Bushfire Risk Management Plan

2022-24

August 2022

Part of Energy Queensland

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Availability of the Bushfire Risk Management Plan

This plan is available on the Energex and Ergon Energy external websites www.energex.com.au and www.ergon.com.au

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1 PURPOSE AND SCOPE

1.1 Purpose

Bushfires are an inherent part of the Queensland landscape and environment. The vastness of the land, community footprints and the electricity network servicing that community increases the risk of potential impact to the network.

Failure of components of an overhead electricity reticulation system may also present a potential source of ignition and combined with unfavourable environmental conditions may increase the risk of a bushfire.

Energex and Ergon Energy Networks are legally obliged under the Electrical Safety Act and associated Regulations to maintain a safe and reliable supply of electricity to customers. Energex and Ergon Energy Networks apply best practice asset management strategies to ensure the safe and reliable operation of the network. This includes development and application of this Bushfire Risk Management Plan.

This Bushfire Risk Management Plan is a subset of the Natural Hazards Risk Management Plan and targets issues and initiatives relating specifically to bushfires.

A key component of this plan is to outline how assets are managed to minimise the risk of bushfires to the network, maintain customer supply reliability and ensure a high level of safety for the community during times of bushfire.

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1.2 Scope

Energex and Ergon Energy Networks will fulfil its responsibilities in network areas of Queensland and New South Wales under the Bushfire Risk Management Plan by addressing the following major areas:

- Identification of areas prone to high bushfire hazard and the location of all electricity assets within those areas
- Asset maintenance procedures including identification and rectification of asset defects
- Vegetation management strategies and procedures
- Equipment and construction standards as related to bushfire mitigation
- Providing information to field employees relating to bushfires and public safety
- Liaison with other organisations regarding bushfire related issues
- Public awareness and the responsibilities of owners of private overhead electric lines
- Bushfire emergency response and management capability
- Operating procedures during times of high fire danger and total fire ban days
- Investigation of bushfire related incidents and monitoring of trends
- Continued partnership with Queensland Fire and Emergency Service (QFES) on mitigation activities, communication protocols and sharing of information.

2 OUR ASSETS

Energex and Ergon Energy Networks operate in a vast area with its distribution network covering an area of 1.7 million sq km. This consists of more than 213,000 km of overhead and underground high voltage and low voltage distribution power lines and approximately 1.7 million poles.

The high voltage network operates at a variety of voltages ranging from 220kV, 132kV, 110kV, 66kV, 33kV, 22kV, 19.1kV, 12.7kV, and 11kV. The low voltage network is reticulated at 415/240/230 Volts.

The networks also include 33 isolated power stations, 79 bulk supply substations and 509 zone substations.

3 A CHANGING CLIMATE

Our climate is changing, and we are experiencing a shift in the seasons, severity of hazards and subsequent impacts of bushfires. Energex and Ergon Energy Networks, as part of the Energy Queensland (EQL) Group, acknowledge and align with the Queensland State Government *Pathways to a Climate Resilient Queensland Climate Adaption Strategy 2017-2030.* EQL has a Board approved *Low Carbon Future Statement* and *Environmental Sustainability and Cultural Heritage Policy.* QFES publish the *Queensland Bushfire Plan* outlining the arrangements to enable Queensland's management of bushfire hazard.

These documents will provide the focus for building network resilience, reducing the impact of climate change and effectively managing bushfire risk.

4 IDENTIFYING BUSHFIRE RISK AREAS

4.1 Fire Seasons

The fire season in Queensland normally commences in the Gulf Country and Cape York Peninsula during July. It progresses south into the central inland and coastal areas during spring and south to the NSW border in early Summer. The season extends into February for the southern and south west regions of Queensland.

These timeframes can vary significantly from year to year due to fuel availability and condition, soil moisture, long term climate conditions and variations on short-term weather conditions in each area. Recent seasons have indicated that the fire season is starting earlier and is more prolonged, particularly in the southern regions.

The Bureau of Meteorology (BOM) and the Bushfire and Natural Hazards Co-operative Research Centre (CRC) provide specific seasonal outlooks, fire weather predictions and weather warnings in the lead up to and during the fire season.

Dependant on seasonal predictions and local weather forecasts, Queensland Fire and Emergency Services (QFES) may declare a fire danger period or declare local fire ban or state of fire emergency.

To assist in the identification of bushfire hazard areas, Energex and Ergon Energy Networks utilise several resources to allow planning and mitigation activities.

4.2 Mapping

4.2.1 Bushfire Hazard Area Mapping

Under the *Queensland State Planning Policy* bushfire hazard areas are mapped. Energex and Ergon Energy Networks includes this information in our Geographical Information System (GIS) to allow the production of maps identifying network assets in bushfire hazard areas.

4.2.2 Current Bushfire Mapping

All bushfires and prescribed burning activities can potentially impact on Energex or Ergon Energy Network assets. Many areas of Queensland are subject to the use of fire as an effective land management strategy in reducing fuel load to mitigate the impact of bushfires, managing primary production systems or for ecological and conservation processes. QFES coordinates an annual bushfire mitigation program during which landholders, land management agencies and the Rural Fire Service (RFS) plan and conduct a range of prescribed burning activities across the state.

Real time spatial information about the extent of landscape fires is used via mapping applications linked to satellite data. These services provide up to date information on current fires, their location

and depending on service provider include additional data such as fire tracking and burnt area mapping. This information assists in identifying electrical assets in the fire path and allows restoration planning to be conducted proactively for when the fire areas are safe to access. EQL utilise the following data sources to inform management strategies:

- QFES data feed detailing Current Incidents, Line Scans and QFES Mobile Incident Collector Application (MICA) information including burn scars and fire fronts for display on Geospatial systems
- Sentinel Hotspot Fire Detection provided by Geoscience Australia
- Landgate Satellite Remote Sensing Service fire and fire mapping information
- Rural Fire Service (RFS) mapping of current bushfire incidents and permit burns

4.3 Weather Services Advice

The BOM issue fire weather warnings when weather conditions are conducive to the spread of dangerous bushfires. Warnings are generally issued within 24 hours of the potential onset of hazardous conditions and are broadcast on radio and television. Emergency teams and network control centres monitor these warnings and weather updates and if required, advise operational response teams to prepare or enact response arrangements.

Energex and Ergon Energy Networks have engaged a dedicated weather service provider to provide specialist weather advice on forecast weather patterns including heatwaves, storms and lightning levels. A component of the advice is an interface with integrated Sentinel satellite fire detection and layers for substations and feeders and is available for key employees through an external internet site.

4.4 Emergency Services Advice

QFES and RFS provide an automated email system to communicate the declaration of fire bans or fire weather warnings during high bushfire danger conditions. Energex and Ergon Energy Networks key operational roles subscribe to warning alerts and liaise with QFES and RFS annually prior to the commencement of the fire season. This ensures the appropriate people receive fire weather information in time to make any necessary operational arrangements or responses.

4.5 Local Advice

Information provided by local and area based employees and contractors is considered and assessed to identify high fuel loads or previously impacted areas of the network. This will inform any required changes to maintenance practices to minimise and mitigate future asset damage.

5 ASSET MANAGEMENT

Energex & Ergon Energy Network have a range of asset management policies, plans and procedures in place which contribute to management of bushfire risk.

In order to maintain an up-to-date record of our asset information and characteristics, Energex and Ergon Energy Networks have the following management tools:

5.1 Asset Register

Both Energex and Ergon Energy Networks maintain an asset register in Enterprise Asset Management System (EAM) (a digital tool). The register details technical and maintenance information, integral to the management, integral to effective management of the asset and allows asset lifecycle tracking.

5.2 Geographical Information System

Energex and Ergon Energy Networks use a GIS linked to EAM to show the asset location, layout, specifications and the types and lengths of overhead lines. The GIS enables mapping of assets against bushfire hazard areas in South East Queensland, Regional Queensland and current QFES known fires.

5.3 Field Mobile Computing Inspection Systems

Energex and Ergon Energy Networks have field mobile computing systems that are used in the routine inspection of vegetation, poles and line components. The system enables asset inspectors to issue work, locate poles, validate the pole details, record any inspection measurements or data required, confirm asset defect work orders and raise new defect work orders. This information is retrieved and integrated into EAM and GIS.

5.4 Asset Maintenance

5.4.1 Asset Inspections

Energex and Ergon Energy Networks operate an ongoing overhead network asset inspection and maintenance program which is compliant with the *Electrical Safety Act 2002 (Qld)* and the Code of Practice - Works. These inspections include checks on the condition of and encroachment of vegetation or other assets on electrical equipment, plant, poles and wires.

Energex and Ergon Energy Networks conduct periodic Light Detection and Ranging (LiDAR) inspections of their networks to identify vegetation and conductor clearance issues. Issues are then prioritised to ensure required actions are programmed into our maintenance programs.

5.4.2 Vegetation Maintenance Management

Energex and Ergon Energy Networks actively seeks to minimise the risk of vegetation encroachment on overhead assets, and includes consideration of public safety, network reliability, quality of supply, customer service and network operating costs.

This includes the treatment of trees to ensure the maintenance of clearance zones of overhead electric lines, exposed conductive parts and separation of conductors. Approaches used to manage vegetation include:

- A proactive program of activities to treat vegetation in proximity to overhead lines with cycle times dependent upon local conditions, urban density and growth rates. An audit period after cycle cut during which time all zones are assessed to ensure that vegetation will remain typically clear for the whole of the assigned treatment cycle.
- Reactive program of activities to address localised instances where vegetation is found to be within clearance requirements. If a member of the public or employee identifies individual vegetation sites which are close to or make contact with the mains, Energex and Ergon Energy Networks will assess and if necessary, deploy a crew to re-establish safe clearances.
- Regular audits of activities for completion and quality of works providing recommendations and actions for rectification.
- Working cooperatively with local councils and landowners to reduce future conflict between trees and powerlines.

5.5 Asset Management Programs

Energex and Ergon Energy Networks implement robust asset management strategies and plans across their entire network. Programs within these plans such as vegetation management, routine equipment inspections, as well as routine and responsive maintenance all contribute to maintaining network safety and reliability. In addition to these maintenance activities, Energex and Ergon Energy Networks also employ an extensive refurbishment, replacement and augmentation program. These programs:

- Provide assurance that Energex and Ergon Energy Networks have mitigation strategies in place for natural hazards including storms and bushfires; and
- Identify network defects or issues that present a hazard or are likely to cause a network outage.

5.6 Asset Improvement Initiatives

Energex and Ergon Energy Networks have a range of asset refurbishment programs focussed on maintaining the safety, reliability and resilience of the network. These programs are aimed at achieving the optimal service life from assets, whilst planning replacement of the assets prior to their “end of life”. Energex and Ergon Energy Networks have key Asset Management Plans which outline the specific approaches and measures to mitigate and minimise risks associated with affecting the networks.

These initiatives assist to reduce the likelihood of fire starts from electrical assets and some also help to reduce the risk of network asset damage from external fires. Examples of the range of initiatives undertaken by Energex and Ergon Energy Networks include, but are not limited to:

- Line refurbishment programs– such as replacement of aged (or corroded) conductor, installation of insulated/covered conductors.
- Lines defect remediation – repair and remediation of defects identified through asset inspection, such as cross-arms, insulators tie wires etc
- Programs for condemned pole replacement

- Customer Service line replacement programs
- The transition to a range of updated equipment standards as new equipment is installed including:
  - Distribution Surge Arrestors to conform to AS1307.2 Spark Production Class A (spark free) to reduce the chance of sparks igniting a bushfire during operation
  - Low Voltage fusing of all new distribution transformers, as recommended under Energy Network Association (ENA) guidelines.
  - Use of Arc-suppressors on air-break switches
  - Use of remote-controlled pole mounted reclosers, sectionalisers and load-break switches on long feeders
  - Use of 11kV enclosed gas insulated switches in lieu of open air-break switches, and/or spark-less high-voltage fuses on pole transformers, in some identified bushfire prone areas.
  - Composite fibre crossarms to be used where practical in bushfire areas
  - Vibration dampers to be installed on all spans greater than 300m
  - Standardised use of conductor spacers on LV and HV spans between Energex and Ergon Energy Networks
- Trialling and development of a range of pole materials/technologies (such as composite fibre) along with the ongoing use of concrete and steel rebutted poles where appropriate
- Ongoing research and development and trials of fire-resistant coatings (fireproof paint and fireproof wraps) for wood poles in fire prone areas.

6 ASSET DESIGN AND STANDARDS

Energex and Ergon Energy Networks design our electrical network to maximise reliability, safety, performance and optimise network investment over the long term (commensurate with the life expectancy of network assets) whilst meeting community expectations for environmental impact and regulatory expectations. Network Design Standards have been developed in line with Industry Standards to ensure appropriate design, asset quality, configuration and construction quality across the network. Bushfire management has been embedded into the overall asset design standards.

7 SEASON PREPAREDNESS

7.1 Risk Management

Energex and Ergon Energy Networks operate under an EQL Risk Management Policy and Framework. The risk management process aligns with the internationally recognised standard AS/NZS ISO 31000:2018 Risk Management - Principles & Guidelines. Management of risk is critical to effective asset management and is integral to the ISO 55000 Asset Management suite of standards. EQL regularly reviews inherent and emerging risks to and as a result of the network.

EQL complies with relevant parts of AS 5577–2013 *Electricity network safety management systems* which requires documented hazard and control mechanisms to be applied to identified risks. EQL's management of network-initiated bushfire is a key pillar of this approach and as such is subject to periodic audit as directed by the Electrical Safety Office.

7.2 Bushfire Risk Management Committee

A network bushfire management committee has been established to ensure that adequate risk mitigation strategies and practices are in place for the network.

7.3 Annual Review

A comprehensive review and update of this Bushfire Risk Management Plan occurs biennially.

7.4 Internal Communication and Training

Energex and Ergon Energy Networks provide annual communications and awareness sessions to field employees in preparation for the bushfire season. These sessions include instruction on appropriate work practices and vehicle use during high-risk periods.

Training materials specific to bushfire safety are delivered at field team briefings. Awareness material is primarily focussed on personal protection, as their main obligation in times of bushfire emergency is safe isolation and subsequent maintenance of electricity supply. Employees are not expected to participate in firefighting activities however an awareness of safety precautions are essential if responding to events.

A Bushfire General Awareness and Safety presentation is reviewed annually and provided for all field teams to review. Safety equipment checks will be conducted in addition to this awareness.

A Bushfire Smoke Fact Sheet has been developed to assist employees in their awareness of the hazards and risks associated with bushfires and bushfire smoke.

Further safe vehicle operation advice is available through government organisations.

In the event of total fire ban days or prior to the start of a high bushfire risk season, in which the QLD Rural Fire Service declares a 'Fire Danger Period', Energex and Ergon Energy Networks field employees will be informed via mobile phone SMS or through Field Force Automation (FFA) devices.

7.5 External Organisation Liaison and Consultation

7.5.1 Emergency Services Liaison

Energex and Ergon Energy Networks have responsibilities under the Disaster Management Act to ensure adequate liaison occurs with emergency services.

To ensure effective consultation and coordination in relation to bushfire prevention, preparedness, response and recovery, Energex and Ergon Energy Networks provide representation on the following committees:

- State Disaster Coordination Group (SDCG) or State Incident Management Team (SIMT)

- District Disaster Management Groups (DDMG)
- Local Disaster Management Groups (LDMG)
- State Bushfire Committee
- Regional Bushfire Committees

It is vital during a major event that close contact be maintained with all emergency services, in particular QFES, Queensland Police Service (QPS), the State Emergency Service (SES) and local disaster management groups. If requested, representatives of Energex and/or Ergon Energy Network will be nominated to act as Liaison Officers to these committees.

Powerline corridors and powerline access tracks are often utilised by Rural Fire Brigades and land management agencies as breaks or control lines during hazard reduction burning.

Queensland Government land management agencies coordinate bushfire control, management and policy formulation through interdepartmental committees, chaired by the Assistant Commissioner, Rural Fire Service.

