

**State Emergency Management Plan**

**Energy Sub-Plan 2022**



**Acknowledgment**

We acknowledge and respect Victorian Traditional Owners as the original custodians of Victoria's land and waters, their unique ability to care for Country and deep spiritual connection to it. We honour Elders past and present whose knowledge and wisdom has ensured the continuation of culture and traditional practices.

We are committed to genuinely partner, and meaningfully engage, with Victoria's Traditional Owners and Aboriginal communities to support the protection of Country, the maintenance of spiritual and cultural practices and their broader aspirations in the 21st century and beyond.

|  |
| --- |
| * State Emergency Management Plan   Energy Sub-Plan (2022) |

|  |
| --- |
| © The State of Victoria Department of Environment, Land, Water and Planning 2022    This work is licensed under a Creative Commons Attribution 4.0 International licence. You are free to re-use the work under that licence, on the condition that you credit the State of Victoria as author. The licence does not apply to any images, photographs or branding, including the Victorian Coat of Arms, the Victorian Government logo and the Department of Environment, Land, Water and Planning (DELWP) logo. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>  Printed by  ISBN (print)  ISBN (pdf)  **Disclaimer**  This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.  **Accessibility**  If you would like to receive this publication in an alternative format, please telephone the DELWP Customer Service Centre on 136186, email customer.service@delwp.vic.gov.au. |

Contents

[Introduction 5](#_Toc94013154)

[Purpose 5](#_Toc94013155)

[Value 5](#_Toc94013156)

[Audience 5](#_Toc94013157)

[Scope 5](#_Toc94013158)

[Linkages 6](#_Toc94013159)

[Implementation 7](#_Toc94013160)

[Authorising environment 7](#_Toc94013161)

[Review 7](#_Toc94013162)

[The Victorian energy sector: electricity, gas and liquid fuels 8](#_Toc94013163)

[Electricity 8](#_Toc94013164)

[Gas 8](#_Toc94013165)

[Liquid fuels 9](#_Toc94013166)

[Key risks and vulnerabilities 10](#_Toc94013167)

[Energy emergencies 11](#_Toc94013168)

[Levels of energy emergencies 12](#_Toc94013169)

[Mitigation 13](#_Toc94013170)

[Roles and responsibilities 13](#_Toc94013171)

[Planning 13](#_Toc94013172)

[Regional Emergency Management Planning 13](#_Toc94013173)

[Municipal Emergency Management Planning 14](#_Toc94013174)

[Vital Critical Infrastructure Emergency Management Planning 14](#_Toc94013175)

[Sector Resilience Plans 14](#_Toc94013176)

[The Electricity Statement of Opportunities (ESOO) and Gas Statement of Opportunities (GSOO) 14](#_Toc94013177)

[Preparedness 14](#_Toc94013178)

[Regulation 15](#_Toc94013179)

[Guaranteed Service Levels 15](#_Toc94013180)

[Electricity and gas safety 15](#_Toc94013181)

[Major Hazard Facilities 15](#_Toc94013182)

[Energy disruption risk assessment and management 15](#_Toc94013183)

[Government assessment and monitoring of energy sector risk 16](#_Toc94013184)

[Energy industry risk management 16](#_Toc94013185)

[Response 17](#_Toc94013186)

[Roles and responsibilities 17](#_Toc94013187)

[Operation of multi-jurisdictional and state-level joint government-industry energy emergency management arrangements 18](#_Toc94013188)

[Readiness 18](#_Toc94013189)

[Control arrangements 19](#_Toc94013190)

[The State Controller – Energy 19](#_Toc94013191)

[Control centre 19](#_Toc94013192)

[Management structure 20](#_Toc94013193)

[Concurrent emergencies 20](#_Toc94013194)

[Application of State Emergency Management Priorities 23](#_Toc94013195)

[Consequence management 24](#_Toc94013196)

[Critical infrastructure, community assets and essential services 24](#_Toc94013197)

[Voluntary appeals, market interventions and legislative powers 25](#_Toc94013198)

[Electricity 25](#_Toc94013199)

[Mutual Aid Arrangements for electricity supply industry 27](#_Toc94013200)

[Gas 27](#_Toc94013201)

[Liquid fuels 28](#_Toc94013202)

[Public Information and warnings 28](#_Toc94013203)

[Complementary energy emergency advice and messaging 28](#_Toc94013204)

[Industry communications 29](#_Toc94013205)

[Relief arrangements (as part of Response) 29](#_Toc94013206)

[Power dependent customers 30](#_Toc94013207)

[Transition to Recovery 30](#_Toc94013208)

[Recovery 31](#_Toc94013209)

[Appendix A: Triggers for major emergencies (electricity, gas and liquid fuels) 32](#_Toc94013210)

[Electricity 32](#_Toc94013211)

[Gas 33](#_Toc94013212)

[Liquid fuels 34](#_Toc94013213)

[Appendix B: Multi-jurisdictional and state-level joint government-industry energy emergency management arrangements 34](#_Toc94013214)

[Electricity 35](#_Toc94013215)

[Gas 37](#_Toc94013216)

[Liquid fuels 39](#_Toc94013217)

[Appendix C: Related plans, documents and services 41](#_Toc94013218)

[Appendix D: Acronyms 43](#_Toc94013219)

# Introduction

## Purpose

This sub-plan to the State Emergency Management Plan (SEMP) outlines the Victorian arrangements to deliver a coordinated response to energy emergencies.

## Value

This sub-plan provides information about energy supply chains and infrastructure, risks and consequences of disruption, and the arrangements for energy emergency mitigation, preparedness, response and recovery.

This clarity about context, roles and collaboration between agencies enables an integrated and collaborative response to energy emergencies, minimises the likelihood and consequence of these emergencies, and supports community resilience.

## Audience

The audience for this sub-plan is the Victorian Government and agencies, bodies, departments and other organisations within the Victorian emergency management sector that have an interest in the management of energy emergencies. The audience also includes Commonwealth, state and territory governments, and industry stakeholders that have a role in managing energy emergencies.

## Scope

This sub-plan provides strategic information about the Victorian preparedness, mitigation, response and recovery arrangements for energy emergencies, with a focus on major emergencies that disrupt electricity, gas or liquid fuel supply.

This sub-plan does not include detail about the operational activities of individual agencies.

This plan does not describe or duplicate the arrangements to manage Class 1 emergencies, or the arrangements to mitigate, respond and recover from emergency events impacting energy infrastructure and supply chains that are not Class 2 energy emergency events.

## Linkages

There are several plans and arrangements that contribute to the management of energy emergencies.

Table 1: Summary of related plans and arrangements

| Document | Description |
| --- | --- |
| State Emergency Management Plan | Within the SEMP, tables 8 and 9 outline arrangements for the coordinated management of emergency activities and services and tables 11- 18 outline relief and recovery roles and responsibilities for functions and activities under the four environments, Social, Economic, Built and Natural, in Victoria. |
| Policies and Procedures | Plans and standard operating procedures are in place to guide DELWP, other government agencies and the energy industry to prepare for, monitor and respond to energy incidents and energy emergencies. |
| Joint national and industry plans | Joint plans and standard operating procedures and governance arrangements to support state and territory government and industry, allowing these agencies to jointly prepare for, monitor and respond to energy incidents and energy emergencies.  These include the following:   * National Electricity Market Memorandum of Understanding on the Use of Emergency Powers (National Electricity Market Emergency Protocol) * National Electricity Market Emergency Management Forum Power System Emergency Management Plan * National Gas Emergency Response Advisory Committee Interruption to Supply Process * Gas Emergency Protocol * Victorian Electricity Emergency Communication Protocol * Single Industry Spokesperson Protocol for Electricity in Victoria (2019) * Victorian Gas Emergency Communication Protocol * Single Industry Spokesperson Protocol for Gas in Victoria (2019) * National Liquid Fuel Emergency Response Protocol * Australian Institute of Petroleum (AIP) Communications Protocol (2015). |
| Related legislation | The following legislation is directly relevant to the management of Class 2 energy emergencies:   * *Liquid Fuels Emergency Act 1984 (Cth)* * *National Electricity Law* * *National Gas (Victoria) Act 2008* * *Electricity Distribution Code 2021* * *Electricity Industry Act 2000* * *Electricity Safety Act 1998* * *Gas Industry Act 2001* * *Gas Safety Act 1997* |
| Emergency Management Plans | Emergency management plans are prepared, maintained and exercised by businesses, the community and infrastructure owners. These entities will activate their plans in response to an energy emergency when pre-determined triggers are met. |

## Implementation

The arrangements in this sub-plan apply on a continual basis and do not require activation.

This sub-plan is intended to support existing operational plans.

## Authorising environment

The Emergency Management Act 2013 is the empowering legislation for managing emergencies in Victoria.

The State Emergency Management Plan (SEMP) is prepared under section 60AD of the Act. It outlines the provisions for the mitigation of, response to and recovery from emergencies, and specifies the roles and responsibilities of agencies in relation to emergency management in Victoria.

This sub-plan is a subordinate plan of the SEMP and has been approved by the State Crisis and Resilience Council (SCRC).

## Review

This sub-plan was current at the time of publication and remains in effect until modified, superseded or withdrawn.

This sub-plan will be exercised and evaluated within one year from the date of operation and reviewed and updated every three years. Where improvements to the emergency management arrangements in this sub-plan are required, the sub-plan will be amended, and a revised version issued.

# The Victorian energy sector: electricity, gas and liquid fuels

The Victorian energy sector includes the generation, production, transmission, storage and distribution of energy across three sub-sectors: electricity, gas and liquid fuels. In Victoria, energy sector supply chains and infrastructure are privately owned and operated.

The energy sectors provide essential services to the Victorian community such as lighting, heating and cooling, process heat for manufacturing and transportation fuel.

The electricity, gas and liquid fuel sub-sectors are highly interconnected and reliant on the services they each provide. Each sub-sector also has strong interdependencies with other critical infrastructure sectors and supply chains, both domestically and internationally. This is highlighted by the increasingly inter-linked nature of the east coast electricity and gas markets, the reliance of energy assets on reliable water supply and road access, and the dependency on international and interstate supplies of natural gas and liquid fuels.

All energy sectors are vulnerable to supply chain disruption and infrastructure damage with can give rise to supply disruption. Risks arise in the context of global and domestic supply chains of products, parts and people; in interdependent national markets, increasing domestic and international attention on decarbonising the energy economy intra-dependencies across the social, built, economic and natural environments.

Energy businesses are a key part of the emergency prevention, planning, response, relief and recovery framework, and manage a program of internal activities to ensure continuity of energy supply, and to build their resilience to emergency events.

## Electricity

The Victorian electricity system is part of the National Electricity Market (NEM) which also includes Queensland, New South Wales, Tasmania, South Australia and the Australian Capital Territory. The NEM is operated by the Australian Energy Market Operator (AEMO).

AEMO is also responsible for system security consistent with its obligations under the National Electricity Law and the National Electricity Rules.

The Victorian electricity system includes:

* generators – coal and gas-fired power plants, and solar, wind and hydro generation
* energy storage – large-scale grid-connected batteries
* transformers, switching and failsafe equipment – to control and change voltage, enable line switching and isolate parts of the network
* transmission lines – high voltage lines connecting the large generators to major demand centres
* interconnectors – the transmission systems linking the Victorian network with the other National Electricity Market (NEM) regions (Tas, SA, NSW)
* distribution networks – low voltage networks that connect supply to customers
* distributed energy resources (DER) – behind the meter assets that include solar panels, inverters, small capacity batteries, controllable loads and potentially bidirectional vehicle to grid technology.

## Gas

The Victorian gas system, most of which is within the Victorian Declared Wholesale Gas Market (DWGM), forms part of the eastern gas region which is one of two regions in Australia’s domestic gas market. The DWGM enables the dynamic trading of gas injections and withdrawals from Victoria’s gas transmission system, known as the Declared Transmission System (DTS). AEMO operates both the DWGM and the DTS.

There are also several gas transmission pipelines that fall outside of the DTS, including the Eastern Gas Pipeline from Longford to Sydney, the SEA Gas pipeline connecting South Australia to Victoria, the Tasmanian Gas Pipeline connecting Victoria and Tasmania and pipelines to some regional Victorian centres.

The broader gas supply system in Victoria consists of three gas basins off the coast (Gippsland, Bass and Otway basins), gas processing plants (Longford, Orbost, Port Campbell and Lang Lang), a small liquefied natural gas (LNG) storage facility in Dandenong, the Iona underground natural gas storage facility, and the transmission and distribution pipeline systems that deliver gas to customers.

## Liquid fuels

The liquid fuel sub-sector operates within a global supply chain through which Australia imports more than 90 per cent of its liquid fuel needs (both crude oil and refined fuel) from more than 60 countries.

The Victorian fuel supply chain incorporates:

* offshore production of crude oil and condensate
* crude and condensate refining capacity
* import and export infrastructure for crude and refined product (e.g., berthing facilities and pipelines)
* transmission pipeline infrastructure including pipelines to Melbourne Airport
* storage and distribution infrastructure at the refinery in Geelong, terminals and regional fuel storage depots
* road tankers
* a retail service station network.

## Key risks and vulnerabilities

Table 2: Key risks and vulnerabilities[[1]](#footnote-2)

|  |  |
| --- | --- |
| EXTREME RISK | IMPACT |
| Extreme temperatures (3-4 day event) | Extended loss of energy production or transmission services due to extreme temperatures resulting in less generation and stress on the transmission/distribution network, resulting in supply being insufficient for demand causing a major disruption to industry, business, essential services and the community. |
| Fire affecting critical infrastructure  (including bushfire, grassfire or structural fire) | Extended loss of energy production or key transmission infrastructure, loss of fuel supply or loss of access to/control of assets due to fire. Possible cascading effect. Smoke itself is a hazard – it can cause electrical lines to spark/and or trip. |
| HIGH RISK | **IMPACT** |
| Cyber-attack | Control system, safety and emergency management systems impacted; supply disrupted. |
| Pandemic | Extended loss of energy production or transmission due to shortage of skilled employees to operate and/or maintain facilities as well as reduced demand due to closed businesses. Potential to limit the ability to sufficiently staff energy assets or respond to an emergency. |
| Workforce issues (including industrial issues, ageing workforce and capability) | Extended loss of energy production or transmission due to shortage of skilled employees to operate and/or maintain facilities. Potential to limit the ability to respond to an emergency. |
| Loss of gas supply | Restricted or total loss of access to gas supply. Consequences would be for both summer and winter due to increasing reliance on gas-fired electricity generation. Would impact on ability to refine fuels. |
| Major plant failure – operations (including ageing infrastructure, maintenance, defects, operating outside of design) | Extended loss of energy production or transmission due to major damage to a power plant, gas plant or transmission system resulting in supply being insufficient for demand causing a major disruption to industry, business, essential services and the community. |
| Drought (including loss of water to power stations and changing ground moisture conditions) | Extended loss of energy production or transmission due to water being unavailable to power stations or from damage to pipeline coating or pipelines from changes in soil moisture. |
| Severe weather (including severe wind, lightning, flood – riverine and surface – and storm surge) | Extended loss of energy due to water/weather damage, loss of fuel supply, gas production or loss of access to/control of assets . |
| MEDIUM RISK | **IMPACT** |
| Loss of electricity | Likely to have major impacts on fuel refining, fuel distribution and retail site operation as well as gas supply across the state. |
| Physical intrusion or attack | Could result in damage to infrastructure and/or harm to employees, reducing the supply of fuel or energy to the community. |
| Loss of communications | Extended loss of control systems. |
| LOW RISK | IMPACT |
| Loss of liquid fuel supply | Restricted or total loss of access to liquid fuels impacting capacity to meet vehicle fleet, auxiliary equipment and plant demands resulting in loss of energy production or transmission and/or emergency response capability. Loss of liquid fuel would have both economic and community impacts. |

# Energy emergencies

An energy emergency is any disruption of electricity, gas or liquid fuel supply that has an impact on health, property, the economy or the environment.

Disruptions can occur at any point in the energy supply chain. In general, minor disruptions and incidents impacting energy infrastructure are managed by industry and relevant response agencies as part of normal day-to-day supply operations.

**Major emergencies**

Major emergencies are defined in the Emergency Management Act 2013.

A ‘major emergency’ is a large or complex emergency, with the potential to:

* cause loss of life, or extensive damage to property, infrastructure or the environment; or
* have significant adverse impact on the community, or part of the community; or
* require the involvement of two or more agencies to manage the emergency.

A ‘Class 2’ energy emergency is a disruption of electricity, gas and petroleum or liquid fuels supply that is a ‘major emergency’ as defined by the Emergency Management Act.

A proclamation or declaration does not need to be made for an emergency to be a Class 2 energy emergency.

Class 2 energy emergencies can include:

* extensive physical damage to assets and infrastructure
* events that cause the supply system to operate outside of its technical operating parameters, typically due to supply/demand imbalances
* technical failure and ‘off-specification’ product (i.e. the quality of the available product is not fit for purpose)
* supply chain interruption
* retail disruption that has a significant adverse impact on the community, or part of the community
* workforce disruption.

## Levels of energy emergencies

For localised and limited impact energy emergencies, the relevant owner/operator is responsible to manage the incident. This can include minor infrastructure damage or localised retail impact. DELWP monitors, and provides subject matter expertise to emergency management agencies.

**Table 3** outlines the general triggers, actions and location of control for localised, limited and major impact energy emergencies.

Specific ‘major emergency’ triggers are described for electricity, gas and liquid fuels in **Appendix A**.

Table 3: Summary of triggers, actions and control for energy incidents and emergencies

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | **Trigger** | **Action** | | **Control** |
| **Localised** | **Forecast** | Weather forecast, market conditions or other risk assessment suggests likelihood of a Level 1 event occurring | AEMO; relevant industry owners/operators **monitor,** respond to risk according to relevant plans | DELWP monitors; provides subject matter expertise as required. | Business as usual |
| **Event** | Disruption is localised, small scale and/or very short duration. | AEMO, relevant industry owner/operator manages, responds | DELWP monitors; provides subject matter expertise as required | Business as usual |
| **Limited** | **Forecast** | Weather forecast, market conditions or other risk assessment suggests likelihood of a limited impact emergency occurring | AEMO; relevant industry owners/operators monitor, respond to risk according to relevant plans | DELWP monitors; provides subject matter expertise as required | Business as usual |
| **Event** | Disruption has a limited geographic, economic, environmental or population impact and/or short duration. | AEMO; industry owners/operators manage, respond | DELWP monitors; provides subject matter expertise as required; resources available if event escalates | Business as usual |
| **Class 2 energy emergency** | | | | | |
| **Major** | **Forecast** | Weather forecast, market conditions or other risk assessment suggests a likelihood of a major emergency event occurring. | AEMO; industry owners/operators monitor; E-EMLO in place | DELWP Energy Emergency cell activated (readiness) | DEWLP is control agency; State Controller – Energy may be appointed |
| **Event** | Disruption has occurred that is widespread or complex; with the potential to: cause loss of life, or extensive damage to property, infrastructure or the environment; or have significant adverse impact on the community, or part of the community; or require the involvement of two or more agencies to manage the emergency. | AEMO; industry owners/operators manage, respond.  E-EMLO in place at state, regional and/or incident tier. | DELWP Energy  Emergency cell activated (response and relief) | DEWLP is control agency; State Controller – Energy may be appointed |

# Mitigation

**Mitigation** is the elimination or reduction of the incidence or severity of emergencies and the minimisation of their effects, and also includes measures undertaken as part of business-as-usual functions to mitigate emergencies.

## Roles and responsibilities

Roles and responsibilities for mitigation of electricity supply, gas supply and liquid fuel disruption are set out in SEMP Roles and Responsibilities Table 8.

The energy industry has a key role to mitigate energy emergencies. As the owners and operators of infrastructure and supply chains, energy sector businesses and AEMO undertake range of activities to prevent and minimise the likelihood and severity of energy disruption. This includes:

* Infrastructure design (including redundancy), maintenance, safe operation and physical security
* Supply and demand management, modelling, planning and strategies, and market mechanisms
* Industry forums, including regular emergency exercises

Government delivers its mitigation role through a range of laws, policies and programs; and by monitoring and assuring industry’s preventative and mitigation actions.

All energy users – both individuals and organisations – also have a role to prepare for and mitigate the impact of energy disruption.

Government, emergency services and other stakeholders provide advice to Victorians through a range of programs, information and tools. This includes advice warnings, and other pre-response mitigation measures about bushfires, storms, flood and heatwaves and related risks of energy disruption.

This supports individuals and households, businesses, industry and community groups to understand risks, and undertake planning and preparation for energy disruption. This enables them to make informed decisions prior to and during an energy disruption.

## Planning

Various activities (such as developing plans, exercising and annual preparedness briefings) contribute to mitigation and preparedness.

**State Emergency Management Planning**

The Emergency Management Commissioner is responsible for the preparation of the State Emergency Management Plan.

This sub-plan forms part of comprehensive arrangements for emergency management in Victoria, and is a sub-plan to the State Emergency Management Plan

### Regional Emergency Management Planning

Regional Emergency Management Planning Committees (REMPCs) are responsible for preparing the regional emergency management plan (REMP).

REMPCs can invite subject matter experts (i.e., energy businesses, AEMO, DEWLP, ESV) to inform regional level planning. AEMO communicates with DELWP and industry, with information flow to Regional centres via DELWP through the SCC.

### Municipal Emergency Management Planning

Municipal Emergency Management Planning Committees (MEMPCs) are responsible for preparing Municipal Emergency Management Plans (MEMPs). MEMPCs, can invite subject matter experts (i.e., energy businesses, DEWLP, ESV) to inform.

### Vital Critical Infrastructure Emergency Management Planning

The Emergency Management Act 2013provides for the ‘criticality’ of infrastructure within sectors to be assessed and ranked as ‘vital’ (highest), ‘major’, ‘significant’ or ‘local’.

Under the Act, the Minister for Energy, Environment and Climate Change has designated some energy critical infrastructure as ‘vital’. The owners and operators of this infrastructure are subject to additional requirements, including undertaking four activities within a Resilience Improvement Cycle: emergency risk management planning, exercising, audits and assurance reporting.

Each year, owners/operators of designated vital critical infrastructure are required to undertake a Risk Management Plan. This plan provides those actions and activities each entity will undertake to ensure the mitigation of risk, preparedness for, response to and recovery from emergency events identified to ensure continued safe operation.

### Sector Resilience Plans

Each year, as required under the Emergency Management Act,Sector Resilience Plans are prepared by each of the eight Sector Resilience Networks.

DELWP, as the government lead for the energy sector, works with industry to produce an Energy Sector Resilience Plan that includes:

* an assessment of the energy sector’s overall resilience
* key emergency risks faced by the sector
* the potential consequences of those risks, and
* resilience improvement initiatives in the following 12 months.

Sector Resilience Plan for the other critical infrastructure sectors (water, food and grocery supply logistics, health, transport, communications, banking and finance, and government) consistently identify energy disruption as a key risk requiring preparedness and mitigation strategies at the sector-wide and individual operator level.

### The Electricity Statement of Opportunities (ESOO) and Gas Statement of Opportunities (GSOO)

Each year AEMO produces the Electricity Statement of Opportunities (ESOO) and Gas Statement of Opportunities (GSOO). The ESOO and the GSOO forecast long-term reliability of electricity supply to inform decisions by market participants, investors, and policy makers. By forecasting any potential reliability gaps over a forward five-year period, the ESOO and GSOO mitigate the risks of supply shortage into the future.

## Preparedness

Services, businesses (of all sizes) and critical infrastructure with a dependency on electricity, gas and liquid fuels (such as manufacturing, hospitals, water corporations, transportation and other critical infrastructure) need to ensure they prepare and regularly test and update their business continuity plans to reduce the disruption caused by supply interruptions.

Individuals and households are responsible for learning about and preparing for risks energy supply disruption.

Every household should have a well-practiced written emergency plan.

Government and industry support this preparedness through community engagement and information, and safety awareness campaigns and programs.

## Regulation

### Guaranteed Service Levels

The Australian Energy Regulator (AER) administers the Service Target Performance Incentive Scheme (STPIS) that applies to electricity distribution networks. The STPIS provides these networks with incentives for maintaining and improving network performance and achieve better reliability outcomes for all customers, including those in regional and rural areas. In Victoria, the Essential Services Commission administers the Electricity Distribution Code including the Guaranteed Service Level (GSL) scheme. Under the GSL, customers who experience many or long unplanned power outages during a year may be entitled to automatic compensation payments. Both frameworks incentivise performance and reliability of electricity networks.

### Electricity and gas safety

ESV is the regulator responsible for electrical and gas safety in Victoria. ESV audits the design, construction and maintenance of electricity and gas networks and installations ensuring appliances meet safety and energy efficiency standards.

ESV regulates the legislative requirements that distribution businesses develop, submit and comply with an Electricity Safety Management Scheme, five yearly Bushfire Mitigation Plans (BMP) and an annual electric line clearance management plan.

In addition, ESV conducts comprehensive public awareness safety campaigns to mitigate the risks to the community from gas and electricity emergencies.

Gas and liquid fuel pipelines are regulated under the *Gas Safety Act 1997* and *Pipelines Act 2005*. ESV and DELWP exercise regulatory powers and oversight under this legislation and associated regulations.

Under the Safety Case and Safety Management Plan regime, gas companies have an integrated governance structure with risk and asset management processes ensuring the integrity, safe operations and reliability of natural gas system from hazards and risks.

### Major Hazard Facilities

Owners/operators of the refinery, fuel terminals and LPG terminal are required to prepare a safety case to obtain and maintain a licence to operate a major hazard facility (MHF). An MHF is an industrial site that stores, handles or processes large quantities of chemicals and dangerous goods that are essential to the state’s infrastructure through the provision of products and services.

Under the *Occupational Health and Safety Regulations (Part 5.2 Major Hazard Facilities)* (OHS Regulations) operators must identify and prevent or control major incidents that could occur, ensuring protection for:

* workers at the facility
* the surrounding community
* the infrastructure that the facility needs to keep operating safely.

In accordance with the OHS Regulations, MHF operators are required to gain a licence which responds to a safety assessment to all hazards identified.

Under the *Environment Protection Act 2017* (EPA Act 2017) MHFs must undertake a risk assessment of any hazards that are likely to be a risk of harm to human health and the environment and from pollution or waste. In accordance with the EPA Act 2017 owners and operators of major hazard facilities are required to comply with and meet the General Environmental Duty (GED).

## Energy disruption risk assessment and management

The responsibility for managing emergency risks is shared across a range of ‘risk owners’.

### Government assessment and monitoring of energy sector risk

At a state level, EMV is responsible for coordinating a state-wide risk assessment that identifies the highest priority emergency risks, controls and treatments to minimise or manage the risks and consequences outlined in the Emergency Risks in Victoria (July 2020) report. The current report identifies electricity supply disruption and gas supply disruption, which has led to the development of this sub-plan.

DELWP reviews whole of energy sector state level risks annually as part of preparing the Sector Resilience Plan, informed by:

* advice from industry and other stakeholders
* consultation with the Energy Sector Resilience Network convened by DELWP
* consultation with Energy Sector Group Trusted Information Sharing Network (TISN) convened by the Commonwealth Government’s Department of Home Affairs
* information included in ‘vital’ energy critical infrastructure businesses’ Statements of Assurance
* review of energy emergency events nationally and globally
* Victorian Government state level risk management priorities and risk assessments.

This risk assessment is with the principles set out in the National Emergency Risk Assessment Guidelines (NERAG) prepared by the Commonwealth Government’s Attorney-General’s Department, which are in turn consistent with international standard ISO31000:2018: Risk Management – Principles and Guidelines.

### Energy industry risk management

Energy sector businesses are subject to broad risk management requirements. Each energy sector business identifies and manages corporate and emergency risks with respect to their own operations and infrastructure. They have their own risk management frameworks, which detail the risks, their assessments, existing controls and proposed future treatments which are applicable for them.

Legislation at national and state level imposes obligations upon owners and/or operators of the most important critical infrastructure to demonstrate risk assessments, and mitigate and prepare for emergencies.

Risk management planning for critical infrastructure includes consideration of physical facilities, supply chains, systems, assets, information technologies and communication networks, which if destroyed, degraded or rendered unavailable for an extended period, would significantly impact the Victorian community.

# Response

**Response** is the action taken immediately before, during and in the first period after an emergency to reduce the effects and consequences of the emergency on people, their livelihoods, wellbeing and property, on the environment and to meet basic human needs.

## Roles and responsibilities

Roles and responsibilities for energy emergency response and response support are set out in the SEMP Roles and Responsibilities.

Under the SEMP, DELWP is the control agency for major emergencies involving electricity, gas or liquid fuel emergencies.

The Australian Energy Market Operator (AEMO); Energy Safe Victoria (ESV) and the Department of Jobs, Precincts and Regions (DJPR) have key roles as response support agencies for energy supply disruption.

As the operator of the electricity and gas systems and markets in Victoria, AEMO has a range of powers to intervene those markets to prevent, mitigate and manage risks to system strength and security of supply, through to load shedding and gas curtailment. During an energy emergency, AEMO provides expert advice to DELWP about electricity and gas supply disruption; and coordinates and directs the gas and/or electricity industry to respond.

As the safety regulator for gas and electricity, Energy Safe Victoria provides safety and technical advice, including through technical specialists to lead investigations, and exercises emergency powers to make safe and emergency.

DJPR provides expert advice in relation to mine incidents, and petroleum/geothermal wells.

Services, businesses and industry that depend upon power, gas and liquid fuel are responsible for enacting their business continuity plans. The SEMP identifies ‘support agencies for response’ that lead liaison with different sectors to identify impact of energy supply disruption and facilitate support. These support agencies provide information about sector impacts and risks to DELWP. DELWP coordinates and shares information about energy disruption with these support agencies to inform their planning for and delivery of sector-specific support and relief.

As the owners and operators of energy infrastructure and supply chains, the energy industry has the primarily responsibility to respond to energy supply disruption and deliver repairs, restoration and reconnection. Industry also provides expert advice and support during energy emergencies through Energy – Emergency Management Liaison Officers.

DELWP delivers its control agency role within the state emergency management framework and in accordance with sector specific legislation and agreed multi-jurisdictional and state-level joint government-industry energy emergency management arrangements.

## Operation of multi-jurisdictional and state-level joint government-industry energy emergency management arrangements

Energy emergencies are managed in accordance with established multi-jurisdictional and joint government-industry emergency management arrangements as required.

Multi-jurisdictional and state-level joint government-industry energy emergency management arrangements are underpinned by agreements between Australian state and territory governments and industry about the management and response to energy disruptions.

These arrangements are delivered by governance bodies who oversee planning, preparedness and response for each sector (electricity, gas and liquid fuels).

Multi-jurisdictional and state-level arrangements are independent of each other and can be activated concurrently. Mechanisms provide for information sharing and coordination between the two sets of arrangement for each energy sector.

These arrangements support timely and consistent intelligence gathering, risk assessment and information sharing, and enable more effective coordination of response, relief and recovery.

These arrangements complement the roles and responsibilities as defined in the *Emergency Management Act*, the SEMP and this sub-plan.

See **Appendix B** for a summary of multi-jurisdictional and joint government-industry emergency management arrangements.

## Readiness

DELWP continually monitors risks to energy supply disruption. DELWP bases its readiness on triggers and assessment of forward look of risk including forecasts of weather and energy system supply and demand.

The Energy Emergency Duty Officer (EEDO) is rostered year-round to provide an all hours a primary point of contact between industry and government via phone support.

AEMO produces forecasts for the day-to-day operations of the National Electricity Market (NEM) covering forecasts for the eight days ahead. These include forecasts for intermittent renewable generation for wind and solar, as well as electricity load forecasts. Operational forecasts are critical inputs into the projected assessment of system adequacy, which is essential for maintaining power system security. AEMO runs year-round, 24-hour operations to manage the national electricity market and are constantly monitoring the system to ensure security of supply and system strength.

Electricity network and generator businesses are constantly monitoring their assets to ensure safe and effective operations.

AEMO provides planning and forecasting information to support efficient decision-making and long-term investment in Australia's gas markets and infrastructure services. AEMO also publish Victorian Gas Planning Report which informs market participants and government about gas transmission capacity changes that impact security and reliability in the Victorian Gas Declared Transmission System (DTS). AEMO runs year-round, 24-hour operations of the DTS to ensure its safe and effective operation, and schedules the Victorian Declared Wholesale Gas Market (DWGM).

Gas pipeline operators, storage, distributors, and producers operate and constantly monitoring their equipment and systems to ensure safe and effective operations.

Stocks and usage of liquid fuels are regularly monitored by liquid fuel companies who report regularly to the Commonwealth Government, advising of stocks of a range of commonly used liquid fuels, and current sales statistics. The Commonwealth Government collates and publishes these statistics monthly. Liquid fuel pipeline, storage, distributors, and the refinery are constantly monitoring their systems to ensure safe and effective operations.

## Control arrangements

The Secretary, DELWP is the Control Agency Officer in Charge for an energy emergency. The Secretary may, in consultation with the Emergency Management Commissioner, appoint a State Controller – Energy.

The Secretary (or State Controller – Energy if appointed) directs the government response, including coordinating and with other government agencies.

The Secretary may transfer control to any other officer from another agency, with consent of the officer in charge of that agency.

### The State Controller – Energy

The role of a Class 2 Emergency State Controller is defined in the SEMP.

The State Controller – Energy reports directly to the Secretary DELWP (as the Control Agency Officer in Charge).

The State Controller – Energy is responsible to establish a management structure for the emergency as appropriate and monitor it to ensure it continues to be effective.

In summary, the State Controller – Energy:

* develops and coordinates implementation of strategic plan for managing the energy emergency
* works with the Emergency Management Commissioner (EMC) to establish the State Control Team (SCT), and chairs the SCT established in support of the energy emergency (or works alongside the other state-tier controllers if appointed)
* participates in the State Emergency Management Team (SEMT)
* gives directions to Regional Controllers and/or Incident Controllers as necessary
* with the support of the State Control Centre (SCC) Room Manager, oversees the operational functioning of the SCC for the energy emergency
* identifies current and emerging risks, or threats in regard to the emergency, and implements proactive response strategies
* ensures the timely flow of relevant information to and from industry, the EMC, State Coordination Team, SCT, SEMT, other support teams and stakeholder agencies.
* facilitates transition to recovery at the state level, supported by the SERC and State Recovery Coordinator, and provide support to Regional Controllers and Incident Controllers at regional and local levels

The State Controller – Energy must keep the EMC informed about:

* the effectiveness of the control arrangements for the Class 2 emergency
* consequence management planning, implementation and outcomes, in consultation with the State Consequence Manager
* the integration of recovery with the response arrangements, in consultation with the State Recovery Coordinator.

The State Controller – Energy must consider and apply the State Emergency Management Priorities.

### Control centre

The Secretary DELWP, or State Controller – Energy, determines where a Class 2 energy emergency is controlled from.

They may decide the emergency is controlled from the State Control Centre (SCC), a Regional Control Centre (RCC), an Incident Control Centre (ICC) or another location.

Class 2 energy emergencies are by default controlled from the SCC unless the State Controller – Energy determines otherwise. This reflects the severity, complexity and geographic spread of Class 2 energy emergencies.

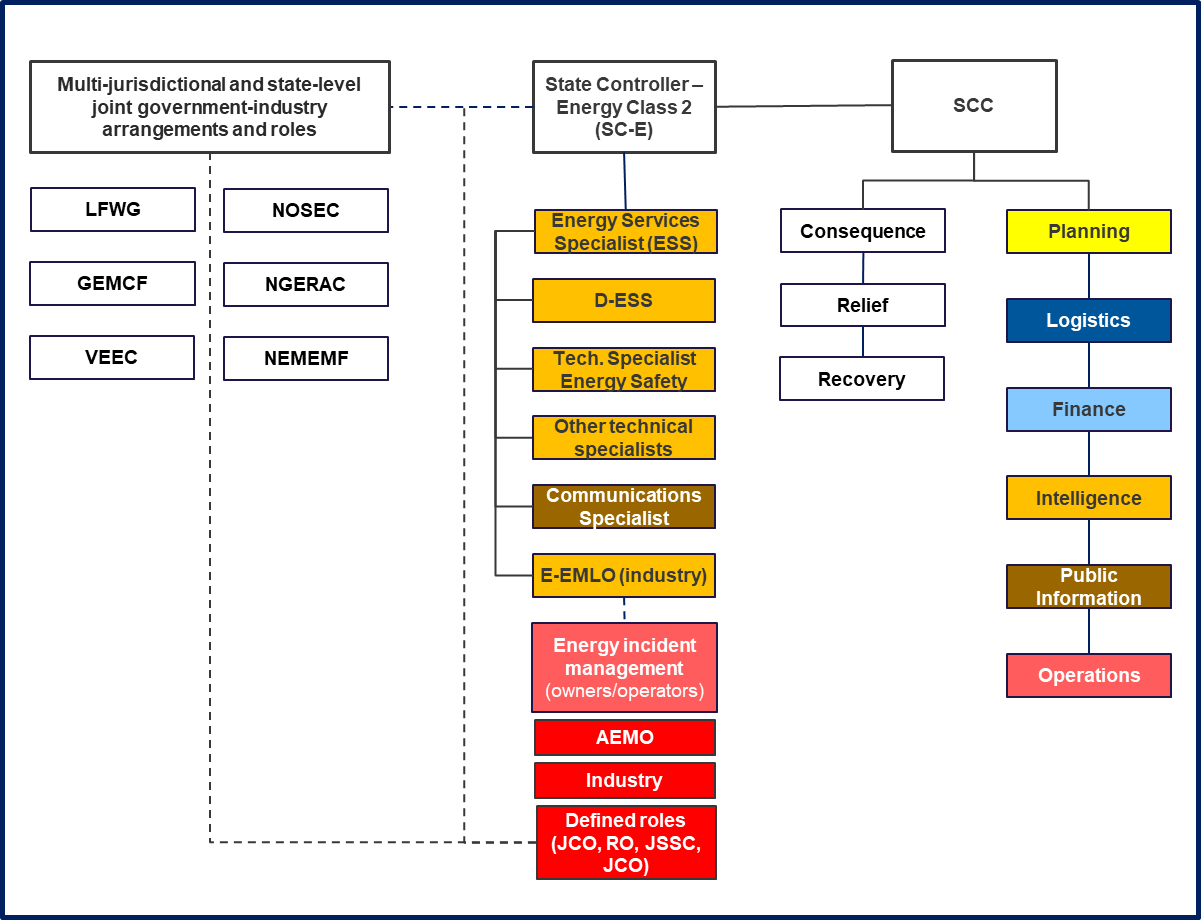
### Management structure

The State Controller – Energy is responsible to establish a management structure for the emergency as appropriate and monitor it to ensure it continues to be effective.

This management structure is informed by the nature of the emergency, and designed to integrate industry and SCC functions.

See **Appendix B** for a summary of multi-jurisdictional and state-level joint government-industry arrangements and roles.

Figure 1: example of management structure, roles



### Concurrent emergencies

An energy emergency can occur concurrently with, or consequentially to, another major emergency (class 1, class 2 or class 3).

When an energy major emergency is concurrent with another emergency, the Secretary or State Controller – Energy consults the EMC and any other relevant control agency to agree and document effective and appropriate control arrangements.

This can include coordinated but separate control arrangements, with multiple state tier controllers responsible for each emergency.

Where regional and incident tiers of control are established for another major emergency, energy emergency leadership and expertise can be embedded into those tiers, for example through:

* a deputy regional controller or deputy incident controller
* an Emergency Management Liaison Officer – either an industry representative or personnel from DELWP.

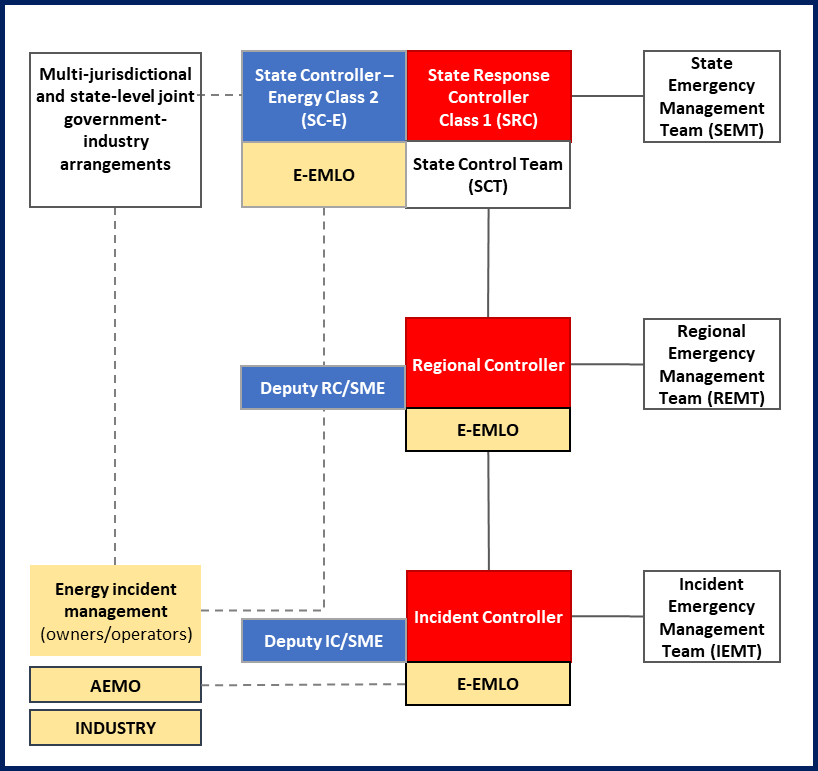
In the event of a localised or limited impact energy disruption concurrent with a major emergency, DELWP supports the relevant control agency through subject matter expertise, intelligence and reporting, and energy sector engagement and coordination. Examples of a localised or limited impact energy disruption (or risk) concurrent with a major emergency include:

* localised power outage affecting a relief centre or community hub established in relation to fire or flood event
* closure or stock-out at local liquid fuel retail due to reduced freight access as a result of fire, flood or storm, or workforce shortage due to pandemic
* gas pipeline or electricity transmission line in the predicted path of a fire.

Table 4: Control agencies for concurrent emergencies – causes and compounding events for energy emergencies

| **Hazard** | **Energy supply disruption** | **Control agency** |
| --- | --- | --- |
| Cyber attack | Can interrupt services and even cause physical damage to assets | Department of Premier and Cabinet (DPC) |
| Earthquakes | Can damage gas and liquid fuels pipelines, causing supply shortfall and/or localised disruptions. | Victoria State Emergency Service (VicSES) |
| Fires | Structure fires, bushfires and other fires can damage assets and infrastructure and disrupt supply chains across gas, electricity and liquid fuels (including retail) | Country Fire Authority (CFA), Fire Rescue Victoria (FRV) or Forest Fire Management Victoria (FFMVic) |
| Flooding | Can place mining activities at risk, which can result in loss of power generation; can cause asset damage and disrupt access, road freight and supply chains | VicSES |
| Hazardous materials | Incidents impacting energy infrastructure can include gas leakage and other hazardous materials. | FRV |
| Heat | A sustained period of high temperatures (heatwave) or a single day of higher-than-average temperature can increase electricity demand and reduce efficient generation and can disrupt gas production and transmission. | Emergency Management Victoria (EMV) |
| Landslide | Can cause damage to gas, electricity or liquid fuels infrastructure with localised or widespread impact | VicSES |
| Pandemic | Can impact critical workforce availability across the supply chain | Department of Health (DH) |
| Severe storms | Can cause extensive asset damage to electricity distribution or transmission network infrastructure, resulting in widespread power outages. | VicSES |
| Warlike act or act of terrorism, hijack, siege or riot | Can cause infrastructure damage, supply chain disruption and/or harm to employees, with localised or widespread impact | Victoria Police (VicPol) |

Figure 2: Example of control arrangements for concurrent Class 2 emergency (energy) and Class 1 emergency

****

## Application of State Emergency Management Priorities

During a response to any emergency, decisions are underpinned and guided by the [State Emergency Management Priorities](https://www.emv.vic.gov.au/responsibilities/state-emergency-management-priorities).

Table 5: State Emergency Management Priorities – Energy

| State Emergency Management Priorities | Application for Class 2 emergency (energy) |
| --- | --- |
| Protection and preservation of life and relief of suffering is paramount.  Including the safety of emergency response personnel, and of community members including vulnerable community members and visitors/tourists | The protection of life always takes primacy during electricity or gas supply disruption. Energy emergencies may pose a significant risk to safety, health and wellbeing of emergency response personnel and the community during and after an emergency.  Safety information for emergency response personnel and the community about dangers – including the risk of electrocution from fallen power lines, and hazardous smoke and gasses – is a key priority.  Coordination and dissemination of accurate, timely and fit-for-purpose impact data informs planning and delivery of health and wellbeing support, noting some people are particularly vulnerable to energy supply disruptions. |
| Issuing of community information and community warnings detailing incident information that is timely, relevant and tailored to assist community members make informed decisions about their safety. | DELWP will coordinate with AEMO, electricity/gas distribution businesses, ESV and owners/operators of infrastructure, transmission and distribution assets to prepare and deliver information and community warnings. Community messaging will vary based on the location, type and duration of the emergency. |
| Protection of critical infrastructure and community assets that support community resilience. | The failure of energy critical infrastructure and other assets that support individual livelihoods can compound the health and safety of communities, business and industry. Agencies with a role in protecting critical infrastructure must prepare, test and update their business continuity plans (as required under the Emergency Management Act 2013) to reduce the disruption caused by an energy emergency.  Identification and management of energy disruption on critical infrastructure and community assets is a key focus of responding to an energy emergency.  Timely and effective two-way information sharing supports critical infrastructure and community assets that support community resilience:   * identifying impact informs prioritisation of restoration efforts by energy industry * providing accurate and reliable information about energy supply disruption duration and location enables planning around business continuity plan implementation, and targeted relief activities. |
| Protection of residential property as a place of primary residence. | All Victorians including the emergency management sector, households, business, government and industry have a shared responsibility to prepare for a disruption to electricity, gas or liquid fuel supplies to reduce the likelihood of impacts from these emergencies. |
| Protection of assets supporting individual livelihoods and economic production that supports individual and community financial sustainability. | Services, business and industry that depend upon power, gas and liquid fuel must ensure they prepare, test and update their business continuity plans to reduce the disruption that may be caused by an energy emergency.  Timely and effective two-way information sharing supports the ongoing operation of businesses and assets that support livelihoods:   * identifying business impact informs prioritisation of restoration efforts by energy industry * providing accurate and reliable information about energy supply disruption duration and location enables planning around business continuity plan implementation, and targeted relief activities. |
| Protection of environmental and conservation assets that considers the cultural, biodiversity, and social values of the environment. | Energy emergencies may influence and impact the natural environment. Use of hazardous materials effect cultural, biodiversity and social values of the environment. |

## Consequence management

**Consequence management** is the coordination of agencies responsible for managing or regulating services or infrastructure which are or may be affected by a major emergency. Consequence management supports strategic decision-making before, during and after a major emergency, with its importance to support long-term decision-making following a major emergency, including recovery activities.

The Emergency Management Commissioner (EMC) is responsible for the management of consequences from major emergencies. The EMC fulfils this role through the appointment of the State Consequence Manager (SCM). This role is responsible for providing strategic and management advice about actual, emergent and cascading consequences before, during and after a major emergency and working with the State Emergency Management Team (SEMT) and Regional Emergency Management Team (REMT), if activated to ensure a whole-of-government approach to the management of these consequences.

For a Class 2 energy emergency the Secretary, or State Controller – Energy, will support the EMC in managing the consequences of potential or actual impacts of the supply of electricity, gas and liquid fuels. To achieve this, DELWP works with industry and response support agencies to:

* coordinate identification of consequence, including on critical infrastructure sectors
* support the State Consequence Manager and state consequence management planning
* coordinate communication to affected communities and stakeholders about consequences and consequence management.

### Critical infrastructure, community assets and essential services

All critical infrastructure, community assets and essential services rely on energy supply for ongoing delivery of their services to community. Interruption to energy supply can cause cascading incidents and emergencies, across multiple sectors simultaneously. These interdependencies between essential service sectors are a risk multiplier.

In the event of an energy disruption, the owners/operators of critical infrastructure, community assets and essential services implement their continuity and contingency plans. These sectors rely on timely and reliable information about the extent and expected duration of energy disruption to inform implementation of these plans.

During a Class 2 energy emergency:

* relevant support agencies for response (as defined in the SEMP Roles and Responsibilities) will liaise between the owners/operators of critical infrastructure, community assets and essential services and DELWP, as the Control Agency
* DELWP regularly seeks advice from relevant support agencies for response about impact on critical infrastructure, community assets and essential services. DELWP shares this information with relevant energy sector entities, and provides advice to the energy sector about the application of the State Emergency Management Priorities to inform prioritisation of restoration of supply, within network, market, or system constraints, and
* DELWP works with the energy sector to share intelligence with relevant support agencies for response the about disruption risks, estimated time to restore, geographic impact, critical infrastructure impact, and restoration prioritisation.

## Voluntary appeals, market interventions and legislative powers

There are a range of interventions and powers that can be exercised in response to an incident involving energy infrastructure or supply security.

Powers can be variously exercised by the Minister for Energy, Environment and Climate Change, Energy Safe Victoria, DELWP, AEMO and the Commonwealth Minister for Environment and Energy (in relation to liquid fuels).

These powers generally allow for market interventions, preparedness arrangements and voluntary measures to ensure the safe and reliable supply of energy.

Consideration and implementation of these interventions occurs within the established multi-jurisdictional and joint government-industry emergency management arrangements.

### Electricity

Where a Class 2 energy emergency is likely to result in a demand exceeding supply (electricity) DELWP provides support to make public appeals for voluntary demand reduction based on advice from AEMO.

AEMO has a range of powers to intervene in the electricity market including market notices, use of the Reliability and Emergency Reserve Trader (RERT), and load shedding. AEMO may also declare the spot market to be suspended in a region under clause 3.14.3 of the National Electricity Rules.

To mitigate the risks of major electricity emergencies due to supply demand imbalance, AEMO forecasts demand and supply and signals to the market, through Lack of Reserve (LOR) notices, when a response is required to increase generation capacity or demand response is required.

An appeal for voluntary load reduction will be made by the Minister for Energy, Environment and Climate Change, or a government spokesperson on their behalf. Reducing electricity consumption during peak demand periods can potentially help to mitigate the need for ‘load shedding’[[2]](#footnote-3).

Load shedding is an action that the Australian Energy Market Operator (AEMO) can take as a last resort to maintain system security across the network and therefore prevent extensive power outages or damage to infrastructure. This is a measure only used when all remaining reserves are exhausted, and it would typically occur during extreme weather events or when generation capacity is lost due to unforeseen circumstances.

AEMO works with the electricity network companies to rotate the outages across the network based on load shedding schedules developed by the Victorian Jurisdictional System Security Coordinator (JSSC) to minimise impact. Where possible, outages are rotated to ensure the same area is not impacted more than once; customers may expect to be out of power between one and two hours.

Table 6: Lack of reserve levels, definition and examples

| Level | Definition | Example |
| --- | --- | --- |
| LOR1 | Victoria has enough supply to meet forecast demand, but reserves are forecast to fall below the LOR1 Trigger. As such, AEMO seeks additional reserves. | There is a risk that supply will not meet forecast demand if either: (i) the two largest generating units are lost (e.g., two of Loy Yang A’s four units at 560 MW each); or (ii) both the largest generating unit and Basslink are lost (e.g., a Loy Yang A unit at 560 MW plus Basslink at 594 MW). |
| LOR2 | Victoria has enough supply to meet forecast demand, but reserves are forecast to fall below the LOR 2 Trigger. As such AEMO seeks additional reserves. | There is a risk that supply will not meet forecast demand if either: (i) the largest generating unit is lost (e.g., a Loy Yang A unit at 560 MW); or (ii) Basslink is lost at 594 MW. |
| LOR3 | Victoria is forecast to not have enough supply to meet demand. As such AEMO seeks additional reserves. An update will be provided, if additional reserves are not available, load shedding is expected. | Supply does not meet demand. Load shedding occurs (either manual or selective depending on available time). |

The Electricity Industry Act and the Electricity Safety Act provide general powers of enforcement to Energy Safety Victoria in relation to safety and other related obligations. Under the Electricity Safety Act the Chairperson of ESV may do or give any direction they consider necessary to make an electricity emergency situation safe.

Under the Electricity Industry Act, the Governor in Council may proclaim an electricity supply emergency if:

1. an event has occurred, or is about to occur, which may endanger an undertaking of a distribution company, a transmission company or a generation company or a person who supplies electricity to another person or materially affect the safe, economical or effective supply of electricity; or
2. the available supply of electricity is, or is likely to become, less than is sufficient for the reasonable requirements of the community.

The proclamation must be published in the Government Gazette and takes effect on the date of its publication; the Governor in Council may at any time revoke a proclamation.

Once this proclamation is made, the Minister for Energy, Environment and Climate Change may issue directions in accordance with the Act necessary to

1. protect any undertaking of a distribution company, a transmission company or a generation company or a person who supplies electricity to another person; or
2. ensure the safe, economical or effective supply of electricity; or
3. ensure that the available electricity is fairly distributed to the community; or
4. increase the available supply of electricity; or
5. regulate the use of the available supply of electricity, having regard to the needs of the community

### Mutual Aid Arrangements for electricity supply industry

The Victorian Mutual Aid Agreement for Distribution Businesses of the Victorian Electricity Supply System (2017) is an agreed process between Victorian electricity distribution businesses to obtain, where possible, short-term assistance in the form of personnel, equipment, materials, and other related services outside the area that a distribution business operates in.

The primary objective of this arrangement is to facilitate rapid, short-term deployment of assistance following an event. Mutual aid may be requested when an incident occurs, and the distribution business has exhausted or is nearing exhaustion of all its available resources.

### Gas

AEMO has a range of powers to intervene in the gas market. This includes emergency provisions under the *National Gas Rules*, and the use of market notices.

AEMO must ensure that flows of gas into distribution networks and interconnecting pipelines are adequate to meet demand and maintain minimum pressures in distribution networks. Where there is a threat to or breach of system security, AEMO may give directions to ‘curtail’[[3]](#footnote-4) gas load.

AEMO provides planning and forecasting information to support efficient decision-making and long-term investment in Australia's gas markets and infrastructure services. AEMO also publish the Victorian Gas Planning Report which informs market participants and government about gas transmission capacity changes that impact security and reliability in the Victorian Gas Declared Transmission System (DTS). AEMO runs year-round, 24-hour operations of the DTS to ensure its safe and effective operation, and schedules the Victorian Declared Wholesale Gas Market (DWGM).

Gas pipeline operators, storage, distributors, and producers operate and constantly monitoring their equipment and systems to ensure safe and effective operations.

Stocks and usage of liquid fuels are regularly monitored by liquid fuel companies who report regularly to the Commonwealth Government, advising of stocks of a range of commonly used liquid fuels, and current sales statistics. The Commonwealth Government collates and publishes these statistics monthly. Liquid fuel pipeline, storage, distributors, and refineries are constantly monitoring their systems to ensure safe and effective operations.

AEMO will issue curtailment directions to market participants, market customers and gas retailers, who will then be directed to instruct their customers to limit gas usage. Curtailment directions are only issued as a last resort after due consideration of alternative sources of gas supply and are limited to the extent required to maintain or restore system security.

The Gas Industry Act, Gas Safety Act and *Pipelines Act 2005* provide powers to Energy Safety Victoria and the Minister for Energy, Environment and Climate Change (or delegate) in relation to emergencies, safety and other regulatory obligations.

Under the Gas Industry Act, the Governor in Council may, on the advice of the Minister, proclaim a gas supply emergency if the available supply of gas is or is likely to become less than is sufficient for the reasonable requirements of the community.

Under the Act, and while a proclamation is in force, the Minister may give any directions necessary to:

(a) ensure the safe and secure supply of gas; or

(b) to regulate the use of the available supply of gas.

Decisions about which intervention, direction, or powers are best utilised for the management of a gas emergency will be supported by the Gas Emergency Management Group (see **Appendix B**).

### Liquid fuels

A range of government and industry response mechanisms to manage liquid fuel disruptions are available, depending on the duration and extent of the disruption. In the absence of major emergency, the policy of the Victorian Government is to allow the liquid fuel industry, customers and consumers to manage the fuel supply and demand balance without government intervention.

Industry uses a variety of production, supply chain management and pricing mechanisms to manage supply and demand and respond to potential and actual fuel supply issues.

More direct response measures include voluntary demand reduction communications or the implementation of a retail rationing scheme using either Commonwealth or Victorian legislation. Use of emergency legislative powers is considered as a process of last resort.

The *Fuel Emergency Act 1977 (Vic)* provides for a proclamation that a state of emergency exists when the Governor in Council is satisfied that an event has occurred or is imminent “whereby any kind of fuel is or is likely to become unavailable to meet the reasonable requirements of the community”. During a period of emergency, the Minister for Energy, Environment and Climate Change can “regulate and direct any service” relating to the production, supply, distribution, sale, use or consumption of fuel.

Under the *Liquid Fuel Emergency Act 1984 (Cth)* the Governor General may declare a national liquid fuel emergency in the event of an actual or likely national fuel shortage. Victoria must be consulted alongside all the other states and territories before a declaration is made. The Liquid Fuel Emergency Act gives the Commonwealth Minister for the Industry, Energy and Emissions Reduction powers in an emergency to control industry held stocks of crude oil and liquid fuels produced by Australian refineries, and fuel sales across Australia.

During a national liquid fuel emergency, Victoria aligns its approach, including for prioritising essential users, with the national approach.[1] Essential users are defined in the Liquid Fuel Emergency Act and the Commonwealth’s Essential Users Determination 2019.

[1] Prioritisation of essential users does not mean that there will be no fuel available for other users. Essential users typically represent only a relatively small portion of overall fuel demand. It is anticipated that under most scenarios, other users will still be able to access some fuel, albeit at reduced quantities. Business continuity planning by entities not included under the Determination should take this into account.

## Public Information and warnings

Public information and warnings ensure that the community has the information it needs to make informed choices about their safety and to take responsibility for their own recovery.   
Under the SEMP, the Emergency Management Commissioner must ensure that warnings are issued. Victoria has an integrated warning system which provides information and warnings to community through a range of channels.

The Emergency Management Commissioner works with DELWP to develop appropriate communication and engagement plans in relation to Class 2 energy emergencies.

The Secretary, or State Controller – Energy, may seek support from the Emergency Management Joint Public Information Committee (EMJPIC) to ensure state level messages from all agencies involved in the management of emergency response, recovery and the consequences of an emergency are included in the key messages to the public.

### Complementary energy emergency advice and messaging

DELWP uses a suite of pre-prepared communication materials in response to forecasts and events with a risk of energy supply disruption – for example bushfires, heatwave and storms. The aim of this communication is to support industry to reduce electricity and gas consumption prior to supply shortfalls and advise the community about temporary changes to supply during incidents.

DELWP also delivers a broad public information campaign to educate Victorians prior to summer about how severe weather events can lead to unplanned outages and the importance of reducing electricity consumption during instances when power infrastructure may be under extreme pressure, and to mitigate the risk of load shedding events.

The goal of these education campaigns is that Victorians proactively reduce energy consumption on hot days or in heatwave events and that vulnerable Victorians proactively seek support or are supported during load shedding events and power outages.

### Industry communications

Under the Electricity Distribution Code, distribution businesses are required to issue information to customers about power outages and expected restoration times across their area, within a set time frame, particularly power dependent customers.

The Single Industry Spokesperson Protocol for Electricity in Victoria (2019) (SISP) is designed to ensure media, customers and the general public receive coordinated and timely communication on agreed key messages that give clear advice about the status of a widespread electricity emergency.

The Single Industry Spokesperson Protocol (2019) for gas emergencies (SISP – Gas) is an agreement made between government and industry. Under the SISP – Gas AEMO will speak on behalf of the Victorian gas supply industry during widespread and prolonged gas shortages. The SISP only activates for major gas emergencies of Level 4 and above.

The Australian Institute of Petroleum (AIP) Communications Protocol on major fuel supply situations or disruptions is a framework for notifications, reporting and coordination of emergency response between and industry and the Victorian Government. The protocol is activated, as soon as practicable, if a known fuel supply situation is or will likely have visible implications for fuel users in Victoria.

## Relief arrangements (as part of Response)

**Relief** is the provision of assistance to meet the essential needs of individuals, families and communities during and in the immediate aftermath of an emergency.

As the control agency for Class 2 energy emergencies, DELWP has an overarching role in relation to relief as part of establishing effective command and control arrangements.

Specific roles and responsibilities for delivery of relief services and coordination are set out in SEMP Roles and Responsibilities.

Relief co-ordination responsibilities are:

* for state relief co-ordination: Emergency Management Victoria (EMV) supported by a range of organisations
* for regional relief co-ordination: Department of Families, Fairness and Housing (DFFH)
* for municipal relief co-ordination: municipal councils, activated by the relevant incident controller.

The EMC may appoint a State Emergency Relief Coordinator (SERC) who, in consultation with the State Relief and Recovery Team (SRRT), is responsible for coordinating state-tier provision of essential and urgent assistance to individuals, families and communities affect by a Class 2 energy emergency.

DELWP provides advice to the EMC and State Consequence Manager about relief services and coordination requirements.

The State Controller - Energy may determine it is necessary to deliver relief activities as part of response to residential and business customers affected by prolonged power outages. These activities will be delivered under the direction of the State Controller - Energy. These activities will be coordinated with the SERC.

DELWP provides advice to inform any planning to transition the coordination process from the State Emergency Relief Coordinator to the Regional Recovery Coordinator(s) (RRC).

DELWP liaises with energy business to monitor industry-led relief activities, and coordinate restoration priority to best meet the essential needs of community.

### Power dependent customers

People who are known to be dependent on electricity or gas for medical reasons are referred to as ‘power dependent’ or ‘life support’ customers.

Power dependent customers can register with their distribution business directly or through their retailer. Under the Electricity Distribution Code, the Gas Distribution System Code, and the Energy Retail Code, distribution and retail businesses have obligations in relation to persons dependent on electricity or gas for medical reasons.

These customers develop plans, in collaboration with their general practitioner and/or carer, to manage in the event of a power or gas outage.

The ‘Assistance for power dependent people during power outage emergencies protocol’ is an agreement between the Department of Health (DH) and distribution businesses which sets out the manner and format of the information required to be supplied, including specifying details of life support customers.

The definition of ‘widespread supply event’ in the Electricity Distribution Code is any event where the Single Industry Spokesperson has been activated by AEMO. Consistent with the Code and the agreement between DH and distribution businesses, information about outages expected to be longer than 24 hours, and the associated details of life support customers, are shared as soon as possible after a distribution business expects an outage to be longer than 24 hours, and at least one of the follow criteria are met:

* the SISP is activated, or
* the triggers for a major emergency are met, and DH, DFFH or DELWP requests this information to lessen or prevent a serious threat to the life, health or safety of any individual, or to public health or safety.

As a matter of practice, distribution businesses provide the required information to DH (as the Lead Response Support Agency for public health), DFFH (as the agency responsible for regional relief co-ordination) and DELWP (as the control agency for energy emergencies) simultaneously.

The disclosure of this information by a distribution business to DH, DFFH and DELWP is considered necessary to lessen or prevent a serious threat to the life, health or safety of any individual, or to public health or safety.

DH and DFFH have a role to work with distribution companies to contact and provide support to power dependant customers affected by a major energy emergency.

## Transition to Recovery

As response control and coordination activities decrease, agencies will make decisions regarding recovery priorities by working cooperatively to share information, jointly plan and execute.

The SEMP outlines the process and roles and responsibilities for transition, along with those short-term recovery activities that should be considered in the transition plan.

The State Controller - Energy will work with the State Recovery Coordinator to develop transition plans for recovery. Transition will be to the relevant Recovery Lead Agency (RecLA), with support from Recovery Support Agencies (RelSAs).

Key considerations in determining when and how response will transition to recovery include:

* the extent to which concurrent emergencies (e.g. storm events) are impacting communities
* the extent of impact on communities, which may determine whether a prolonged transition period needs to be implemented
* the extent and known level of loss and damage associated with the emergency
* the extent of emergency relief required by affected communities.

During a prolonged energy supply disruption, the State Controller – Energy will ensure that the transition to recovery plan accounts for requirements of affected community members including any temporary support that has been put in place to assist with essential needs.

During prolonged energy disruptions, transition to recovery will be phased, with the transition to recovering planning accounting for ongoing response in some regions or areas, and recovery in others. Controllers and Recovery Coordinators at relevant incident, regional and State tiers will agree on the timing and phasing of transition, the activities required and who is responsible.

# Recovery

**Recovery** means the assistance of persons and communities affected by emergencies to achieve a proper and effective level of functioning. Emergency relief and recovery activities integrate with emergency response activities and commence as soon as the impact and consequences of the emergency are anticipated.

Specific roles and responsibilities for delivery of recovery coordination and recovery activities are set out in SEMP Roles and Responsibilities, in the Recovery section.

Under the SEMP, DELWP is the recovery lead agency for built environment (energy services). DELWP liaises with industry plan for reinstatement and return to reliable supply.

AEMO, electricity, gas, liquid fuel and pipeline companies and ESV are recovery support agencies for built environment (energy services).

Where an energy emergency has had a broader impact across the Social, Economic, Built and Natural environments, recovery activities will be led by the relevant Recovery Lead Agency (RecLA), with support from Recovery Support Agencies (RelSAs).

# Appendix A: Triggers for major emergencies (electricity, gas and liquid fuels)

## Electricity

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Electric Tower with solid fill** | | **Class 2 energy emergency (electricity)** | | |
| **Triggers** | | | | |
| **Major emergency** | **Forecast** | **Weather forecast**  Heat Health Alert issued and remains current for the next 24 hours for:   * three or more regions, and/or * the "Central' region.   Fire danger rating of Extreme or Code Red.  Forecast wind gusts over 110km/h, and 130 km/h in Alpine areas.  Two days with maximum forecast temperatures more than 45oc in any weather district  Two days with maximum forecast temperatures more than 38oc in the central weather forecast district. | **Forecast reserves, supply, demand**  AEMO issues a forecast LOR3 market notice  AEMO notifies DELWP there is a potential for load shedding following Vic RO’s assessment of reserve conditions.  An event is about to occur which may endanger an undertaking of a distribution company, a transmission company or a generation company or a person who supplies electricity to another person or materially affect the safe, economical or effective supply of electricity. | **Other conditions**  A gas supply shortage threatens the operation of gas-fired power stations.  High profile event, threat or natural disaster  Any incident with impact for Victoria that is classified as a Level 4 or Level 5 incident under the PSEMP  Any incident considered likely to escalate to a major energy emergency. |
| **Event** | **Power outages**  Generation, transmission or distribution equipment failure or disruption (including supply chain disruption) causing outages for:   * more than 50,000 customers (state-wide) for more than 1 hour, and/or * more than 20,000 customers in a single disruption area for more than 1 hour, and/or * more than **10,000** customers with a return to service estimate of **60** hours, and/or * critical infrastructure, and/or * industry - resulting in, or likely to result in, significant commercial/industrial impact. | **Lack of reserve**  AEMO issues a market notice for Actual LOR3 conditions.  The available supply of electricity is, or is likely to become, less than is sufficient for the reasonable requirements of the community.  An event has occurred which may endanger an undertaking of a distribution company, a transmission company or a generation company or a person who supplies electricity to another person or materially affect the safe, economical or effective supply of electricity. | **Other conditions**  Any incident attracting or likely to attract significant media or public interest, with a risk of reputational damage to the State.  A large and complex incident that has the potential to have or is having significant adverse consequences for the safety and wellbeing of the Victorian community or a part of the Victorian community.  Proclamation of an electricity supply emergency under the *Electricity Industry Act 2000* |

## Gas

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | **Class 2 energy emergency (gas)** | | |
| **Triggers** | | | | |
| **Major emergency** | **Forecast** | **Weather forecast**  Health Alert issued for extremely cold weather.  Two days with maximum forecast temperatures of less than 12oc for the Melbourne metropolitan area, or one day with a maximum forecast temperature of less than 10oc | **Forecast reserves, supply, demand**  AEMO issues a market notice warning of insufficient gas supply to meet demand.  AEMO notifies DELWP there is a potential for gas curtailment following AEMO’s assessment of the forecast gas supply and demand conditions.  An event or outage is about to occur, e.g., an urgent outage at a major gas supply facility or on the DTS, e.g., a pipeline strike, that may endanger facility employees and/or the public resulting a shutdown or capacity reduction that will result in a supply shortfall. | **Other conditions**  An electricity supply outage threatens the operation of gas supply infrastructure, that may require the prioritisation of diesel for onsite power generation to prevent a major reduction in gas supply.  High profile event, threat or natural disaster  Any incident that results in an activation of the NGERAC Interruption to Supply process.  Any incident considered likely to escalate to a major energy emergency. |
| **Event** | **Gas outages**  >1,000 customers are impacted by loss of supply.  Substantial risk of serious injury or death.  Significant commercial/industrial impact.  Immediate threat to significant infrastructure or facilities including hospitals, major industry and or other utilities. | **Gas supply disruption**  Loss of supply form a major injection point or unplanned isolation of a significant transmission pipeline jeopardising the integrity of the principal network.  Any incident leading to gas supply curtailment.  Proclamation of a gas supply emergency under the *Gas Industry Act 2001* | **Other conditions**  Any incident attracting or likely to attract significant media or public interest, with a risk of reputational damage to the State.  A large and complex incident that has the potential to have or is having significant adverse consequences for the safety and wellbeing of the Victorian community or a part of the Victorian community.  Degree of complexity requires more substantial organisational structure. |

## Liquid fuels

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Fuel with solid fill** | | **Class 2 energy emergency (liquid fuels)** | | |
| **Triggers** | | | | |
| **Major emergency** | **Conditions** | Significant increased risk of supply disruption – perceived or actual.  Incident or situation affecting supply infrastructure, including retail network, causing or likely to cause significant adverse impact on the community, or part of the community. | NOSEC or LFWG convened in response to conditions/incident. |  |
| **Event** | **Level 1**  Any incident attracting or likely to attract significant media or public interest, with a risk of reputational damage to the State. | **Level 2**  Short-term major disruption  Prolonged mild disruption.  Substantial imbalance in the markets affecting primary grade fuel(s) i.e., diesel, petroleum and jet fuel.  Prioritisation of fuel for ‘essential fuel users[[4]](#footnote-5).  Degree of complexity requires more substantial organisational structure. | **Level 3**  Widespread or severe disruption  Critical impact on ‘essential users’.  Actual or imminent threat to supply for essential fuel users.  Multi-jurisdictional impacts  A large and complex incident with potential or actual significant adverse consequences for the safety and wellbeing of the Victorian community or a part of the Victorian community. |

# Appendix B: Multi-jurisdictional and state-level joint government-industry energy emergency management arrangements

Multi-jurisdictional and state-level joint government-industry energy emergency management arrangements include agreements between Australian state and territory governments and industry about the management and response to energy disruptions. These arrangements are supported by governance bodies who oversee planning, preparedness and response.

## Electricity

| **Electric Tower with solid fill** |  | **Arrangement** | **Description** |
| --- | --- | --- | --- |
| **Electricity** | **State-level** | Victorian Electricity Emergency Committee (VEEC) | VEEC participants include electricity distribution, transmission and generation businesses, DELWP, ESV, