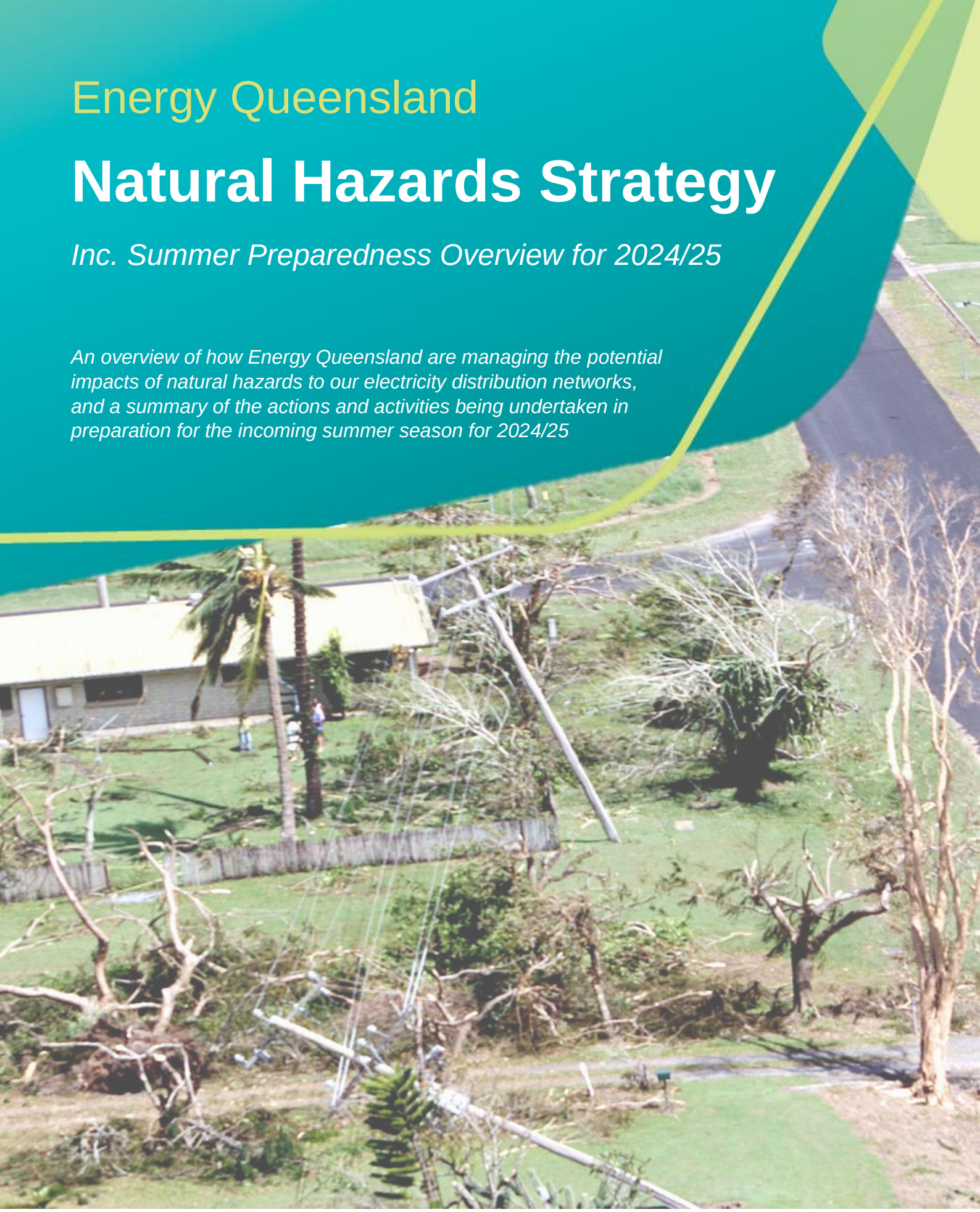
Energy Queensland

Natural Hazards Strategy

Inc. Summer Preparedness Overview for 2024/25

An overview of how Energy Queensland are managing the potential impacts of natural hazards to our electricity distribution networks, and a summary of the actions and activities being undertaken in preparation for the incoming summer season for 2024/25



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Availability of the Natural Hazard Strategy document

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

Version	Date	Description
1.0	October 2024	Annual review and update

Executive Summary

Each year Ergon Energy Network and Energex, as part of Energy Queensland Limited (EQL), undertake diligent preparation and planning activities to ensure we are prepared for the potential impact of the numerous natural hazards that occur in Queensland each year.

As the climate, our environment, and our customer needs change, we are presented with a myriad of challenges. To minimise impact to our customers and communities we need to ensure our organisation and network is resilient, able to withstand the impact of natural hazards, and our response capability is efficient and effective.

This Natural Hazards Strategy document has been developed on behalf of both Ergon Energy Network and Energex. It details our planning and preparation activities critical to providing Queensland with a reliable network where disruptions are minimised during natural hazard events. When disruptions do occur, we will ensure we respond as quickly as possible to restore supply safely and maintain our vision to Energise Queensland Communities.

This document supersedes the Natural Hazards Strategy and Energy Queensland's Summer Preparedness Plans from previous years. It acknowledges the changing climate, and an expanded view of natural hazards and the additional preparation, planning and response now required outside the typical summer period. An overview of our Summer Preparedness actions and activities for the 2024-25 season is in Attachment A of this document.

It has been developed to assist both internal and external stakeholders to understand the arrangements in place.

PETER SCOTT

Chief Executive Officer

PAUL JORDON

Chief Operating Officer

JASON HALL

A/ Chief Engineer

Contents

Section 1 – Introduction

1.1. Purpose

Our climate is changing and presenting numerous challenges for us and our communities. The traditional focus on the summer storm season has shifted, and natural hazard emergency events are occurring with increased frequency and severity across a larger portion of the calendar year.

As the primary distribution network service providers for all of Queensland, Ergon Energy Network and Energex are responsible for maintaining the delivery of electricity to Queensland communities in all climates and changing environmental conditions.

This Natural Hazards Strategy has been developed on behalf of both Ergon Energy Network and Energex to address the risks natural hazards present to our infrastructure to ensure we are ready to respond and support the community in a safe and timely manner, so far as is reasonably practical. When disruptions do occur, we are prepared to respond as quickly as possible to restore supply safely and maintain our vision to Energise Queensland Communities.

1.2. Scope

This document includes the strategic approach to the management of natural hazard risks and events that impact our Ergon Energy and Energex distribution networks.

This document does not include the operational details associated with the risk management arrangements. This sensitive operational information is contained in Energy Queensland's risk management, emergency management and response, and business continuity plans.

1.3. Context

Climate Change

Our environment and climate are changing, and we are experiencing a shift in the seasons, severity of hazards and subsequent impacts of events on the electricity network.

The Bureau of Meteorology (BOM) has indicated the potential for a return to La Nina conditions over the coming season. La Nina conditions are associated with increased rainfall, a shift in temperature extremes, greater number of tropical cyclones, and an earlier onset of the monsoon season.

Like other disaster management groups and response agencies, Energy Queensland must reassess the applicability of these hazards on our operations and integrate into all aspects of Prevention, Preparedness, Response and Recovery.

Ergon Energy Network and Energex operate an extensive electrical distribution network covering an area of 1.7 million sq km of diverse terrain, climatic and ecological conditions across Queensland. The impact of climate change is expected to vary across different areas. EQL acknowledges and aligns with the Queensland Climate Adaptation Strategy 2017-2030.

EQL is progressing preparation actions required for mandatory climate-related financial disclosure obligations. EQL will commence reporting under this new legislation in 2026.

Our Networks

Ergon Energy Network and Energex operate in a vast area covering 1.7 million square kilometres. This consists of approximately 207,000 km of overhead and underground high voltage and low voltage distribution power lines and 1.7 million poles.

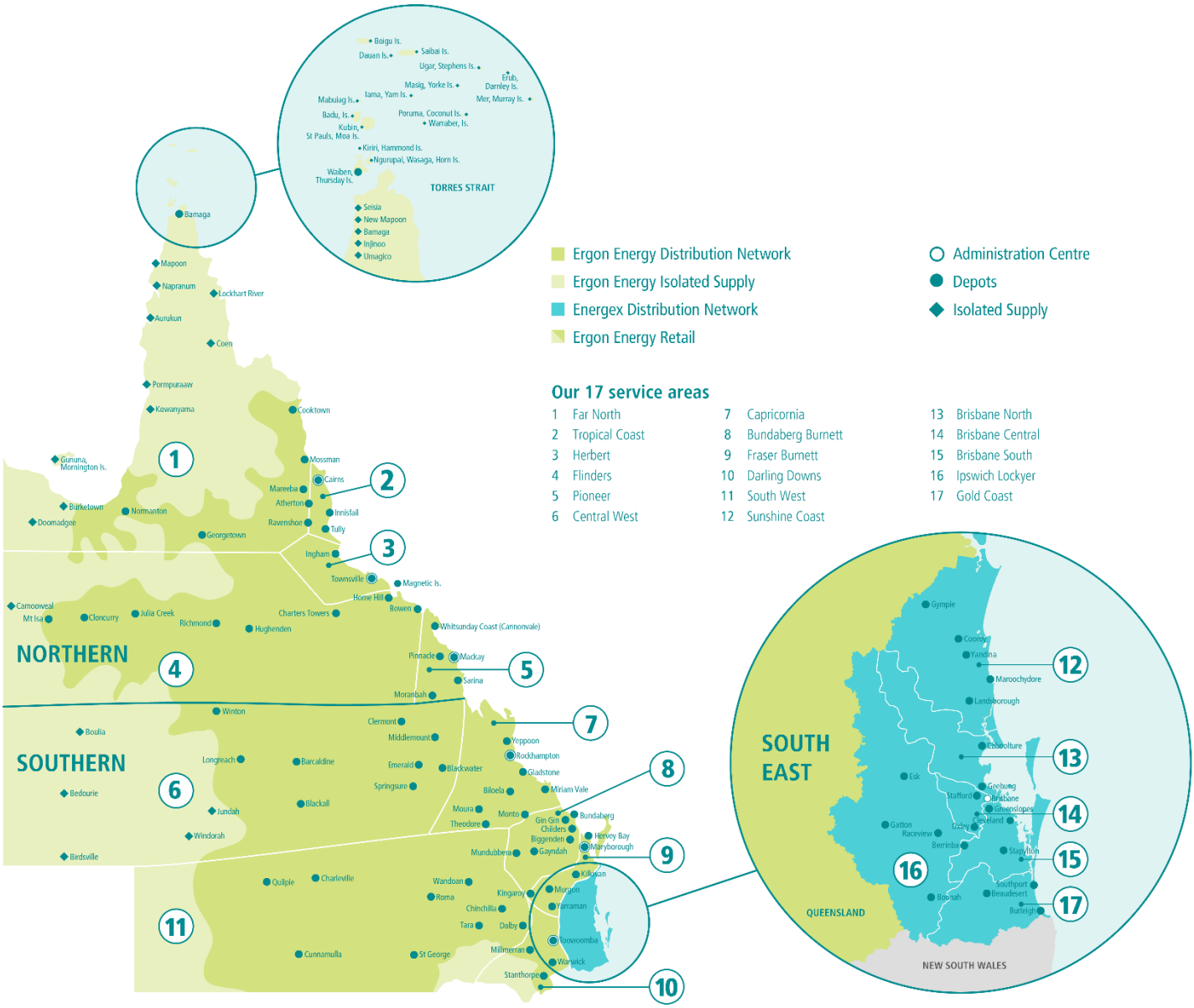
The high voltage network operates at a variety of voltages ranging from 220kV, 132kV, 110kV, 66kV, 33kV, 22kV, 19.1kV, 12.7kV, and 11kV. The low voltage network is reticulated at 400/230 Volts.

The network also includes 33 isolated power stations, 79 bulk supply substations and 509 zone substations (263 in Ergon and 246 in Energex).

Ergon Energy Network and Energex are responsible for the provision of electricity from the NSW and NT border up to the Torres Strait. It has 124 depots located across 17 operational areas to provide fault response and planning and maintenance activities for the electrical infrastructure.

For more information about our distribution networks visit www.energex.com.au or www.ergon.com.au

***Image** – Ergon Energy Network and Energex Operational Regions and Areas*



1.4. EQL Organisational Resilience Strategy

EQL's Organisational Resilience Strategy outlines our approach to the management of the threats and hazards that pose a risk to the continued operation of our critical business functions and the safe and reliable delivery of essential services to our customers, the community, businesses, and other critical infrastructure sectors. This includes natural hazards.

As the owner and operator of critical infrastructure, a key stakeholder in state and national resilience arrangements; and a Queensland Government owned corporation; Energy Queensland must ensure that there are suitable strategies, frameworks and plans in place to ensure the appropriate management of our risks and hazards. The intent of the Organisational Resilience Strategy is to guide Energy Queensland's ability to prepare for, anticipate, respond to, adapt, and evolve from short term disruptions and long-term disruptive events and changing environments. To ensure the continued operation of our critical business functions and the safe and reliable delivery of essential services to our customers, the community, businesses, and other critical infrastructure sectors, EQL's Organisational Resilience strategic approach aligns with the Queensland State Resilience and National Resilience Strategies and Plans.

1.5. Disaster Management Arrangements

EQL aligns its planning and preparation actions and activities with the Queensland Disaster Management Arrangements. Refer to Queensland State Disaster Management Plan 2023 for further details.

Image: *The Disaster Management Activities Calendar Figure 2.2*

1.6. Security of Critical Infrastructure (SoCI) Act 2018

The SoCI Act requires a responsible entity to have in place a specific risk and control management program to protect the ongoing availability of the critical infrastructure it operates. The SOCI Act identifies the requirement to identify and control multiple hazard streams which may present a threat to critical infrastructure. One identified stream is 'Natural Hazards'. This SoCI Act requirement presents an additional element of EQL's Natural Hazard planning.

Section 2 – Governance

2.1. Strategy and Framework

Energy Queensland has developed an Organisational Resilience Strategy that provides the strategic intent for Organisational Resilience at EQL. This Strategy outlines how various sub-strategies and frameworks are integrated across the organisation including this Natural Hazard Strategy and the Resilience Framework to guide EQL in the management of crisis, emergencies, and business disruptive events. This strategy and associated frameworks adopt an 'All Hazards Approach' to guide EQL in the Prevention, Preparedness, Response and Recovery (PPRR) for emergencies and business disruptions, including natural hazard events.

Energy Queensland has modelled its Resilience Framework on the Queensland Government's Emergency Risk Management Framework; and applies the principles of the Australasian Interservice Incident Management System (AIIMS) to align EQL's response to emergencies and business disruptive events with that employed by the emergency services and other response agencies and organisations.

2.2. Roles and Responsibilities

A dedicated organisational structure has been developed for oversight and emergency management teams. Charters and role statement handbooks outline each role and the associated responsibilities required for an emergency response.

2.3. Processes

Detailed guidelines, processes and checklists have been developed to assist roles during events.

2.4. Reviews and Updates

The EQL Natural Hazard Strategy and Summer Preparedness Overview will be reviewed annually to ensure currency and application of learnings from previous events and to identify improvement opportunities.

2.5. Reporting

A Summer Preparedness Working group operates to ensure our business divisions have conducted preparations throughout the year and in the lead up to the summer storm season. This assures a safe and

robust network, sound emergency response procedures and safety awareness to our employees and the broader community.

There are also hazard specific committees and technical advisory groups covering bushfire, flood, hot weather, space weather and pandemic hazards.

2.6. Continuous Improvement

To ensure EQL continues to maintain a current and effective emergency management framework to safely support the community, EQL conduct regular assurance checks of its framework, procedures, processes, and work practices.

EQL conducts hazard specific reviews to identify the risk and exposure to business continuity, its functions and assets and the potential effect on customers and the community.

Following the activation of escalated emergency response functions, debriefs are conducted to identify both success and improvement opportunities for application in future events.

Section 3 – Natural Hazard Profiles

3.1. Summary of Profiles

Queensland is vulnerable to a range of natural hazards including severe storms, tropical cyclones, bushfires, and heatwaves. The following table is a summary of the natural hazards that are addressed by this strategy, with a detailed description, including the potential impacts on its assets, capabilities, and arrangements included at **Attachment A – Natural Hazard Profiles.**

Hazard	Overview
Storms	Tropical Monsoon Lows, East Coast Lows, Supercells, Thunderstorms, Tornados, Pulse Storms, and Squall Lines. Exposed during summer season commencing in October in Southeast Queensland and November in regional Queensland, through to March.
Tropical Cyclone	Extreme winds, rains, flooding, and tidal surge. Cyclone season traditionally commences on 1 November through to 30 April each year.
Bushfire	Bushfires, wildfire, grass fires and seasonal mitigation burns. Fire season in Queensland commences in the Gulf Country and Cape York Peninsula during July and 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 part and for southwest Queensland.
Heatwave	Long period of very hot weather, usually ranging from 37°C to 42°C'. Calculated by The Bureau of Meteorology using the forecast maximum and minimum temperatures over the upcoming three days.
Tsunami	Significant increase in sea level and waves/tidal/surge resulting in inundation along coastal areas.

Hazard	Overview
Flood - Riverine and Coastal	Rainfall and run off in river systems, tidal changes or secondary from other weather-related events (e.g., cyclone). May have an immediate or delayed flood impact.
Earthquake	Significant ground movements and shifts. May trigger secondary events such as landslides, tsunamis and fires.
Landslide	Ground movement. May occur as a secondary hazard from either storms, cyclones, earthquakes, flooding, or infrastructure failure such as water main.
Pandemic	Pandemic or epidemic event, or outbreak of a communicable disease.
Space Weather	Release of magnetic energy from the Sun resulting in Solar Flare and Geomagnetic Storms which may cause changes in the earth's atmospheric conditions.

3.2. Alignment with State

Energy Queensland aligns its natural hazard risk management profiles with the Queensland Government to ensure a consistent approach; and utilises the Queensland Government risk assessments to understand the changing climate and challenges including (but not limited to):

- Queensland 2023 State Disaster Risk Report
- Queensland Prevention Preparedness Response and Recovery Disaster Management (PPRR DM) Guideline
- Queensland State Heatwave Risk Assessment 2019
- Queensland 2024 State Earthquake Risk Assessment
- 2024 Tsunami Guide for Queensland
- Severe Wind Hazard Assessment Queensland

As the seasons change, EQL adjusts its preparations and response plans as necessary to ensure readiness. The expansive distances of Queensland also mean that the exposure to the numerous hazards is different for each part of the state and therefore to the electricity network, depots, and customers.

Section 4 – Interagency Cooperation

4.1. Memorandums of Understanding

EQL currently maintains several Memoranda of Understanding (MoU) with other Distribution entities and supporting bodies to assist with its ability to prepare, plan for and respond to emergency events.

4.2. Distribution Network Service Providers

MoU's have been developed with other Distribution Network Service Providers (DNSP's) including Essential Energy, Endeavour Energy, Ausgrid and Power and Water Corporation outlining the key support principles and arrangements between the companies, including additional resources to assist with large scale responses.

As part of the annual preparation, a review of these MoU's is conducted. Arrangements are also in place for assistance from approved contractors and suppliers.

4.3. QLD Fire Department

An MoU has been established with the Queensland Fire Department (QFD) for data sharing including licensed data relating to all Hazards/Incident events, risks, and operational responses.

This data includes planning and operational data within the Queensland Emergency Management Risk Framework (QERMF) tool within the Queensland Disaster Management Arrangements (QDMA). The data layers from the QDMA sharing group are used by Ergon Energy Network and Energex for planning and operational purposes.

4.4. QFD and Powerlink

An MoU with the QFD and Powerlink (PLQ) includes protocols for joint response to extreme or catastrophic bushfire conditions. It outlines the approaches relating to bushfires, emergency contacts, and communication protocols for significant incidents and emergency events where the assets of the parties are impacted. During a significant network emergency, each emergency management team considers common issues and priorities to ensure the optimum state response.

4.5. Interagency Co-Operation

Ergon Energy Network and Energex have responsibilities under the Disaster Management Act (2003) to ensure adequate liaison occurs with emergency services. The

Queensland Disaster Management Arrangements (QDMA) outlines the various committees and governance across the State for stakeholders and inter-agency collaboration and co-operation.

EQL maintains representation on the following groups to ensure appropriate collaboration and interagency information sharing with emergency services. These committees are convened throughout the year (both during and outside emergency events):

- Queensland Disaster Management Committee (QDMC)
- State Disaster Co-Ordination Group (SDCG)
- District Disaster Management Group (DDMG)
- Local Disaster Management Groups (LDMG)
- State Bushfire Committee (SDC)
- Regional Bushfire Committee (RDC).

Field Operational Managers establish and maintain relationships with local emergency services leaders through disaster management groups and regular stakeholder interactions. These ensure the ability to work co-operatively during emergencies as well as support community resilience and continuity.

The Ergon Energy Network and Energex Operational Control Centres maintain protocols for direct contact with QFD FIRECOM ensuring rapid response to incidents.

Section 5 – Resilience Approach (Planning, Preparation, Response and Recovery)

5.1. Prevention

Risk Frameworks

Natural hazard risks are managed in accordance with the Energy Queensland Risk Management Policy and Framework. The Risk Management Process aligns with the internationally recognised Standard AS/NZ ISO 31000:2018 Risk Management – Principles and 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 risks to the network.

Regulatory Frameworks

EQL complies with the relevant industry legislation and codes of practices that pertain to the management of the identified natural hazards and risks. The most recent piece of legislation applied is the Security of Critical Infrastructure Act 2018, The Security Legislation Amendment (Critical Infrastructure Protection) Act 2022 that requires Energy Queensland to have appropriate plans in place to mitigate the risks of natural hazards to our distribution networks as far as reasonably practicable to do so.

Mitigation and Resilience Activities

With a large overhead electricity network traversing long distances through densely vegetated areas in rural Queensland, there is a high exposure to the elements, and severe weather events can have a significant impact on supply reliability. To minimise these impacts, we have identified and implemented critical maintenance activities, including a vegetation management and cyclical maintenance program. Energex and Ergon Energy Network also employ an extensive asset refurbishment, replacement, and augmentation program to provide a resilient and safe network.

EQL has a range of measures in place to protect its depots and offices that may be impacted by these natural hazards as they support the network response effort of our teams in the field.

Inspection and Maintenance Programs

Assets

Ergon Energy Network and Energex operate an ongoing asset inspection and maintenance program on the network which complies with The Electrical Safety Act and the Electrical Safety Code of Practice – Works.

These inspections include:

- Routine inspections of substation equipment
- Routine ground-based inspections of overhead lines and poles
- Aerial inspection of critical feeders and feeder sections considered to be at risk of damage resulting from severe weather events or a risk of initiating a bushfire event
- Periodic Light Detection and Ranging (LiDAR) inspections of feeders to identify vegetation and conductor clearance issues.

Issues identified through routine inspections are prioritised for rectification. Corrective maintenance activities include:

- Lines defect remediation for the repair and remediation of defects identified through asset inspection, such as cross-arms
- Programs for condemned pole replacement
- Customer Service line replacement programs.

Vegetation

Ergon Energy Network and Energex actively seek to minimise the risk of vegetation encroachment around overhead assets using a cyclical maintenance program to ensure that adequate clearances are maintained and reactive treatment activities where encroachments are identified.

Privately Owned Assets

Ergon Energy Network, Energex and the Electrical Safety Office provide safety and maintenance advice on privately owned electric lines. The owners of Private Overhead Electric Lines and poles are obliged to maintain them in a safe condition. This includes keeping their assets free from obstruction of vegetation and ensuring that trees planted in the vicinity of powerlines are appropriate low growing species.

Poorly maintained private lines and poles have the potential to pose significant electrical risk or to start bushfires. Ergon Energy Network and Energex are not responsible for the condition or maintenance of privately owned Electric lines within Queensland but perform a visual inspection of Private Overhead Electric Lines and assessment of the first pole on the private property, advising the customer of defects noted. These notices are followed up and failure to rectify these defects in the required timeframe will result in disconnection of supply.

Ergon Energy Network and Energex are responsible for the inspection of private property poles in New South Wales that are connected to the Ergon Energy Network and Energex Network, in accordance with NSW Independent Pricing and Regulatory Tribunal (IPART) requirements. The private property poles inspected in NSW are assessed and the owners are advised of defects. These notices are followed up and failure to rectify these defects in the required timeframe will result in disconnection of supply.

Asset Design

Ergon Energy Network and Energex design our electrical network to maximise safety, reliability, security, resilience, performance, and shareholder value over the long term (commensurate with the life expectancy of network assets) whilst meeting community expectations for environmental impact and regulatory expectations, so far as is reasonably practical.

Standards have been developed to ensure optimum design, configuration, and construction quality across the network. All EQL's assets and other structures are designed to comply with relevant standards.

The design and construction of new power lines considers a range of potential hazards that the network may be impacted by such as bushfire and floods. For example:

- Identification of high bushfire risk areas using Geographic Information Systems assists better planning and reduces the risk to assets through improved route selection and placement
- 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.

Capital Investment Programs

We are required to ensure adequate system capacity and maintain an acceptable customer service level under the respective Distribution Authority. Capital investment programs have been developed and implemented to achieve the outcomes end users of electricity seek regarding the safety, quality, and reliability of electricity services. The capital investment programs are based on the following five key criteria:

- Safety Net Targets for restoration of supply following a contingency event
- Minimum Service Standards (MSS) that set a level of required reliability
- Feeder improvement programs to improve reliability on constrained 11kV feeders
- Regulatory requirements as per the National Electricity Rules (NER)
- Asset refurbishment programs aimed at achieving the optimal service life from assets.

Examples of the range of initiatives undertaken by Ergon Energy Network and Energex include, but are not limited to:

- Line refurbishment programs such as the replacement of aged (or corroded) conductor, and installation of insulated/covered conductors
- Line Recloser upgrades to improve supervision and control of protection equipment on the overhead network.

These programs help to improve safety, resilience, and reliability across the entire network.

5.2. Preparedness

Preparedness activities occur all year round, however specific focus commences annually in May and continues throughout the year to prepare for the commencement of the bushfire season (typically August) and into the summer storm season (October) and cyclone season (November). These activities include planning, contact information and documentation updates, training in the Emergency and Business Disruption framework, familiarisation of emergency management plans, conducting emergency response exercises, emergency response refresher training for all field personnel, and providing online training to all EQL Group employees involved in emergency management.

Preparing the Network

The specific activities undertaken to prepare the network and improve resilience against natural hazards include network capacity and security improvement programs, safety net requirements, plant emergency rating information, strategic spare components, peak load monitoring, temporary load support, demand management and inspection programs. Contingency plans are developed to ensure security and encompass several aspects:

- Network contingency and load transfer plans to cater for single contingencies
- Strategies for spares and replacement of major plant such as power transformers
- Critical spares and storm stock quarantined for emergency response to events such as severe storms and cyclones
- Availability of mobile generators for deployment to provide an emergency supply in situations where practicable
- Availability of two 33/11kV mobile substations in the Southeast, one 10MVA 66/33/22/11kV mobile substation (NOMAD) in the Southern region and two NOMADs in the Northern region for deployment to provide an emergency supply where practicable noting that they can be moved across regions
- Application of available demand management options.

Contingency Plans

System Normal

Each year, the entire network is reviewed to ensure that all substations and feeders can supply forecast peak load under system normal conditions. A process has been implemented to monitor loads during the summer peak period so that as hot weather develops, emerging “hot spots” where demand growth may have exceeded the previous annual forecasts are identified. In these cases, corrective action to avoid an overload is taken well before a capacity constraint occurs.

Safety Net

Network contingency plans detail the load transfer and load management options available to restore supply following a single contingency event affecting bulk supply substations, zone substations and sub-transmission feeders. In cases where existing capacity or load transfer capability is not sufficient to enable supply to be restored following a single contingency, more comprehensive plans are developed depending on the tolerability of the risk level identified.

Restoration targets are defined in Schedule 4 of Ergon Energy’s Distribution Authority and Schedule 3 of Energex’s Distribution Authority “to the extent reasonably practicable”.

Under Frequency Load Shedding

Natural hazards pose a significant risk to our network. Under Frequency Load Shedding (UFLS) is an automatic load shedding process that happens almost instantaneously to protect the power system if there is a major unplanned outage in the National Electricity Market caused by events such as natural hazards. For example, a sudden failure of a major generator or transmission line that may cause a reduction in system frequency and potential instability.

To prevent this, the electricity grid is equipped with Under Frequency Relays. The relays and this automatic load shedding process is developed to minimise impact on critical loads.

Each event which initiates load shedding is quite different and the amount and type of load shed depends on system loading (day of the week, the time of day and season) and available generation. Similarly, the time required to restore electricity supply after UFLS is also variable.

Demand Management

Ergon Energy Network and Energex have a Demand Management (DM) Program, which involves working with our customers and industry partners to reduce demand to maintain system reliability in the short term and over the longer term to defer capital projects. Each year load at risk areas on the network are identified through the Distribution Annual Planning Report (DAPR).

These areas are analysed for suitability for DM solutions. Where deemed suitable, Target Areas are established, and incentives offered to customers for DM solutions. Contracts are established with customers to provide permanent or point in time (e.g., at certain times in summer) load reduction. DM solutions can include energy efficiency, power factor correction, load curtailment, load shifting and customer embedded generation. Details of Target area locations and constraint are found on the Ergon Energy Network and Energex websites.

A number of non-network alternative generation contracts exist which provide network support, if needed, over higher risk periods. Broad based DM is also incentivised across the State. It delivers demand reductions across the whole network, rather than just in a local load at risk area. These demand reductions are achieved from appliances connected to control load and Peak Smart air conditioners, which can be called upon during emergency or extreme peak demand summer events.

The 2024/25 Demand Management Plan[1] highlights the DM capability that can be called upon during times of peak network demand or as part of emergency response. This capability is called upon to minimise interruptions from extreme weather conditions. This same capability can also be called upon to provide network demand response to the Australian Energy Market Operator (AEMO) i.e., lack of reserve events.

Critical Community Assets

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.

Ergon Energy Network and Energex representatives work collaboratively with local councils, other agencies, and customers to ensure that these locations are known, prioritised, and incorporated into restoration plans. Listings of these installations are integrated into our disaster management plans, network control centre restoration plans and our geospatial information system. Restoration of supply to these locations is considered for inclusion as a higher priority where possible during emergency events to ensure essential services are provided to the community as soon as safely possible.