With a significant interest in the land management of powerline corridors throughout the state, there are advantages in having representation on these committees, and to stay current with policy developments. Liaison with the RFS, land management and local government organisations through participation in local fire management committees or other community forums occurs across the state.

Liaison Officers (primary and backup) nominated for the disaster management organisations are located on the Operations Emergency Planning and Response internal website and receive annual training and regular briefing sessions on relevant issues, network risks and responses.

7.5.2 Other Network Service Providers

Other electrical Distribution Network Service Providers (DNSP) and Transmission Network Service Providers (TNSP), including Essential Energy and Powerlink, adjoining the area serviced by Energex and Ergon Energy Networks have processes in place to address bushfire mitigation. Liaison and continued communication about bushfire mitigation strategies and plans provides consistency in approach and potential for sharing of information and resources in times of emergency. Individual Memoranda of Understanding (MoU) are in place between Energex and Ergon Energy Networks and other DNSP including Essential Energy, AUSGRID and Power and Water Corporation detailing arrangements to share resources for emergency events.

Discussions also occur as required with owners of privately owned distribution networks and assets.

7.5.3 Memorandum of Understanding

A MoU has been established between EQL, Powerlink and QFES to ensure appropriate arrangements and communication channels are in place in the event of a bushfire. This MoU will ensure network configuration and additional safety measures can be enacted.

A separate MoU has been established between EQL and QFES detailing opportunities to share critical data information and to improve situational awareness, planning and response to bushfires. This data sharing significantly improves EQL's capability and ability to responds and proactively manage impacts to the network.

7.5.4 Energy Networks Association

The Energy Networks Association has produced National Guidelines on Electrical Safety for Emergency Service Personnel (ENA 008-2006) to assist in increasing the awareness required. Energex or Ergon Energy Network employees provide advice for emergency service personnel attending fires in the vicinity of electricity infrastructure such as being aware of the hazards created by smoke and flames close to bare live conductors. Agencies such as the Queensland Parks and Wildlife Service have also developed their own procedures for employees working around electrical assets during hazard reduction and firefighting activities, based on the ENA guideline.

7.6 Private Asset Ownership

The owners of private overhead electric lines and poles are obliged to maintain them in a safe condition. Poorly maintained private lines and poles have the potential to start bushfires. The owners of private overhead electric lines are responsible for keeping their asset free from obstruction of vegetation and should ensure that trees planted in the vicinity of powerlines are appropriate low growing species.

Energex and Ergon Energy Networks have initiated a program where Energex or Ergon Energy Network (as the case may be) will periodically undertake an inspection of the point of attachment pole. Following inspection of the private infrastructure, the property owner is responsible for rectification of any identified defects.

Further information including responsibilities, safety and maintenance advice on privately owned electric lines can be sourced at the external Energex, Ergon Energy Network and the Electrical Safety Office websites .

7.7 Community Safety Awareness and Media Engagement

In the lead up to the fire season, Energex and Ergon Energy Networks conduct a program of public awareness campaigns outlining bushfire mitigation measures. This is enhanced through online media, traditional media and other forms of mass media.

Electrical Safety information is available on both the Energex and Ergon external websites to raise public awareness of electrical hazards, our approach to safety and potential hazards, and provide precautions to avoid electricity incidents. This information can also be accessed via the Lookupandlive App which has downloadable plans of the Ergon and Energex electrical asset overlay across customer properties.

The Network Operational Control Centres and or Contact Centre are the central points for receiving reports of incidents or faults and the dissemination of information to the responsible regions.

8 EMERGENCY MANAGEMENT PROCEDURES

8.1 Emergency Response During a Bushfire

8.1.1 Safety

The safety of personnel and the community is paramount. Energex and Ergon Energy Networks have health and safety systems and processes in place to support the health and safety of employees when working around fire areas. Our teams seek advice and direction from Emergency Services personnel before moving into an area subject to a current fire or immediately following a fire.

8.1.2 Process

Energex and Ergon Energy Networks will initially respond to various levels of incidents, including bushfires that affect its operations, through a standard fault response escalation framework. This initial assessment of damage will determine whether the response is managed operationally or escalated to a Level 2 or Level 3 Emergency Management process.

8.1.3 Emergency Management Plan

The Emergency Management Plan - Distribution Network (EMP) details the framework and processes to be applied by Energex and Ergon Energy Networks when preparing for and responding to an emergency event which disrupts or has the potential to disrupt the supply and distribution of electricity or the provision of related services to customers and communities. The EMP details additional information to assist in a large-scale response to a significant bushfire.

The response is managed within an escalation process that increases resource capabilities and coordination, drawing across regions as required to meet the requirements in the impacted area.

8.2 Additional Operational Considerations

Additional operational considerations will be discussed in response to deteriorating weather conditions or the Fire Danger Index increasing into the range of Severe to Catastrophic. There are three levels of fire activity that may trigger the additional considerations:

- **High Fire Danger Periods (Regional/Area) or Heatwave**. These conditions are monitored by regional and local operational employees using publicly available weather information. The BOM will issue Fire Weather Warnings.
- **Rural Fire Service declaration of Local Fire Ban or State of Fire Emergency**. The Rural Fire Service (RFS) has an automatic email notification process for fire ban declarations, posted out when a decision is made to invoke a total ban on the lighting of fires in the open.

  The RFS may contact key Energex and Ergon Energy Networks employees. For local fire bans this can be part of or an entire local government area. For a state of fire emergency this can be part of the state or the whole of Queensland.

- **Fire Outbreaks.** This may require isolated network shutdowns to ensure public safety during the fire, safe damage assessment after the fire has passed or arrangements made to carry out urgent repairs.

8.2.1 Restrictions

A communications advice will be distributed to Operational Managers during a High Fire Danger period, a Local Fire Ban or State of Fire Emergency declaration or to advise of any restrictions to process and practices that must be adopted during the gazetted fire danger period. The communications notice may also outline precautions to take while performing field work activities deemed to have high potential to start fires.

8.2.2 Network Protection Settings

Energex and Ergon Energy Networks have automated fault protection systems installed to minimise the effects of different types of faults. The protection systems are designed to isolate electricity supply when the network is damaged and potentially unsafe.

The “sensitive earth fault protection” is set to operate when very low levels of fault current are identified as a result of minor contact with conductors such as tree branches or debris. Hence sensitive earth protection helps to reduce the risk of fires being initiated from vegetation or line defects.

In addition, reclosing devices have been installed in many areas and are designed to automatically isolate supply temporarily in the event of a minor fault, and then where enabled, attempt to automatically restore supply a short period later. If the fault is persistent, supply is totally isolated (lock-out) until the line can be inspected by field employees and if necessary, repairs carried out. The recloser can then be re-set and power restored.

However, all wires, both in the air and on the ground, should be assumed to be energised unless confirmed as safe, and under direct supervision of Energex or Ergon Energy Network employees.

8.2.3 Network Recloser Settings

During periods when weather conditions justify total fire bans there is potential for ignition if the recloser is automatically reclosed and supply is restored to an existing fault.

To minimise this risk, so far as is reasonably practicable, the automatic reclose function can be disabled on lines in areas determined to be of a high bushfire hazard during total fire bans, State of Fire Emergency declaration or Extreme to Catastrophic Fire Danger.

As most faults on high voltage overhead powerlines are temporary (usually attributable lightning strikes or vegetation) supply is restored automatically (reclosed) after a few second’s delay.

Generally, Energex and Ergon Energy Networks do not suppress automatic reclose functionality on its feeders unless specifically requested by QFES during high-risk conditions. This approach considers the adverse impacts of loss of electricity supply will have on equipment such as water

pump motors to assist in fire control activities, the need for electricity to power vital telecommunications facilities in managing fire response activities and the health impacts of the loss of air-conditioning for at risk customers (life support or the elderly).

8.2.4 Confirming Critical Infrastructure

There are a number of locations throughout the network where continual electricity supply is considered critical to the health and wellbeing of the general community. These installations include hospitals, life support systems, water supply pumping stations, sewerage pumping stations and communications infrastructure.

Energex and Ergon Energy Networks representatives work collaboratively with local councils and customers to ensure that these locations are known, prioritised and where possible incorporated into restoration plans.

8.2.5 Emergency Restoration and Isolation

During a bushfire event, Energex or Ergon Energy Network may be requested to isolate sections of the network in the immediate area of the fire. These requests are received from appropriately authorised Officers of the QFES. There may be instances when sections of the network will be isolated in the interests of public safety and protection of its equipment and private property.

During bushfire events or on days where total fire bans have been declared, Energex and Ergon Energy Networks will, where practical and within the best interests of the community, conduct a patrol of any isolated overhead mains in high bushfire risk areas before re-energising this equipment. This practice is to ensure that lines have not sustained damage from the bushfires, all faults have been repaired and the network is safe to re-energise.

On completion of the patrol, clearance will be given by the field team who completed the patrol to allow the line to be re-energised once any identified faults have been addressed.

8.3 Field Work Practices

8.3.1 Work Practices

The response to fires on Energex or Ergon Energy Network assets is governed by the requirements of the Health, Safety and Environment (HSE) Integrated Management System.

Safe work practices for the response and restoration of the network during high bushfire danger period and total fire bans remain consistent with business-as-usual practice.

8.3.2 Fatigue and Heat stress

The safety and wellbeing of our response teams are critical considerations in bushfire responses. Fatigue management and heat stress management are regularly reinforced during responses and consider the effect of extreme heat and smoke, regular hydration, rotation of tasks, personal and protective equipment and additional rest.

8.3.3 Motor Vehicle / Machinery Use

Operating vehicles and trucks in off-road environments are a potential fuel hazard due to the high operating temperatures, auto burn functions or catalytic converters igniting dry grass fuel.

Specific advice is given to field employees on the use of light patrol vehicles, medium and heavy trucks used for construction activities and the operation of earth moving machinery in rock terrain.

Employees are instructed to conduct a formal hazard assessment, including relating to starting fires before operating vehicles off formed roads.

8.3.4 Small Engines and Hot Equipment

In areas where there is a high fire risk or there are work activities with potential to start fires with equipment such as generators, chainsaws, brush cutters, metal cutting or welding, precautions must be taken to isolate fuel from the possible ignition source.

The potential for “hot work” and other activities to ignite fires, particularly during a Local Fire Ban or State of Fire Emergency periods is to be considered in risk assessments conducted as part of a formal risk assessment.

During State of Fire Emergency declarations certain activities such as hot work and other activities may be prohibited or restricted. These restrictions will be listed in the declaration.

8.3.5 Copper Chrome Arsenate (CCA) Burnt Poles

Energex and Ergon Energy Networks have processes that outline the requirement for inspection and management of fire damaged or burning copper chrome arsenate (CCA) burnt poles.

9 INVESTIGATIONS AND REPORTING

Any damage to the network due to the impact of bushfire is to be reported and recorded for later analysis of cause and effect, and inclusion where appropriate into network planning, risk mitigation and vegetation management cycles.

Energex and Ergon Energy Networks will undertake investigations and report on the status of the following areas:

- Monitoring and rectification of high priority defects on owned assets identified
- Investigations into suspected asset related bushfires
- Details of the maintenance, reliability and safety aspects of the electricity network are also reported in the Distribution Annual Planning Report (DAPR).

The reporting or recording of incidents of fire starts that have been caused directly or indirectly by Energex or Ergon Energy Network assets is included in corporate digital systems. This includes incidents associated with equipment failure, vegetation, animals, lightning or third-party contact.

EQL maintains two interactive reports; Asset Fire Map and Dashboard and the Bushfire Risk Dashboard where this data can be interrogated.

This information is analysed to determine trends and investigate specific causes where equipment failure is possible. Analysis of equipment types with potential to cause fires will enable development of strategies for replacement or redesign to minimise asset-initiated fires.

Further analysis of the location of rural fires that cause damage to Energex and Ergon Energy Networks assets assists in the selection of preventive measures, such as modified vegetation management or use of fire-resistant materials in these areas.

Consideration of incident investigations and findings as well as any feedback received from stakeholders will be integrated into future reviews of the Bushfire Risk Management Plan.