relation to the prevention of fire, these being:

- To establish policies and practices that will minimise as far as practicable, the risk of network assets or operational activities being the cause of a fire ignition with particular focus on high bushfire risk days.
- To demonstrate to all stakeholders,United Energy's commitment and due diligence in operating an electricity network that minimises risk and meets stakeholders objectives expectations.
- To implement the requirements of the *Electricity Safety Act (1998)*, the Electricity Safety (Bushfire Mitigation) Regulations 2013 and the Electricity Safety (Electric Line Clearance) Regulations 2010.

1.3 Vision

To mitigate the fire risk to the community and the environment from electricity distribution assets.

UE will support this vision by instilling the following values:

- Use of skilled people and modern technology
- Continued development and improvement of methods of environmental management of fire safe distribution assets
- Providing training in line with industry standards for vegetation management
- Provision of excellent and responsive customer service.

1.4 Mission

To ensure that vegetation clearances, electrical distribution assets and Private Overhead Electric Lines (POELs) are maintained in accordance with the relevant Acts, Regulations and the United Energy's accepted ESMS.

At all times these activities will be carried out with attention to:

- Ensuring public safety
- Ensuring private property security
- Ensuring continuity of supply
- Delivery of quality service
- Responsible environmental management
- Commitment to work place safety
- Minimising of community cost
- Notification/consultation/negotiation with relevant stakeholders.

1.5 Definitions

Fire Prevention Plan (the Plan)
This document is prepared by UE and submitted to ESV to comply with the *Electricity Safety Act* (1998) Section 113A (1).

ESV
Energy Safe Victoria.

UE
United Energy (UE) distributes electricity to southern and eastern suburbs of Melbourne and the Mornington Peninsula, Victoria. UE is one of five licensed electricity distribution networks in Victoria.

Service Provider (SP)
The Service Provider/s (SP) refers to the organisation/s contracted to implement and deliver the requirements of the Plan.

The legal name of the Zinfra group company that is the UE service provider under the northern region is 'Jemena Asset Management (6) Pty Ltd'. This company operates under the registered business name 'ZNX' and this is the name that shall be referred to in this plan.

Downer Australia Pty Ltd (Downer) is the company employed in this role for the southern area of UE.

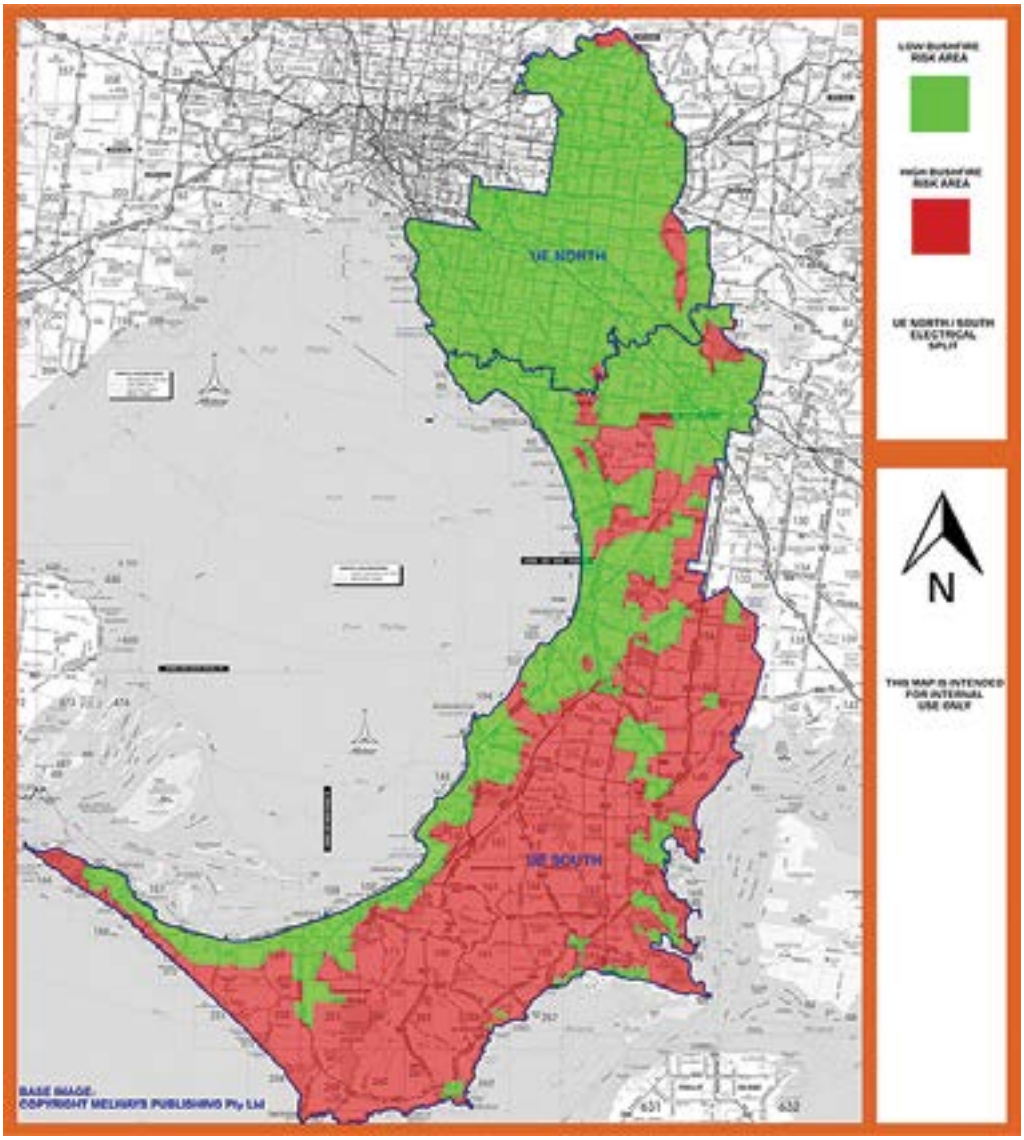
1.6 References

- *Electricity Safety Act (1998)*
- *Electricity Safety (Bushfire Mitigation) Regulations 2013*
- *Electricity Safety (Electric Line Clearance) Regulations 2010*
- *Electricity Safety (Management) Regulations 1999*
- *UE PL 2039 Fire Prevention Strategy*
- *UE PL 2040 Electric Line Clearance Strategy*
- *UE Electric Line Clearance Management Plan*
- UE Customer Complaints Procedure
- *UE Electricity Safety Management Scheme*
- Current ESV Directions and Exemptions.

1.7 Scope

This Plan defines UE's policies and procedures for the prevention of fire ignition due to electricity assets, including responsibilities and accountabilities. It includes references to other plans or instructions, which combine with the Plan to cover all activities that are carried out by UE employees, SP and subcontractors which have an impact on the risk of fire ignition.

The following map shows the land to which this *Fire Prevention Plan* applies with respect to the UE area. The map identifies the UE supply network Hazardous Bushfire Risk Area (HBRA) in red, Low Bushfire Risk Area (LBRA) in green and the supply network boundary as a blue line.



Note: Figure 1 defines the geographic area to which this Plan applies (see section 3 Objectives). Details of this area are maintained and available in the UE GIS system.

Figure 1 shows how the system defines geographical boundaries with other Distribution Businesses (DB) and also outlines the delineation between the northern and southern areas that have been designated to two separate SPs who complete the actual physical works.

As displayed in the above map, the UE service area covers the eastern and southern suburbs of Melbourne:

- Its northern boundary at the Yarra River in Templestowe
- Its western boundary in St Kilda
- Its eastern boundary at Hallam
- South including all the Mornington Peninsula through to Portsea.

The UE service area is also shown as a wide orange line in Edition 38 of the Greater Melbourne street directory published by Melway — refer to Key Maps page 9 to page 17.

1.8 Statistics

United Energy distributes electricity in Melbourne's south and east including the Mornington Peninsula covering an area of 1472 km2. The electricity distribution assets have a replacement value of over four billion dollars comprising 46 zone substations, approximately 214,000 poles, 12,500 distribution substations, 10,300km of overhead power lines and 2,600km of underground cables.

The northern part of UE's service territory is a developed, urban area lying entirely within the Melbourne metropolitan area, including predominantly residential and commercial centres such as Doncaster, Box Hill, Caulfield and Glen Waverley.

The southern part of UE's service territory is a mix of developed and undeveloped land with Dandenong being recognised as the capital of the south east and is Victoria's manufacturing heartland. Frankston denotes the southern rim of the Melbourne metropolitan area and the border to the Mornington Peninsula. Frankston is one of the largest retail areas outside the Melbourne CBD.

The Mornington Peninsula, in the southern part of UE's service territory, is a 720 square kilometre boot-shaped promontory separating two contrasting bays: Port Phillip and Western Port. Representing 50% of UE's territory by area, the Mornington Peninsula, is surrounded by the sea on three sides, with coastal boundaries of over 190 kilometres. It is a mixture of urban areas, resort towns, tourist development and rural land with considerable amount of high bushfire risk area.

Recent changes to the Electricity Safety Act now means that the responsibility for the management of vegetation in the vicinity of these assets is shared only with Councils and customers within UE boundaries.

The UE area has been classified by the CFA into two categories; Hazardous Bushfire Risk Area (HBRA) and Low Bushfire Risk Areas (LBRA) in compliance with Part A, Section 80 of the *Electricity Safety Act (1998)*.

Specific asset standards and vegetation management requirements apply in these areas.

UE statistical data on distribution poles as of 20 July 2014 is as follows:

Distribution Poles	LBRA	HBRA	Total
Total Number of Poles	195,190	19,791	214,981
% of UE geographic area	40%	60%	100%
Kilometres of Overhead Sub T / HV	3,245	1,139	4,384
Kilometres of Overhead LV	5,381	467	5,848
Number of LV Overhead Service Lines	365,798	9,143	374,941

1.9 Strategies

The core fire prevention strategies adopted by UE are:

- Rigorous management processes — policies and procedures shall be documented and understood by all relevant UE employees, SP and subcontractors, and systems shall be in place to:
  - Monitor and audit the implementation of the plan
  - Identify any deficiencies in the plan or the plan's implementation
  - Improve the plan and the plan's implementation if there are any deficiencies identified.
- Preventative programs — these shall be based on the analysis of fire risk and the implementation of appropriate instructions and programs
- Asset condition monitoring — the condition of the assets shall be closely monitored through a program of inspections, testing and recording. Systems shall be put in place to:

  - Monitor and audit the effectiveness of inspections carried out under the plan
  - Ensure that any training necessary for persons assigned to perform functions under the plan is provided
  - Monitor and audit the competence of the persons assigned to carry out inspections under the plan
- Programs for days of total fire ban — appropriate operational procedures shall be maintained and implemented on days of total fire ban.
- Monitor and complete analysis of data systems.

1.10 Operational Environment and Assumptions

In implementing the Fire Prevention Plan within the UE area, the following operational assumptions and arrangements are made.

- The UE geographical area is located within the Central Fire Zone (Regions 8 and 13) as defined by the CFA.
- The fire danger period for these regions is usually declared in early December and pre-fire season works in the HBRA areas are usually scheduled to finish before the end of November. The Fire Prevention Manager is responsible for advising the Fire Prevention Committee of possible variations in this date.
- At present, the number of assets to be maintained or replaced will not vary significantly from the numbers estimated from previous years. These estimates are reflected by information contained in the UE Asset Management System (GIS/SAP) for the UE supply network. The Fire Prevention Committee is responsible for setting these estimates.
- Approximately 98% of trees affecting the HBRA network can be maintained to the Code specification by cyclic pre-summer cutting or removal programs. The remaining 2% of trees require special arrangements (e.g. important or significant vegetation).
- The majority of assets in the UE area are accessible throughout the year. However, there are a few assets on hilltops and in gullies where access difficulties can occur. The majority of these assets are located in the Mornington Peninsula area. The Vegetation and Fire Prevention Planner is responsible for ensuring that those assets not accessible will be managed without compromising the fire prevention program.
- Funding for carrying out the requirements of the Plan will be made available as part of the normal budgeting process.

2 The Role of Senior Management

Purpose

To clearly demonstrate, internally and externally, senior management's commitment to fire prevention.

Objectives

To actively participate in the implementation of the Fire Prevention Plan including:

- Attending scheduled meetings where possible
- Attending Senior Management Briefings
- Liaison with regulatory authorities when required
- Minimising the number of fire starts from network assets.

Accountabilities

Senior management is responsible for:

- Visibly and actively participating in the promulgation, communication and operation of the Fire Prevention policy and procedures
- Carrying out periodic assessments of the Fire Prevention Management System

- Establishing key performance measures as senior management controls
- Ensuring preventative programs are in place to prevent fire starts from network assets
- Fostering an ongoing culture of continuous improvement and proactive reduction in network defects or faults which lead to fire ignition.

Requirements

Further details are contained in Policy 4 and in the Management Structure Procedure FPP2.

3 Fire Prevention Risk Register

Purpose

To ensure that all activities which contribute to the prevention of fire risk or affect fire risk are properly identified, documented and managed.

Objectives

- To identify and document the risk management processes, procedures and activities (and the relationships between them) associated with managing the risk of fire.
- To identify the management control mechanisms for the activities critical to the management of fire risk.
- Ensuring the reporting, investigation and analysis of any alleged fire ignition from network assets.

Accountabilities

The Fire Prevention Manager in consultation with the Fire Prevention Committee are responsible for the updating of the Fire Prevention Risk Register.

Requirements

This Plan provides the elements that support the Fire Prevention Risk Register.

The Fire Prevention Risk Register is detailed in the Fire Prevention Management System Procedure FPP1.

4 Management Structure

Purpose

To ensure a clear understanding of the responsibilities for the implementation and control of all activities related to fire prevention.

Objectives

- To have in place a formal, documented management structure for fire prevention.
- For each position, to have clearly identified responsibilities with assigned authority and accountability.
- To identify the inter-relationships between those that manage, perform, record and verify fire prevention activities.

Accountabilities

The Fire Prevention Manager is responsible for documenting the fire prevention management structure.

Requirements

The responsibilities, authority and accountability for each position shall be documented in position descriptions. The management structure is detailed in the Management Structure Procedure FPP2.

5 Management Reporting

Purpose

To ensure all personnel responsible for fire prevention activities are fully informed on the status of all matters critical to the performance of their fire prevention responsibilities.

Objectives

To provide appropriate and timely reports to all levels of the fire prevention management structure.

Accountabilities

The Fire Prevention Manager is responsible for the compilation and circulation of reports.

Requirements

Further details are contained in the Management Reporting Procedure FPP3.

6 Reporting to ESV

Purpose

To keep ESV informed of relevant matters associated with fire prevention.

Objectives

To ensure that ESV is provided with all necessary information required by them, in relation to fire prevention activities.

Accountabilities

The Fire Prevention Manager is responsible for the compilation of reports and forwarding them to ESV.

Requirements

Regular reports will be provided to ESV covering information, and in a format, agreed between UE and ESV. Additional information will be provided to ESV on request and every effort will be made to provide such information in a timely manner.

Details of the process for the application of the policy are contained in the Reporting to ESV Procedure FPP4.

7 Systems for Measuring and Validating Performance

Purpose

To ensure that the status of the fire prevention program and the effectiveness of the management system are measured and validated. This includes the effectiveness of UE's performance in relation to fire starts.

Objectives

To establish appropriate measures to be used to assess the performance of the Plan, this includes:

- The status of the fire prevention program
- The effectiveness of the fire prevention management system
- The performance in relation to alleged fire starts.

Accountabilities

The General Manager Service Delivery is responsible for the establishment of the measures, setting the targets, data capture and evaluation of the results.

Requirements

Further details are contained in the following Procedures:

- HBRA Fire Prevention Index Procedure FPP5
- Annual Program of Activities Procedure FPP6
- Reporting, Investigation and Analysis of Fire Ignitions Procedure FPP16.

8 Fire Prevention Plan

Purpose

To plan and document UE's approach to managing the fire risk.

Objectives

- To prepare an annual plan covering the identification of the risks, the environment, the works program, communication and required actions.
- To meet legislative and regulatory requirements.

Accountabilities

The Fire Prevention Manager is responsible for the preparation of the plan.

Requirements

The plan shall be prepared annually, in accordance with the Fire Prevention Plan Procedure FPP7.

9 Coordination with Other Organisations

Purpose

To ensure effective liaison with other organisations relevant to fire prevention activities.

Objectives

- To maintain communication links and emergency protocols with other organisations relevant to fire prevention activities.
- Foster and maintain mutual support arrangements with these organisations.

Accountabilities

The Fire Prevention Manager is responsible for the ongoing liaison with fire agencies.

The Network Control Centre Manager is responsible for emergency communications.

The Network Risk, Safety and Technical Compliance Manager is responsible for the ongoing liaison with ESV.

The Vegetation and Fire Prevention Planner is responsible for the ongoing liaison with Councils and Other Responsible Persons.

Requirements

UE will coordinate with:

- **MFESB** Metropolitan Fire and Emergency Services Board
- **CFA** Country Fire Authority
- **DEPI** Department of Environment and Primary Industries
- **ESV** Energy Safe Victoria
- Municipal Councils and Other Responsible Persons
- Other Distributors

Further details are contained in the Coordination with Other Authorities Procedure FPP8.

10 Technology Implementation

Purpose

To take advantage of available technologies to prevent the fire risk.

Objectives

- To implement available technologies to minimise the risk of fires from electricity assets, where there is a business benefit.
- To work towards creating an environment where the required electric line clearance distances are maintained.

Accountabilities

The General Manager Service Delivery is responsible for the implementation of technologies to reduce the fire risk.

Requirements

UE supports existing programs that ensure all power lines in greenfield residential estates are placed underground.

Construction and maintenance work on the existing electricity network will use the opportunity to reduce the effect of the electricity network on the natural environment. In rural areas and along easements, UE will be sensitive to the land use in the adjacent area.

UE encourages and supports community groups and public authorities to suggest viable

propositions that may reduce the impact of electrical assets on the environment. Proposals will be evaluated in relation to public safety, cost, community conservation values and the characteristics of the affected vegetation.

Technologies considered shall include:

- Installation of Rapid Earth Fault Current Limiters (REFCLs) in HBRA and where the fire loss consequence is high.
- The application of insulated cable systems
- The management of fault energy levels.

Further details are contained in the Technology Implementation and Development Procedure FPP9.

11 Step Change to Industry Practice

Purpose

To ensure, by proper process, that changes to established fire prevention practices or programs will not measurably increase the risk of fire and that due diligence has been applied.

Objectives

- To ensure that a rigorous process is followed for the implementation of step changes to industry practices.
- To ensure that key stakeholders (e.g. ESV and insurers) are consulted.

Accountabilities

The General Manager Asset Management is responsible for the assessment, consultation and approval of any step changes.

The General Manager Service Delivery is responsible for the implementation and monitoring of any step changes.

Requirements

Further details are contained in the Step Change to Industry Practice Procedure FPP10.

12 Training

Purpose

To ensure that personnel, including SP and subcontractors, engaged in fire prevention activities are appropriately trained and have the competency to undertake the task.

Objectives

To maintain an effective system for the assessment and training of employees, SPs and subcontractors.

Accountabilities

The General Manager Service Delivery is responsible for ensuring field operations employees, SP and subcontractors engaged in fire prevention activities meet the training requirements.

Requirements

Further details are contained in the Training Procedure FPP11.

13 Monitoring and Review

Purpose

To ensure the ongoing effectiveness of the Fire Prevention Management System.

Objectives

- To ensure that fire prevention procedures are followed and are meeting their objectives.
- To ensure the timeliness and effectiveness of responses.
- To review the value of performance measures.

Accountabilities

Senior management is responsible for the audit and review of the Fire Prevention Management System.

The Fire Prevention Manager is responsible for the monitoring of the procedures contained in this Plan and for the review of the value of performance measures.

The General Manager Service Delivery is responsible for all audits associated with Occupational Health and Safety (OHS) and quality in the field.

Requirements

Further details are contained in the Monitoring and Review Procedure FPP12.

14 Document Control and Records Management

Purpose

To ensure the currency, retention and security of fire prevention records.

Objectives

- To ensure that the information relating to fire prevention activities is:
  - Up to date
  - Stored securely with controlled access
  - Kept for an appropriate length of time.
- To ensure that the appropriate level of management approves fire prevention policies and procedures.

Accountabilities

The Electric Line Clearance and Fire Prevention Manager is responsible for managing the storage of information relating to fire prevention activities and for arranging the approval of the Plan.

Requirements

Document control shall be conducted in accordance with UE's Quality System.

Further details are contained in:

- UE Document and Data Control Procedure
- Fire Prevention Management System Control and Approved Procedure FPP13
- Management of Critical Information Procedure FPP14.

15 Reporting, Investigation and Analysis of Fire Ignition

Purpose

To ensure that the cause of every fire ignition is understood so the potential risk can be assessed and appropriate actions taken.

Objectives

- To respond to, report, investigate and analyse reported ground fire ignitions involving network assets.
- To respond to, report, investigate and analyse reported incidents or situations with the potential to cause fire ignition.

Accountabilities

The Service Providers are responsible for the reporting of known fire starts into the Distribution Management System (DMS) and the creation of a 'Report of Electrical Accident' (Schedule 2 Report)', which is to be communicated to ESV with a copy to the Fire Prevention Manager as soon as practicable, normally within two (2) business days.

The Service Providers are also responsible to ensure a 'Fire Ignition Report' form is created by service providers and forwarded on to the Fire Prevention Manager within seven (7) days.

The General Manager Asset Management is responsible for any analysis required as a result of a fire start and the communication of any corrective actions that may arise from such an analysis.

The General Manager Service Delivery is responsible for the investigation and communication that maybe required as a result of a fire start and the implementation of any corrective actions.

Requirements

Further details are contained in:

- Response to Reported Unsafe Situations Procedure FPP15
- Reporting, Investigation and Analysis of Fire Ignitions Procedure FPP16.

16 Fire Risk Register

Purpose

To assess the risk of causes and potential causes of fire ignition from the UE supply network to enable appropriate action to prevent the risk.

Objectives

- To carry out a rigorous risk assessment for known and potential causes of fire ignition.
- From the risk assessment, to implement appropriate actions.

Accountabilities

The Fire Prevention Committee is responsible for the development and continual update of the risk register. The General Manager Service Delivery is responsible for the implementation of any actions.

Requirements

Further details are contained in the Risk Assessment Procedure FPP17.

17 Preventative Programs

UE preventative programs are condition-based giving consideration to replacement, modification and maintenance due to a condition assessment based on cyclic inspection programs, trend analysis or risk assessments.

Further details are contained in Attachment 1 of the Annual Program of Activities Procedure FPP6.

17.1 Network Assets

Purpose

To prevent fire ignition from the UE supply network.

Objectives

- UE will have preventative programs for all identified causes of ignition and potential causes of fire ignition.
- UE will maintain a system of design, construction, operation and maintenance standards for all works associated with the network that have been developed to take account of fire safety.

Accountabilities

The General Manager Asset Management is responsible for the planning and development of asset management programs.

The General Manager Service Delivery is responsible for the coordination and management of all cyclic inspection programs on network assets and the coordination and management of response programs.

Requirements

Network assets shall be maintained in a safe and serviceable condition through the following strategies:

- The rectification of damaged or defective items
- Regular maintenance to ensure operational effectiveness
- Replacement of identified deteriorating items (approaching the end of their effective operational life).

Further details are contained in the Network Assets Preventative Programs Procedure FPP18.

17.2 Electric Line Clearance Management

Purpose

To ensure that adequate clearances are maintained between vegetation and network assets.

Objectives

- To maintain programs for achieving regulatory clearances at all times between vegetation and network assets.
- To have in place an Electric Line Clearance Management Plan (ELCMP), approved by ESV.

Accountabilities

The Fire Prevention Manager is responsible for preparation of the ELCMP.

The General Manager Asset Management is responsible for the endorsement of the ELCMP.

The General Manager Service Delivery is responsible for the approval and implementation of the ELCMP.

Requirements

Compliance with the Electricity Safety (Electric Line Clearance) Regulations 2010. Further details are contained in the Electric Line Clearance Management Procedure FPP19.

17.3 Operational Instructions and Maintenance Procedures

Purpose

To ensure operational instructions and maintenance plans are maintained for activities in the event of a fire, a day of total fire ban and during a fire danger period.

Objectives

- To maintain a system of operational instructions for inspection, testing and assessment of network assets.
- To maintain a system of operational instructions for the UE supply network and field personnel in the event of a fire.
- To maintain a system of operational instructions and maintenance plans for days of total fire ban and during a fire danger period.
- To maintain a system of standards for the design, construction, operation and maintenance of the network, in line with regulatory requirements and good industry practice.

Accountabilities

The General Manager Asset Management is responsible for the standards for the design, construction, commissioning, operation, and maintenance and decommissioning of the network.

The General Manager Service Delivery is responsible for operational instructions in relation to the UE supply network and field personnel in the event of a fire and for the implementation of plans for days of total fire ban and during a fire danger period.

Requirements

Details of the operational instructions are contained in the UE Operations Manual.

Operational instructions and technical standards shall be subject to audit and review.
Further details are contained in the following procedures:

- Coordination with Other Authorities Procedure FPP8
- Audit and Review Procedure FPP12
- Technical Standards for Design, Construction, Operation and Maintenance Procedure FPP20
- Use of Vehicles in Periods of Fire Risk Procedure FPP21
- Operational Contingency Plans Procedure FPP26.

17.4 Procurement of Equipment and Services

Purpose

To ensure that equipment and services procured for works on the UE supply network do not compromise UE's fire prevention standards.

Objectives

- To ensure that SP and subcontractors providing services on the UE supply network meet the same standards as UE employees.
- To ensure that equipment purchased for use on the UE supply network has been assessed in relation to the risk of fire ignition.

Accountabilities

The General Manager Asset Management is responsible for ensuring that the technical specifications for materials, plant and equipment for use on the UE supply network meet fire safety performance requirements.

The General Manager Service Delivery is responsible for ensuring that SP and subcontractors providing services on the UE supply network are aware of, and comply with, UE's requirements in relation to fire prevention standards.

Requirements

SPs and subcontractors who fail to meet the required standards in relation to fire prevention activities shall not be employed. Equipment assessed as not meeting the required performance in relation to fire prevention shall not be purchased.

Further details are contained in:

- Evaluation of Materials, Plant and Equipment Procedure FPP22
- Use of Contractors Procedure FPP23.

17.5 Public Awareness

Purpose

To enhance public awareness of fire prevention issues.

Objectives

- To increase community awareness of the risks of POELs and the dangers of work in the vicinity and on vegetation near such lines.
- To increase the contribution by the community to minimising the risk of fires.

Accountabilities

The General Manager Service Delivery is responsible for ensuring information is passed to the community in regard to the management of vegetation and POEL inspections.

The General Manager Customer and Market Services is responsible for targeted public awareness programs.

Requirements

UE shall provide information and community support as detailed in:

- Electric Line Clearance Management Procedure FPP19
- Private Overhead Electric Lines Procedure FPP25.

18 Network Monitoring

18.1 Asset Management System

Purpose

To maintain a database of information to enable the effective management of the UE supply network.

Objectives

- To identify and record the location of network assets.
- To record the condition and status of each asset identified.

Accountabilities

The General Manager Asset Management is responsible for the development of the asset management systems.

The General Manager Service Delivery is responsible for the timely and accurate recording of data into the asset management systems.

Requirements

Information about the UE asset management systems is detailed in Management of Critical Information Procedure FPP14.

The asset management systems comprise several components, some of which include the Works Management System, GIS and field data capture capability.

18.2 Asset Inspection and Assessment

Purpose

To assess and record the condition of network assets.

Objectives

- To assess by inspection and, where appropriate, by testing the condition of network assets.
- To assess by inspection the clearances between vegetation and network assets.

Accountabilities

The General Manager Asset Management is responsible for the effectiveness of procedures for inspections, assessments and tests contained in the Asset Inspection Manual.

The General Manager Service Delivery is responsible for Asset Inspection activity in accordance with the Asset Inspection Manual.

Requirements

Instructions covering the detailed description of items that need to be identified for approved replacement, modification or maintenance programs and features to be observed in assessing asset condition are contained in the UE Asset Inspection Manual.

Further details are contained in:

- Network Assets Preventative Programs Procedure FPP18
- Electric Line Clearance Management Procedure FPP19
- Inspection, Measurement and Testing Equipment Procedure FPP24.

18.3 Private Overhead Electric Lines

Purpose

To ensure the POELs are maintained in a safe and serviceable condition.

Objectives

- To manage the assessment of POELs.
- To manage the rectification and replacement of defective POELs.

Accountabilities

The General Manager Asset Management is responsible for the effectiveness of procedures for inspections, assessments and tests contained in the UE Asset Inspection Manual.

The General Manager Service Delivery is responsible for the inspection and assessment of POELs, defect notification, follow up actions on faulty POELs (including any ESV directives) and disconnection of POELs with defects on either total fire ban days or during the fire danger period if required.

Requirements

While POELs are primarily the responsibility of the owner, UE will inspect them on a cycle not exceeding three years, notify the owner of any defects found and monitor the process of fault rectification. The rectification of defects is the responsibility of the owner of the POEL. The POEL within the HBRA will also be inspected annually prior to the declared fire risk period as part of the pre-summer inspection and cutting or removal program for the appropriate clearance from vegetation.

UE requires that POELs within the HBRA are made safe before the fire season, and will disconnect supply on total fire ban days or under direction from ESV if repairs are not completed.

Where a POEL is found to be defective and is to be replaced, the replacement service will be the most appropriate type, either an underground service or a HV line and substation. As required by Regulation 403 of the Electricity Safety (Installations) Regulations 1999, POELs in need of substantial reconstruction will be required to be replaced with underground consumer's mains.

Further details are contained in the Private Overhead Electric Lines Procedure FPP25.

19 Operational Programs and Emergency Response on Total Fire Ban Days

Purpose

To have plans prepared for actions to be taken on days of total fire ban.

Objectives

To be prepared such that the appropriate actions will be implemented on days of total fire ban.

Accountabilities

The UE Emergency Liaison Manager and the Service Providers' Emergency Managers, in collaboration with the Network Control Centre, are jointly responsible for the implementation of the *FPP 26 Operational Contingency Plan* policy.

Requirements

Operational Contingency Plans

UE has established an *FPP 26 Operational Contingency Plan*, which details actions that need to be taken to secure the safety of network assets:

- Where preventative program works are incomplete, or
- Extraordinary environmental conditions exist.

Further details are contained in Operational Contingency Plans Procedure FPP26.

Private Overhead Electric Lines

The assessment of POELs and the rectification/replacement of POELs procedures are contained in the *FPP25 Private Overhead Electric Lines Procedure*.

Fault Energy Management

The likelihood of fire ignition from electricity assets is related to the energy delivered into the fault. United Energy's protection philosophy is to strike a balance between fault energy, the resultant likelihood of fire start, and the continuity of electricity supply through the design and operation of protection systems, network configuration and fault current limiting technologies.

Neutral Earth Resistors (NERs) have been installed in the majority of UE zone substations supplying the HBRA network. This reduces the energy of a line to ground fault, and the fire risk.

On days of high fire risk, the available fault energy on most HBRA feeders is further reduced by enabling alternative protection settings and/or the suppression of the auto re-close function on feeder circuit breaker and Automatic Circuit Recloser (ACRs). Where the HBRA feeder exposure is minimal, the protection is via an HV fuse.

Rapid Earth Fault Current Limiters (REFCLs), are placed into 'non fault discrimination' mode to limit the fault energy for all 22kV phase to earth faults, and trip any feeder with a sustained fault. For most of these faults the REFCL will prevent a fire from starting.

Further details are contained in *FPP26 Operational Contingency Plans Procedure* and in the *FPP27 Fault Energy Management Procedure*.

Other Initiatives

A pilot program involving the installation of approximately 60 (20 sets) of fuse savers will commence in 2015/16 to offer further protection to the UE network.

Permit Requirements

Each year total fire ban day permits are obtained from the relevant fire authorities, permitting limited field activities as described in the Coordination with Other Authorities Procedure FPP8.

20 Legislation — User Guide

20.1 History

As a result of the serious fires in 1977, the State Government established an enquiry headed by Sir Esler Barber QC. The Barber Enquiry issued a report, making a number of recommendations relating to the State Electricity Commission (SEC). The report was a benchmark in fire prevention activities throughout Australia and identified relevant factors requiring attention.

Following the catastrophic fires in 1983, the *SEC Act (1958)* was amended by the *State Electricity Commission (Clearance of Lines) Act* (1983) which created that part of the *State Electricity Commission Act (1958)* entitled 'Part VI Provisions Relating to Tree Clearance', (sections 58 to 65 inclusive of the Principal Act). This was to clarify responsibilities for tree clearances and the maintenance of private lines.

The amendments also provided for a Code of Practice for Tree Clearance, the establishment of a Consultative Committee and regulations for the enactment of the Code and notices.

A revised form of a voluntary code, developed by the SEC in consultation with local government, received legislative support in Part VI of the *SEC Act (1958)* in January 1984.

The 1996 remaking of the renamed Power Line Clearance Code introduced the principle of management plans to reduce the level of prescription contained in the Code. The Code was revised in 1999 and gazetted as the Code of Practice for *Electric Line Clearance [Vegetation] 1999* before subsequently being incorporated into the *Electricity Safety (Electric Line Clearance) Regulations 2005*. These regulations have now expired and been replaced by the *Electricity Safety (Electric Line Clearance) Regulations 2010* S.R. No. 47/2010.

Regulations made under Sections 110 and 111 of the *SEC Act* (1958) were introduced in 1997 [Electricity Safety (Network Assets) Regulations] which set out requirements relating to the ignition of fire and network assets.

Subsequently the *Electricity Safety Act (1998)* has incorporated the relevant sections of the *SEC Act* (1958).

The Electricity Safety (Network Assets) Regulations 1997 were revoked in 1999 and replaced by the Electricity Safety (Network Assets) Regulations 1999. These regulations have now expired and been replaced by the *Electricity Safety (Management) Regulations 2009* S.R. No. 165/2009.

The *Electricity Safety (Bushfire Mitigation) Regulations* make provision for the preparation of fire prevention plans and the inspection of POELs by major electricity companies. These regulations have been amended as of the 20 June 2013 and are noted as 2013 S.R. No. 62/2013.

20.2 Current Acts and Regulations

The following is provided as a summary and interprets parts of current Legislation, Acts and Regulations. The Acts and Regulations should be directly referred to for matters of decision and legal advice sought as necessary.

20.3 *The Electricity Safety Act* (1998) - Authorised Version 066

PART 8 — Bushfire Mitigation Requirements for Certain Operators and Electric Line Clearance

Division 1 — General

In summary Division 1 supplies the definition and the regulatory framework around the description of:

- Section 79 — Urban Area
- Section 80 — Fire Hazard Rating
- Section 81 — Declared Area in Urban Area
- Section 82 — Operation of Part
- Section 83 — Point of Supply.

Division 2 — Responsibility for Maintenance of Lines

Section 84 makes Distribution Companies, Transmission Companies and others responsible for 'keeping of the whole or any part of a tree clear of an electric line'.

In summary:

Under section 84A(1) and (2) an occupier of land above or below the surface of the land is responsible for the maintenance of a private electric or low voltage electric line

Section 84B(1) of the Act an occupier of land that is contiguous to land on which there is a Private Electric Line is responsible for keeping the whole or any part of a tree situated on the occupiers land clear of the line.

Under section 84C a council is responsible for the management public land in an area of land declared under section 81 and is responsible for the keeping of the whole or any part of a tree situated on that land clear of an electric line that is not a private electric line.

Under section 84D a person other that a distribution company) who owns or operates a electric line, or installs or uses an electric line under the Act of the Commonwealth, is responsible for the keeping of the whole or any part of a tree clear of the electric line.

Section 85 gives Distribution Companies and Transmission Companies the power to:

- Enter onto land for the purpose of inspecting electric lines, pursuant to Section 85(a) of the Act
- Require, with the agreement of ESV, that new or substantially reconstructed electric lines be placed underground, pursuant to Section 85(b) of the Act
- Enter on to land to fulfil their responsibilities under Section 84 and 84D (i.e. keeping trees clear of electric lines) subject to the production of an approved certificate, pursuant to Section 85(c) of the Act.

Section 86 gives Distribution Companies the power to serve notice in writing on other responsible persons which requires them to carry out their responsibilities under the Act to maintain clearance between vegetation and electric lines. Where they fail to do so, the Distribution Company may carry out the necessary works and recover costs, subject to conditions.

Section 86A gives ESV the power to give directions for restriction or prevention of tree growth.

Division 2A — Electric Lines and Municipal Fire Prevention Plans

Section 86B requires that municipal fire prevention plans specify procedures for the identification of trees that are hazardous to electric lines.

Division 3 — Electric Line Clearance Consultative Committee

Section 87 requires that there be an Electric Line Clearance Consultative Committee.

Section 88 sets out the functions of the committee.

Section 88A requires the committee to have regard to the reliability and security of electricity supply.

Section 89 sets out procedures for amending or varying the Code of Practice for Electric Line Clearance.

Section 90 makes it an offence to contravene or fail to comply with a prescribed provision of the Code.

Division 4 — Compliance Audits in Relation to Compliance with the Code

Section 90A applies to a responsible person who has prepared a management plan relating to compliance with the code that has been approved by ESV under the regulations.

Section 90B may require the responsible person to undertake independent audits of the plan.

Section 90C enables ESV to conduct or cause to be conducted an audit of the plan to satisfy compliance with management plans.

Part 10 — Electricity Safety Management

Division 2A — Ongoing Bushfire Mitigation Requirements for Major Electricity Companies.

Section 113A requires major electricity companies, before 1 July each year, to submit to ESV for approval a Fire Prevention Plan.

Section 113F(1) makes major electricity companies responsible for inspecting private overhead lines, and requires them to provide notice to the occupier before such an inspection and to provide notice to the owner of any maintenance required. This section also gives the major electricity company the power to enter onto land to carry out the inspection.

Part 13 — Regulations

Section 149 establishes general regulation-making powers.

Section 151 empowers the making of Electric Line Clearance regulations with respect to (in part) the Code of Practice for Electric Line Clearance.

Section 157 establishes further regulation-making powers.

20.4 Electricity Safety (Management) Regulations 2009

Part 3 — Records and Reporting

Section 28 (2) (b) requires network operators to report serious electrical incidents to ESV. This includes a fire originating from the operator's supply network. Section 28(2) is replicated below.

Specified Electrical Incident:

An electrical incident (other than a serious electrical incident) that resulted in—

(a) an electric shock from —

(i) the operator's supply network or

(ii) an electrical installation supplied electricity by the operator's supply network or

(b) a fire originating from the operator's supply network or

(c) a part of the operator's supply network becoming dislodged from its supporting structure.

20.5 Electricity Safety (Line Clearance) Regulations 2010

These regulations prescribe the Code of Practice for Electric Line Clearance (including penalty provisions), the provision of management plans and transitional arrangements.

Section 7 prescribes the Code of Practice.

Section 8 defines the prescribed penalty provisions.

Section 9 requires that management plans relating to compliance with the Code are prepared and submitted by 31 March each year to ESV for approval. This section also specifies the content of the management plans.

20.6 Electricity Safety (Bushfire Mitigation) Regulations 2013

The new Electricity Safety (Bushfire Mitigation) Regulations 2013 S.R. No. 62/2013 make provision for the preparation of fire prevention plans and the inspection of POELs by major electricity companies.

UE has included in this plan procedures specifically in relation to the inclusion of regulation 7(2) which defines the types of assets excluded in the definition of the 'Supply Network'. These exclusions do not include primarily underground assets that are located above the surface of the land:

- Kiosk Substations/Switches
- Ground Type Substations
- Indoor Substations
- Switching Cubicles
- Pillars

A transition plan has been included in this plan, documenting the timeframe for migrating the requirements of regulations 7(i), (i) and (ii) to these assets, by June 2019, in line with the UE overhead assets.

Amendments to the *Electricity Safety (Bushfire Mitigation) Regulations 2013*, as outlined in the regulatory impact statement dated 17/11/2015, shall mandate the installation of Rapid Earth Fault Current Limiter (REFCL) technology in the highest fire loss consequence parts of Victoria. The draft legislation does not include United Energy zone substations in the first stages of the rollout, however, the legislation proposes that REFCLs be installed in the highest risk areas of each Victorian distribution network.

In line with the proposed legislation, and community expectations, United Energy plans to install REFCLs in the highest fire loss consequence areas of its supply region to reduce fire risk to a level that is as low as reasonably practicable.

FPP1: Fire Prevention Management System Procedure

Purpose

This procedure describes the Fire Prevention Management System.

Scope

This procedure applies to all activities associated with fire prevention.

References

Nil.

Definitions

Nil.

Procedure

The Fire Prevention Management System provides the framework for management of the fire risk. Details of the system are contained in Attachment 1.

The Fire Prevention Manager shall review the effectiveness of the system prior to the preparation of the annual Fire Prevention Plan.

Attachments

1. Fire Prevention Management System for the current year.

Attachment 1: Fire Prevention Management System for 2014/19

	Public and Field Reports of Unsafe Situations	Asset Monitoring	Vegetation Clearance	Preventative Programs	Materials Purchases
Review Risk Register	Assess risk. Assign priority.	Assess risk. Set standards. Inspect assets. Assign priority.	Inspect lines. Assess risk. Consider alternatives.	Assess risk. Set standards.	Assess risk. Prepare specification.
Remedial Actions	Take appropriate action to improve the Plan and the Plan's implementation when deficiencies are identified.			Arrange cyclic maintenance. Replace ageing and unserviceable assets.	Purchase equipment.
Records Management	Record in SAP/GIS. Provide reports.				
Monitoring, Audit and Review	Analyse reports. Monitor the implementation of the Plan. Conduct regular audits on the effectiveness of inspections carried out under the Plan. Review performance and identify any deficiencies in the Plan or in the implementation of the plan. Amend policies and procedures if necessary to improve the Plan's implementation.				
Training	Ensure the required knowledge, training and skills to perform functions under the Plan is provided to all personnel, SP and subcontractors. Conduct regular audits on the competence of the persons assigned to carry out the Plan. Carry out initial and refresher training. Record all training undertaken.				

FPP2: Management Structure Procedure

Purpose

This procedure describes the management structure for the implementation and control of all fire prevention related activities.

Scope

This procedure applies to all activities associated with fire prevention.

References

Nil.

Definitions

Nil.

Procedure

Fire Prevention Management Structure

The management structure for the implementation and control of all fire prevention related activities is contained in Attachment 1.

United Energy

UE distributes electricity to southern and eastern suburbs of Melbourne and the Mornington Peninsula, Victoria. UE is one of five licensed electricity distribution networks in Victoria.

UE Chief Executive Officer (CEO)

The CEO has overall responsibility for all activities relating to performance of the UE electricity network including the approval and submission of the Plan.

UE General Manager, Networks (Electricity)

The General Manager, Networks (Electricity) has the responsibility for the production of all Polices and Strategies relating to operating and maintaining a safe electricity network.

UE General Manager Asset Management

The General Manager Asset Management is responsible for performance of the network and the formulation of Capex and Opex strategies to achieve compliance with the Plan.

Responsibilities include (but are not limited to):

- The lifecycle management strategies for Fire Prevention and Electric Line Clearance
- Ensuring the UE design, construction and inspection standards prevent fire ignition by network assets
- Failure mode analysis of potential fire risks
- Distribution Construction Manual
- Distribution Design Standards Manual
- Asset Inspection Manual
- Assessment of fire performance of new materials and equipment
- Fire performance requirements in purchase specifications
- Analysis of outage data for potential fire risks.
- Establishing preventative programs
- Implementing new technologies to reduce fire risk
- The development of strategies to mitigate the causes of fire ignition
- Risk assessment of new preventative programs or changes to programs.

UE Network Risk, Safety and Technical Compliance Manager

Responsibilities include (but are not limited to):

- Overseeing compliance and performance with relevant legislation
- Creating updating and monitoring performance and compliance with the Plan
- Maintaining, updating and submitting plans and procedures to ESV as required
- Application for exemptions when required
- Reporting to ESV.

UE General Manager Service Delivery

The General Manager Service Delivery has the management responsibility for all activities relating to the electricity network including the production approval and submission of the Plan.

UE General Managers Service Delivery (North and South)

The General Managers Service Delivery has the overall responsibility for the implementation of the Plan and for ensuring UE is meeting its legislative compliance responsibilities within the Plan including the production, endorsement of the Plan.

Responsibilities include:

- Creating updating and monitoring the performance and compliance of the Plan
- Contract management of Service Providers and External Resources including the achievement of time, cost and quality targets
- Failure mode analysis of potential fire risks
- Implementation of preventative programs.

UE Maintenance Delivery Manager

The Head of Maintenance and Vegetation Management and other Line Managers reporting to the General Managers Service Delivery or the Head of Maintenance and Vegetation Management are responsible for the implementation of sections in the Plan that relate to their roles and responsibilities.

Responsibilities include:

- Implementation of this Plan and ELCMP
- Management of the fire prevention reporting and Works Management System
- Monitoring and delivering reports from the Works Management System
- The monitoring and auditing of training standards of inspection and vegetation SP and subcontractors
- Monitoring and auditing the competence of the persons assigned to carry out inspections under the Plan
- Monitoring and auditing the effectiveness of inspections carried out under the Plan
- Management and reporting of the status of defective POELs
- Ensuring all identified asset maintenance is programmed, completed and electronic management systems updated within prescribed timelines.

UE Fire Prevention Manager

The Fire Prevention Manager is responsible for the development, review and distribution of the Plan.

Responsibilities include:

- Developing and implementing the annual independent Summer Audit Program
- Assisting with business cases to enhance fire prevention performance
- Compiling and circulating the fire prevention reports
- Liaising with other bodies regarding fire prevention activities
- Reporting, investigation and analysis of fire ignitions

- Assist in the development of strategies to mitigate the causes of fire ignition
- Initiating the regular review of the Fire Prevention Risk Register.

Service Providers (SP) Team Leaders and Contract Coordinators

SP Team Leaders and Contract Coordinators manage the day to day fire prevention activity performed on UE assets by employees, SP and subcontractors. Responsibilities include:

- Ensuring that any training necessary for persons assigned to perform functions under the Plan is provided
- Monitoring and auditing the competence of the persons assigned to carry out inspections under the Plan
- Monitoring and auditing the effectiveness of inspections carried out under the Plan
- Quantifying fire prevention workload and producing programs to meet timelines
- Carrying out quality audits of fire prevention works to ensure compliance
- Carrying out audits of personnel, safety and work practices
- Investigating new techniques and systems of work for possible implementation
- Vegetation management
- Asset inspection
- Developing and maintaining annual inspection schedules and programs
- Pole and asset maintenance and replacement
- Conductor replacement
- POEL inspection, maintenance and replacement.

Fire Prevention Committee.

In addition to the individual duties above, there is also a Fire Prevention Committee.

This committee includes representatives from both Asset Management and Service Delivery and involves the key personnel responsible for the delivery of the Plan, including Service Provider representation when required. These meetings occur at least monthly in the lead up to fire season and less frequently outside this period, depending on the status of the network and climatic conditions and are primarily focused on the UE HBRA in the lead up to fire season.

Responsibilities of the Committee include:

- Management of preventative and response programs
- Ensuring that fire prevention and associated activities are performed in accordance with the Plan
- The implementation of actions where fire prevention targets have potential to be exceeded
- Endorsement of the Plan
- Approval of new or altered programs
- Carrying out senior management briefing
- Monitoring performance against targets
- Taking actions where performance is not meeting targets
- Monitoring and auditing the implementation of the Fire Prevention Plan
- Identifying any deficiencies in the Plan or the Plan's implementation
- Improving the Plan and the Plan's implementation if any deficiencies are identified.

Normally on an annual basis Senior Management and the Board of Directors are invited to a meeting of the committee. The meeting is usually the October or November meeting and involves a review of the previous year's fire prevention performance and the effectiveness of the Plan. Also included is a presentation of the status of the current year's fire prevention programs and predictions for the upcoming season and a field visits of activities related to the Plan.

Attachments

1. Fire Prevention Management Structure.

Attachment 1: Fire Prevention Management Structure

The following management structure outlines the positions responsible for the preparation, approval, submission and implementation of the UE Plan.

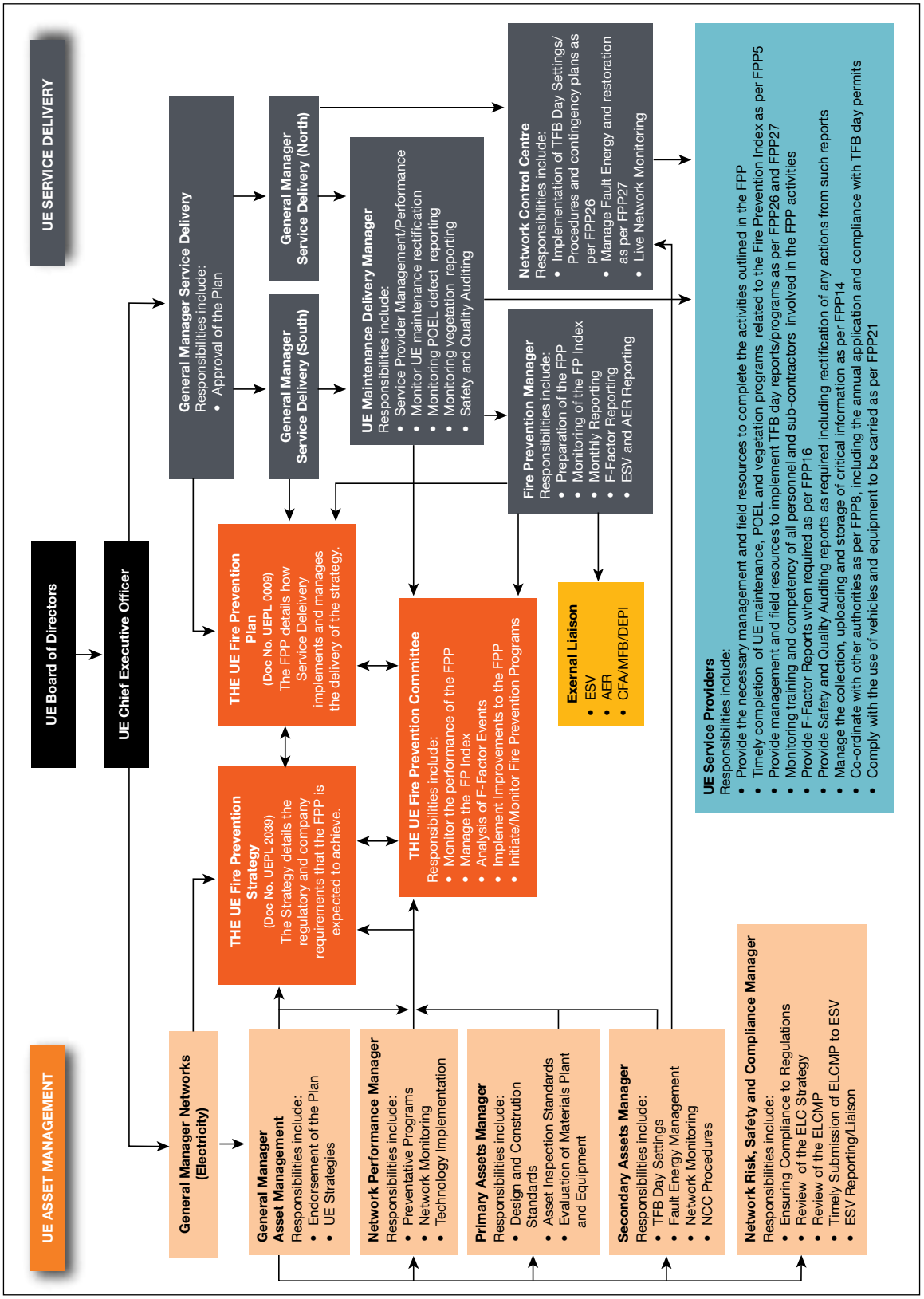


Figure 3 UE Management and Service Provider Structure

FPP3: Management Reporting Procedure

Purpose

This procedure describes the process for reporting the status of UE's fire prevention activities within the HBRA.

Scope

This procedure applies to all reports associated with fire prevention.

References

Nil.

Definitions

Nil.

Procedure

The report produced by the Fire Prevention Manager is extracted from SAP, vegetation management systems (at the end of every calendar month) and other sources and contains the following:

- The current HBRA Fire Prevention Index
- Weather patterns and CFA forecast for the upcoming season including curing mapping
- The Fire Start Performance Indicator (refer FPP16).

With the exception of the Board, CEO, SP's and external liaisons all personnel listed within Attachment 1 of FPP2 Management Structure receive a copy of the report.

A summary report extracted from this normal monthly report is supplied for distribution to the Board and CEO of UE.

In exceptional circumstances, reports may be more frequent and contain additional information, depending on the situation.

Significant Milestones Status Report

At Fire Prevention Committee meetings, normally held on a monthly basis, the checklist located in the calendar of significant events is updated to demonstrate the progress against all activities.

Attachments

Nil.

FPP4: Reporting to ESV Procedure

Purpose

This procedure describes the process for providing fire prevention information to ESV.

Scope

This procedure covers regular reporting to ESV, the provision of information to ESV on request.

References

Electricity Safety (Bushfire Mitigation) Regulations 2013 section 7(1).

Definitions

ESV Energy Safe Victoria

Procedure

Any updates undertaken of the current five-year UE Fire Prevention Plan (2014-19) will be provided to ESV. The Plan will include the items covered in the Fire Prevention Plan Procedure FPP7, in accordance with the Electricity Safety (Bushfire Mitigation) Regulations 2013 section 7(1).

A Fire Prevention Status Report shall be provided to ESV on a monthly basis during the fire season. The Status Report shall include the following:

- The current HBRA Fire Prevention Index
- Weather patterns and CFA forecast for the upcoming season including curing mapping
- The Fire Start Performance Indicator (refer FPP16).

ESV may request the provision of additional information. This will require reaching agreement with ESV as to what information is to be reported and the frequency of reporting.

Should ESV require an independent audit of fire prevention activities, this shall be arranged in conformance with the protocols established by ESV.

Attachments

Nil.

FPP5: HBRA Fire Prevention Index Procedure

Purpose

This procedure describes the process for calculating the HBRA Fire Prevention Index.

Scope

This procedure applies to the critical activities that contribute to the Index.

References

Nil.

Definitions

Nil.

Procedure

Background

The HBRA Fire Prevention Index is a weighted measure of the progress of the critical activities in the fire prevention program. The Index provides an indication of the amount of overdue work within the HBRA required to reach a state of fire prevention preparedness. The target is for a zero Index to be achieved prior to the declaration of the fire season, and to maintain the Index at zero throughout the fire season.

Calculation of the Index

The critical activities that comprise the components of the Index are those activities that have been regulated or that are considered to present a serious fire risk based on previous experience.

These critical activities are weighted as a percentage relative to the level of risk for that item. The total of all the weightings shall be 100%.

The Denominator is an annual unit of work for that critical activity based on the volumes identified in the current year by the asset inspection information available to the Fire Prevention meeting in mid June. If not enough inspection data is available, historical information will be used in determining the denominator.

This is determined from the following:

- SAP — Tracks the current maintenance and POEL items and holds the historical data
- GIS — Used to calculate the spans on the network and is the network asset register
- Vegetation Management System (VMS) — Provides the vegetation statistics

Index Monitoring

The index is normally calculated on the second working day post the middle and the end of each month. This allows for the closure of any items in SAP or the Vegetation Management Systems prior to these periods.

Additional Index Monitoring (During Fire Season)

From the declaration of fire restrictions until the end of the declared fire season additional index monitoring is undertaken.

This additional monitoring during the declared fire season involves the UE and POEL maintenance (via the UE SAP System) and vegetation (via the HBRA Audit Spreadsheet – see Attachment 3) planners providing reports to the Fire Prevention Manager on what or if any maintenance items or vegetation spans are overdue (indexing) and which may become overdue within the next reporting period (20 days).

An example of this report is contained in Attachment 2 tilted 'HBRA Look Forward Index Report'.

Reporting of Indexing Items (During Fire Season)

This process further monitors and captures items that may index in the period between the mid-and end of month index reporting cycles.

Where items are identified to fall over due (thus index) within the next indexing period (including any identified code 55 trees which must be action within two (2) (declared season) and seven (7) (undeclared season) working days) an email must be forwarded immediately by the SP to UE Maintenance Planners, Vegetation Planners and copy to the Fire Prevention Manager to verify what actions are in place to ensure these items are rectified or re-assessed in line with UE guidelines.

These UE staff shall confirm closure within the UE system as soon as practical after this occurs.

If these items are not verified as being completed within the due date the FPM shall include these items on the index and immediately inform the UE Head of Maintenance and Vegetation Management for resolution within two (2) working days.

If subsequently evidence is provided that the items were completed by the indexing date these shall be retrospectively removed from the index. Any indexing or retrospectively removed items will be highlighted at the next FPC meeting.

Index Table Definitions

- Actuals (A) — The units of work overdue for that activity
- Weighting (W) — The percentage assigned to that critical activity
- Denominator (D) — The annual units of work estimated to be identified for that activity
- Index Value (I) — The index value is calculated via the formula 'I = A/D* W'

Within the calculation a variant has been inserted so the value of the index cannot exceed the weighting assigned to each critical activity. An example of the HBRA Fire Prevention Index Table is shown in Attachment 1.

The critical activities, Denominators and Weightings are reviewed annually by the Fire Prevention Committee, usually in early-mid June, and this is documented as an action in the Annual Program of Fire Prevention Events Procedure (FPP6).

Responsibilities

The Fire Prevention Manager is responsible for calculating the HBRA Fire Prevention Index.

The Fire Prevention Committee shall review the Critical Activities, Denominators and Weightings on an annual basis, as part of the preparation of the Fire Prevention Plan.

Attachments

1. HBRA Fire Prevention Index Table
2. HBRA Look Forward Index Report
3. HBRA Audit Spreadsheet (example only)

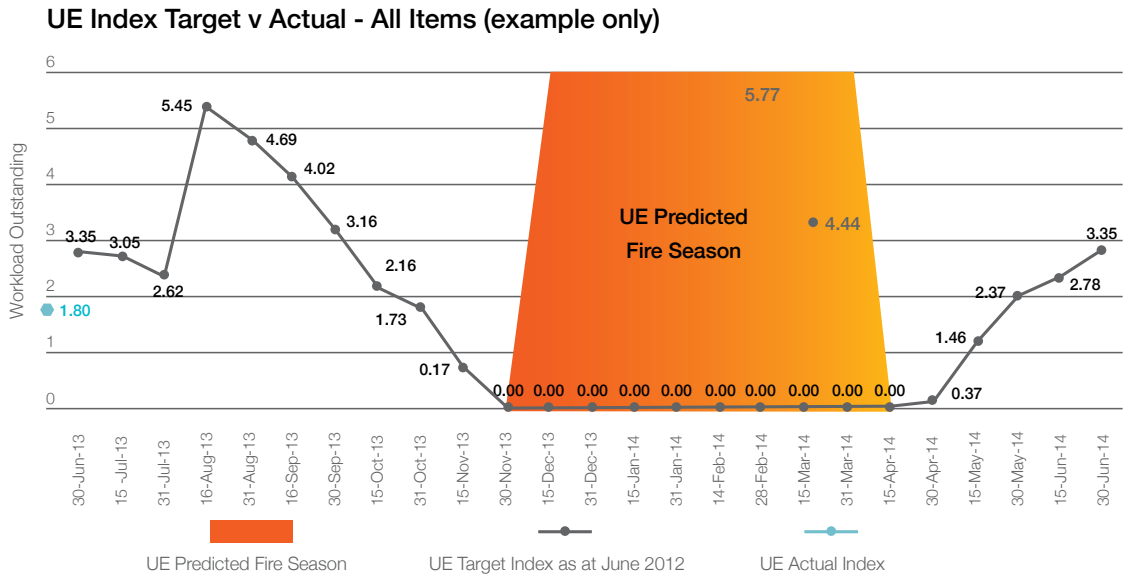
Attachment 1: HBRA Fire Prevention Index Table

UE — HBRA Fire Prevention Index Table (Example Only)				
Critical Activities	**Actual**	**Weighting**	**Denominator**	**Index Value**
The critical activities that make up the components of the Index are those activities that have been regulated or that are considered to present a serious fire risk based on previous experience.	The units of work overdue for that activity (A) These numbers are for example only	The percentage assigned to that critical activity (W)	The annual units of work expected to be identified for that activity (D)	The index value (I) is calculated via the formula 'I = A/D* W'
Network Asset Inspection and Maintenance				
Asset Inspection (Overdue = not Inspected within 37 Months of last Inspection) Maximum Index Value = 10%	75	10	6,862	0.11
Unserviceable Poles (Overdue = not made Fire Safe within 12 weeks of Identification) Maximum Index Value = 10%	1	10	59	0.17
Limited Life Poles (Overdue = not made Fire Safe or Reinspected within 12 months) Maximum Index Value = 10%	0	10	75	0.00
Network Attachments (Overdue = Priority 1 > 12 weeks/Priority 2 > 26 weeks) Maximum Index Value = 30%	35	30	1,523	0.69
Vegetation				
Pre-Summer Inspection of Spans (Overdue = any spans not inspected > 6 weeks from 1 July) Maximum Index Value = 5%	0	5	18,500	0.00
Pre-Summer and Summer Cutting of Spans **Code 55 - Overdue** Undeclared Period = For purpose of index calculation any span not cleared >7 days after Identified) Declared Period = any span not cleared >2 working days after Identified) **Code 56 - Overdue** All Times = Any span not cleared > 6 weeks after Identified)	0	25	4,650	0.00
Private Overhead Electric Lines				

UE — HBRA Fire Prevention Index Table (Example Only)				
Critical Activities	**Actual**	**Weighting**	**Denominator**	**Index Value**
Asset Inspection POEL Assets (Overdue = not inspected within 37 Months of last inspection) Maximum Index Value = 5%	1	5	528	0.01
POEL Defects-UE Managing (Overdue = U/S Pole 12 weeks/Priority 1 > 12 weeks/Priority 2 > 26 weeks) Maximum Index Value = 5%	35	5	213	0.82
POEL Defects - ESV Managing (POEL defects formally handed over to ESV for Resolution) Maximum Index Value = 0 %	0	0	0	0.00
Total		**100**		**1.80**

The Index can vary over the range from zero to 100, zero being if all work has been completed within the priority timeframe assigned and 100 if significant volumes of work, up to the maximum denominator, are outside the priority timeframe assigned.

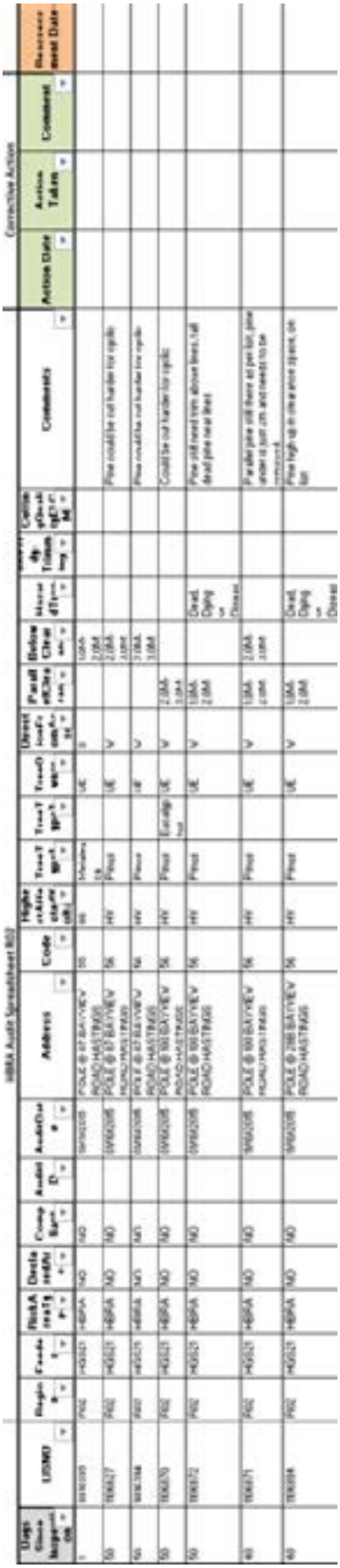
Network Asset Inspection and Maintenance, Vegetation and Private Overhead Electric Lines are the three items that form the HBRA Fire Prevention Index.



Attachment 2: HBRA Look Forward Index Report

	Overdue Items	<20 days from being Overdue	>20 days from being Overdue	Total Items
UE Assets (Source = UE SAP System)				
UE Asset Inspection				
U/S Poles				
Limited Life Inspection				
Priority 1 Items				
Priority 2 Items				
Customer Assets Private Overhead Electric Lines (POEL) (Source = UE SAP System)				
POEL Asset Inspection				
POEL P1 and P2 Items				
Vegetation (HBRA Audit Spreadsheet)				
Pre-Summer Inspection				
Pre-Summer and Summer Cutting of Spans				

Attachment 3: HBRA Audit Spreadsheet (example only)



FPP6: Annual Program of Activities Procedure

Purpose

This procedure describes the process for establishing and implementing an annual program of fire prevention activities within the HBRA of UE.

Scope

This procedure covers the key fire prevention milestones in the HBRA.

References

Nil.

Definitions

Nil.

Procedure

As part of the preparation of the annual Fire Prevention Plan, the Fire Prevention Manager shall prepare an Annual Program of Activities. The Program will list key milestones, the accountable position for completion of each milestone and the target date for completion of each milestone. Details of the items contained in the Program are shown in Attachment 1.

The Fire Prevention Committee shall monitor progress against the Plan on a regular basis and progress against the Program will be included in management reports.

Attachments

1. Annual Program of Activities

Attachment 1: Annual Program of Activities

Key Milestones	Accountable Position	Target Date
Complete all required inspection of POELs within the HBRA.	Contractor Performance Managers	End July*
Complete all required asset inspection, including limited life poles within HBRA.	Contractor Performance Managers	End July*
Begin liaison with ESV in relation to any overdue POELs within the HBRA.	Contractor Performance Managers	From end July ongoing*
Ensure total fire ban day permits from CFA, MFB, DEPI are applied for.	Fire Prevention Manager	End July*
Arrange with senior management on the timing of senior management briefing.	Fire Prevention Manager	Mid August*
Initiate actions for new target dates to complete specific fire prevention programs if required from the target dates below: • Pre-summer Inspection completion including all non-compliant Low Risk Overhanging Trees as per ESV exemption requirements = 1 November annually. • Completion of all maintenance items = 1 November annually.] • Completion of all vegetation cutting or removal = 1 December annually. At this time contingency plans are to be developed to ensure the resources are available to complete outstanding works before the declaration of the fire danger period.	Fire Prevention Committee	Assessed from the August Fire Prevention Meeting and then monthly thereafter*
Liaise with Other Responsible Persons about their pre-summer inspection and cutting or removal programs in declared fire areas of the HBRA.	Contract Performance Managers	End August ongoing*
Provide evidence of audits into the effectiveness of the inspections carried out on the HBRA UE supply network.	Contractor Performance Managers	End August*
Ensure all overdue defective POELs within the HBRA have been issued to ESV for the joint management of these customers.	Contractor Performance Managers	End August ongoing*
Arrange access to vegetation curing maps from CSIRO, liaise closely with CFA officials on expected declaration date and adjust programs as required.	Fire Prevention Manager	End September*

Key Milestones	Accountable Position	Target Date
Arrange for the implementation of FPP21 for SP and Sub-Contractors in relation to vehicle suitability and equipment to be carried on vehicles from the declaration of fire season or Nov 1 whichever occurs first. This include: • Vehicle Use Guidelines • Pre-Summer Vehicle Inspection • Equipment to be Carried • Advice to Drivers	Contractor Performance Managers	Mid October*
Complete pre-summer inspection program within the HBRA.	Contractor Performance Managers	End October*
Ensure Service Providers/UE have fire authority permits to work on total fire ban days.	Contractor Performance Managers	Mid November
Complete, or have re-assessed, overdue maintenance within the HBRA.	Contractor Performance Managers	Mid November ongoing*
Review Operational Contingency Plan.	Fire Prevention Manager/NCC and Secondary Assets Manager	Mid November*
Complete pre-summer cutting or removal program or reassess targets within the HBRA.	Contractor Performance Managers	End November*
Complete Senior Management Briefing.	Fire Prevention Manager	End November*
Produce summer auditing schedules and conduct training for the HBRA Summer Audit Program.	Fire Prevention Manager	End November*
Mail out POEL Fire Risk Prevention letters and brochures.	General Manager Customer and Market Services	End November ongoing*
Begin auditing via the HBRA Summer Audit Program.	Fire Prevention Manager	Mid December*
Issue draft ELCMP for comments.	Fire Prevention Manager	End February
Submit ELCMP to ESV.	Fire Prevention Manager	End March

Key Milestones	Accountable Position	Target Date
Review effectiveness of fire prevention systems including: • Assess the implementation of the Fire Prevention Plan • Identify any deficiencies in the Plan or the plan's implementation • Improve the Plan and the Plan's implementation if any deficiencies are identified • Review training records for all Asset Inspectors and provide evidence of competence • Review Fire Prevention Risk Register.	Fire Prevention Committee	After end of fire season
Review and finalise the 'Critical Activities', 'Denominators' and 'Weightings' that will be used in the formation of the HBRA Fire Prevention Index.	Fire Prevention Committee	Early June*
Review the current FPP and provide update if required.	Fire Prevention Manager	Early June or as required
If Plan is updated submit Fire Prevention Plan to ESV, post plan on intranet and extranet and advise stakeholders.	Fire Prevention Manager/ Network Risk, Safety and Compliance Manager	End June or as required

NOTE: *These targets are dependent on the start or end of fire season and may vary from year to year.

FPP7: Fire Prevention Plan Procedure

Purpose

This procedure describes the process for preparing the Fire Prevention Plan.

Scope

This procedure covers the development and approval of the Fire Prevention Plan.

References

Electricity Safety Act (1998), Section 113A
Electricity Safety (Bushfire Mitigation) Regulations 2013, Section 7(1)

Definitions

Nil.

Procedure

The Fire Prevention Plan 2014/19 has been prepared by the Fire Prevention Manager. Any updates to the plan will be completed by the Fire Prevention Manager then be reviewed by the Network Risk, Safety and Compliance Manager, endorsed by the General Manager Asset Management and approved by the General Managers of Electricity Assets and Service Delivery. Any updates undertaken of the current five year UE Fire Prevention Plan (2014-19)will be provided to ESV.

The Fire Prevention Plan shall include the following:

- The name, address and telephone number of UE
- The name, position, address and telephone number of the person responsible for the preparation of the Plan
- The name, position, address and telephone number of the persons who are responsible for carrying out the Plan
- The telephone number of a person who can be contacted in an emergency that requires action by UE to mitigate the danger of fire
- The fire prevention policies, strategies, and objectives to prevent fire ignition from the UE network
- The objectives of the Plan to prevention of fire danger
- A description, map or plan of the land to which the plan applies, identifying HBRAs and the location of UE assets
- The strategies to prevent the risk of the UE supply network starting fires
- The preventative programs to be adopted and a list of all works programs to be undertaken within the HBRA before the next fire danger period for the purpose of preventing fire ignition from the UE supply network.
- A plan for inspection that ensures that all POEL and UE asset within the HBRA a are inspected at regular intervals of no longer than three years
- Details of the processes and procedures for ensuring that only persons who have satisfactorily completed a training course approved by Energy Safe Victoria or persons covered by any ESV exemption are assigned to carry out asset inspections as per dot point above
- The operation and maintenance plans for UE's network:
    - In the event of a fire
    - During any day which has been declared to be a day of total fire ban
    - During a fire danger period
- The investigation, analysis and methodology to be adopted for the prevention of fire ignition from the UE supply network

- Details of the processes and procedures by which the specified operator will:
  - Monitor and audit the implementation of the Fire Prevention Plan
  - Identify any deficiencies in the Plan or the Plan's implementation
  - Monitor and audit the effectiveness of inspections carried out under the plan
  - Improve the Plan and the Plan's implementation if any deficiencies are identified;
  - Ensure that any training necessary for persons assigned to perform functions under the Plan is provided
  - Monitor and audit the competence of the persons assigned to carry out inspections under the Plan
- A policy of UE in relation to the assistance to be provided to fire agencies in the investigation of fires near UE's network
- Details of processes and procedures for enhancing public awareness of:
  - The responsibilities of the owners of private overhead electric lines in relation to prevention of fire danger
  - The obligation of the major electricity company to inspect private overhead electric lines within its distribution area.

Attachments

Nil.

FPP8: Coordination with Other Authorities Procedure

Purpose

This procedure describes the process for coordinating with other organisations regarding fire prevention activities and response to emergencies such as fires.

Scope

This procedure covers the liaison with other organisations to coordinate fire prevention activities and respond to emergencies.

References

Operations Manual: Switching and Earthing – Emergency (UE MA 0001, Section 07)

UE Emergency Management Plan (ELE-PL0900)

Definitions

MFB	Metropolitan Fire and Emergency Services Board
CFA	Country Fire Authority
DEPI	Department of Environment and Primary Industries
ESV	Energy Safe Victoria

Procedure

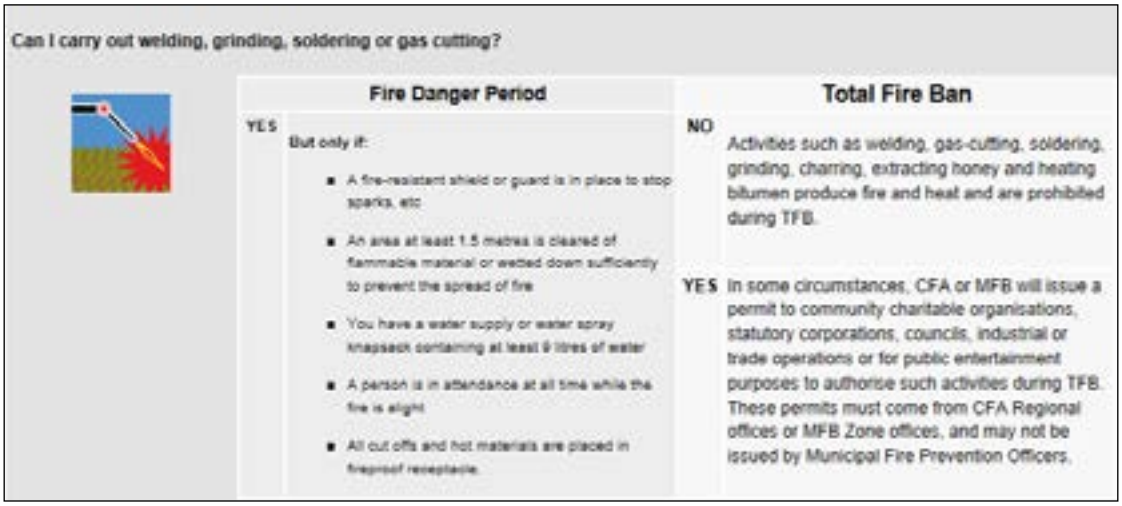
Fire Investigation

On request, UE will provide assistance to MFB, CFA, DEPI or other statutory bodies regarding the investigation of fires near the UE supply network. The UE Emergency Response Manager shall arrange such assistance.

Activities during the Fire Danger Period

Although permits are not required for work during the fire danger period, the CFA has literature providing guidance on what precautions need to be undertaken when performing various activities including welding, grinding, soldering or gas cutting. UE expects all work crews undertaking such activities on their behalf to comply with these precautions at all times especially during the fire danger period

Below is an extract from the CFA poster titled 'CAN I OR CAN'T I?' which clearly documents the requirements when undertaking these activities.



Permits Required for Activities on Days of Total Fire Ban

Permits are to be applied for annually by the end of July, and distributed to relevant line managers on receipt of the permit. The permits are valid for a period of 12 months.

The activities permitted under the permit conditions should be avoided or deferred if possible on days of total fire ban.

The Service Provider's Executive General Manager or equivalent may give written endorsement to work crews involved in the use of the items listed on the permits for the entire fire season, provided these crews adhere to the requirements of the permits as described in Attachment 1.

Work permits must be obtained annually from the following agencies for business activities on days of total fire ban.

- DEPI
- CFA
- MFB.

The Service Providers are responsible for obtaining the necessary permits, which cover their own and any subcontract crews. The permits are granted by these agencies on request, and copies shall be forwarded to all relevant service provider staff, work crews and subcontractors with copies provided to the UE Vegetation and Fire Prevention Planner.

Mutual Aid Plan (MAP)

Consistent with the requirements of Clause 7 of the Distribution Code, UE has entered a cooperative agreement with the four other distribution companies to deal with major incidents such as fires. UE will meet its commitments under this agreement as the need arises.

Declaration of a Fire Disaster

If a disaster is declared by a Fire/Disaster Coordinator and roadblocks are erected, UE operational personnel must not enter into the restricted area. All operations must be performed external to the restricted area.

Arrangements may be agreed to between the Fire/Disaster Coordinator and the Network Control Centre Manager to enable operations or activities within the restricted area. This agreement must hold the safety of personnel paramount. Personnel involved in such situations must be consulted and their agreement to the arrangements confirmed before entry is undertaken.

Response to Fire Emergencies

Response to fire emergencies shall be in accordance with the UE Emergency Management Plan (EMP). A copy of this plan may be viewed at UE's Mt. Waverley office during normal business hours. Refer to Operational Contingency Plans Procedure FPP26 for further detail.

The EMP has been developed to ensure that the UE supply network can respond effectively to emergency situations associated with the UE assets.

The EMP contains details of the key processes of notification, escalation and mobilisation, the source and organisation of resources and the actions which should be considered, and is part of an overall plan of the Company framework for Emergency Management.

The UE Operations Manual is called up by the EMP and contains an operational plan for UE assets in the event of a fire. UE does not have a specific maintenance plan for their assets in the event of a fire. However, post a fire event, the necessary maintenance will be carried out in accordance with any fire authority permits that are in force. For convenience a copy of the operational procedure relating to access to defined fire disaster zones is reproduced here:

24.7 HV Operator Access to Defined Fire/Disaster Zone

No HV Operator shall proceed into a defined fire/disaster zone either through road blocks or other routes of access. All necessary switching operations are to be carried out external to the defined zone except as detailed below.

If, after consultation between the CFA Commander-in-Charge of Fire Fighting Operations in the defined zone and the Fire/Disaster Coordinator, electrical switching within the defined zone is required, the following shall apply:

- *Decision to operate within the defined zone must be by agreement between the Fire/ Disaster Coordinator and the Operating Authority.*
- *The Fire/Disaster Coordinator may arrange for the CFA Commander-in-Charge to supply an escort to accompany the HV Operator to provide protection and guidance while working within the defined area.*
- *At all times, the HV Operator shall reserve the right not to enter, and to withdraw from the defined zone if he/she considers his/her safety at-risk. Should an HV Operator find himself/herself in an area which has been defined a fire/disaster zone, he/she must exercise caution and move to a location outside the zone to continue switching.*

Recommended safety and communication equipment that should be made available for issue at short notice to an HV Operator prior to entering a Classified Fire Area is as follows:

- *Woollen blanket, Goggles, Dust mask, Full-length clothing, Knapsack spray, Suitable mobile radio, Mobile phone.*

Contact Details of Other Organisations

Contact between UE and other organisations is vital in both emergency and normal situations throughout both the lead up to and duration of the declared fire season. Local government and fire authorities provide valuable information on the expected commencement, duration and severity of the declared fire season.

Bureau of Meteorology Grassland Curing Maps

The BOM provides regular reports containing relevant data relating to the likely severity of a fire season and long term weather condition forecasts. The bureau also provides satellite photographic grassland curing maps of Victoria. The grassland curing maps show the extent to which moisture is present at ground level and hence give an indication of the potential fire risk.

The Electric Line Clearance and Fire Prevention will download maps covering the UE area as required in the lead up to the declaration of the fire season and during the fire season.

Electronic copies are circulated in accordance with the Fire Prevention Management reporting system outlined in this procedure.

Mapping of Hazardous Bushfire Risk Areas (CFA Local Government)

The concept of fire hazard mapping was commenced in 1981 by the CFA to enable local councils to better plan new development in rural areas and to plan their overall fire protection programs. These fire boundaries are updated every four years by the CFA in consultation with UE and local government representatives. The latest fire boundary changes occurred in 2013, the next in 2017.

From this assessment the CFA produces electronic mapping of the HBRA. These maps are superimposed on the UE GIS plans that show the road network and electricity distribution lines. This enables all assets to be assigned a fire area rating dependant on each asset location which is uploaded into SAP.

Fire Season Monitoring

The Electric Line Clearance and Fire Prevention will remain in close liaison with the CFA Officers in the approach to fire season to assess whether there is likely to be an early or delayed start to the fire season.

The fire season is usually declared on or about mid December but can be delayed into January or not declared at all. The Electric Line Clearance and Fire Prevention will provide regular updates on the status of fire season declaration.

Data can be accessed from the CFA's website www.cfa.vic.gov.au in relation to the status of fire restrictions in Victoria. This website is not password protected and provides one image per week (usually Monday afternoons) of the status of fire restrictions in Victoria. The data is accessible under the menu titled 'Fire Restrictions'.

Municipal Fire Prevention Committees (Local Government)

Each municipality outside the Metropolitan Fire District has a Municipal Fire Prevention Committee.

Where the municipality is adjacent to any part of a forest or crown land reserve, a representative of the DEPI will also be a member.

The Fire Prevention Manager, or nominated representatives, will attend meetings of the Municipal Fire Prevention Committee when invited and report to the Fire Prevention Committee any matters affecting UE operations or business position.

Procedure FPP26 contains the contact details of municipal fire prevention officers at municipalities controlling the fire risk areas of UE.

Liaison with Other Network Operators

UE, in accordance with its cyclic inspection program, shall inspect UE assets attached to poles/towers owned by another network operator. Assets owned by another network operator and attached to UE pole/towers shall be inspected by UE as part of its cyclic inspection program, and any defects reported to the asset owner.

Municipal Councils

The UE Vegetation and Fire Prevention Planner, SPs and the VMC shall maintain ongoing liaison with municipal councils.

Attachment 1: Total Fire Ban Day Permits — (Summary of Requirements)

Authority	Permit Type	Worksite Preparation Requirements	Personnel Requirements	Fire Fighting Equipment Requirements	Contact Authority Prior to Work Commencement
CFA	Permit for Welding, Cutting, Grinding Permit No:	Ground cleared of all combustible materials or maintained in a wetted down condition for a radius of 10 metres	Minimum of two people in attendance at all times with one purely as an observer	Fully equipped hose available for immediate use or 1,000 litre tanker	Manager of Community Safety Region 8 9793 4088 or Region 13 9735 0511
CFA	Permit for Use of Blow Lamps or Gas Torches Permit No:	Ground cleared of all combustible materials for three metre radius or maintained in a wetted down condition for a radius of five metres	Minimum of two people in attendance at all times with one person solely as observer and for fire fighting purposes	Two 16 litre knapsacks	Manager of Community Safety Region 8 9793 4088 or Region 13 9735 0511
MFB	Permit for Essential Cable Jointing, Welding, Cutting and Grinding Permit No:	Ground cleared of all combustible materials or maintained in a wetted down condition for a radius of three metres	Minimum of two people in attendance at all times	One 9 litre knapsack	MFB B/H 9665 4501 or A/H Duty Commander 9665 4235
DEPI	Permit to Operate Welding, Cutting and Grinding Equipment Permit No:	Ground cleared of all combustible materials for a radius of three metres	Minimum of two people in attendance at all times	Two 15 litre knapsacks One rake-hoe One shovel	The Manager, Fire in the relevant region of DEPI-9412 4777

Validity of Permits

To ascertain which permit applies, the Melways is marked with the details of the CFA and MFB boundaries. DEPI permits only apply for work being performed in State Forests and National Parks.

Contact Authorities before Work Commencement

Work crews are required under these permits to advise the CFA and MFB of the time, location, and duration of any work prior to commencement.

FPP9: Technology Implementation and Development Procedure

Purpose

This procedure describes the process for the implementation of technology to prevent fire ignition emanating from the UE supply network.

Scope

This procedure covers situations where technology is implemented or reduce the risk of fire ignition from the UE supply network.

References

Electricity Approved Materials and Suppliers List.

Electricity Design and Construction Manuals.

Definitions

REFCL – Rapid Earth Fault Current Limiter.

Procedure

The technologies widely used for the minimisation of fire ignition are described below.

Insulated Cable Systems

UE will consider all reasonable proposals from affected parties, community groups and other organisations (proposers) to reduce the need for vegetation cutting or removal:

- Written proposals to be forwarded to the General Manager Asset Management for consideration
- The General Manager Asset Management to contact the proposer within five working days to confirm receipt of the proposal, explain the process for handling proposals, and outline financial arrangements, if necessary
- Where the proposer decides to continue with the proposal, the General Manager Asset Management will provide indicative costs of the proposal within 30 days, including benefits that UE may receive from the project.

Management of Fault Energy levels

The following methods may be employed to limit the amount of fault energy, and thus reduce the risk of fire ignition:

- Install neutral earth resistors at zone substations
- Install rapid earth fault current limiters (REFCLs) at zone substations
- Operate the HV system with open bus ties
- Suppress auto-reclose operation and/or apply instantaneous protection setting on HV feeder circuit breakers and pole mounted ACRs
- Apply current limiting fuses e.g. full range powder filled type (BA fuses are the current standard HV fuse for all areas (including HBRA) except within 1km of zone substation)
- Operate high-speed protection systems
- Fit fuse saver devices.

The status of the relevant protection arrangements at zone substations supplying HBRA network feeders is contained in FPP27.

Accountability: General Manager Asset Management
Secondary Systems Manager

Installation of Rapid Earth Fault Current Limiters (REFCLs)

Rapid Earth Fault Current Limiters (REFCLs) can be deployed to prevent powerline faults starting bushfires.

United Energy has taken a lead role in the evaluation and development of REFCLs in collaboration with the Victorian state government and other project partners. Testing was undertaken at Frankston in 2014, at Springvale in 201 and at Kilmore in 2015. This world first research has paved the way for new legislation being introduced, that mandates the rollout of this technology in the highest bushfire risk areas of Victoria.

REFCLs prevent phase to earth faults on 22kV overhead powerlines from starting fires by rapidly and automatically reducing the current flow to very low levels within milliseconds of a fault occurring. REFCLs can detect phase to earth faults with up to 10 times the sensitivity compared to traditional sensitive earth fault protection.

Research has confirmed the REFCL's ability to detect phase to earth faults with greater sensitivity, interrupt the fault current quickly, and extinguish the electrical arc quickly with a risk reduction of about 90%.

The additional knowledge gained from the fire ignition research coupled with United Energy's experience in operating the existing REFCL at Frankston South (FSH) zone substation, has provided United Energy with the confidence to install further REFCLs in its highest fire loss consequence areas over coming years. United Energy plans to install a REFCL at Mornington (MTN) zone substation by December 2017 and another REFCL at Dromana (DMA) zone substation by December 2019. These two zone substations represent over half of the total fire loss risk on the United Energy network based on fire loss mapping research.

United Energy proposes to use leading edge REFCL technology deploying active fault compensation which has been demonstrated to be the most effective technology currently available to reduce the bushfire risk.

The plan to install REFCLs in the highest fire loss consequence areas was identified as the best solution to reduce the bushfire risk, following an evaluation of technically and economically viable options. The installation of these REFCLs shall reduce bushfire risk on the United Energy network to a level that is low as reasonably practicable.

United Energy's experience and ongoing participation in the development of REFCL technology supported continued investment will ensure that United Energy meets customers' expectations to maintain safety as its number one priority.

Assessment of New Technologies

Any new technology shall be assessed and introduced by the UE standards committee.

Considerations will include:

- Geographic location of any high fault level feeder sections in relation to the fire area classification
- Protection scheme suitability
- System changes that may alter fault levels
- Construction and maintenance standard for any high fault level feeder sections
- Identification of network exposure.

General

The General Manager Asset Management will allocate appropriate funding within the annual budgeting process for fire prevention capital projects when identified.

Rapid Earth Fault Current Limiters (REFCL)

Following the 2009 Black Saturday bushfires, the State Government of Victoria established the 2009 Victorian Bushfires Royal Commission (the Royal Commission) to investigate the causes and responses to the bushfires. The Royal Commission concluded that five of the major fires were started by power lines. The Royal Commission made 67 recommendations, eight (Recommendations 27 to 34) related to reducing the likelihood of power lines starting catastrophic bushfires.

The Powerline Bushfire Safety Taskforce (PBST) was established in August 2010 to recommend to the Victorian Government how to maximise the value to Victorians from the Royal Commission recommendations. The PBST presented its final report to the Victorian Government on 30 September 2011. The Victorian Government accepted PBST's recommendations and in December 2011 announced a package of initiatives.

Among these initiatives was a rollout of REFCLs in zone substations supplying areas with a high bushfire start risk, subject to further trials on a real network to confirm their effectiveness in reducing fire risk. Research has shown that REFCLs have the capability to reduce the risk of bushfire starts due to a phase to ground fault. REFCLs are designed to reduce customer supply interruptions and reduce the risk of starting a fire. They act in milliseconds to reduce the fault current, without the need for human intervention.

The REFCL fire ignition test project 1 initiated by the Department of State Development Business and Innovation (DSDBI) and conducted in 2014, confirmed that the REFCL technology reduces the fire ignition risk associated with bare-wire overhead power lines.

The knowledge gained from the fire ignition tests, coupled with UE's operating experience with its existing REFCL at FSH (Frankston South) zone substation has provided UE with an understanding of how REFCL technology can mitigate bushfire ignition risk in HBRA.

UE plans to install REFCLs at zone substations supplying up to 60% of its HBRA. Investing in bushfire mitigation technology will assist UE in meeting customer expectations that safety will continue to be its number one priority. Investment in new technology-proven to reduce bushfire ignition risk – is an important step in maintaining strong safety performance into the future.

Attachments

Nil.

Current Year and Future Years

UE is constantly reviewing and implementing programs to minimise the risk of fire ignition.

The current UE Asset Management Plan includes a pilot program to install approximately 60 (20 sets) fuse savers in various key locations throughout the UE network in 2015/16.

REFCLs have been proposed at Mornington and Dromana zone substations.

All new low voltage construction within the HBRA is installed utilising underground or insulated overhead cable systems.

FPP10: Step Change to Industry Practice Procedure

Purpose

This procedure describes the process for implementing a step change to industry practices.

Scope

This procedure covers the process for the implementation of significant changes to existing fire prevention practices with respect to the UE supply network.

References

Nil.

Definitions

Significant Change – a strategic or major departure from established industry practice.

Procedure

A formal proposal shall be prepared, which must include the following:

- The expected benefits from the change
- The predicted risk profile of the change
- A sensitivity analysis
- The monitoring, reporting and control systems to be implemented to measure and validate the effectiveness of the change
- An implementation plan to manage the transition.

Consideration shall be given to consult with ESV or insurers prior to the decision to proceed.

The proposal must be endorsed by the Fire Prevention Committee and approved by Senior Management.

A formal post-implementation review may be conducted at an appropriate time following the implementation of the change. ESV and insurers may be advised of the results of any post-implementation review.

Attachments

Nil.

Current Year

There are no proposals for significant change from established industry practice.

FPP11: Training and Competence Procedure

Purpose

This procedure describes the process for ensuring that employees, SP and subcontractors engaged in fire prevention activities are competent to carry out their work.

Scope

This procedure covers the training, re-training, review and recording of training of all personnel, SP and subcontractors engaged in fire prevention activities.

References

Qualifications and Training Requirements for Network Access (UE PR 0006)

Asset Inspection Manual

Electric Line Clearance Management Plan (ELCMP)

Preferred Service Provider Terms and Conditions

Definitions

As detailed in regulation 7(2) within the Electricity Safety (Bushfire Mitigation) Regulations 2013 *'a 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'.*

Conversely, any parts of the UE network above the surface of the land with the exception of zone substations constitute their '*Supply Network*'.

Procedure

It is a requirement of the Electricity Safety (Bushfire Mitigation) Regulations 2013 (Vic), specifically Part 7(1)(j) require all persons assigned to carry out inspections on the company's supply network assets must have:

a) Satisfactorily completed a training course approved by Energy Safe Victoria

b) The detail of the processes and procedures for ensuring persons (other than those above) who carry out or will carry out functions under the plan are competent to do so

(c) Details of the processes and procedures for ensuring that persons [other than persons referred to in a) and b) above], who will carry out functions under the plan are competent to do so.

Asset Inspection (Pole and Overhead)

Cyclic Asset Inspection

It is a UE contractual requirement that all employees and contractors engaged to carry out cyclic inspections on the company's supply network assets must meet the VESI skills and training guidelines and matrix for asset inspector's published at www.vesi.com.au. and any UE specific requirements.

The prime training courses currently approved by Energy Safe Victoria for asset inspection are;

- Certificate II in Asset Inspection – 22109VIC
- Certificate II in ESI Asset Inspection - UET20612.

Where this qualification has been attained in a State of Australia other than Victoria, induction shall be conducted by a person holding a Certificate IV in Training and Asesssment at a minimum, and include information on Victorian Acts, Regulations, Codes of Practice, Safety Rules, Industry Guidelines and Asset Identification.

Technical Inspection of Existing Notification Defects

Under regulation 7(j) of the Electricity Safety (Bushfire Mitigation) Regulations 2013 UE must provide;

'...details of the processes and procedures for ensuring that each person who is assigned to carry out inspections referred to in paragraph (i) and of private electric lines has satisfactorily completed a training course approved by Energy Safe Victoria and is competent to carry out such inspections;..'

As documented above there are only two training courses approved by Energy Safe Victoria.

ESV have granted and exemption to UE (ref CM – 1596) for this requirement subject to such personnel meeting the qualifications, experience and approval criteria set out in version 1 of the UE document (UE SW 2501) titled '*Technical Assessment of Existing Crossarm Notification Defects Procedure*'.

Asset Inspection (Ground Type Assets and Façade Mounted LV Mains)

The addition of regulation 7(2) in the Electricity Safety (Bushfire Mitigation) Regulations 2013 defines the types of assets excluded in the definition of the 'Supply Network'. These exclusions do not include primarily traditionally underground assets that are located above the surface of the land.

Such Asset Types include:

- Kiosk Substations/Switches
- Ground Type Substations
- Indoor Substations
- Switching Cubicles
- Pillars
- Façade Mounted LV Mains

Currently, there is no training organisation approved by ESV to carry out a training course solely for these assets.

Subsequently, UE has documented the processes and procedures which will form the scope of the inspection of these types of assets.

UE will ensure that all employees and contractors engaged to carry out inspections on these assets must obtain and maintain suitable electrical trade qualifications which UE has determined are necessary to safely and adequately inspect these types of assets in line with the scope described in the Lifecycle Strategies.

The location of the scope of inspection and qualifications to undertake such inspections are documented in the table below.

All employees and contractors engaged in Ground Type Assets inspection must have received initial training and undertake regular refresher training. Training requirements will also be documented in the Substations Inspection Manual.

Asset Type	Lifecycle Strategy	Minimum Trade Qualification
• Kiosk Substations • Switches • Ground Type Substations • Indoor Substations • Switching Cubicles	UE PL 2015 Non-Pole Distribution Substations	• Systems Electrician • Electrical Fitter

Asset Type	Lifecycle Strategy	Minimum Trade Qualification
Pillars	UE PL 2017 Underground Distribution Systems	• Cable Jointer • Systems Electrician • Electrical Fitter
Façade Mounted Mains	UE PL 2007 Connectors and Conductors	Lineworker

Vegetation Cutting or Removal

All employees and contractors engaged in vegetation cutting or removal must have successfully completed the competency-based training in line with the requirements set out within the 'VESI Vegetation Management Guidelines' and any UE specific requirements.

All Service Provider (SP) and subcontractor field operations employees shall be trained in accordance with Qualifications and Training Requirements for Network Access (UE PR 0006).

In accordance with the Preferred Service Provider Terms and Conditions, all contracts or orders for services shall require that all contractors' employees:

- Hold all necessary qualifications and permits, including those required by law
- Are adequately trained and are competent to carry out their duties in relation to provision of services.

FPP12: Monitoring and Review Procedure

Purpose

This procedure describes the process for monitoring and review of the effectiveness of the Fire Prevention Management System.

Scope

This procedure covers audit and review of all of the elements of the Fire Prevention Management System.

References

Nil.

Definitions

Nil.

Procedure

Energy Safe Victoria Audit

Annually, ESV conducts a desktop and field audit of the UE Fire Prevention Plan and the ELCMP. Any field defects identified are actioned in accordance with the priority assigned and any recommendations, observations and suggestions from the systems audit are reviewed and actioned immediately if required.

Three elements that are normally covered by ESV audits include:

- Network assets (poles and wires) including POELs
- Vegetation
- Systems supporting the fire prevention program.

HBRA Summer Audit Program

UE annually engages the expertise of independent field auditors to measure the performance of the cyclic and pre-summer inspection and cutting or removal programs as well as identifying any obvious asset and POEL defects and abnormal vegetation regrowth throughout the summer period. These audits are conducted from September to December (cyclic cutting or removal) and December through to the end of the declared fire season (pre-summer cutting or removal) and involve a 100% coverage of the UE HBRA over this period. A description of the code definitions for vegetation and assets is included as Attachment 1.

Any Code 55 vegetation is to be reported immediately via text message (and record the finding for inclusion into the HBRA Audit Spreadsheet) to the UE Vegetation Manager, FPM, SP Manager and SP Contractor (VEMCO).

The SP Manager shall ensure the text message is acknowledged by texting back to the auditor , FPM, and Vegetation Manager that the message has been received and advise what steps are in place to clear the span.

The SP Manager shall then text auditor , FPM, and Vegetation Manager on confirming completion (text and email) of the clearing of the span within UE guidelines.

The SP Manager shall then update the HBRA Audit Spreadsheet is updated with this action as soon as possible.

Any urgent Asset/POEL defects are to be reported immediately to the UE NCC for rectification.

Results of any Code 56 findings from the summer audit program shall be provided to the SP no more than one week after identification and must be completed or reassessed (if approved by the Vegetation Manager) within 6 weeks of being identified.

Senior Management Briefing

A senior management briefing is conducted just prior to the commencement of the declared fire season to ensure that the business is fully prepared. This briefing may entail a presentation on the status of the UE Fire Prevention programs or site visits. Other managers may conduct or arrange ad-hoc site visits during the year, with particular emphasis in the lead up to and during the fire season.

Internal/External Audit

From time to time UE may engage internal or external auditors to conduct audits of the UE Fire Prevention Plan. These may include field and office based audits to review Plan compliance and the fire prevention program implementation. These audits may also check the effectiveness of the program in identifying potential causes of fires and preventative programs and projects.

Fire Prevention Management System Review

The Fire Prevention Committee initiates an annual review of the effectiveness of the Fire Prevention System, for completion by the end of June. The review includes the following:

- The effectiveness of preventative programs
- Recommendations, observations and suggestions from the ESV, internal or external audits
- The effectiveness of the processes for monitoring, recording and reporting
- The timeliness of achievement of program items and response
- The value of performance measures
- The frequency and type of audit and those responsible for carrying out these activities.

The results of the review are reported to the Fire Prevention Manager and any improvements and/or changes will then be included in the following years plan.

Attachments

1. Vegetation Code Definitions
2. Asset and POEL Defect Definitions
3. Asset Inspection Report
4. HBRA Pre-Summer and Summer Inspection/Audit Schedule.

Attachment 1: 2014/19 — Vegetation Code Definitions and Actions

Code	Definition	HBRA Pre Summer and Summer Action	LBRA and HBRA Other Periods

Re-assessed Span	Reassessed vegetation results from any coded span that has not been cleared that has undergone a subsequent inspection. The results from this reassessment may or may not result in a change of the code (eg. from 56 to 55) and therefore priority to action.
	Spans normally only require a re-assessment in specific circumstances which are normally beyond the control of UE and/ or its SP's. Such circumstances include but are not limited to:
	• A TFB/Code Red day being declared outside of fire season in cases where there may be overdue spans on the network which the coding of such spans must be confirmed on such days.
	• Where spans are overdue however cannot be accessed due to:
	  • Ground conditions
	  • Climbers required
	  • Network access
		With the exception of TFB and Code Red Days any spans that undergo a re-assessment must be referred to the UE Vegetation Manager by the Service Provider. Any reassessment by the Service Provider must be carried out before the original due completion date to avoid being overdue and hence indexing.
		The results of a reassessment will be either a code 55 or code 56. Where a code 55 is found, it must be actioned within two (2) working days or by the original due date, whichever is earlier.
		Where the reassessment remains a code 56, the due date for rectification will be six (6) weeks from the reassessment date (as per the FPP).
		The Vegetation Manager will prepare a report for the FP Manager on reassessments conducted including:
		• Number of items,
		• Rationale,
		• Include a risk assessment including the potential impact of reprioritisation to the risk of fire start on the UE Network
		This information must then be forwarded to the FP Manager to communicate this information to the FPC.
			N/A

55	Means a span that has: • Vegetation is in contact with the bare conductors, or uninsulated assets with the potential to become live; or • Has been recently contacting the conductor due to sag, sway or environmental conditions, but is not physically in contact on the day of inspection, or • Is in solid contact with a HV ABC.	All code 55s identified from the pre-summer audit to to be cleared within seven (7) days. All code 55's identified within the declared season: • To be cleared within two (2) working days days of identification, OR • Before 10am of a day of total fire ban, or code red day.	Four (4) weeks or earlier if decided by a suitably qualified person

Code	Definition	HBRA Pre Summer and Summer Action	LBRA and HBRA Other Periods
56	Means a span where: • Vegetation is within the clearance space as defined in the Electricity Safety (Electric Line Clearance) Regulations 2010 but is not in contact with bare conductors or uninsulated assets, **OR** • Is in solid contact with a service cable or LV ABC, **OR** • May make contact with a HV ABC span.	To be cleared prior: • To 1 December or declaration date if earlier, **OR** • If identified in the summer audit program cleared or reassessed within six weeks of being identified.	Six (6) weeks or earlier if decided by a suitably qualified person
Maintenance Span	Means a span where: • Vegetation is not within the clearance space as defined in the Electricity Safety (Electric Line Clearance) Regulations 2010 at the time of inspection but may enter the clearance space prior to the end of the fire declaration period. These are to be coded with the year that it is estimated the vegetation may enter the clearance space	If identified during the declaration period, tree is to be cleared or re-assessed within six weeks in the year that the tree is expected to become non-compliant. *e.g; During the 2015/16 pre-summer or summer audit programs if a maintenance span is coded as a '2016' the SP must clear or re-assess the tree within six weeks from the beginning 1 January 2016.*	To be actioned in line with the cyclic program
Hazard Tree	Means any tree outside of the clearance space that may come in contact with the powerline as a result of: • Weak connection to root systems (suckers) • A dead or dying tree • 'Normal' growth • Major over-balance toward assets (ground lifting, poor root systems etc.)	To be cleared prior: • to 1 December or declaration if earlier or; • if identified in the summer audit program cleared or reassessed within six weeks of being identified.	At a timeframe decided by the suitably qualified person

Attachment 2: 2014/19 — Asset and POEL Defect Definitions

Definition	Action Required
Urgent Maintenance	Means: An asset inspection officer/auditor has assessed that the condition of an attachment is in need of urgent attention based on the criteria that it represents either: • An immediate fire risk or • A public safety risk or • Immediate risk/s to the continuity of the electricity supply. The asset inspector will contact the UE dispatch or his supervisor to arrange immediate action on such defects.
Priority 1 Maintenance	Means: An asset inspection officer/auditor made the assessment that the condition of an attachment requires maintenance or replacement within 12 weeks. Service Providers have a target to rectify Priority 1 maintenance within six weeks during the declared fire danger period.
Priority 2 Maintenance	Means: An asset inspection officer/auditor made the assessment that the condition of an attachment requires maintenance or replacement within 26 weeks. Service Providers have a target to rectify to rectify Priority 2 maintenance within 12 weeks during the declared fire danger period.

Attachment 3: Asset Inspection Report (Example Only)

Asset Inspection Report

Private Asset	Yes	**UE Asset**	

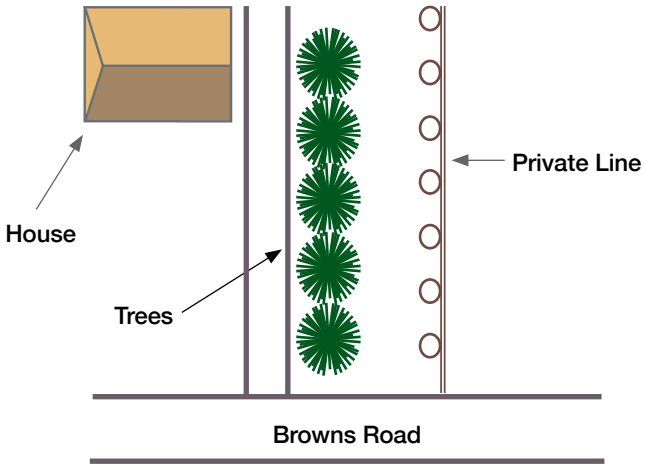
Inspector:	Grant Adams			**Company:**	Tree Concepts
Telephone:	0408 000 000	Date:	19/10/14	**Meter # (Always Required):**	EM 111681
Feeder:	MGE 13	Mel Ref:		72C9	**LIS #:** 0629194
Address:	110 Browns Road, Main Ridge				
Closest Intersection/Other Location Details *(if rural)*:	Purves Road				

Conditions of Items Inspected

Poles		Conductor		Crossarms		Trees (POEL Only)	
Deteriorated		Damaged		Deteriorated		Code 55	
Not Straight		Out of Sage/ Clearances		Not Straight		Code 56 20+ trees	X
Stays Missing		Missing Spreaders	X	No Braces		Code 56M (With Defect)	

SKETCH NOTES

Several Eucalyptuses along driveway required clearing (300-400mm) from private line. (Bare-Wire). Customer advised on site.



Any hazards etc ...

Bare Wire

Missing Spreader (second span)

Customer advised on site

For UE Use Only ...

- Notification # _____
- material req'd, services etc.
- solutions
- hazards

Attachment 4: HBRA Pre-Summer and Summer Inspection/Audit Schedule

Process Name	Company Responsible	Company Role	Month												Status
			Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	
Asset Inspection within the HBRA North	Select Solutions	Sub-Contractor Asset Inspection North	X	X	X										
Asset Inspection within the HBRA South	Electrix	Sub-Contractor Asset Inspection South	X	X	X										
Asset Inspection Competency Audit HBRA North	ZNX	Service Providers North				X									
Asset Inspection Competency Audit HBRA South	Downer	Service Providers South				X									
Vegetation Pre-summer Inspection, Cutting or Removal Program HBRA North	VEMCO	Sub-Contractor Vegetation North				X	X	X	X	X					
Vegetation Pre-summer Inspection, Cutting or Removal Program HBRA South	VEMCO	Sub-Contractor Vegetation South				X	X	X	X	X					
Vegetation Pre-summer Inspection, Cutting or Removal Program Audit HBRA North	ZNX	Service Providers North						X	X	X	X				
Vegetation Pre-summer Inspection, Cutting or Removal Program Audit HBRA South	Downer	Service Providers South						X	X	X	X				
Desktop and Field Audit	Energy Safe Victoria	Technical and Safety Regulator							X						
Pre-Summer and Summer Audit Program	United Energy	Technical Compliance Group						X	X	X	X	X	X	X	

FPP13: Fire Prevention Management System Control and Approval Procedure

Purpose

This procedure describes the process for control and approval of the Fire Prevention Management System documentation.

Scope

This procedure covers the control and approval of the elements of the Fire Prevention Plan, which provides the support for the Fire Prevention Management System.

References

Fire Prevention Management System Procedure (FPP1)

Document and Data Control Procedure

Definitions

Nil.

Procedure

Approval

The Fire Prevention Plan shall be approved by the General Managers Electricity Networks and Service Delivery.

Control

The Fire Prevention Plan shall be controlled in accordance with Document and Data Control Procedure. The Plan shall be controlled electronically and be available on the UE internet. When printed, the Plan will become uncontrolled.

FPP14: Management of Critical Information Procedure

Purpose

This procedure describes the process for management of critical fire prevention information.

Scope

This procedure covers the management of critical information contained in the records of the Fire Prevention Management System.

References

UE IT Security Policy

Records Procedure

Definitions

Nil.

Procedure

Data Collection and Responsibility

UE has implemented sophisticated information technology systems to assist asset management methodologies.

UE uses the maintenance methodologies to determine the optimum asset maintenance policies. A range of asset parameters are used including asset type, criticality, failure modes, location and environment, asset age, number of operations performed and general condition.

The information technology systems that are used to manage the electricity network assets are GIS and SAP. The integration with complementary systems such as SCADA, Customer Information, Transformer Load Management and Profiling, Document Management, Distribution Management and Field Computing completes the suite of systems.

The systems provide key business tools for asset data management, works management, maintenance management and operations management.

The detailed information that is available regarding the assets, particularly their location and characteristics such as type, age and condition, allow improved decision-making and visibility of asset information.

UE is continually looking for opportunities to improve the management of assets and will continue to do so.

Data Retention and Disposal

Network asset information (including POELs, inspection results, testing results and fault reports) is retained in electronic form within the GIS and SAP databases.

HBRA Fire Prevention Index data is kept by the Fire Prevention Manager for five years.
Audit reports are also retained for five years.

Security and Access Restrictions

In accordance with UE's IT Security Policy, access to electronic information is strictly controlled via passwords and User Ids. Each user is provided with the levels of access to specified parts of the systems appropriate to that user.

Attachments

Nil.

FPP15: Response to Reported Unsafe Situations Procedure

Purpose

This procedure describes the process for responding to reports of unsafe situations.

Scope

This procedure covers the response to reports of unsafe situations, by internal or external parties, that have the potential to cause fire ignition.

References

UE Incident Notification and Investigation Process

Definitions

Nil.

Procedure

Unsafe situations that have the potential to cause fire ignition, and that are reported either external to or internally within UE, are assessed and accorded a priority dependent on the level of risk presented. The assessment and investigation is carried out in accordance with the Incident Notification and Investigation Process.

Items reported are recorded in a SAP notification and given a priority as defined in SAP, from 1 to 3 or a 'No Priority'.

Priority Rating

Section 3, Records of the Asset Inspection Manual assigns priority ratings to various types of defects or damage observed and provides detailed advice to inspectors and maintenance planners. A priority rating may be reassessed following subsequent inspections.

During inspections any item found to be defective or deteriorated will be assigned a priority rating in accordance with the Asset Inspection Manual.

Temporary Support of Defective Poles

This applies to situations where immediate action to change an unserviceable or other defective pole is not practical.

Poles temporarily supported by stays or struts using sound engineering principles are detailed in Section 7 of the Asset Inspection Manual.

Attachments

Nil.

FPP16: Reporting, Investigation and Analysis of Fire Ignitions Procedure

Purpose

This procedure describes the process for reporting, investigating and analysing fire ignition incidents.

Scope

This procedure covers all known instances of fire ignition caused by the UE supply network assets.

References

Electricity Safety Act (1998)

Electricity Safety (Bushfire Mitigation) Regulations 2013

UE Electricity Safety Management Scheme (ESMS)

ESV Guidelines for Reporting Electrical Incidents

UE Asset Incident and Investigation Guidelines

Definitions

ESV	Energy Safe Victoria
MFESB	Metropolitan Fire and Emergency Services Board
CFA	Country Fire Authority
VWA	Victorian WorkCover Authority

Legal Privilege	The protection from disclosure which may attach to documents and other forms of information.
Incident Command Centre (ICC)	A specific location where the management of the incident takes place (normally in the case of a fire, a CFA/MFB premises).
Fire	**A fire whe**re the cause of ignition was, or involved, UE assets, plant or equipment, or the plant or equipment of contractors engaged by UE. The fire may be confined to UE assets or involve adjacent vegetation or property.

Procedure

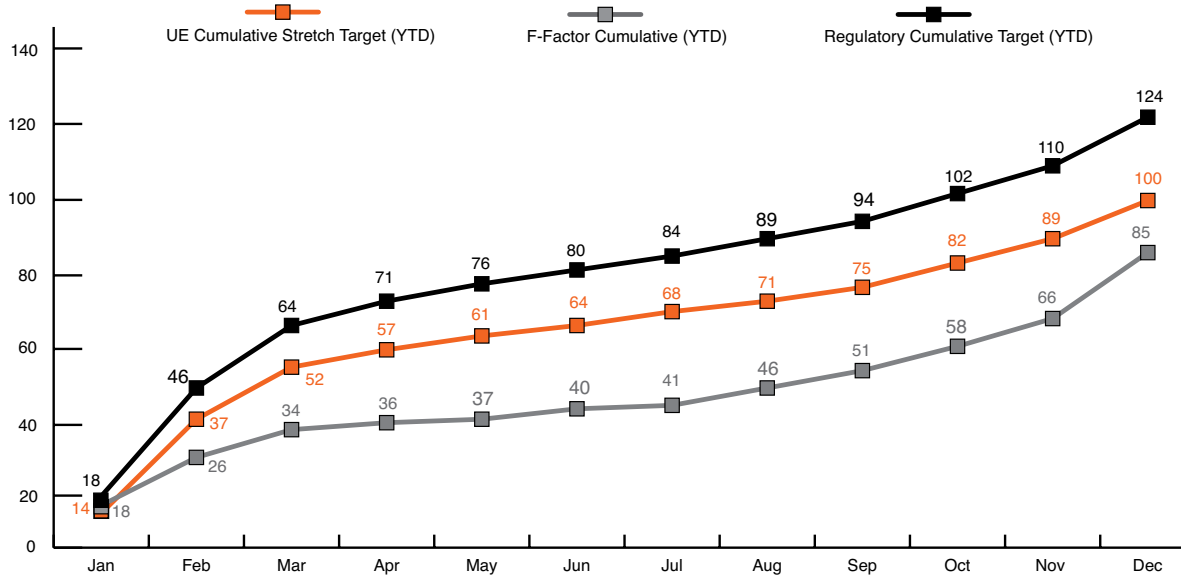
Fire Start Performance Indicator (the F-Factor)

From 2012 UE in conjunction with the Australian Energy Regulator (AER) has implemented a system to record the instances of fire starts on network assets and ground fires resulting from asset failure known as the F-Factor. The F-Factor is a measure of the success in minimising the number of fire starts against a target agreed to by the AER and UE.

It includes all reported asset and ground fire starts which involved heat, light and flame.

Below is the graph for 2012.

F-Factor Performance 2012



Regulatory Reporting

Under the Electrical Safety (Management) Regulations (2009), Part 3, Section 28 (2)(b) states in summary that a:

Relevant asset operator shall report 'Specified Electrical Incidents' that resulted in —

(a) An electric shock from —

(i) The operator's supply network or

(ii) An electrical installation supplied electricity by the operator's supply network or

(b) A fire originating from the operator's supply network or

(c) A part of the operator's supply network becoming dislodged from its supporting structure.

Incidents shall be handled in accordance with the UE Incident Notification and Investigation Process.

To satisfy the reporting requirements for section 28(2)(b) all fire ignition involving UE assets shall be reported to ESV and the Fire Prevention Manager as soon as practicable by telephone, with an Electrical Incident Confirmation Form being provided to ESV within two business days. An Electrical Incident Report Form shall be provided within 20 business days, in conformance with the UE ESMS.

In addition to this information from 1 July 2012 a 'Fire Ignition Report' (see attachment 2) is to be completed by field staff whenever fire ignition is identified identifying the cause of the fire ignition and all asset details.

The investigation and analysis may include:

- The mode of failure of the asset
- The circumstances and environment associated with the mode of failure
- The cost of damage and consequential loss
- The need for remedial action at the site or at other similar situations
- Tracking against the F-Factor

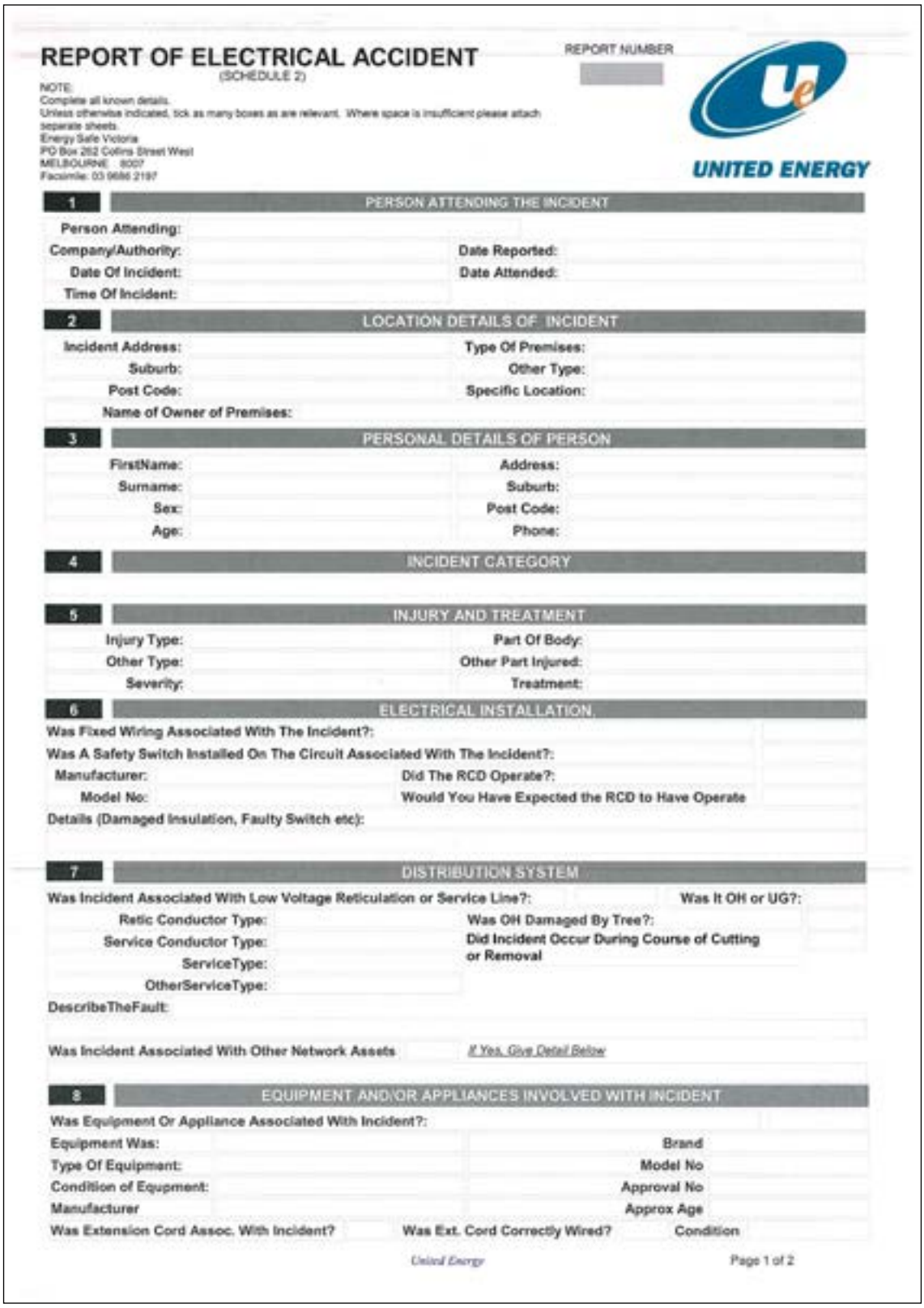
Incidents shall be handled in accordance with the UE Incident Notification and Investigation Process.

In the event of any significant increase in fire start activity, the Fire Prevention Manager is responsible for identifying contributing causes.

Attachments

1. Report of Electrical Accident form (Schedule 2 Report).
2. Fire Ignition Report

Attachment 1: Report of Electrical Accident Form (Schedule 2 Report)



REPORT OF ELECTRICAL ACCIDENT

(SCHEDULE 2)

REPORT NUMBER

NOTE:
Complete all known details.
Unless otherwise indicated, tick as many boxes as are relevant. Where space is insufficient please attach separate sheets.
Energy Safe Victoria
PO Box 262 Collins Street West
MELBOURNE 8007
Facsimile: 03 9686 2197

UNITED ENERGY

1 PERSON ATTENDING THE INCIDENT

Person Attending:
Company/Authority: Date Reported:
Date Of Incident: Date Attended:
Time Of Incident:

2 LOCATION DETAILS OF INCIDENT

Incident Address: Type Of Premises:
Suburb: Other Type:
Post Code: Specific Location:
Name of Owner of Premises:

3 PERSONAL DETAILS OF PERSON

FirstName: Address:
Surname: Suburb:
Sex: Post Code:
Age: Phone:

4 INCIDENT CATEGORY

5 INJURY AND TREATMENT

Injury Type: Part Of Body:
Other Type: Other Part Injured:
Severity: Treatment:

6 ELECTRICAL INSTALLATION

Was Fixed Wiring Associated With The Incident?:
Was A Safety Switch Installed On The Circuit Associated With The Incident?:
Manufacturer: Did The RCD Operate?:
Model No: Would You Have Expected the RCD to Have Operate
Details (Damaged Insulation, Faulty Switch etc):

7 DISTRIBUTION SYSTEM

Was Incident Associated With Low Voltage Reticulation or Service Line?: Was It OH or UG?:
Retic Conductor Type: Was OH Damaged By Tree?:
Service Conductor Type: Did Incident Occur During Course of Cutting or Removal
ServiceType:
OtherServiceType:
DescribeTheFault:

Was Incident Associated With Other Network Assets *If Yes, Give Detail Below*

8 EQUIPMENT AND\OR APPLIANCES INVOLVED WITH INCIDENT

Was Equipment Or Appliance Associated With Incident?:
Equipment Was: Brand
Type Of Equipment: Model No
Condition of Equipment: Approval No
Manufacturer Approx Age
Was Extension Cord Assoc. With Incident? Was Ext. Cord Correctly Wired? Condition

United Energy Page 1 of 2

9 VOLTAGE INVOLVED

Supply Voltage: **Voltage Between Points of Contact:**

10 DESCRIPTION OF INCIDENT

Briefly describe what the victim/person involved was doing at the time of the incident, how injury was recieved and the cause of the incident. (Use additional sheet and sketch if necessary for relevant detail)

11 ACTION TAKEN AND BY WHOM

12 OTHER CONTRIBUTING FACTORS

Clothes Worn By Victim:

Type Of Shoes: **Condition Of Shoes:**

Weather Conditions: **Visibility:**

Type of Floor: **Condition Of Floor:**

13 WORK RELATED INCIDENT

Did The Incident Occur During The Course of Work? **Victim Was:**

Occupation:

Work Being Performed:

Employers Name: **Employers Address:**

Phone No: **Suburb:**

Post Code:

14 WITNESS DETAILS

First Witness Name:	**Second Witness Name:**
Address:	**Address:**
Suburb:	**Suburb:**
Post Code:	**Post Code:**
Phone:	**Phone**

15 POLICE / MEDICAL OFFICER DETAILS

Attending Officer Name	**Attending Doctor Name**	
Rank and ID No:	**Hospital Or Clinic:**	
Station:	**Suburb:**	
Phone:	**Phone:**	**Post Code:**

16 CONTACT PERSON FOR REPORT

Contact Person For Report **Phone:**

17 PERSON SUBMITTING DETAILS

Person Submitting Details **Phone:**

Title: **Company:**

Date Submitted: *Signature*

Attachment 2: Fire Ignition Report

Ref. No.:

Fire Ignition Report

UNITED ENERGY

Complete all relevant sections of this form and send to "Technical Compliance "at Pinewood Corporate Centre, 43-45 Centreway Place, Mt Waverley, VIC 3149 or email to compliance@ue.com.au. For additional copies of this form email compliance@ue.com.au

Note: Please retain any failed equipment related to the incident. **[ ]** Tick box if equipment kept.

Trouble Order No.:..... (or Event ID No.)

Report Date:...../...../.....

Time: .....:.....

Reported by .....

Telephone .....

Office Use Only

Schedule 2 Report No.:.....

Notification No.: .....

Location

Pole No.: .....

Feeder / Substation Name: .....

Outside / Opposite House No.: .....

Side of Street: N S E W

Street / Spur Name:.....

Suburb / Town: .....

Fire Details ***Advise Network Resource Coordination / Dispatchers to begin "Schedule 2" process every time this form is used.***

Please Tick [✓]

Fire Start Notes

For the purposes of this section a fire is defined as:
"heat, light and flames that are made when something burns."

Examples of Confirmed Fire Starts
(Report required to be completed)

- All confirmed pole and crossarm fires
- Any pole and crossarm requiring replacement (failed or otherwise) with evidence of a fire event being the likely cause but had gone unreported at the time of the event.
- Where flames have been witnessed on any other distribution assets by passers-by (obtain details) or field crews, or evidence of flame.
- Any HV fuse hang-ups or candling
- Where flames have ignited the tree canopy, or branch from aerial contact with assets (but not including trees withering or singeing from close proximity to assets)
- Any ground fire ignition – grass or scrub must show evidence of flame.

Examples Where Fire Starts are Not Confirmed
(Report not required to be completed)

- Animal /Bird fault where flash burns may be evident on animal or bird but no ground/asset fire has resulted.
- Any connections/cables/boxes where heat has melted or discoloured insulation, distorted plastic but no flame damage evident.
- Any HV Fuse Replacement where a hang-up/candling did not occur.
- Trees in close proximity to assets of HV causing withering or singeing but no evidence of flame.
- Arcing, sparking or flashovers witnessed but where no ground/ asset fire has resulted.

If you are in any doubt if the event is a 'Fire Start' please complete this report and tick the "don't know/unsure" box.

Fire Start Confirmed?	
The event a confirmed fire start	
Don't know / Unsure *(Complete report)*	

Location	
Hazardous Bushfire Risk Area	
Low Bushfire Risk Area	
Don't know / Unsure	

Evidence of Fire Start	
Was flame witnessed? (Obtain details)	
Was fire evident on the asset?	
Was fire evident on a bird/animal?	
Was the fire evident in adjacent trees?	
Was the fire evident on the ground?	

Fire Start by Category	✓ If yes	Area m²
Asset Failure?		
Vegetation contacted asset?		
Tree canopy fire?		
Ground Fire?		
Asset fire?		
Other (Specify in Comments)		

Fire Start Cause	
UE Asset	
Pole or crossarm (insulator properties failure)	
Pole or crossarm (mechanical failure)	
Surge arrestor	
HV fuse (include any hang-ups/candling)	
Oil filled plant	
Connection failure	
Conductor clashing	
Conductor/Cable failure	
LV fuse/isolator	
FOLCB or pole box	
Service cable/conductor	
Underground assets (Pits/Pillars/Cables)	
Enclosed assets (e.g. kiosk, indoor S/Stn)	
Any other (specify in comments)	
Private Asset	
Private Overhead Electric Line (POEL)	
External	
Tree growing into assets	
Tree/Branch failure into assets	
Bird/Animal	
Lightning	
Third party (e.g. vehicle, vandal)	
Any other (specify in comments)	

Comments / Sketch / Photos

Attach other information/documentation – email photos to compliance@ue.com.au

Comments

Sketch (attach photos)

.....

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Document No: UEPL 009 FM 010
Issue Date: December 2011

At United Energy we value
Safety, Accountability, Communication, Collaboration, Empowerment and Respect.

1 of 4

Ref. No.:

Fire Ignition Report

Consequence

Please Tick [✓]

Employee/Contractor			
HUMAN		PROPERTY DAMAGE	
Injury		Significant	
Death		Negligible	

Public			
HUMAN		PROPERTY DAMAGE	
Injury		Significant	
Death		Negligible	

Asset Owner			
Private		UED	
Public Lighting Customer		Other DB	

Weather Aspects

Please Tick [✓]

Temperature	
Hot	
Mild	
Cool	

Wind	
Strong	
Moderate	
Calm	

Atmospheric Conditions	
Fine	
Humid	
Fog	
Rain	
Drizzle	
Thunderstorm	
Other *(specify in Comments*	

Preceding Weather	
Soot/Dust Storm	
Long Dry Spell	
Other *(specify in Comments*	

Day of Total Fire Ban?	
Yes	
No	

Structure Type and Voltage Level

Please Tick [✓]

Structure			
Intermediate		Switch/Isolator	
Strain		Cable Head	
Substation		Tee-Offs	
Fuse		Other *(specify in Comments)*	
Termination			

Voltage	
LV	
6.6kV / 11kV / 22kV	
12.7 kV (SWER)	
66kV	
Other *(specify in Comments)*	

Assets Involved

1. Conductor Details

Please Tick [✓]

Material and Size			
ABC		ACSR	
Steel (SC)		Copper (CU)	
All Aluminium (AAC)		Conductor Size	

Component			
Tie		Conductor	
Connector *(specify in Comments)*		Bridge	
		Other *(specify in Comments)*	

2. Insulator Details

Please Tick [✓]

Type			
Fog		Polymeric	
Pin		Disc	
Post		Other *(specify in Comments)*	

Affected Insulator			
Insulator Mounting		Insulator Location	
Horizontal		Centre Phase	
Vertical		Outer Phase	
Not applicable *(ie Disc)*			

Make												
Year												

Failure Mode			
Mechanical		Salt	
Electrical		Other *(specify in Comments)*	
Pollution			

Ref. No.:

Fire Ignition Report

3. Fuse Details

Please Tick [✓]

Type					
EDO		Powder Filled		Distance from Zone Sub *(along the line)*	
Boric Acid		LV			*km*

Component					
Pole Mount		Fuse		Contacts	
Crossarm Mount		Link		Hangup	
Fuse Carrier					

Bird/Animal cover fitted?			
Yes		No	

Please complete all known details below ↴

EDO

Venting	
Single Vent	
Double Vent	

Fuse Carrier	
Make	
Type No	
Year	

Fuse Link	
Make	
Type No	
Rating	*Amp*

Boric Acid

Fuse Carrier	
Make	
Type No	
Year	

Fuse Cartridge	
Make	
Type No	
Rating	*Amp*

Powder Filled

Fuse Carrier	
Make	
Type No	
Year	

Fuse Cartridge	
Bolted Contact	
Spring Contact	
Full Range	
Rating	*Amp*
Barrel Diameter	*cm*

4. Surge Diverter Details

Please Tick [✓]

Component					
Earth Lead		Surge Diverter Casing		Distance from Zone Sub *(along the line)*	
End Cap		Other *(specify in Comments)*			km

Surge Diverter Details

Body	
Make	
Type No	
Year	

Earth Lead Disconnect Device	
Black	
Grey	

Failure Mode	
Shattered / Deteriorated	
Earth Lead Disconnected	
Vented	

5. Transformer Details

Please Tick [✓]

Failure Mode					
Mechanical		Electrical		Other *(specify in Comments)*	

Note: Please complete UEFM0158 - Field Data Collection Sheet - Transformers

6. Switch Details

Please Tick [✓]

Failure Mode					
Mechanical		Electrical		Other *(specify in Comments)*	

Note: Please complete UEFM0157 - Field Data Collection Sheet - HV Isolating Devices

7. Crossarm Details

Please Tick [✓]

Material					
Wood		Steel		Other *(specify in Comments)*	

Failure Mode					
Fire		Broken		Other *(specify in Comments)*	

Note: Please complete UEFM0156 - Field Data Collection Sheet - Poles

Ref. No.:

Fire Ignition Report

8. Pole Failure Details

Please Tick [✓]

Material							
Wood		Steel		Concrete			
Species							
Staked							
Staked Date							

Pole Disc Year				
Last Inspection				
Length				
Strength				

Failure Mode					
Fire		Broken		Other *(specify in Comments)*	
Rot		Termites		Fruiting Fungi	
Rust		Vehicle		Human Intervention	

Please complete UEFM0156-Field Data Collection Sheet - Poles

9. Pole Fire Details

Please Tick [✓]

Location	
Insulator Pin	
Brace Bolt	
King Bolt	
Pole Cap	
Fuse Bracket	
Other (specify in Comments)	

Primary Cause	
Insulator Damage	
Loose Hardware	

Insulator Polluted	
Salt	
Dust	
Other *(specify in Comments)*	

Bonding Methods

Bonding Plates or Shunts Fitted	
X-Arm Insulators	
Brace Bolt	
Pole Cap	
King Bolt	
Fuse Bracket	
None	

Conical Spring Washers Fitted	
X-Arm Insulators	
Brace Bolt	
Pole Cap	
King Bolt	
Fuse Bracket	
Coach Screw	
None	

Earth Connection To Fittings	
X-Arm	
Pole	
Fuse Bracket	
Surge Diverter	
Other *(specify in Comments)*	
None Fitted	

10. Other Asset Details

Please Tick [✓]

Assets	
Service	
Earthing	
POEL	
Other *(specify in Comments)*	

LV Boxes	
Pole Junction Box (UE)	
Fuse Mains Box (UE)	
Meter (UE)	
Customer Asset	

Other LV Assets	
LV Blade Isolator	
LV Fused Isolator	
Krome Box	
Public Lighting	

Underground Assets	
LV Pillar	
LV Pit	
LV Cable	
Other *(specify in Comments)*	

External Factor Details

11. Tree Details

Please Tick [✓]

Responsibility	
Council (road reserve in urban area	
Private (customer tree customer service line only)	
UE Responsible (private tree affecting mains)	
Other (specify in Comments)	

Part of Tree	
Bark only	
Branch only failure	
Tree failure	
Other *(specify in Comments)*	

Vegetation Clearance Space	
Inside Code (< 2 metres)	
Outside Code (> 2 metres)	

12. Bird / Animal Details

Please Tick [✓]

Species of Bird/Animal																								

Animal Protection Fitted?	Yes		No		Type of Protection?	

FPP17: Risk Assessment Procedure

Purpose

This procedure describes the process for assessing the risk of causes and potential causes of fire ignition from electrical assets.

Scope

This procedure covers the assessment of risk associated with the UE supply network and known incidents which occur elsewhere involving plant or equipment items similar to those owned by UE.

References

- The UE Risk Management Policy
- The UE Risk Management Framework

Definitions

Nil.

Procedure

Risk Register

As part of the its ESMS UE maintains a risk register which identifies all the key risks associated with the management of an electrical distribution business.

The risk associated with causes of fire ignition will vary and depend upon the frequency of incidents and the environmental conditions likely to prevail at the time of the incident.

Known and potential causes of fire ignition emanating from the UE supply network are subject to an annual risk assessment that shall include:

- Risk Title , scenario/context
- The causes of fire
- The Inherent Risk: inherent frequency and consequence from fire ignition
- The Risk Controls i.e. policies, procedures in place to reduce the risk
- The Residual Risk: current frequency and consequence of fire ignition (considering risk controls in place)
- Any proposed action to further reduce the risk.

Attachments

Nil.

FPP18: Network Assets Preventative Programs Procedure

Purpose

This procedure describes the process for fire preventative programs for the UE supply network assets.

Scope

This procedure covers preventative programs within the HBRA and LBRA on the UE supply network for the following:

- Poles
- Pole top attachments
- Conductors
- Bird/animal mitigation
- SWER earthing systems
- HV fuses
- Spacers/spreaders
- Vibration dampers
- Armour rods
- Surge diverters
- Low voltage spreaders
- Façade Mounted LV Mains
- Kiosks
- Switching Cuticles
- Ground and Indoor Substations
- Pillars and Cabinets.

References

Asset Inspection Manual

UE Lifecycle Strategies

UE Electrical Safety Management Scheme (ESMS)

Definitions

Nil.

Procedure

Within the HBRA of UE, the Asset Inspection Program is designed to begin as soon as the fire season has ended. It is the responsibility of the UE Vegetation and Fire Prevention Planner to ensure this program begins in a timely manner and all inspections within the HBRA are completed by July or for as soon as practical certain areas where access is restricted by ground conditions.

Asset Inspection Program

- The inspection of the above ground assets within the HBRA network is been carried out on a routine cycle not exceeding 37 months, and on a cycle not exceeding 61 months within the LBRA.
- Each pole is tested for soundness and treated with pole saver rods and the pole attachments and conductors are inspected visually from the ground, in accordance with the Asset Inspection Manual.
- HBRA limited life poles that have not been replaced or staked are to be re-inspected within 12 months.

- HBRA poles that will become due for inspection by the end of the fire season are inspected and replaced or reinstated as necessary.
- The information gathered is loaded into the UE Asset Management System (GIS/SAP).
- At the same time a visual inspection is made of the vegetation near the line. Any concerns are forwarded to the UE Vegetation and Fire Prevention Planner and despatched to the vegetation management contractor for prompt detailed inspection and action as required
- Asset Inspectors will maintain the currency of information recorded in GIS/SAP. In addition, geographic information will be recorded on Field Data Capture Devices for recording and cross-referencing to GIS/ SAP. This information will be referred to as UE asset information.

Accountability: UE Vegetation and Fire Prevention Planner

Maintenance Program

It is the responsibility of the Maintenance Planners to program the work generated from this program as soon as it appears in the Works Management System (SAP), to ensure all works identified in the HBRA are completed before the onset of the next fire season. As the scheduled asset inspection is completed, the appropriate SP Maintenance Planner will program, from SAP notifications, the following items:

Poles and Pole Top Attachments

- Defective poles to be replaced or reinstated (staked) before the fire season.
- Missing, deteriorated or damaged pole top assets.
- Unacceptable or damaged HV fuses and surge diverters.
- Ensure the GIS/SAP database is to be updated as works are completed.

Conductors and Conductor Attachments

- Deteriorated or damaged conductors or conductor fittings
- Missing, deteriorated or damaged fittings such as Vibration dampers and Armour rods.
- Missing or damaged HV spacers or LV spreaders.
- Ensure the GIS/SAP database is to be updated as works are completed.

Bird/Animal Fire Prevention

- The current policy is to install longer insulators that do not require bird/animal covers.
- The Maintenance Planner will identify from SAP notifications pole tops requiring action to prevent bird/animal-induced flashover. This work is normally done on an opportunistic basis when other work is to be carried out on the structure.
- The GIS/SAP database is to be updated as works are completed.

SWER Earthing Systems

- SWER isolating substation earthing systems will be tested on a routine two-year cycle.
- SWER distribution substation – the physical inspection of earths is to be carried out at three-yearly intervals as part of the asset inspection of the substation pole. Testing of these earths is required at six-yearly intervals.
- Job files to be prepared and resources scheduled to test and repair as required.
- The GIS/SAP database will be updated as works are completed.

Accountability: SP Maintenance Planners
UE OPEX Planner
UE Vegetation and Fire Prevention Planner.

Maintenance from the HBRA Summer Audit Program

In addition the SP and UE Maintenance Planners must continually monitor SAP to ensure any maintenance identified outside of the normal asset inspection program (e.g. from the HBRA summer audit program, management audits) are completed within the timeframes to ensure they do not impact the HBRA Fire Prevention Index.

Accountability: SP Maintenance Planners
UE OPEX Planner
UE Vegetation and Fire Prevention Planner

Low Voltage Spreaders

- The Maintenance Planner will identify, from SAP notifications, locations where LV spreaders need to be installed, maintained or replaced in the HBRA from the end of the previous fire season and completed before November or earlier if fire season is declared early.
- Job files to be prepared and resources scheduled to maintain or install LV spreaders.
- The GIS/SAP database will be updated as works are completed.

Accountability: SP Maintenance Planners
UE OPEX Planner
UE Vegetation and Fire Prevention Planner

Façade Mounted LV Mains

Under the requirements of the Electricity Safety (Bushfire Mitigation) Regulations 2013 UE must inspect all overhead conductors and connectors on three and five year cycles for the HBRA and LBRA. Additional inspection is required of façade mount low voltage mains (ABC or open wire) in order to comply with regulation. Façade mount LV mains conductor is commonly located along shop fronts above verandas and LV ABC can be located in ducts, lying in gutters or along roof tops. As a result the inspection of this asset cannot be performed satisfactorily by the means utilised in the overhead asset inspection program (ground based visual or elevated camera inspection).

In addition to the difficulties in assessing locations to undertake the inspection is this assets unknown condition due to the absence of regular historical inspections. A dedicated program of up-close inspection of façade mount LV conductor is required. Consideration will be required as to which personnel that can safely access the areas required for close inspection of the conductor.

Inspection of LV façade mount conductors shall visually assess

- Are mechanical supports intact and mounted to fixed structures
- Are conductors correctly seated within supports or on insulators
- Is there evidence of any previous faults
- Is there any visible damage to the installation services fed by the LV mains

For Open Wire LV Conductor

- Are clearances maintained between conductor to conductor and conductor to surrounding structures
- Visual assessment of the condition of the conductor in accordance with direction within UE MA 003 Asset Inspection Manual.

For LV ABC Conductor

- Where the cable is located within metal ducts is there damage near the cable duct or other conductive structures (eg metal flashing)
- Is there any visible damage to the LVABC insulation, including any evidence of rubbing against fixed structures.

Accountability: SP Maintenance Planners
UE OPEX Planner
UE Vegetation and Fire Prevention Planner

Asset Inspection Program (Ground Type Assets)

The addition of regulation 7(2) in the Electricity Safety (Bushfire Mitigation) Regulations 2013 defines the types of assets excluded in the definition of the 'Supply Network'. These exclusions do not include primarily traditionally underground assets that are located above the surface of the land.

Switchgear and Substations

This includes

- Kiosk Substations/Switches
- Ground Type Substations
- Indoor Substations
- Switching Cubicles.

The inspection process is to undertake general inspections and reporting on the condition of non-pole substations. As a minimum requirement the inspection procedure shall target, but not limited to, electrical equipment covering;

- Recording of all equipment including serial numbers
- Load tong test
- Hot spot test
- Earth test (non CMEN and 10 yearly)
- Security checks, cleaning and weeding
- Corrosion
- Abnormal audible discharge
- Cable size, type and cable condition
- Transformer and switchgear gas/oil leaks and levels.

Pillars and Cabinets

The following list details the main areas of inspection:

External Inspection

- Damaged or cracked pillar cover or damaged and corroded cabinet enclosure
- Damaged, broken or missing stainless steel cord or other device used for locking pillar
- Damaged cabinet lock
- Confirm that surrounding landscape does not prohibit normal operational access to pillar or cabinet.

Internal Inspection

The pillar cover is to be removed (or cabinet doors opened) and the following items are to be inspected:

- All cable active connections and terminations should be insulated. Visually check to confirm signs of damaged or burnt cable and insulation. Confirm for signs of damage to all components comprising the LV switchboard of cabinet
- Visual check to confirm that cable connections and all earth connections are secure
- Damaged or cracked LV switch housing
- Confirm the LV switch has padlock used to lock the switch in the open or closed position,
- Visible signs of rust or deterioration of pillar or cabinet steel support
- Confirm pillar is sealed around the cables
- Ensure that the pillar or cabinet is locked at completion of inspection.

Accountability: UE Substations & UG Cable Planner

Attachments

Nil.

Current Year

The addition of regulation 7(2) in the Electricity Safety (Bushfire Mitigation) Regulations 2013 defines the types of assets excluded in the definition of the 'Supply Network'. These exclusions do not include primarily traditionally underground assets that are located above the surface of the land.

Such 'Ground Type Assets' include:

- Kiosk Substations/Switches
- Ground Type Substations
- Indoor Substations
- Switching Cubicles
- Pillars

In addition façade mounted LV mains assets have previously only been subject to visual inspection via an asset inspector from the ground pertaining only to the point of attachment to the façade.

Currently, as there is no training organisation approved by ESV to carry out a training course solely for these types of assets UE will ensure that all employees and contractors engaged to carry out inspections on these assets must obtain and maintain suitable electrical trade qualifications which UE have determined are necessary to safely and adequately inspect these types of assets.

As required under section 7(k), UE has documented the processes and procedures which will form the scope for ensuring persons (other than persons referred to in paragraph 7(j)) who carry out or will carry out functions under the plan are competent to do so.

The processes and procedures (scope) for the inspection of these types of assets are contained in Lifecycle Strategies and replicated this procedure.

The details of the relevant qualifications UE believe are best suited to the scope of the inspection is contained in the UE Fire Prevention Plan 2014/19, specifically FPP11 titled 'Training and Competence Procedure'.

All employees and contractors engaged in the inspection of ground type assets and façade mounted mains must have received instruction in relation to the scope of the inspection. These requirements will also be documented in the UE Substations Inspection Manual currently under review.

A summary of the location of the scope of inspection and minimum qualifications to undertake such inspections are documented in the table below.

Assets	Numbers		Scope contained in the following UE Lifecycle Strategy and the 2014/19 UE FPP	Minimum Trade Qualification
	LBRA	HBRA		
Kiosk Substations / Switches	1,909	166	UE PL 2015 Non-Pole Distribution Substations	ESI Electrician Electrical Fitter
Switching Cubicles	38	4		
Ground Type Subs,	642	18		
Indoor Subs,	1,126	9		
Pillars	8,070	195	UE PL 2017 Underground Distribution Systems	ESI Electrician Electrical Fitter Cable Jointer

Assets	Numbers		Scope contained in the following UE Lifecycle Strategy and the 2014/19 UE FPP	Minimum Trade Qualification
	LBRA	HBRA		
Façade Mounted Mains	10km	0.0km	UE PL 2007 Connectors and Conductors	Lineworker

Transition Plan

The transition plan below documents the timelines proposed by UE that will gradually migrate these assets to the requirements of regulations 7(i), (i) and (ii) in line with the UE overhead assets by June 2019.

The current 6 monthly Facility/Grounds Maintenance will continue. This inspection is primarily focused on the outer surrounds of the asset and will rectify any security, damage, or vegetation issues in and around the assets.

The electrical inspection involves all of the above plus a detailed electrical inspection of the asset as outlined in the UE lifecycle Management Plans and when fully implemented is to be categorised as the prime inspection for compliance to the regulations.

*Kiosk Substations /Switches, Ground Type Subs, Indoor Subs, Switching Cubicles	2015/16	2016/17	2017/18	2018/19
ALL AREAS	**FACILITY/GROUNDS MAINTENANCE – SIX MONTHLY**			
LBRA – Currently some installations are on a 10-Year Electrical Inspection – these will be migrated to the five year program as per these percentages;	50%	60%	80%	100%
HBRA – All installations to be migrated to a three-year program by the following percentages	50%	75%	100%	100%

*Pillars – Proposed Level of Compliance	2015/16	2016/17	2017/18	2018/19
LBRA – Currently 100 % compliant* – FIve-Year Electrical Inspection	100%	100%	100%	100%
HBRA – All installations to be migrated to a three-year program by the following percentages	50%	100%	100%	100%

LV Façade Mounted Mains

This type of mains conductor has previously only been subject to visual inspection via an asset inspector from the ground pertaining only to the point of attachment to the façade.

UE databases have determined there is approximately 10km of LV façade mounted mains as part of its distribution network. UE is currently determining the most efficient and safe method to inspect these cables or conductors and offer the proposed transition plan to full compliance.

*LV Façade Mounted Mains – Proposed Level of Compliance	2015/16	2016/17	2017/18	2018/19
LBRA	0%	33%	66%	100%
HBRA	100%	100%	100%	100%

FPP19: Electric Line Clearance Management Procedure

Purpose

This procedure describes the process for ensuring that adequate clearances are maintained between vegetation and network assets.

Scope

This procedure covers:

- The maintenance of programs for achieving statutory clearances between vegetation and network assets
- The development and implementation of an ELCMP.

References

Electricity Safety (Bushfire Mitigation) Regulations 2013

Electricity Safety (Electric Line Clearance) Regulations 2010 incorporating Schedule for Code of Practice for Electric Line Clearance

UE Customer Charter

UE Electric Line Clearance Management Plan (ELCMP)

Definitions

Nil.

Procedure

HBRA Pre-Summer Inspection

Within the UE HBRA a pre-summer inspection will be conducted annually. This involves approximately 20,000 spans within the UE supply network. The VMC, in consultation with the SP Contract Manager and the UE Vegetation and Fire Prevention Planner, will arrange for the inspection to be carried out to best enable power line clearance to be achieved and maintained during the fire season. Typically this takes 12 weeks to complete, normally by the end of November, to allow for possible advice of an early start to the declared fire danger period which is usually mid-December for the UE supply network area.

Periodic spot audits on the HBRA are to be carried out throughout the year, especially in the months before the fire season and during the fire season. These audits are carried out by the VMC and by the Service Provider.

The HBRA Summer Audit Program of vegetation, network and POEL Assets is conducted by independent field auditors and is initiated by the UE Fire Prevention Manager to ensure the performance of the pre-summer inspection program is adequate.

A pre-summer inspection within the LBRA is not undertaken. Vegetation in these areas is managed under the cyclic program contained within the UE Electric Line Clearance Management Plan which includes audits on the VMC to ensure compliance with UE's obligations.

Accountability: VMC
SP Contract Manager
UE Vegetation and Fire Prevention Planner

Attachments:

Nil.

FPP20: Technical Standards for Design, Construction, Operation and Maintenance Procedure

Purpose

This procedure describes the system of standards for the design, construction, operation and maintenance of the network.

Scope

This procedure covers the standards, plans and instructions which are used for the design, construction, operation and maintenance of the network in preparation for, and during, the declared fire danger period.

References

UE Distribution Construction Standards Manual (Document No. UE MA 2004)

UE Distribution Design Standards Manual (Document No. UE MA 2005)

UE Lifecycle Management Plans

Asset Inspection Manual (Document No. UE MA 0003) — April 2012

Operations Manual: Switching and Earthing — Emergency (UE MA 0001, Section 07)

Definitions

Nil.

Procedure

The design, construction, operation and maintenance of the electrical distribution assets shall conform to the UE Distribution Construction Standards Manual (Document No. UE MA 2004), UE Distribution Design Standards Manual (Document No. UE-MA 2005).

The fire hazard risk shall be identified and controlled at the design and specification phase of standard distribution pole structures and components, through the UE Standards Committee.

UE has no specific plans in relation to the operation of the network during the declared fire danger period, however for days of total fire ban please refer to FPP26 for more detail.

Attachments

Nil.

FPP21: Use of Vehicles in Periods of Fire Risk Procedure

Purpose

This procedure describes the process for operating vehicles and plant in off-road situations in HBRAs during the fire danger period.

Scope

This procedure applies to all employees and contractors operating vehicles and plant with combustion engines in off-road situations in HBRAs during the fire danger period.

References

Country Fire Authority Act (1958)

Definitions

Nil.

Procedure

Vehicle Use Guidelines

- Vehicles and generators must be free from defects that are likely to cause fire ignition.
- Vehicles and generators must be equipped with an efficient exhaust system.
- Drivers of large diesel vehicles required to travel off-road must ensure that the vehicle does not initiate fire ignition by complying with the following: knowledge of the condition of the vehicle, attention to the route taken and ensuring the vehicle is not left running unattended.
- Operators of vehicle-mounted ancillary generators must ensure that the unit does not ignite a fire by complying with the following: knowledge of the condition of the generator, attention to positioning, ensuring the unit is not left running unattended and preparation of a fire fighting kit.
- Drivers of unleaded petrol (ULP) passenger vehicles will be advised that off-road travel is to be avoided because the exhaust system of these vehicles may cause fire ignition. Exhaust systems on ULP vehicles can operate at temperatures sufficient to ignite a fire particularly if the engine is not tuned correctly. ULP vehicles must not be parked off-road with the engine running.

Pre-Summer Vehicle Inspection

- Regular tool and equipment inspections are carried out on all line vehicles. During October, or one month prior to the start of the declared fire danger period, an inspection will be carried out by Line Managers for all line vehicles to qualify them for use in the HBRA during the fire danger period.
- All service providers must comply with these requirements.
- Any equipment or work required for the vehicle prior to the start of the declared fire danger period is to be completed in October, or prior to the start of the fire danger period.

Equipment to be Carried

From the declaration of the fire danger period or from 1 November annually, through to cessation of the fire danger period, all UE Service Providers (SP) and subcontractor vehicles that may operate in the HBRAs will be fitted with the flowing minimum fire fighting equipment:

- Fire fighting knapsack (16 litre)
- Fire rake or hoe
- Means of communication.

The UE, SP and subcontractors must ensure that the requirements of the legislation are met including any additional requirements stipulated within TFB day permits issued by fire authorities (see FPP8).

Advice to Drivers

- All drivers who may drive in the HBRA are to be advised of the above precautions in October, or prior to the start of the fire danger period.

Accountability: UE Vegetation and Fire Prevention Planner (Advice of Procedure)
SP and subcontractors (Implementation of Procedure)

Attachments

1. Excerpt from *Country Fire Authority Act* (1958)

Attachment 1: Excerpt from *Country Fire Authority Act* (1958)

50. Required safety features of motor vehicles driven during fire danger period near crops

(1) In the country area of Victoria a person shall not drive or operate a vehicle propelled by internal combustion (other than a vehicle referred to in sub-section (2)) so that the vehicle is in contact with any crop, grass, stubble, weeds, undergrowth or other vegetation unless the vehicle is fitted with an efficient silencing device so constructed that all the exhaust from the engine of the vehicle passes through the silencing device.

(2) In the country area of Victoria a person must not drive or operate a tractor or a self-propelled farm machine or a traction engine or an earth-moving, excavating or road-making machine propelled by or incorporating a heat engine within nine metres of or in contact with any crop, grass, stubble, weeds, undergrowth or vegetation unless the tractor, traction engine or machine—

(a) is free from faults and mechanical defects which would tend to cause an outbreak of fire

(b) is fitted with a spark arrester

(c) carries the prescribed fire suppression equipment during a fire danger period.

(3) A person operating a tractor, traction engine or machine referred to in sub-section (2) must maintain the spark arrester in proper working order so as to prevent the discharge of exhaust particles which may tend to cause an outbreak of fire.

(4) A person must not fit a spark arrester to a tractor, traction engine or machine referred to in sub-section (2)unless the spark arrester complies with the standard prescribed under sub-section (5).

(5) A person must not sell a tractor, traction engine or machine unless it is fitted with a spark arrester which complies with the relevant Standards Association of Australia standard prescribed for the purposes of this sub-section.

(6) The Chief Officer may exempt a person from compliance with sub-section (2)(c) where in the opinion of the Chief Officer the circumstances surrounding the operation of the tractor, traction engine or machine warrants it.

(7) Nothing in this section requires a tractor, engine or machine referred to in sub-section (2) which is fitted with a turbocharger or an exhaust aspirated air-cleaner to be fitted with a spark arrester.

FPP22: Evaluation of Materials, Plant and Equipment Procedure

Purpose

This procedure describes the process for ensuring that equipment purchased for use on the UE supply network has been assessed in relation to the risk of fire ignition..

Scope

This procedure covers the purchase of all materials, plant and equipment used on the UE supply network which represents a high risk of fire ignition. Standards may vary depending on the fire rating of a particular area (HBRA/LBRA).

References

Nil.

Definitions

Nil.

Procedure

UE has a standards committee which meets regularly with the charter of reviewing any new or existing materials, plant and equipment.

Specification and Tender Evaluation

In preparing the specifications for the procurement of material, plant and equipment used on the UE supply network, consideration shall be given to the fire safety of the material, plant and equipment. Existing specifications shall be reviewed in this light when assessing tender evaluations that are due for re-tendering or renewal of contracts. Where appropriate, specific fire performance standards shall be included in the specification, as well as references to Australian Standards.

Attachments

Nil.

FPP23: Use of Contractors Procedure

Purpose

This procedure describes the process for ensuring that contractors providing services on the UE HBRAs are aware of, and comply with, UE's requirements in relation to fire prevention programs.

Scope

This procedure covers provision of all services that are relevant to fire prevention activities.

References

Nil.

Definitions

Nil.

Procedure

All new service contracts and those coming up for renewal for work on the UE supply network shall be reviewed by the General Manager Service Delivery to ensure that no aspects will compromise UE's fire prevention programs.

All contractors tendering for the provision of services relevant to fire prevention activities shall be given access to a copy of UE's Fire Prevention Plan and other information relevant to the particular service.

SP and subcontractors shall be contractually bound to:

- Comply with the UE Fire Prevention Plan
- The provision of staff with approved training and competency requirements
- The provision of approved plant and equipment
- Safe working standards
- Audit and review procedures
- The recording of information and the keeping of records
- Reporting to UE.

Such contracts shall have the clauses included as per Attachment 1 and be subjected to regular audit and review in accordance with the UE preferred contractor accreditation process.

Attachments

1. Clauses for inclusion in Contracts

Attachment 1: Clauses for Inclusion in Contracts

Mitigating Fire Risk

Due to the risks associated with the types of equipment used and the sites where the work is carried out, all vehicles working in HBRAs will be required to carry at least one 16 litre knapsack at all times. During the fire danger period, driving of vehicles in grassed areas must be avoided.

The contractor and its personnel may be required, at the contractor's cost, to participate in any UE fire prevention program during the period of this contract by participating in, among other things:

- Senior Management Briefings
- Fire update sessions
- Fire preparedness and response training.

From the declaration of the fire danger period or 1 November annually, through to cessation of the fire danger period, all contractor vehicles that may operate in the HBRAs will be fitted with the following minimum fire fighting equipment:

- Fire fighting knapsack (16 litre) or foam fire extinguisher (nine litre, blue)
- Fire hoe or rake
- Means of communication.

In accordance with the UE Fire Prevention Plan, this shall be supplied to the contractor electronically via the extranet by the General Manager Service Delivery.

The contractor acknowledges and agrees that all work under this contract must be performed in accordance with the UE Fire Prevention Plan.

Days of Total Fire Ban

The contractor will be required to obtain, at its cost, the appropriate permits from the CFA, MFB and DEPI when required to operate welding, cutting, grinding, blow torch or other equipment on days of total fire ban.

The contractor and their personnel shall adhere to conditions specified in those permits in absolute terms at all times. Whenever a permit is required, permission must also be sought from, and approved by, the General Manager Service Delivery.

Due to the risks associated with the types of equipment used and the sites where the services are carried out, no services which are deemed by the General Manager Service Delivery or the contractor to be a risk to the environment or public shall be carried on the UE HBRA on days of total fire ban, or days identified by the General Manager Service Delivery as placing excessive demand on the system by the removal of UE assets from the system for service or otherwise.

Where appropriate, the General Manager Service Delivery may allow the contractor to perform services in LBRA on days of total fire ban. There shall be no payments made by UE to the contractor and the contractor assumes all risk in relation to time lost under these circumstances.

Hazardous Bushfire Risk Areas

In providing the services, the contractor must ensure it complies, and that its personnel comply, with all applicable laws, legislation, regulations, orders and the like concerned with fire prevention.

FPP24: Inspection, Measurement and Testing Equipment Procedure

Purpose

This procedure describes the process for ensuring that equipment used for inspection, measurement and testing is suitable, calibrated correctly and used appropriately.

Scope

This procedure covers all equipment used for inspection, measurement and testing on the UE supply network.

References

Operations Manual: Switching and Earthing – Earthing (UE MA 0001).

Definitions

Nil.

Procedure

Service Providers

SP and sub-contractors using equipment for inspection, measurement or testing within the UE will have in place appropriate procedures such that the equipment used for inspection, measurement and testing is suitable, calibrated correctly and used appropriately.

Attachments

Nil.

FPP25: Private Overhead Electric Lines Procedure

Purpose

This procedure describes the process for assessing the condition of POELs, including vegetation clearance, and rectifying or replacement of defective POELs. The intended outcome of these assessments is to identify and ensure rectification of any obvious defects that could result in fire ignition or risk to electrical safety.

Scope

This procedure covers the inspection and rectification/replacement of defective POELs, in relation to prevention of fire ignition, as well as action to be taken on days of total fire ban. It also sets out the responsibilities of customers in relation to how their POELs will be managed.

References

Electricity Safety (Bushfire Mitigation) Regulations 2013

UE Asset Inspection Manual – Inspection of POELs

POEL Safety and Responsibility Brochure

Definitions

POEL

Any overhead, low voltage electric line (normally on private property) used to take electricity from the point of supply, whether or not that line is vested in a major electricity company.

Procedure

Inspection

- POELs are inspected on a cycle not exceeding 37 months in the HBRA and 61 months within the LBRA and in accordance with the times of inspection contained in provision 9 of the Electricity Safety (Bushfire Mitigation) Regulations 2013.
- POELs are inspected in accordance with the standards of inspection contained in provision 10 of the Electricity Safety (Bushfire Mitigation) Regulations 2013. These standards are documented within the UE Asset Inspection Manual, Section 9.
- There is no requirement to carry out a programmed inspection of private electric lines beyond the first connection point to a building or structure (not a pole).
- Vegetation associated with all POELs in the HBRA is inspected by the VMC as part of an annual pre-summer inspection. In addition, these inspectors will report any urgent line defects observed.
- Where POELs are identified as defective, defect notices are issued to the land owner/ occupier.
- For defects considered urgent (likely to fail within one week) or hazardous, a Maintenance Planner is contacted immediately for appropriate action which may include immediate disconnection of the POEL.
- Inspection data is recorded in the GIS/SAP database.
- Details of defective POELs are recorded in SAP including follow-up actions. In situations where the property owner fails or otherwise declines to comply with requests to remedy identified POEL defects, relevant details will be forwarded to ESV for processing, management and advice as per attachment 7.

Accountability: Asset Inspection and Vegetation Contract Coordinator

Maintenance and Fault Rectification

The Asset Inspection Contractor will create a file holding the Private Line Inspection Report (PLIR) Attachment 3, for each defective line.

The Asset Inspection Contractor will issue each customer a letter, as per Attachment 2, together with a copy of the PLIR report. Regular telephone communication and site visits are conducted with each customer offering assistance by way of advice.

A reminder letter, Attachment 4, is sent out 30 days after the initial letter, reinforcing the fact that the POEL may be disconnected on days of total fire ban if not repaired. Again, regular telephone communication and site visits are conducted.

In the event of no response from the customer, a third letter is sent advising that the matter is to be referred to ESV for direction, Attachment 5.

During the three-letter process, any repaired lines are updated on the SAP database.

If customers do not rectify any defects or make a firm commitment to do so, the Service Provider, in consultation with the Contract Performance Manager, will forward relevant customer details to ESV for processing, management and advice.

Work crews as instructed, will disconnect and reconnect supply to defective POELs on days of total fire ban in accordance with FPP26.

Dispute Resolution

UE will endeavour to resolve any disputes arising from the execution of their duties in a fair and reasonable manner. If the customer is not satisfied with the response received from their first point of contact they have the right to have the dispute reviewed at a higher level within the Service Provider.

If no agreement is reached the dispute may be referred to ESV for a mechanism for resolution. If the non-resolution of the dispute presents a fire or safety risk then UE may be obliged to disconnect supply or in the case of vegetation clearing to enter the property and complete the work at the customer's expense.

The customer may also register a formal complaint with UE. Details of this process are located on the UE homepage at 'http://uemg.com.au/customers/your-electricity/customer-complaint-process.aspx'.

Accountability: UE Vegetation and Fire Prevention Planner

Auditing

- HBRA Pre-Summer and Summer Audit Programs
- The SP Contract Manager will arrange regular reviews of outstanding works including visits to the properties concerned.

Accountability: UE Vegetation and Fire Prevention Planner

Community and Customer Relations

- In the cyclic and pre-summer vegetation programs, where vegetation is found to be infringing the requirements of the regulations in relation to service lines, a letter and brochure outlining the land owners responsibility to keep their service line clear of vegetation, will be placed in a letterbox, where possible.
  A copy of the front page of this brochure is shown in Attachment 7, alongside the POEL brochure.
- A database is maintained which contains names and addresses of customers that own a POEL in the UE HBRA. Each year around October, these customers are mailed a personalised letter, as per Attachment 6, which describes how public awareness might be enhanced of the responsibilities of owners of POELs and UE responsibilities with rrespect to POELs. Included with this letter is a comprehensive brochure (POEL Safety and Responsibility). A cover of this brochure is shown as Attachment 7.

- In addition to this advertisements are included in local newspapers from October to December highlighting UE's obligations to inspect POELS along with other information. See Attachment 8.
- For the requirement of regulation 10 of the Electricity Safety (Bushfire Mitigation) Regulations 2013, the notice as shown in Attachment 1, is given to occupiers of land with POELs in compliance to regulation 9 prior to the inspection being carried out by the asset inspector.
- With reference to the notice in Attachment 1 (and as prescribed in regulation 11 of the Electricity Safety (Bushfire Mitigation) Regulations 2013) the period specified must not be 'more than 45 days before the inspection and not less than 21 days before the inspection'. The inspector will write the date, in the space provided at the bottom of the notice, on which the notice was given to the customer.
- UE will encourage the undergrounding of POELs wherever possible. The level of guidance and support will be evaluated on a case-by-case basis at the discretion of the UE Vegetation and Fire Prevention Planner.
- All enquiries should be directed to the UE Vegetation and Fire Prevention Planner.
- All complaints will be managed as outlined in our Distribution Customer Charter.

Accountability: UE Vegetation and Fire Prevention Planner

Disconnection of Defective POELs on Days of Total Fire Ban

- If the POEL defect within a HBRA cannot be made safe, work crews will disconnect and reconnect supply on days of total fire ban in accordance with FPP26.
- The disconnection process will be reviewed annually and a list of potential disconnections will be available to the UE Vegetation and Fire Prevention Planner and maintained from 1 October until the end of the fire season by the SP and/or their subcontractor.

Attachments

1. Notice of Inspection of POEL
2. Initial Defect Notification Letter 1
3. Private Line Inspection Report (PLIR)
4. Disconnection Warning — Letter 2
5. Final Fire Notice — Letter 3
6. Fire Safety for Private Overhead Electric Lines (POEL) Customers
7. Cover of Service Line and POEL Brochures
8. Example of Public Awareness Advertisement

Current Year

The following amendments (dated 29 June 2015) to the Bushfire Mitigation Regulations 2013;

- Section 10(d) - now regulates all POEL lines of horizontal Bare open wire structures must have LV spreaders fitted.
- Section 10(k) - now regulates all POEL lines comply with clause 3 of the 'code'.

Note

The Code is prescribed as the Code of Practice for Electric Line Clearance in the Schedules to the Electricity Safety (Electric Line Clearance) Regulations 2015.

- Section 10(l) if during an inspection a hazard tree is identified, the hazard tree is notified to the responsible person.

Note

If a hazard tree is identified, the responsible person may cut or remove the tree under clause 8 of the Code.

- Section 10(m) - the line complies with the minimum clearance requirements set out in Table 3.8 of the Australian/New Zealand Wiring Rules.

Attachment 1: Notice of Inspection of POEL

United Energy Distribution Pty Limited
ABN 70 064 651 029

UNITED ENERGY

To the Occupier

Dear Sir/Madam

RE: Notice Of Inspection Of Private Overhead Electric Line (POEL)

United Energy (UE) is the electricity distribution asset owner and operator for the southern and eastern suburbs of Melbourne and the Mornington Peninsula. Service Providers are contracted by UE to maintain the poles and wires in your area. UE has a dedicated asset inspection program to manage POELs to ensure uninterrupted supply of power and a fire safe environment.

In accordance with section 113F(2) of the Electricity Safety Act (1998), please be advised that on or about [insert date no earlier than 21 days no later than 45 days] an asset inspector from our service providers will inspect all POELs 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, maintenance is required or vegetation needs cutting or removal on a POEL located on the property that you occupy. If this is the case, we will give the owner written notice of the maintenance work required to be carried out.

Should you require any advice concerning your defective POEL, a company representative from our service providers, who are acting on our behalf, would be only too happy to be of service to you. We thank you for your cooperation in helping us to keep your neighbourhood safe.

Thank you in advance for your cooperation

For all inquiries please contact our service providers (insert company), on XXXX XXXX or the relevant asset inspector in person on the phone number below.

Attachment 2: Initial Defect Notification Letter 1

United Energy Distribution Pty Limited
ABN 70 064 651 029

UNITED ENERGY

Dear Sir/Madam

Private Overhead Electric Line at

.....

Attention Safety Issue: Private Overhead Electric Line (POEL) Defect/s

United Energy (UE) is the electricity distribution asset owner and operator for the southern and eastern suburbs of Melbourne and the Mornington Peninsula. Service Providers are contracted by UE to maintain the poles and wires in your area. UE has a dedicated asset inspection program to manage POELs to ensure uninterrupted supply of power and a fire safe environment.

If you are a tenant, please forward this notice to the landowner or managing agent immediately. An inspection of the POEL to your premises and for which, according to our records, you are responsible, has revealed that your line requires attention. Hence it is now necessary for you to arrange for the work detailed on the attached notice to be completed.

UE, under Section 86 of the Electricity Safety Act (1998), is notifying you, as the landowner, to comply with the request to repair the defects as listed on the attached Private Line Inspection Notice (PLIR).

Please note that a Registered Electrical Contractor (REC) should always carry out electrical repairs and a certificate of electrical safety issued. Properly certified vegetation clearing companies must always be used to cut or clear vegetation away from power lines.

In high bushfire risk areas, certain defects are deemed to have an unacceptable risk of fire ignition. If these defects remain outstanding before any days of Total Fire Ban, the supply to your premise will be disconnected and you will be charged a sum of $220 for the cost incurred by UE to reconnect the line. This charge has been set in consultation with the Essential Services Commission (ESC).

In addition, if the defects have not been rectified before the introduction of the Country Fire Authority's (CFA) declaration of fire restrictions (normally early December each year), UE may be instructed by the Victorian Government's technical and safety regulator, Energy Safe Victoria (ESV), to disconnect the supply to your premises for the period the restrictions remain in force (normally to May the following year).

If the defect identified is a vegetation issue, UE, under Section 86 of the Electrical Safety Act and in consultation with ESV, can instruct their vegetation contractor to clear vegetation from the POEL to meet legislative clearances. Please note that all charges incurred from this work will be invoiced to the Landowner.

Please contact our service provider as soon as the defect/s has been rectified or vegetation clearing has been completed.

Should you require any advice concerning your defective POEL, a company representative from our service provider, who are acting on our behalf, would be only too happy to be of service to you.

If you are a tenant at the above mentioned site address, it is important that the owner of the property be notified about this letter as soon as possible.

We thank you for your cooperation in helping us to keep your neighbourhood safe.

Thank you in advance for your cooperation.
For all inquiries please contact our service providers (insert company), on XXXX XXXX.

Attachment 3: Private Line Inspection Report (PLIR)

United Energy Distribution Pty Limited
ABN 70 064 651 029

UNITED ENERGY

United Energy

Private Line Inspection Report

Inspector Name: _____ Inspection Zone: _____ Date _____

Ex UE Pole Number: _____ SAP/GIS ID: _____ Notif. No: _____

Customer Name: _____ Melway / VicRoads Ref: _____

Address: _____

Phone No: _____ Meter Number(s): _____

Condition of Items Inspected

Poles	Conductor	Crossarms	Trees
☐ Deteriorated and unserviceable	☐ Damaged	☐ Deteriorated	☐ Overhanging or contact likely
☐ Leaning	☐ Out of sag	☐ Undersized	☐ Within 2m
☐ Stay(s) missing or damaged	☐ Termination damaged	☐ Brace(s) missing or not straight	☐ Within 6m
☐ Caps missing	☐ Spreader(s) missing or damaged	☐ Insulators damaged	
☐ Loose hardware	**CLEARANCES**	☐	**DEFECTS URGENT**
☐ Raiser deteriorated and unserviceable	☐ Between conductors		☐ Yes
☐ Sound wood	☐ From structures	☐	☐ No
☐	☐ From ground		

Details of Customer's Conductors (Tick as many as required)

Low Voltage		High Voltage	Number of Private Poles to be Inspected
Insulated Overhead Cable	Underground	Private	All types —
Bare / Open Overhead Conductor			Enter No. _____

Attachment 4: Disconnection Warning — Letter 2

United Energy Distribution Pty Limited
ABN 70 064 651 029

Dear Sir/ Madam,

Disconnection Warning — Unsafe Defective Private Line

.....

Attention Safety Issue: Private Overhead Electric Line (POEL) Defect/s

United Energy (UE) is the electricity distribution asset owner and operator for the southern and eastern suburbs of Melbourne and the Mornington Peninsula. Service Providers are contracted by UE to maintain the poles and wires in your area. UE has a dedicated asset inspection program to manage POELs to ensure uninterrupted supply of power and a fire safe environment.

If you are a tenant please forward this notice to the landowner or managing agent immediately. Recently, you would have received a 'Defect Notice' outlining defects on the POEL servicing your property at the above address.

To date, we have not received advice that the necessary work has been completed. Please advise this office if the defects have been rectified, or what action is underway to repair the outstanding defects.

If you have not yet undertaken the works to repair the defects, ***as a matter of urgency***, please engage the services of a Registered Electrical Contractor (REC) to carry out electrical repairs and issue a Certificate of Electrical Safety or a properly certified vegetation clearing company to prune vegetation away from power lines.

If this defective POEL is not rectified within fourteen (14) days, UE will have no alternative but to refer your defects to the Victorian Government's technical and safety regulator, Energy Safe Victoria (ESV) for advice on the possible disconnection of you premise from the electrical supply network until the repairs are completed.

In high bushfire risk areas certain defects are deemed to have an unacceptable risk of fire ignition.

If these defects remain outstanding before ***any days*** of Total Fire Ban, the supply to your premise ***will*** be disconnected and you will be charged a sum of $220 for the cost incurred by UE to reconnect the line. This charge has been set in consultation with Essential Services Commission (ESC).

In addition, if the defects have not been rectified before the introduction of the Country Fire Authority's (CFA) declaration of fire restrictions (normally early December each year), UE may be instructed by Energy Safe Victoria (ESV), to disconnect the supply to your premises for the period the restrictions remains in force (normally to May the following year).

If the defect identified is a vegetation issue, UE, under Section 86 of the Electrical Safety Act and in consultation with ESV, may instruct their vegetation contractor to clear vegetation from the POEL to meet legislative clearances. This may occur either after fourteen (14) days from issue of this notice, or earlier if there is a day of Total Fire Ban or the Declaration of Fire Restrictions are introduced.

Please note that all charges incurred from this work will be invoiced to the Landowner.

Please contact our service provider as soon as the defect/s has been rectified or vegetation clearing has been completed.

Should you require any advice concerning your defective POEL, a company representative from our service provider, who are acting on our behalf, would only be too happy to be of service to you. We thank you for your cooperation in helping us to keep your neighbourhood safe.

Thank you in advance for your co-operation.
For all inquiries please contact our service providers (insert company), on XXXX XXXX.

Attachment 5: Final Notice — Letter 3

United Energy Distribution Pty Limited
ABN 70 064 651 029

Dear Sir/ Madam,

Final Notice of Disconnection Warning — Unsafe Defective Private Line

at:.....

Attention Urgent Safety Issue: Private Overhead Electric Line (POEL) Defect/s

United Energy (UE) is the electricity distribution asset owner and operator for the southern and eastern suburbs of Melbourne and the Mornington Peninsula. Service Providers are contracted by UE to maintain the poles and wires in your area. UE has a dedicated asset inspection program to manage POELs to ensure uninterrupted supply of power and a fire safe environment.

If you are a tenant please forward this notice to the landowner or managing agent immediately.

In previous correspondence, you have been advised of the unsafe condition of the POEL at the above premises and that this matter requires your urgent attention and to date we have not received advice that the necessary work has been completed. Please advise this office immediately if the defects have been rectified, or what action is underway to repair the outstanding defects.

If you have not yet undertaken the works to repair the defects, as a matter of urgency, please engage the services of a Registered Electrical Contractor (REC) to carry out electrical repairs and issue a Certificate of Electrical Safety or a properly certified vegetation clearing company to prune vegetation away from power lines.

If you or your REC does not contact our service provider within seven (7) days from issue of this notice, UE will refer all the defects outstanding to the Victorian Government's technical and safety regulator, Energy Safe Victoria (ESV). Disconnection of the electrical supply to these premises listed above may occur without further notice thereafter.

In high bushfire risk areas certain defects are deemed to have an unacceptable risk of fire ignition. If these defects remain outstanding before any days of Total Fire Ban, the supply to your premise will be disconnected and you will be charged a sum of $220 for the cost incurred by UE to reconnect the line. This charge has been set in consultation with the Essential Services Commission (ESC).

In addition, if the defects have not been rectified before the introduction of the Country Fire Authority's (CFA) declaration of fire restrictions (normally early December each year), UE may be instructed by ESV, to disconnect the supply to your premises for the period the restrictions remain in force (normally to May the following year).

If the defect identified is a vegetation issue, UE, under Section 86 of the Electrical Safety Act and in consultation with the ESV, may instruct their vegetation contractor to clear vegetation from the POEL to meet legislative clearances. This may occur either after fourteen (14) days from issue of this notice, or earlier if there is a day of Total Fire Ban or the Declaration of Fire Restrictions are introduced. Please note that

ALL CHARGES INCURRED FROM THIS WORK WILL BE INVOICED TO THE LANDOWNER

Please contact our service provider as soon as the defect/s has been rectified or vegetation clearing has been completed.

Should you require any advice concerning your defective POEL, a company representative from our service provider, who are acting on our behalf, would be only too happy to be of service to you.

We thank you for your cooperation in helping us to keep your neighbourhood safe.

Thank you in advance for your cooperation
For all inquiries please contact our service providers (insert company) xxxx xxxx.

Attachment 6: Fire Safety for Private Overhead Electric Lines (POEL) Customers

United Energy Distribution Pty Limited
ABN 70 064 651 029

UNITED ENERGY

To the Owner / Occupant
Street Address
Town VIC Postcode

Fire Safety for Private Overhead Electric Lines (POEL) Customers

United Energy (UE) is licensed by the Victorian Government to distribute electricity across Melbourne's south-eastern suburbs and the Mornington Peninsula (from St Kilda to Portsea).
We serve some 630,000 customers and own and manage 209,000 poles along with some 13,000 kilometres of wires. We are proud to be your local electricity distributor.

As a customer with Private Overhead Electric Lines (POEL), please find enclosed a brochure titled Private Overhead Electric Lines — Safety and Responsibility.

We strongly encourage you to read the brochure which outlines your rights and responsibilities regarding POEL located on your property. This brochure is as an essential part of your preparation for this year's fire season.

It is your responsibility to maintain the POEL and the associated poles and other electrical equipment at your property. As part of this maintenance, we recommend that you regularly inspect these powerlines, ensuring they are well maintained and clear of trees and branches.
This maintenance will reduce the possibility of power supply failures, electrocution or fires.
We strongly recommend an inspection should be performed at least every six months by a qualified contractor.

UE is committed to a safety first approach, especially in the lead up to summer, and we utilise a range of fire prevention strategies to improve the safety and security of our communities. As such, UE undertakes the following activities:

- Overhead powerline inspections including a three yearly inspection cycle for POEL
- Public awareness activities including advice to POEL customers of pending inspections
- Written notification to POEL customers to rectify any defects that may arise from these inspections
- Annual vegetation inspections of POEL in Hazardous Bushfire Risk Areas (HBRA).

We recommend you engage a Registered Electrical Contractor (REC) to carry out an inspection and conduct any necessary repairs. A list of RECs is available on the Energy Safe Victoria website - www.esv.vic.gov.au. You can also engage an appropriately qualified vegetation clearance contractor to create the required clearance space between nearby trees and your POEL.

Please seek advice if you are unsure about your responsibilities. For further information about legislation and regulations, please again refer to the Energy Safe Victoria website.

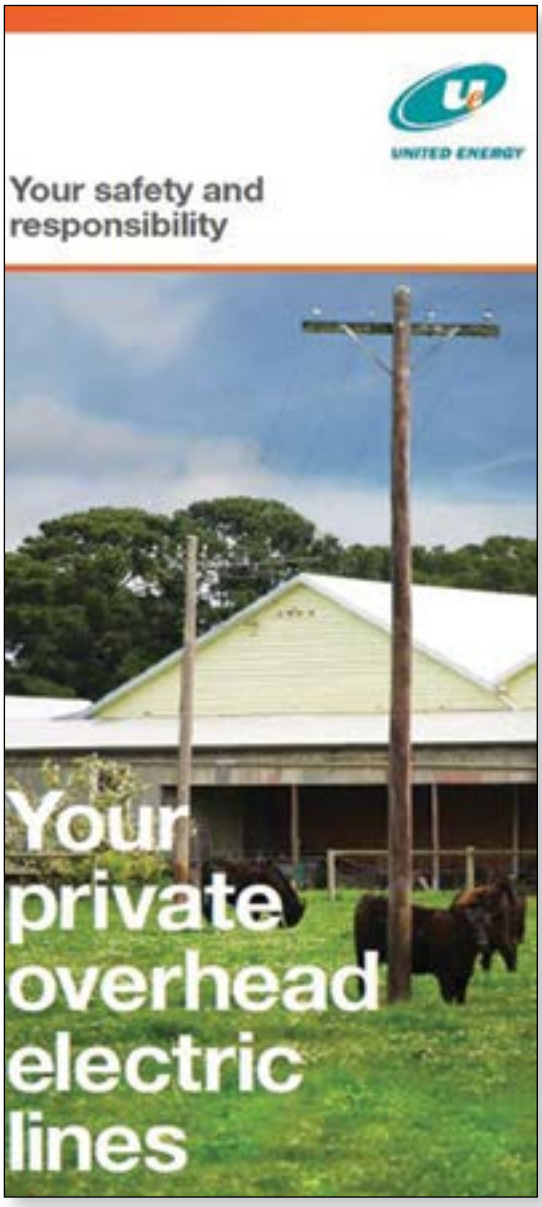
If you no longer have a POEL, please call us on 1300 131 689 or email customerrelations@ue.com.au. This will ensure our records are updated. Fire safety is everyone's responsibility and UE thanks you for your support in better protecting our community from the threat of fires this summer.

Regards,

Ross Musgrove
General Manager Service Delivery

Attachment 7: Cover of Service Line and POEL Brochures


UNITED ENERGY
Your safety and responsibility
Trees, powerlines and your property


UNITED ENERGY
Your safety and responsibility
Your private overhead electric lines

Attachment 8: Example of Public Awareness Advertisement

Help protect our community from fires this summer

United Energy (UE) proudly serve the energy needs of more than 650,000 customers in communities across Melbourne's east and south-eastern suburbs and down to the Mornington Peninsula. We own and manage more than 210,000 poles along with 13,000kms of wires.

Trees, service lines and your responsibilities

For the majority of powerlines in our network, the responsibility for maintaining the clearance between powerlines and trees rests with us (your distributor), or the local municipality.

However, you, as a landowner or tenant, are responsible for clearing the trees on your property around the service line. This is the powerline that runs from the pole in the road reserve to the front of your premises and a clearance of at least 300mm must be maintained at all times.

Failure by you to maintain your service line clearance may result in a defect notice being issued to your premises and your power supply disconnected.

Private Overhead Electric Powerlines (POEL)

A POEL is a low voltage powerline that runs between the UE owned pole on the road reserve to a privately owned pole(s) located on private property. This POEL may service different structures on the one property, such as another house or a shed.

Inspection and maintenance of any POELs on your property is essential for continued safe and reliable operation of the line.

Inspection and maintenance of POELs – what you need to know

- If you occupy land supplied by a POEL, you are responsible for ensuring your powerlines meet compulsory safety standards, regulated by Energy Safe Victoria.
- We are responsible for giving you notice that an inspection of your POEL is to occur.
- If a POEL requires maintenance or tree clearing, we'll notify you and offer advice.
- We strongly recommend you inspect your POEL at least every six months.
- Failure by you to maintain your POEL may result in a defect notice being issued to your premises and your power supply disconnected.
- We strongly recommend you engage a Registered Electrical Contractor (REC) or certified tree clearing professional to clear vegetation around a POEL.
- If a POEL requires electrical repairs, a Registered Electrical Contractor (REC) must be engaged to carry out the work.

UE is proudly working with Energy Safe Victoria (ESV), local government and fire agencies to help communities reduce the risk of fires this summer, and thank you for your support.

Fallen or damaged power lines should always be treated as live and dangerous

Keep clear and report to UE as soon as possible.

132 099

UNITED ENERGY

For more information on POELs, powerlines and your responsibilities, download our brochure at

ue.com.au

Call 1300 131 689 (8am to 6pm Mon to Fri)

energysafe VICTORIA

RECOMMENDATION FOR SAFE HEIGHTS OF PRIVATE OVERHEAD ELECRTIC LINE

This guide is to be used by Energy Safe Victoria (ESV) staff and power company staff and contractors in determining whether a private overhead electric line (POEL) is deemed to be unsafe, when that line has been inspected under the requirements of the Electricity Safety Act and the Electricity Safety (Bushfire Mitigation) Regulations for ground clearance and then referred to ESV by the electricity distribution company (DB).

Table is for insulated and unsheathed live conductors/neutral screened cables:

Area use	Areas not used by vehicles		Areas used by vehicles		
	Pedestrian use	No pedestrian use	Residential driveways	Rural driveways. cars and small trucks*	Rural driveways and land used by large trucks** and agricultural machinery
Recommended min safe height	2.6 metres	2.4 metres	3.6 metres	3.6 metres	4.6 metres
Height required by AS/NZS 3000-2007	3.0 metres	3.0 metres	4.6 metres	4.6 metres	4.6 metres

*Small Trucks- those that do not require an endorsed licence for their use.
**Large Trucks- those that require the driver to hold, the appropriate VicRoads endorsements for that vehicle.

Rational for recommendation of height

Heights for areas, not used by vehicles, is based on an average person using the areas for pedestrian use, who will from time to time carry objects above their heads or objects in long lengths and the likely-hood of the line being contacted is high. Where there is no pedestrian use it is far less likely that the line will be struck.

For areas used by vehicles, the statutory heights of service lines were considered. The kerb height of a moving van, that did not require the driver to hold endorsements to operate, were considered.

In areas where large trucks and agricultural machinery can be used, then minimum safe line heights should be in accordance with the rules.

Statutory Service Heights (for reference):

Year	Service Cable Height
Pre 1960's	9 Feet (2.7m)
1960's	10 feet (3.0m)
1972	3.0 metres
Approx. 1975	3.6 metres
1980	3.9 metres
1999	4.6 metres

Energy Safe Victoria
ABN 27 452 247 657

Level 3 Building 2
4 Riverside Quay
Southbank Victoria 3006

PO Box 262
Collins Street West
Victoria 8007

Phone (03) 9203 9700
Fax (03) 9686 2197
Web www.esv.vic.gov.au

Victoria
The Place To Be

FPP26: Operational Contingency Plans Procedure

Purpose

This procedure describes the process for actions that will be taken to secure the safety of network assets during declared fire danger periods and on days of total fire ban.

Scope

This procedure covers the operational and maintenance plans that will take effect during days of total fire ban to secure the safety of network assets. There are no specific operational and maintenance plans implemented on the network during the declared fire danger period.

References

Operations Manual: Switching and Earthing — Emergency (UE MA 0001, Section 03).

Definitions

Nil.

Procedure

Disconnection of Feeders

- Operational Contingency Plans for the disconnection of feeders will come into effect where requested by emergency services or where the safe operation of the feeder can no longer be assured.
- The Network Control Centre Manager will implement contingency plans for disconnection of feeders where required.
- Disconnection of supply to an area has serious implications and can only be considered as a last resort.
- Consideration must be given to retaining supply to essential services such as:
    - Hospitals
    - Water supply
    - Communication facilities, radio transmitters
    - Life support systems.

Staffing during Days of Total Fire Ban

- UE Call Centre and Resource Coordination / Dispatch functions are always operational. Additional personnel can be called if required.
- A Crisis Management Team may be established at the UE (Mt. Waverley) Coordination Centre and its formation communicated throughout UE.
- Remote Depots may be manned under the following conditions:
    - If the situation is critical due to weather conditions
    - If requested by the Coordination Centre
    - While a fire or other disaster is in progress
    - If, in the opinion of the Emergency or Response Manager, the depot needs to be staffed.

Operational Fire Preparedness

UE has extensive detailed procedures for the operational behaviour and maintenance strategies that are expected during emergencies and specifically fire events. These procedures are detailed in the Operations Manual (UE MA 0001).

Accountability: Network Control Centre Manager

Total Fire Ban Day Permits

In some cases a Service Provider or their subcontractors will be required to perform work in the open using a naked flame on total fire ban days. This work could include supply connection, fault works, emergency cable jointing, welding, gas flame cutting, grinding and shrink sleeve heating. It should be noted that it is preferable to defer this work on total fire ban days where possible.

Permits are to be obtained by the Service Provider and provided to all their and any subcontractor work crews to allow this work to proceed where necessary. Work crews should have copies of the relevant permits that outline the requirements and the contact requirements prior to performing the work.

Accountability: Service Providers

Where Preventative Program Works within HBRA are Incomplete

In the event that preventative program works within the HBRA are incomplete, the following actions shall be taken on days of total fire ban:

- An assessment will be made by the Fire Prevention Manager as to the nature of the risk presented by the incomplete works
- Consideration will be given to the following:
  - Disconnection of the feeder or portion of the feeder
  - Placing observers at the site or sites of the incomplete works
  - No specific action required.

The latter could be appropriate in situations such as where a pole requiring replacement or inspection is situated in a location that is too wet for access.

Accountability: Fire Prevention Manager

Days of Total Fire Ban — Actions upon the receipt of Notification of the Declaration of a TFB Day

The following actions are to be taken as soon as the Network Control Centre (NCC) has been notified that the CFA has declared a total fire ban within the UE area, normally on the afternoon before the TFB Day.

The Network Control Centre Manager (B/H) or Response Manager (A/H) will:

- Immediately notify all key personnel from UE Management and UE Service Providers.

The Service Provider's Emergency Managers (EM), in conjunction with the Network Control Centre Manager (B/H) or Response Manager (A/H), will:

- Ensure the enabling of the required TFB protection settings are able to be implemented if the FDI exceeds 30 or at 10:00am of the TFB day
- Determine whether any prearranged HBRA interruptions to supply (HV or LV) should proceed.

In general, shutdowns should not proceed on the UE HBRA network unless the risk of not proceeding (i.e. making an asset fire safe) is greater than the potential risk of proceeding with the works.

In the event of prearranged interruptions proceeding, consideration should be given to restricting the duration of the interruption to allow customers to access supply at the earliest opportunity.

The Service Provider's Emergency Managers, in conjunction with Maintenance, Vegetation, Asset Inspection Managers and Response Coordination / Dispatch, will:

- Confirm with the Asset Inspection Manager what POELs need disconnection and attempt to notify all customers connected to a non-fire safe POEL of their pending disconnection as soon as possible following declaration of the day of total fire ban, preferably the night before
- Arrange for the disconnection of all non-fire safe POELs by 10:00am on the day of total fire ban

- Confirm with the Maintenance Manager that no overdue maintenance (priority one or two) is outstanding
- Confirm with Vegetation personnel that no 'Code 55' vegetation (vegetation in contact with bare assets) is outstanding.

The Service Provider Emergency Manager will confirm with relevant personnel to ensure all actions have been initiated.

Actions on the TFB Day

The Network Control Centre Manager (B/H) Manager or Response Manager (A/H) will:

- Confirm that suppression or enabling of the required feeder protection has been initiated before 10:00 hours or if the FDI had reached 30. This shall include disabling earth fault discrimination for REFCL protected feeders supplying HBRA.
- Document whether any prearranged interruptions to supply (HV or LV) have/have not proceeded
- Complete the contingency pan checklist, sections 1 and 2 (see attachment 4) and send to UE Emergency Liaison Manager and copy to Service Provider Emergency Managers.

The Service Provider's Emergency Managers, in conjunction with Maintenance, Vegetation, Asset Inspection Managers and Resource Coordination/Dispatch, will:

- Confirm with Resource Coordination / Dispatch that the disconnection of all non-fire safe POELs by 10:00am on the day of total fire ban
- Confirm with Maintenance Manager that actions have been initiated to ensure any overdue maintenance (priority one or two) has been inspected and deemed safe for the period of the TFB day
- Confirm with Vegetation Manager that actions have been initiated to ensure any 'Code 55' vegetation (vegetation in contact with bare assets) has been inspected or cleared and deemed safe for the period of the TFB day
- Complete the contingency pan checklist, sections 3, 4 and 5 (see attachment 4) and send to UE Emergency Liaison Manager.

The Deployment and Cessation of Total Fire Ban Day Protection Schemes

The deployment and restoration of network protection schemes will apply from 10:00am on the total fire ban day or when the Fire Danger Index (FDI) reaches 30 (whichever occurs first) and will not be rescinded until the FDI drops below 30 and is trending downwards.

The most relevant weather observation sites to determine the FDI for the UE South territory has been determined to be Frankston. For the UE North area territory is the site is Scoresby. Below is an example of the information for Frankston showing a fire danger index of 5.1 from the weatherzone website http://www.weatherzone.com.au/.

The Service Provider Emergency Manager may re-connect disconnected POELs once the FDI has dropped below 30 or after midnight. In the event of continuous days of total fire ban, disconnected POELs should remain disconnected and the UE Emergency Liaison Manager advised accordingly.

Restoration of Supply after a Protection Operation

If protection operates during a total fire ban day causing an HV outage (or LV on the UE HBRA network) the whole of the affected feeder/circuit must be patrolled as per Operational Procedure OP-G6-2.

Operational Contingency Planning

General

On every total fire ban day, an Operational Contingency Plan (see Attachment 4) shall be completed by the Service Providers and Network Control Centre (NCC) or Response Manager, whether there be action required or not, and forwarded to the UE Emergency Liaison Manager before 10:00am.

In cases where the following items exist on the network on a day of total fire ban, the actions taken to mitigate any fire risk must be documented in the Operational Contingency Plan:

- Outstanding 'Code 55' vegetation
- Overdue defective or non-fire safe POELs that require disconnection
- Overdue priority one or two maintenance items that cannot be re–inspected.

The Operational Contingency Plan may include, but is not limited, to the following actions:

- Disconnection, re-inspection or 'make safe' of overdue maintenance items or POELs
- Emergency cutting of any 'Code 55' (in contact) vegetation
- On-site monitoring of vegetation and assets if required
- A risk assessment of the potential for fire ignition weighed up against the impact of disconnection of supply.

The DO will initiate a risk assessment of the line affected and prepare the Operational Contingency Plan in conjunction with the UE Emergency Liaison Manager.

The disconnection of distribution lines on days of total fire ban may have serious implications and this will be considered as a last resort and will be referred to the UE Emergency Liaison Manager for approval. Where it is likely that a distribution line will need to be disconnected on a day of total fire ban, efforts will be made to contact affected customers where possible.

Essential and emergency services will also be advised of any impending disconnection. Defective non fire safe POELs shall be disconnected or re-inspected as per the information provided on the Network Management drive.

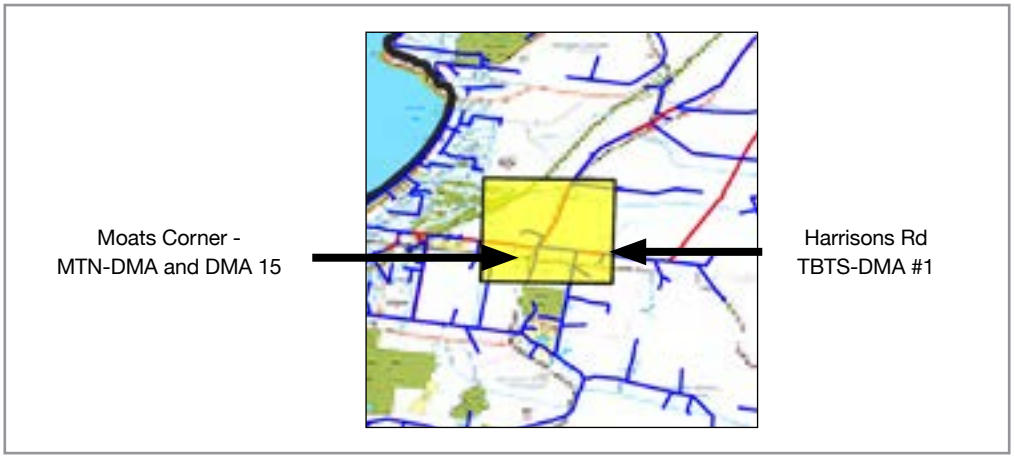
Areas of High Consequence

ESV, on an annual basis, provide UE with locations they believe from their analysis of the upcoming fire season to be areas of high consequence if a fire was to ignite. UE decides what addition precautions (if any) are to be taken in these areas to further mitigate the risk of fire ignition.

As these areas are not identified until just before fire season the location identified below are from the 2014/15 season and are to be viewed as examples only.

Dromana

The area identified is within the UE HBRA and is <1 square km in size km and is located in Dromana (Melways 169 H6) with the mid-point located approximately at the intersection of the Nepean Hwy, Dromana Bittern Rd, and White Hills Rd, this intersection is known as "Moats Corner". This area is traversed by feeder DMA 15 and the MTN – DMA line and also included is the northern section of Harrisons Rd which incorporates the TBTS-DMA#1 line.



Attachments

1. List of Key UE and Service Provider Personnel
2. Contact Details of Other Organisations
3. Protection Settings for Total Fire Ban Days
4. Status Report/Contingency Plans (Example)

Changes to Protection Settings – Red Hill/Main Ridge Area

UE has recently been experiencing an increase in the historical number of faults on our network in the Red Hill/Main Ridge Area. Some of these faults have resulted in fire starts in October and November 2015. As a result, UE have decided to utilise greater protection sensitivity on a broader range of days during 2015/16 season on feeders that supply this area.

This action was deemed to be more prudent than other risk mitigation on TFB or Code Red days, such as switching off these sections of the network (which has other inherent problems such as - no firefighting pumps, no cooling etc…).

The UE Fire Prevention Committee has endorsed the following settings to the devices listed below in an effort to further reduce the fault energy while attempting to maintain a reasonable level of supply reliability to the areas covered by these sections.

Fire Danger Index over 30* and rising or TFB Day

Enable TFB Mode on controlling devices to this ABC

- DMA23 Feeder
- RB7227
- RB7233
- RB7257
- RB376

Fire Danger Index over 75* or Code Red

Enable Code Red setting controlling devices to this ABC

- DMA23 Feeder
- RB7227
- RB7233
- RB7257
- RB376

These setting are in addition to the settings outlined below in Attachment 3: Protection Settings for Total Fire Ban Days (2015/16) Season.

*As taken from HMAS Cerberus weather station.

Attachment 1: List of Key UE and Service Provider Personnel

POSITION	CONTACT NAME	CONTACT NO.	
		BUSINESS HOURS	AFTER HOURS
United Energy (UE) — Key Personnel			
Chief Executive Officer	Tony Narvaez	8540 7888	132 099
General Counsel	Rob Sarafian		
General Manager Electricity Networks	Mark Clarke		
General Manager Corporate Affairs	Jai McDermott		
Customer and Market Services Manager	Darryn McDonald		
General Manager Service Delivery	Ross Musgrove (Acting)		
General Manager Asset Management	Craig Savage		
General Manager Service Delivery (South)	Phil Walters (Acting)		
General Manager Service Delivery (North)	Ross Musgrove		
Contract Performance Manager (North)	George Tziokas		
Contract Performance Manager (South)	Stephen Piasentin		
Head of Maintenance & Vegetation Management	Michael Besselink		
Fire Prevention Manager	Trevor Fisher		
Vegetation and Fire Prevention Planner	James Doherty		
UE Emergency Liaison Manager	Roster information Via Network Control Centre		
Network Control Centre — Key Personnel			
Head of Network Operations	Phil Walters	132 099	
System Control	Network Controller — 24 Hours		
ZNX — Key Personnel			
Resource Coordination	24 Hours	132 099	
ZNX Emergency Manager	Roster information via Network Control Centre		
Asset Inspections and Vegetation Coordinator	Joanne Burleigh	132 099	
Maintenance Manager	Joel Guest		
Downer — Key Personnel			
Dispatch	24 Hrs	132 099	
Downer Emergency Manager	Roster information Via Network Control Centre		
Asset Inspections and Vegetation Manager	Craig Smith	132 099	
Maintenance Manager	Greg Baker		

Note — After hours contact numbers for all personnel via Coordination Centre.

Attachment 2: Contacts Details of Other Organisations

Emergencies

EMERGENCIES	TELEPHONE
Country Fire Authority	000
Department of Sustainability and Environment	000
Metropolitan Fire Brigade	000
Vic Fire (Media Issues and information)	A/H or B/H 9887 7766

Attachment 3: Protection Settings For Total Fire Ban Days (2015/16) Season

TFB Mode Enabled & Auto Reclose Enabled (TFB Day)

Upon detection of the fault, instantaneous tripping of the circuit breaker followed by automatic reclose of the circuit breaker. If the fault is still present on the network, standard protection will trip the circuit breaker again but without any further reclose operations.

Auto Reclose Suppressed (TFB Day where TFB Mode not available)

Upon detection of the fault, standard protection will trip the circuit breaker without any reclose operation.

TFB Mode Enabled & Auto Reclose Suppressed (Code Red)

Upon detection of the fault, instantaneous tripping of the circuit breaker will result without any reclose operation.

REFCL Earth Fault Discrimination Mode

On a TFB Day, the REFCL earth fault discrimination shall be disabled on any feeder supplying a HBRA to ensure that sustained faults will result in immediate tripping of the feeder without switching in the NER to allow a HV fuse or ACR to clear the fault. This is necessary to minimise the energy delivered into the fault to prevent a fire.

No.	Zone Substation	Type	Feeder Name	ACR Name	NER	TFB Day		Code Red Day		Comment
						Enable TFB Mode (LSIOC)	Suppress AR	Enable TFB Mode (LSIOC)	Suppress AR	
1	CRM	Feeder	CRM11	-	No					Has 66Kv protection settings and no reclose available
2	CRM	Feeder	CRM13	-	No	Yes		Yes	Yes	
3	CRM	Feeder	CRM14	-	No	Yes		Yes	Yes	
4	CRM	Feeder	CRM21	-	No	Yes		Yes	Yes	
5	CRM	ACR	CRM21	FS0047	No	Yes*		Yes**	Yes	
6	CRM	ACR	CRM21	FS7882	No	Yes*		Yes**	Yes	
7	CRM	Feeder	CRM34	-	No	Yes		Yes****		
8	CRM	Feeder	CRM35	-	No	Yes		Yes****		
9	DC	ACR	DC1	DT0798	No	Yes*		Yes**	Yes	
10	DC	ACR	DC3	DT7076	No	Yes*		Yes**	Yes	
11	DMA	ACR	DMA11	RB7499	Yes	Yes*		Yes****	Yes	Assessed as requiring action on both TFB and Code Red. ACR will be removed in new DMA configuration. HBRA will be covered by a new ARC on DMA13 RB7532
12	DMA	Feeder	DMA12	-	Yes	Yes		Yes****		RB7426 CH switch OP in HBRA, suggest no action required on TFB
13	DMA	ACR	DMA12	MT7369	Yes	Yes*		Yes**	Yes	
14	DMA	Feeder	DMA13	-	Yes	Yes		Yes****		

No.	Zone Substation	Type	Feeder Name	ACR Name	NER	TFB Day		Code Red Day		Comment
						Enable TFB Mode (LSIOC)	Suppress AR	Enable TFB Mode (LSIOC)	Suppress AR	
15	DMA	SWER ACR	DMA13	RB7328	N/A				Yes	SWER ACR; No TFB mode on this ACR
16	DMA	ACR	DMA13	RB7532	Yes	Yes*		Yes**	Yes	
17	DMA	ACR	DMA14	RB0002	Yes	-	-	-	Yes	Assessed as requiring action on Code Red only
18	DMA	Feeder	DMA15	-	Yes	Yes		Yes****		
19	DMA	ACR	DMA15	RB7233	Yes	Yes*		Yes**	Yes	Refer also to 'Changes to Protection Settings – Red Hill/Main Ridge Area' on pages 113-114
20	DMA	Feeder	DMA23	-	Yes	Yes		Yes****		
21	DMA	ACR	DMA23	RB7227	Yes	Yes*		Yes**	Yes	
22	DMA	ACR	DMA23	RB7257	Yes	Yes*		Yes**	Yes	
23	DMA	Feeder	DMA24	-	Yes	Yes		Yes****		
24	DMA	ACR	DMA24	MT7452	Yes	Yes*		Yes**	Yes	
25	DSH	Feeder	DSH24	-	Yes		Yes			
26	DSH	Feeder	DSH33	-	Yes		Yes			
27	DVY	Feeder	DVY24	-	Yes	Yes		Yes****		
28	DVY	Feeder	DVY34	-	Yes	Yes		Yes****		
29	ERTS-MGE	SubT	ERTS-MGE	-	N/A				Yes	
30	FSH	Feeder	FSH12***	-	Yes		Yes		Yes	
31	FSH	ACR	FSH12***	FS0152	Yes	Yes*		Yes**	Yes	

No.	Zone Substation	Type	Feeder Name	ACR Name	NER	TFB Day		Code Red Day		Comment
						Enable TFB Mode (LSIOC)	Suppress AR	Enable TFB Mode (LSIOC)	Suppress AR	
32	FSH	Feeder	FSH21***	-	Yes		Yes		Yes	
33	FSH	Feeder	FSH23***	-	Yes		Yes		Yes	
34	FSH	ACR	FSH23***	FS7892	Yes	Yes*		Yes**	Yes	
35	FSH	Feeder	FSH32***	-	Yes		Yes		Yes	
36	FSH	ACR	FSH32***	FS1069	Yes	Yes*		Yes**	Yes	
37	FTN	Feeder	FTN13	FS8222	Yes		Yes	Yes****		
38	FTN	Feeder	FTN25	-	Yes	Yes		Yes****		
39	FTN	ACR	FTN25	FS1098	Yes	Yes*		Yes**	Yes	
40	GW	ACR	GW2	DN1013	Yes		Yes		Yes	No TFB mode on this ACR
41	GW	ACR	GW7	DN8367	Yes		Yes		Yes	No TFB mode on this ACR
42	HGS	Feeder	HGS21	-	Yes	Yes		Yes****		
43	HGS	Feeder	HGS22	-	Yes	Yes		Yes****		
44	HGS	ACR	HGS22	MT7226	Yes	Yes*		Yes**	Yes	
45	HGS	ACR	HGS22	MT7367	Yes	Yes*		Yes**	Yes	
46	HGS	Feeder	HGS23	-	Yes	Yes		Yes****		
47	HGS	ACR	HGS23	MT0447	Yes	Yes*		Yes**	Yes	
48	HGS	SWER ACR	HGS23	MT7475	N/A				Yes#	SWER ACR; No TFB mode on this ACR
49	HGS	Feeder	HGS31	-	Yes	Yes		Yes****		

No.	Zone Substation	Type	Feeder Name	ACR Name	NER	TFB Day		Code Red Day		Comment
						Enable TFB Mode (LSIOC)	Suppress AR	Enable TFB Mode (LSIOC)	Suppress AR	
50	HGS	ACR	HGS31	MT7529	Yes	Yes*		Yes**	Yes	
51	HGS	Feeder	HGS32	-	Yes	Yes		Yes****		
52	HGS	ACR	HGS32	MT7423	Yes	Yes*		Yes**	Yes	
53	HGS	Feeder	HGS33	-	Yes	Yes		Yes****		
54	HGS	ACR	HGS33	MT0045	Yes	Yes*		Yes**	Yes	
55	HGS	ACR	HGS33	MT7521	Yes	Yes*		Yes**	Yes	
56	KBH	Feeder	KBH34	DN9850	Yes	Yes		Yes	Yes	Delete KBH34 when DN9850 is commissioned
57	KBH	Feeder	KBH34		Yes	Yes		Yes	Yes	Will be covered by DN9850 when commissioned
58	KBH	Feeder	KBH35		Yes	Yes		Yes	Yes	Replaces DN8300 line fuses
59	LD	ACR	LD2	DN7964	Yes	Yes*		Yes**	Yes	
60	LD	ACR	LD33	DN8274	Yes	Yes*		Yes**	Yes	
61	LWN	Feeder	LWN21	-	Yes	Yes		Yes	Yes	
62	LWN	Feeder	LWN23	-	Yes	Yes		Yes	Yes	
63	LWN	ACR	LWN31	FS7877	Yes	Yes*		Yes**	Yes	
64	LWN	Feeder	LWN32	-	Yes	Yes		Yes****		
65	LWN	ACR	LWN32	FS7538	Yes	Yes*		Yes**	Yes	
66	LWN	Feeder	LWN33	-	Yes	Yes		Yes****		

No.	Zone Substation	Type	Feeder Name	ACR Name	NER	TFB Day		Code Red Day		Comment
						Enable TFB Mode (LSIOC)	Suppress AR	Enable TFB Mode (LSIOC)	Suppress AR	
67	LWN	ACR	LWN33	FS7865	Yes	Yes*		Yes**	Yes	
68	MC	Feeder	MC7	-	Yes		Yes		Yes	No TFB mode/LSI OC mode on this feeder; no LLW mode on this feeder
69	MGE	Feeder	MGE12	-	Yes	Yes		Yes	Yes	
70	MGE	Feeder	MGE13	-	Yes	Yes		Yes	Yes	
71	MGE	Feeder	MGE21	-	Yes	Yes		Yes	Yes	
72	MGE	ACR	MGE23	DN8068	Yes	-	-	-	Yes	Assessed as requiring action on Code Red only
73	MGE	Feeder	MGE32	-	Yes		Yes	Yes****		
74	MGE	Feeder	MGE33	-	Yes		Yes	Yes****		
75	MTN	Feeder	MTN22	-	Yes	Yes		Yes****		
76	MTN	ACR	MTN22	MT7622	Yes	Yes*		Yes**	Yes	
77	MTN	Feeder	MTN23	-	Yes	Yes		Yes****		
78	MTN	Feeder	MTN24	-	Yes	Yes		Yes****		
79	MTN	ACR	MTN24	FS7893	Yes	Yes*		Yes**	Yes	
80	MTN	ACR	MTN24	MT0494	Yes	Yes*		Yes**	Yes	
81	MTN	ACR	MTN24	MT7451	Yes	Yes*		Yes**	Yes	
82	MTN	Feeder	MTN32	-	Yes	Yes		Yes****		

No.	Zone Substation	Type	Feeder Name	ACR Name	NER	TFB Day		Code Red Day		Comment
						Enable TFB Mode (LSIOC)	Suppress AR	Enable TFB Mode (LSIOC)	Suppress AR	
83	MTN	ACR	MTN32	MT7225	Yes	Yes*		Yes**	Yes	
84	MTN	ACR	MTN32	MT7621	Yes	Yes*	-	Yes**	Yes	
85	MTN	Feeder	MTN34	-	Yes	Yes		Yes****		
86	MTN	Feeder	MTN35	-	Yes	Yes		Yes****		
87	MTN	ACR	MTN35	MT0011	Yes	Yes*		Yes**	Yes	
88	MTN-DMA	SubT	MTN-DMA	-	N/A				Yes	Assessed as requiring action on Code Red only
89	NP	Feeder	NP12	-	Yes	Yes		Yes****		
90	NP	ACR	NP34	DN9628	Yes	Yes*		Yes**	Yes	
91	NW	ACR	NW13	DT7144	Yes	Yes*		Yes**	Yes	
92	RBD	Feeder	RBD12	-	Yes	Yes		Yes****		
93	RBD	ACR	RBD12	RB0376	Yes	Yes*		Yes**	Yes	Refer also to 'Changes to Protection Settings – Red Hill/Main Ridge Area' on pages 113-114
94	RBD	SWER ACR	RBD12	RB7371	N/A				Yes#	SWER ACR; No TFB mode on this ACR
95	RBD	ACR	RBD13	RB7226	Yes	Yes*		Yes**	Yes	
96	RBD	Feeder	RBD21	-	Yes	Yes		Yes****		
97	RBD	ACR	RBD21	RB0391	Yes	Yes*		Yes**	Yes	
98	RBD	SWER ACR	RBD21	RB7329	N/A				Yes#	SWER ACR; No TFB mode on this ACR

No.	Zone Substation	Type	Feeder Name	ACR Name	NER	TFB Day		Code Red Day		Comment
						Enable TFB Mode (LSIOC)	Suppress AR	Enable TFB Mode (LSIOC)	Suppress AR	
99	RBD	SWER ACR	RBD21	RB7359	N/A				Yes#	SWER ACR; No TFB mode on this ACR
100	RBD	SWER ACR	RBD21	RB7360	N/A				Yes#	SWER ACR; No TFB mode on this ACR
101	RBD	ACR	RBD24	RB7406	Yes	Yes*		Yes**	Yes	
102	RWT	Feeder	RWT35	-	No	-	-	-	Yes	Assessed as requiring action on Code Red only
103	RWT	ACR	RWT35	BH7181	No	-	-	-	Yes	Assessed as requiring action on Code Red only
104	SS	Feeder	SS23	-	Yes		Yes			
105	STO	Feeder	STO13	-	Yes	Yes		Yes****		
106	STO	ACR	STO13	RB0205	Yes	Yes*		Yes**	Yes	
107	STO	ACR	STO14	RB0228	Yes	Yes*		Yes**	Yes	
108	STO	Feeder	STO21	-	Yes	Yes		Yes****		
109	STO	ACR	STO21	RB7322	Yes	Yes*		Yes**	Yes	
110	TBTS- DMA	SubT	TBTS- DMA	-	N/A				Yes	Assessed as requiring action on Code Red only

* If TFB mode not available remotely suppress AR instead on TFB Days.

** If TFB mode not available remotely send Operator to site to enable and also suppress AR.

*** Suppress AR irrespective of whether the REFCL is in service or not

**** Enable Live Line Work (LLW) Mode (cannot disable AR while in TFB mode)

If remote communications to the SWER ACR is unavailable on a Code Red Day then send Operator to site to manually suppress AR

Fire Feeders where protection is achieved via fuse only.

Distribution Feeder or ACR	Spans	Fire Authority Area	NER	Fuse Type	Switch No
BU 14	10	MFB North	No	Powder Filled	DT0599
DN 13	15	CFA Region 13	Yes	Boric Acid	DN2831
FSH 33	7	CFA Region 8	Yes	Boric Acid	FS7413
LD 33	22	CFA Region 13	No	Powder Filled	DN0220

Fire Feeders where no action is taken by UE.

Distribution Feeder or ACR	Spans	Fire Authority Area	NER	Comments
DSH 34 Feeder	4	CFA Region 8	Yes	In relation to these feeders no action is taken due to the fact there is 10 spans or less located within the fire area for each feeder. The risk has been determined to be greater by putting many customers at risk for a prolonged supply outage than for the minimal fire risk proposed of these spans. Feeder Lyndhurst 14 is a SP Ausnet feeder who have provided advice that this feeder is suppressed on TFB days to a similar setting to the UE feeders.
LYD 14 (SP Ausnet)	10	CFA Region 13	No	
LWN 35 Feeder	7	CFA Region 8	Yes	

Attachment 4: Status Report/Contingency Plans (Example)

UNITED ENERGY

Memorandum

To:	UE Fire Prevention Committee / Key Stakeholders
From:	UE Emergency Liaison Manager
Date:	23/12/2012
Subject:	TFB CHECKLIST/IMPLEMENTATION OF CONTINGENCY PLAN

Confirmations And Action	Resp. Person	Done	Contingency Plan for any Uncompleted Actions
1. **Auto Reclose Suppression** Confirm with Network Control Manager all TFB Protection Settings have been engaged.	Network Control Manager or Response Manager	Yes	**10am** - Confirmed UE suppressions in place.
2. **Prearranged Construction Work** Confirm if any critical HBRA prearranged work cancelled after consultation with Service Providers.	Network Control Manager or Response Manager	Yes	Shutdowns only in LBRA all OK.
3. **Overdue Maintenance Works** Confirm with Service Providers EM that no HBRA defective (priority 1 or 2) assets works are overdue or have been re-assessed and action taken if necessary.	Service Provider Emergency Manager	Yes	No maintenance overdue.
4. **Overdue Defective POELs** Confirm with Service Providers EM if any HBRA overdue defective or non-fire safe POELs have been disconnected.	Service Provider Emergency Manager	Yes	**10am** 25 Smiths Rd, Pearcedale confirmed as disconnected.
5. **Vegetation** Confirm with Service Providers EM that no outstanding vegetation is in contact with live assets in the HBRA or any actions taken.	Service Provider Emergency Manager	Yes	One Code 55 (in contact) tree cut by Select Solutions this morning.
Name: Bruce Trew	**Date:** 23/12/2011		**Time:** 10am - Updated 8pm

The UE Emergency Liaison Manager must confirm all actions and advise UE Fire Prevention Committee members that all contingency plan actions (if required) have been implemented by 10:00 hours on the day of the total fire ban.

FPP27: Fault Energy Management Procedure

Purpose

This procedure describes the process for managing fault energy on days of total fire ban.

It has been established that the likelihood of fire ignition from electricity assets is related to the energy delivered into the fault.

United Energy's protection philosophy is to strike a balance between fault energy, and the resultant likelihood of fire start , with continuity of electricity supply through design and operation of protection systems, network configuration and fault current limiting technologies.

Scope

This procedure covers the actions to be taken to manage fault energy on days of total fire ban.

References

Nil.

Definitions

REFCL = Rapid Earth Fault Current Limiters

Standard Protection

Standard protection is applied on the distribution network to detect network faults (short circuits) and to initiate automatic tripping of circuit breakers to isolate the fault from the network. Standard protection is typically time graded in order to minimise the extent of the resulting network outage. This protection is referred to as a slow trip by the Powerline Bushfire Safety Taskforce.

Auto Reclose

Auto reclose is a control system that, after a programmed time delay, automatically closes a circuit breaker following a protection initiated trip. When disabled or suppressed, automatic re-close of the circuit breaker will be blocked.

Total Fire Ban Mode

When enabled, standard protection is ignored and the protection operates instantaneously and immediately trips the circuit breaker. This protection operation is referred to as a fast trip by the Powerline Bushfire Safety Taskforce. Upon automatic re-close of the circuit breaker, the system reverts back to standard protection operation.

Procedure

How the Network will behave on Fire Declared Days

TFB Mode Enabled and Auto Reclose Enabled (TFB Day) and for 'Changes to Protection Settings – Red Hill/Main Ridge Area' as described in FPP26 on pages 113-114

Upon detection of the fault, instantaneous tripping of the circuit breaker followed by automatic reclose of the circuit breaker. If the fault is still present on the network, standard protection will trip the circuit breaker again but without any further reclose operations.

Auto Reclose Suppressed (TFB Day where TFB Mode not available)

Upon detection of the fault, standard protection will trip the circuit breaker without any reclose operation.

TFB Mode Enabled and Auto Reclose Suppressed (Code Red) and for 'Changes to Protection Settings – Red Hill/Main Ridge Area' as described FPP26 on pages 113-114.

Upon detection of the fault, instantaneous tripping of the circuit breaker will result without any reclose operation.

Supply Restoration Procedure

The implementation of instantaneous protection (TFB) presents technical and operational challenges when switching the network for (i) planned switching e.g. load transfers and (ii) restoring supply after unplanned outages. A key issue is the susceptibility of instantaneous protection to trip on load inrush current when supply restoration switching.

Therefore, the following procedures apply:

i) TFB mode instantaneous settings be temporarily disabled when
   (a) network switching; and
   (b) re-energising the high voltage line after tripping to lockout for a fault. This will limit the possibility of the protective device incorrectly tripping due to load inrush current.

ii) Code Red mode instantaneous settings be temporarily disabled when
   (a) network switching; and
   (b) re-energising the high voltage line after tripping to lockout for a fault. This will limit the possibility of the device incorrectly tripping due to load inrush current.

iii) Physical patrol of the high voltage line following a protective device trip shall be
   (a) TFB mode - to next intelligent protective device including all spurs
   (b) Code Red mode - the entire line that has been de-energised including all spurs (this includes section past any downstream protective device)

iv) FSH REFCL to be temporarily switched out of service and station returned to NER earthing when
   (a) network switching requires parallels with non REFCL protected network or where switching could create a disturbance that could be falsely identified as a fault
   (b) re-energising the high voltage line after tripping to lockout for a fault.

Fault Energy Management

Subtransmission - TFB Days

Single shot auto re-close is applied on all 66kV subtransmission lines on the UE supply network. It is UE policy not to suppress auto re-close on these 66kV subtransmission lines on days of total fire ban. This policy has been made on the basis that the lines are protected by high-speed protection schemes such as pilot wire, current differential and distance protection, all of which will detect and quickly isolate fire risk faults.

Subtransmission – Code Red Days

On any Code Red day the TBTS-DMA#1 and TBTS DMA #2 will be suppressed as this 66kV subtransmission line traverses through the Dromana area identified in the Code Red modeling.

Distribution Feeders

High voltage feeders within the UE supply network have several methods available to limit risk of fire ignition by limiting the available fault energy.

These methods include:

1. REFCL – currently fitted at Frankston South zone substation
2. NER – fitted at most UE zone substations that supply HBRA feeders
3. The splitting of the HV bus – (bus tie circuit breaker remains open)
4. Enabling Total Fire Ban Mode
5. Suppression of the auto re-close function at feeder circuit breaker and ACRs including SWER systems (if no Total Fire Ban mode)
6. HV fuses – fitted throughout the network
7. Enabling Total Fire Ban mode and suppression of auto reclose (Code Red days).

The Network Coordination Centre (NCC) will limit fault energy by applying the above per Attachment 3 of FPP26.

Procedures for the implementation of these measures for total fire ban days are included in Attachment 3 of FPP26.

Accountability: Network Control Centre Manager.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