Emergency Mobile Generation

Mobile standby generators are used to provide tactical emergency response to selected sub-transmission and distribution network faults that cannot be rectified by switching or immediate fault restoration. This assists in restoration of supply in a manner that minimises customer disruption and supports community resilience. The fleet of mobile generators also provide flexibility for feeder support during extreme temperature/load events where existing network assets need to be supplemented.

These generators may also be pre-emptively deployed to locations likely to be isolated during significant flooding or storm damage.

In addition to our own generation equipment, EQL has arrangements in place to hire low voltage generators to ensure adequate generators for unplanned and planned feeder support.

Where flooding has potential to interrupt supply to critical sites or groups of customers, generators may be mobilised on a priority basis as approved by Emergency Managers (including advice from Disaster Management Groups). Where there is a major flood and access to communities is likely to be inaccessible, generators will be considered for strategic early deployment.

[1] Ergon Demand Management Plan 2024-5

Seasonal Outlooks and Forecasts

EQL source updated information relating to long term seasonal outlooks and predictions of natural hazards from various sources including BOM, Natural Hazards Research Australia, and the National Council for Fire and Emergency Services (formerly the Australasian Fire and Emergency Service Authorities Council or AFAC).

Access to this type of information enables us to make informed decisions on the potential impact of the threat and prepare the necessary organisational response.

Annual pre-season briefings are also provided to key response and operational teams to assist in understanding the driving factors and potential impacts of the impending season.

Training and Exercises

A suite of emergency training and exercise activities is conducted annually to ensure employees and response teams undertake refreshers and understand their roles and responsibilities.

Hazard specific communications and awareness sessions are conducted for field employees including appropriate work practices and vehicle use during natural hazard conditions.

Preparing Customers

Both Ergon Energy Network and Energex use targeted awareness campaigns to educate customers about how to prepare for storm and cyclone season, and how to be safe around fallen powerlines. The 'Safe Actions' media campaign is used across both Ergon Energy Network and Energex areas to promote important safety messages and educate customers about the dangers of fallen powerlines, how to prepare for storms and cyclones, and where to find outage information and updates.

Safety advertising is placed across a wide variety of channels including television (including catch up TV), digital (radio, YouTube, online websites), press, social media, and outdoor billboard advertising. The messaging helps reinforce awareness of the dangers of fallen powerlines during storms, staying clear of fallen powerlines and contacting emergency services, Energex, or Ergon Energy Network to report the danger. Our Safety Heroes education program in primary schools is a key component of readiness activities and electrical safety awareness.

The primary communication channels with our customers include direct contact via our National Contact Centres (including interactive voice recording (IVR) messages), traditional media (print, radio, and television), online (Ergon Energy Network and Energex websites, including Outage Finder tools) and social media (Facebook and Twitter).

We also utilise State Government media channels, via the Crisis Communication Network, and through the partnership of Queensland Government Departments and Agencies.

5.3. Response

Intelligence Systems

Internal

Ergon Energy Network and Energex use Geographical Information Systems (GIS) which utilise corporate data and enable the retrieval of relevant information about our electricity assets. This includes the physical location, layout of the assets, specification of equipment and the types and lengths of overhead lines and underground network. The GIS system also includes visual layers that provides the high bushfire risk areas in Southeast Queensland, Regional Queensland and current QFD known fires, amongst other natural hazard information.

External

There are a variety of online resources, web links and interactive mapping available from external agencies and organisations. Where possible these have been integrated into our GIS platform or links made available through a centralised internal Emergency Information Centre. Resources include:

- Weather forecasting through the Bureau of Meteorology
- Storm surge and inundation information collected during previous flooding events across Queensland depot areas. This is recorded in the internal systems and flood plans
- Bushfire real time and forecast mapping to assist in fire response
- Critical community asset locations.

Weather Forecasting

EQL engage the Bureau of Meteorology and specialist weather forecasting services to assist in short term preparation for severe weather events and natural hazards.

Hazard Specific Alerts

Key response employees are registered to receive information through the hazard specific alert systems and warnings including storms, cyclones, bushfire, tsunami, and space weather.

Emergency Response Levels

Ergon Energy Network and Energex will respond to various levels of incidents through a standard fault response and emergency escalation framework. An initial assessment of potential or actual damage will determine whether the response is managed using local arrangements or escalated to a Level 2 or Level 3 Emergency Management structure.

- **Level 1 Event** – response utilises local resources, routine business structures and processes without the need to escalate to a full emergency framework or additional command and control structures.
- **Level 2 Event** – requires escalation and support from an emergency management structure, framework, and processes relevant and scalable for the nature and location of the event.
- **Level 3 Emergency** – event may severely disrupt the supply and distribution of electricity or the provision of related services to customers and communities. The Emergency Management Plan (EMP) Distribution Network details the framework and processes to be applied. For predicted Level 3 events with lead times or advance warning, the business will advise of its response status utilising phases aligned with Queensland Disaster Management Arrangements (Alert, Lean Forward, Stand Up and Stand Down).

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

Priority Assets and Restoration Approach

The main priorities immediately following the impact of an event is safety of employees and the community, identifying the number of customers affected, extent of damage, types of customers and availability of response teams. This information allows review and refinement of resourcing and restoration strategies and plans. Making the network safe for staff and the public occurs before restoration activities commence.

Isolation for Safety

During major storms, flood events, bushfire events or on days where a Total Fire Ban has been declared, Ergon Energy Network or Energex may be directed or be requested to isolate sections of the network in the immediate area of the event. These requests may be received from appropriately authorised Officers of Qld Police Service (QPS) or QFD. There may be instances where Ergon Energy Network and Energex may proactively isolate during forecast flood and fire events in the interests of public safety and protection of its equipment and private property.

Our customer teams have identified critical and Life Support Customers who will be contacted, where available, prior to any pre-emptive isolation. Memorandums of Understanding (MOUs) have also been developed with critical infrastructure agencies to ensure communication, disconnection and reconnection protocols are in place.

5.4. Recovery

Recovery is the coordinated process to permanently restore operational capability, the network infrastructure or electricity supply to the community. This is usually conducted in parallel with the emergency response and these activities may occur in the Stand Up and Stand Down stages. Follow on recovery activities can also be triggered when further permanent works have been identified to be completed after the emergency event during planned programs of work.

Emergency and disaster recovery requires a collaborative, coordinated, adaptable and scalable approach in which responsibility for delivery is shared between all sectors of the community and all levels of government. Ergon Energy Network and Energex play a key role in both immediate recovery activities, as well as working with government agencies on infrastructure resilience, business continuity, reliability and community and customer support.

5.5. Community Engagement

For more than 20 years, both Ergon Energy Network and Energex have built strong brand recognition as the public face of the electricity network to our customers and the primary information broker for electricity supply outage and restoration information. We have a strong and proven reputation of providing effective, timely, and accurate information during significant disruption events such as cyclones, floods, storms, bushfires, and peak demand (heatwave) events.

The media and community engagement teams deliver timely, accurate and targeted communications to internal and external stakeholders before, during, and after an emergency response.

We utilise our local and state-wide media and community stakeholder relationships to keep the important storm season messages ''top-of-mind'' throughout the storm season. Key messages are delivered through proactive and reactive media releases and targeted stakeholder engagement to raise community awareness of weather-related issues, such as cyclone preparation and electrical safety.

These communications focus on delivering key safety messages through awareness and advice on safe actions to take, direct customers to the online Outage Finder for updates, or to the National Contact Centre to report damage and faults.

Event Community Outreach

During significant events, our Community Outreach teams are mobilised within impacted communities to provide face-to-face customer engagement focusing on safety messages, restoration updates, the re-connection process (following inundation/structural damage), as well as referrals to Ergon Energy Retail for account services and assistance. We also engage and inform customers on social media and the online Outage Finder to provide relevant and timely updates.

These digital platforms have now become the more popular information and communication channels for customers.

Online Event Storm Centre

Our event-activated online Storm Centre directs customers visiting our websites to important information on preparations, what to do during major storms and cyclones, and the general process we follow to restore supply to our customers in impacted areas. During major events the site is updated regularly with the latest information regarding the response and restoration efforts.

Safety

The safety of personnel and the community is paramount. Ergon Energy Network and Energex employees will not put themselves at risk either prior, during or immediately following a natural hazard impact or emergency event. Our teams seek advice and direction from several intelligence sources including the Bureau of Meteorology, Department of Transport and Main Roads, Queensland Fire Department and Emergency Services personnel before moving into an area to respond.

The safety and wellbeing of our response teams are critical considerations in responding to natural hazards. Challenging conditions, risk of injury and infection, heat stress, dust and smoke, flood waters, use of personal protective equipment and minimising fatigue are considered and revised with response employees.

Community Safety Programs

Our commitment to safety is also demonstrated by our determination to highlight safety messages through a program of public awareness campaigns. Underpinned by a detailed analysis of incident data, the programs address known community electrical incident problem areas using awareness campaigns targeted at industry sectors or extreme risk activities.

Attachment A – Natural Hazard Profiles

1. Storms

While severe storms are predominantly seasonal, storms may occur at any time throughout the year. They can be unpredictable and occur with little warning to prepare.

The main exposure risk timeframe is the summer season commencing in October in Southeast Queensland and November in regional Queensland, through to March.

Storms hazards include:

- Thunderstorms
- Tornados
- Pulse Storms
- Squall Lines
- Supercells
- Tropical Monsoon Lows
- East Coast Lows.

Potential Impacts

EQL is exposed to and experiences storms of varying intensity across the state in all its depots and areas of responsibility.

The exposure of overhead assets and poles and wires to these storms may result in:

- Clashing conductors
- Catastrophic failure due to lightning strike
- Vegetation falling across wires, poles and/or assets
- Inundation of lower lying areas and assets.

While there are established and maintained clearance zones to minimise vegetation impacts on assets, the risk of vegetation falling into clearance zones is still present.

Storm Alerts and Warnings

EQL engages with weather service providers daily to receive weather forecasts and updates.

EQL also monitors the BOM storm warning system to ensure it receives current information relating to potential or actual storms. This includes weather radars, subscription to automated emails and alerts.

During the peak storm season, EQL participate in regular weather update meetings with BOM weather specialists.

2. Tropical Cyclone

The cyclone season traditionally commences on 1 November through to 30 April each year[2]. Queensland communities are vulnerable to cyclones throughout Far North Queensland (including islands in the Gulf and the Torres Strait), on the mainland in the Cape and along the east coast as far south as Central Queensland.

Potential Impacts

EQL network, depots and supported communities are exposed to tropical cyclones due to the extensive electricity network that is constructed as overhead poles and wires. In addition, the associated rainfall, storm surge and coastal inundation can also impact on the underground electricity network.

High winds, rain and flooding potentially causes damage to the electricity network including:

- Destabilising poles and overhead wires
- Damage from debris contacting the electricity network assets including vegetation and community infrastructure
- Movement of assets foundation due to movement and flooding.

Tropical Cyclone Outlooks

EQL utilises the tropical cyclone outlooks provided by the BOM each year as the official prediction of the upcoming cyclone season.

During the cyclone season, seven-day forecasts provided by the BOM are utilised to assist in planning and monitoring.

Tropical Cyclone Alerts and Warnings

[2] http://www.bom.gov.au/cyclone/tropical-cyclone-knowledge-centre/warnings/

When cyclones enter Australian waters, the BOM will issue a cyclone tracking map. Depending on the severity, and/or direction it may also issue cyclone warnings and advice to ensure preparations can be made. EQL monitor and subscribe to the BOM automated alerts and emails and during the cyclone season, and participate in regular weather update meetings with BOM weather specialists.

3. Bushfire

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 part and for southwest Queensland.

These timeframes can vary significantly from year to year due to fuel availability and condition, long term climate conditions and variations on short-term weather conditions in each area. Dependant on seasonal predictions and local weather forecasts, QFD may declare a fire danger period or declare local fire ban or state of fire emergency.

Potential Impact

Bushfires are an inherent part of the Queensland environment. The vastness of the land, community centres and the resulting electricity network increases the risk of potential impact to the network from planned burns, grass and vegetation fires, lightning fires, and other sources.

Damage to assets includes burnt or heat affected assets (poles, wires, and equipment), and subsequent restricted access to restore electricity supply.

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.

Bushfire Alerts and Warnings

Geographical spatial systems and publicly available mapping layers are made available to the emergency planning and response staff to identify high risk bushfire zones to assist in planning and mitigation strategies as well as response activities.

QFD provide an automated email system to communicate the declaration of fire bans or fire weather warnings during high bushfire danger conditions.

Ergon Energy Network and Energex's Local Area Managers are also registered to receive automated bushfire update emails, warnings, and alerts.

4. Heatwave

Queensland is exposed to varying climatic conditions including prolonged heat. As EQL has employees and assets across the state, heatwave is a major consideration in the summer months.

The Queensland 2023 State Disaster Risk Report indicates that Queensland is projected to become increasingly hotter, with increases in mean daily maximum and mean overnight maximum temperatures. Parts of Queensland are also expected to become significantly drier.

Queensland health define a heatwave as 'any long period of very hot weather, usually ranging from 37°C to 42°C' [3] and the Bureau of Meteorology calculate heatwaves using the forecast maximum and minimum temperatures over the upcoming three days[4].

Potential Impact

Heatwave conditions can have an impact for EQL on employees where there is an increased risk of heat-related illnesses, in particular for field bases employees.

Impacts on the electricity network can range from increased demand for electricity by customers and the direct heat onto the network assets (e.g., wires sagging and some equipment overheating).

Heatwave Protocols

[3] https://www.qld.gov.au/emergency/dealing-disasters/disaster-types/heatwave

[4] http://www.bom.gov.au/australia/heatwave/knowledge-centre/heatwave-service.shtml

EQL has procedures and protocols in place to monitor and manage both its employees and the electricity network during heatwave conditions.

Heatwave Alerts and Warnings

The Bureau of Meteorology maintains a Heatwave Knowledge Centre and during the summer season, activate a Heatwave Service to provide current assessments on heatwaves, including the lead up conditions and a detailed forecast with predictions.

Hot Weather Response Technical Committee

A Hot Weather Response Technical Committee may be convened to discuss any warnings and advice from the Bureau of Meteorology to gauge the potential impact on the electricity network and identify appropriate actions to implement proactively or in response to heatwave conditions.

Network Configuration

Strategies that are implemented range from returning network configuration to normal arrangements, minimising planned works on the electricity networks, strategic placement of mobile generation, operational management of network assets that are potentially at risk of exceeding designed limits, stockpiling adequate quantities of consumable items and ensuring sufficient response staff are available.

Safety

EQL has a Heat Stress Policy to assist in maintaining the safety of employees. EQL has Heat Stress Kits and deployed appropriate Field Workwear across the business to reduce the impacts of heat stress.

5. Flood – Riverine and Coastal

Many Queensland towns and cities are located within catchment areas, along major waterways, and the east coast areas.

Queensland has many climatic zones across the state and as such experiences a range of storms, tropical lows and cyclones which can cause flash flooding and rises in river and coastal levels.

Potential Impact

The increase in rainfall and run off from these systems may have an immediate or delayed flood impact on population centres or electrical assets. This may present unsafe conditions if assets remain energised when inundated and/or flood waters may inundate assets and cause failure, severe damage and corrosion to the electrical assets.

Flood Planning

Flood Planning data is collected to assist in the mitigation, planning and response to potential flood events. A consolidated mapping system utilising internal collated data relating to asset impact in previous events, and externally sourced information from government organisations assists to improve our knowledge, planning and response activities.

Flood Specific Mitigation

Planning and design consider potential installation of mitigation measures including permanent or temporary bunding, barriers around key substation equipment, sealing wall and floor penetrations in substation buildings to withstand a major flood event, raising ground pad mounted transformers on plinths, or the relocation of critical substation assets above flood levels.

Isolation for Safety

In some circumstances, supply may be required to be isolated to areas at risk of inundation. This may have subsequent impact on areas not inundated by flood waters but are supplied by the same system.

Liaison officers work with the Local and/or District Disaster Management Group to implement any proactive or reactive isolation required.

Flood Alerts and Warnings

Network Operations staff, regional operational staff, and our Emergency Planning and Response team monitor storm and flood events using information from various organisations including BOM, disaster management groups, local council hydrologists, water agencies and flood modelling experts.

6. Tsunami

The Queensland coastline is exposed to potential impact from Tsunamis which may cause an increase in sea levels, significant wave action, surge, and abnormal tides.

Potential Impact

The threat of tsunami may have a direct impact on the Ergon Energy Network and/or Energex electricity network due to our location along coastal areas due to inundation and/or cause severe damage and corrosion to the electrical assets from salt water. This may also present unsafe conditions if assets remain energised.

Tidal Inundation Mapping

Similar to coastal flood inundation, flood mapping and inundation data mapping is available to assist in any response to a tsunami threat.

The safety of our employees is the priority and providing advice to move to a safe place is a higher priority over assets and equipment.

Tsunami Alerts and Warnings

EQL uses The Joint Australian Tsunami Warning Centre (JATWC operated by the Bureau of Meteorology and Geoscience Australia) warnings for Tsunami threats with the following escalation levels[5]:

- No Threat
- Watch
- Marine Warning
- Land Warning
- Cancellation.

Proactive De-energisation

Where there is a risk of inundation to electrical assets and time permits, EQL may de-energise and isolate its assets for safety. If there is insufficient time to de-energise assets, automatic safety protections devices installed will operate.

7. Earthquake

Earthquakes and tremors may cause significant movement of the earth resulting in significant property or infrastructure damage. Earthquakes can trigger secondary events such as landslides, tsunamis and fires caused by downed power lines and ruptured gas mains.

Potential Impacts

Direct damage to the electricity network from the earth's movement may include but is not limited to:

- Damaged wire conductors due to clashing as a result of pole movement
- Fallen powerlines due to disturbed foundations
- Twisted/snapped power poles (metal and wood)
- Ruptured underground electricity cables
- Undue pressure on underground cables and connections
- Damage to electricity substations – e.g. buildings and equipment structures or foundations and fixed electrical switching equipment.

8. Landslide

The Queensland Government defines a landslide as the movement of large amounts of earth, rock, sand or mud, or any combination of these. Landslides can be sudden and fast moving, moving millions of tons of debris[6]

Landslide may occur as a secondary hazard from either storms, cyclones, earthquakes, flooding, or infrastructure failure such as water mains. The damage is therefore normally more isolated to the landslide area rather than widespread damage.

Potential Impacts

Landslides and the movement of the earth may impact both overhead and underground assets as the Ergon Energy Network and Energex network traverse hills and mountains, follows escarpments and also follows low

[5] http://www.bom.gov.au/tsunami/

[6] https://www.getready.qld.gov.au/understand-your-risk/types-natural-disasters/landslide

areas along rivers and creeks, roads, drainage systems and beach fronts.

9. Pandemic

The term 'pandemic' is used generically to describe an event classified by Queensland Health including an epidemic or the outbreak of a communicable disease.

Potential Impacts

A pandemic or epidemic event, or outbreak of a communicable disease may impact individual or larger groups of EQL employees and prevent their ability to work in nominated roles. These include critical roles and capabilities to support the network.

Planning

EQL has developed a Pandemic, Epidemic or Outbreak Event Plan for the management of a pandemic.

The purpose of the plan is to outline the strategic and tactical arrangements, activities and actions required when managing an actual or potential pandemic or epidemic event, or outbreak of a communicable disease that impacts EQL.

It can be used for the management of any contagious disease that has caused (or has the potential to cause) harm to EQL employees and/or our ability to continue our critical business function.

The objectives of this plan are to:

- Provide a practical, scalable and risk -based approach to the management of a pandemic event
- Establish command, control, and coordination arrangements
- Clarify roles and responsibilities of EQL, including relationships with State and National arrangements
- Describe the context within which the Australian and State Governments and EQL will function during an event
- Describe the mechanisms through which a pandemic, epidemic, or communicable disease incident of national interest (CDNI) is declared, how this plan will be escalated and stood down
- Describe the preparedness and response measures that may be taken by EQL and/or State and National Departments in anticipation of or during an event.

EQL also maintains specific protocols to respond to pandemics and ensure the safety of employees.

Pandemic Alerts and Warnings

EQL monitors National and State Government Health Department sites and has subscriptions for alerts, restrictions and guidelines relating to pandemics.

10.Space Weather

Space Weather relates to changes that may occur between Earth and the Sun in the space environment. Natural occurrences and changes in the Sun cause solar anomalies generating solar winds that are directed towards the Earth. The Earth's atmosphere in many cases deflects these solar winds, however if significant enough, the release of magnetic energy from the Sun (solar flare) may cause changes in the Earth's atmospheric conditions. This burst of magnetic energy may affect the various technological systems.

Potential Impacts

The Ergon Energy Network and Energex electricity networks are vulnerable to geomagnetic storms which can occur at any time.

The effects are assessed by levels and vary from minor (weak power grid fluctuations can occur) to extreme (where widespread voltage control problems and protective system problems can occur, and/or some grid systems may experience complete collapse or blackouts).

Transformers may experience damage, HF (high frequency) radio propagation may be impossible in many areas for one to two days, satellite navigation may be degraded for days, low-frequency radio navigation can be out for hours.

Additionally, loss of satellite communications may impact on the ability for both planning and field teams to communicate.

Space Weather Alerts and Warnings

The Bureau of Meteorology provide space weather forecasts and warnings for HF Radio, satellite and geophysical operations including potential dates times

and severity[7]. EQL monitors and subscribes to both automated alerts and warnings and receives regular space weather updates.

Space Weather Technical Committee

Where required and depending on the severity and potential impact of a space weather event, EQL may activate a Space Weather Technical Committee to discuss, analyse potential risks and advise operational teams. Operational teams may take proactive measures to reduce damage to equipment and minimise impact to the community.

[7] https://www.sws.bom.gov.au/

Attachment B - Definitions, Abbreviations and Acronyms

BAU	Business as Usual – resources and effort are focused on the planned and budgeted work required to operate and maintain electricity infrastructure, its operational functions, and capabilities.
Disaster	A disaster is a serious disruption in a community, caused by the impact of an event, that requires a significant coordinated response by the State and other entities to help the community recover from the disruption (*definition: Disaster Management Act 2003, Section 13*). NOTE: a disaster can only be declared by a Disaster District or the State Government with the specific approval of the responsible Minister.
Disaster Management	Disaster management means arrangements about managing the potential adverse effects of an event, including, for example, arrangements for mitigating, preventing, preparing for, responding to, and recovering from a disaster (*definition: Disaster Management Act 2003*).
Disruption Events	Events that disrupt the normal functions of businesses, the economy and/or communities and include those that are man-made (e.g., terrorist attack, bomb threat) and natural (e.g., storm, cyclone, fire, flood, network or non-network asset failure, influenza pandemic).
Emergency	A sudden and unexpected event that disrupts the normal operating functions, capabilities, resource and/or people of the organisation and requires an immediate response to prevent escalation of its scale or severity. For example, but not restricted to: • Localised electricity network damage, or potential damage, due to fire, flood, storm, or accident etc • Loss of operating facilities and/ or resources • Loss of ICT operating systems.
Flooding-Major	In addition to the criteria for moderate flooding, extensive rural areas and/or urban areas are inundated. Properties and towns are likely to be isolated and major traffic routes likely to be closed. Evacuation of people from flood affected areas may be required.
Flooding-Minor	Causes inconvenience. Low-lying areas next to watercourses are inundated which may require the removal of stock and equipment. Minor roads may be closed, and low-level bridges submerged.
Flooding-Moderate	In addition to the criteria for minor flooding, the evacuation of some houses may be required. Main traffic routes may be covered. The area of inundation is substantial in rural areas requiring the removal of stock.
Flooding-Q100	Refers to a flood level or peak that has a one in a hundred, or 1%, chance of being equaled or exceeded in any year (also referred to as annual exceedance probability).
Hazard	An event, object or scenario that has the potential to cause harm to people and/or cause damage to property or assets.
LiDAR	Light Detection and Ranging, is a remote sensing method that uses light in the form of a pulsed laser to measure ranges which are transformed to measurements of actual three-dimensional

	points of the reflective target in object space. LiDAR produces mass point cloud datasets that can be managed, visualised, analysed, and shared using ArcGIS.
Level 1 Emergency	Events are routine incidents that are managed as part of normal business operations and are not managed through emergency, or crisis management arrangements.
Level 2 Emergency	These events are the first level of non-routine events. They are more complex either in size, resources, or risk; and are events that are beyond the capability of normal business operations and require specific command and control arrangements. e.g., Impacts to EQL's normal operations may be substantial but may be relatively foreseeable and contained.
Level 3 Emergency	These events are the most significant emergencies. They require substantial effort and resources across different regions / areas of EQL and have the potential to substantially disrupt business operations or significantly harm EQL's reputation. These emergencies require specific command and control arrangements and resourcing to a much greater degree than a level 2 event.
Risk	Potential impact on objectives (either losses or opportunities) due to a particular event, hazard, or scenario. Risk is the product of likelihood and consequence.

Attachment C – References

Internal References	Bushfire Management Plan 2023/24
	Emergency Management Plan – Distribution Network
	Energy Queensland Crisis Management Charter
	Energy Queensland Emergency and Business Disruption framework
	Energy Queensland Organisational Resilience Strategy
	Energy Queensland Pandemic, Epidemic or Outbreak Event Plan, 2020
	Energy Queensland Risk Management Policy
	Energy Queensland Union Collective Agreement 2020
	EQL Critical Infrastructure Risk Management Program 2023
	EQL Environmental Substantiality and Cultural Heritage Policy
	EQL Low Carbon Future Statement
External References	AS ISO 31000:2018 Risk Management - Guidelines
	Critical Infrastructure Risk Management Program Rules 2023 (The Rules)
	Disaster Management Act 2003 (Qld)
	Electricity Act 1994 (Qld) Electricity Regulation 2006 (Qld)
	Electrical Safety Act 2002 (Qld)
	Electrical Safety Regulation 2013 (Qld)
	Emergency Management Assurance Framework (QLD)
	ISSC 31 Guideline for the management of private overhead lines
	ISSC 33 Guideline for network configuration during high bushfire risk days
	NSW Legislation obligations under the *Electricity Supply (Safety and Network Management) Regulation 2014* (NSW) under section 7(2)(b)
	Queensland Bushfire Plan 2020
	Queensland Climate Adaption Strategy 2017-2030
	Queensland Disaster Management Arrangements
	Queensland Prevention Preparedness Response and Recovery Disaster Management (PPRR DM) Guideline
	Queensland State Disaster Management Plan 2023
	Security of Critical Infrastructure Act 2018 (SoCI)
	Security Legislation Amendment (Critical Infrastructure Protection) Act 2022
	Severe Wind Hazard Assessment for Queensland
	State Earthquake Risk Assessment
	Work Health and Safety Act (Qld) 2011
	Work Health and Safety Regulation (Qld) 2011

Attachment D – 2024–25 Summer Preparedness Actions and Activities Overview

Each year Energy Queensland works through a series of actions and activities to prepare for the incoming summer season. This is typically in relation to the planning, preparation, response, and recovery arrangements regarding those natural hazards that are typical to the summer season in Queensland e.g., Severe weather (e.g., wind and rain), Tropical cyclones, Storm surges and Riverine flooding. The following information is a summary of those actions and activities being outworked by the EQL Summer Preparedness Working Groups to support the resilience of our electricity networks and communities during this season.

Summer Preparedness Focus Area	Overview of the focus area key actions and activities being undertaken
Emergency Training and Scenario Exercises	• EQL conducts detailed training in the emergency and business disruption framework, familiarisation of emergency management plans, emergency response refresher training for field personnel and providing online training to all EQL employees involved in emergency management. • Scenario based desktop and practical exercise activities are conducted to test and confirm processes and application of knowledge for key emergency and support roles and teams. • Additionally, specific bushfire hazard preparations are conducted including general awareness and safety training and emergency response bushfire scenario exercises.
Emergency Documentation and Processes	• Key emergency plans, guidelines and templates are reviewed and updated to ensure the inclusion of previous event learnings and updated policies. These include Emergency Management Plans, process guidelines, role statements and responsibilities, checklists, meeting agendas, and document templates. • Key processes are also tested and practiced. Access for emergency response teams to relevant documents, processes and information is confirmed. • A review of emergency support plans for other EQL support groups outlining specific season preparations, activation processes and support tasks are conducted. These include fleet, supply, administration, finance, engineering and digital teams.
Rosters	• Emergency response rosters over key holiday periods and leave arrangements involving emergency employees are reviewed to ensure appropriate resources are available for coverage throughout the summer storm and cyclone seasons. This includes emergency management coordination teams, field employees, network controllers, call centres and support employees.

Summer Preparedness Focus Area	Overview of the focus area key actions and activities being undertaken
Pre-contingent Network Preparations	• Network performance has been evaluated and planning undertaken to identify portions of the network that warrant augmentation in order to keep pace with growing demand or improve system reliability and security, resulting in operating and capital programs being established to minimise the impact of summer weather conditions on customers' electricity supply. • EQL monitors the forecast short-term demand on the network ahead of the predicted hot-weather events and undertakes appropriate pre-contingent actions such as pre-emptive load transfers and deployment of mobile generators to mitigate the risk of customer outages for the areas where the demand is in excess of the network capacity.
Business Continuity Arrangements	• Business Continuity Plans and arrangements are reviewed annually to ensure critical and key capabilities can be maintained within determined maximum acceptable disruption timeframes throughout the season. • Alternative processes and contingency arrangements are confirmed to ensure continuity of capabilities.
Control Centre Arrangements	• Key control centre specific processes, rosters, IT hardware, control consoles and systems, communications equipment, and access to control the network are checked and confirmed.
Communication Arrangements	• Communication protocols are reviewed to ensure reporting requirements and formats for both internal and external stakeholder are refined. • External facing web pages are reviewed and updated with relevant safety and emergency contact information for communities. • Appropriate relationships and contacts with emergency services and disaster management groups are confirmed pre-season and during heightened risk timeframes. • This includes representation at State, District and Local Disaster Management Groups, the State Bushfire Committee and direct contacts with Regional Bushfire Committees and Area Fire Management groups.
Digital Readiness	• Information Technology (IT) and Operational Technology (OT) systems and platforms are checked and tested to ensure they are running at the most recent versions and issues rectified before peak season. • Upgrades of critical systems are conducted as required. • A review of service level agreements for response to faults and outages are conducted including contact with external service providers.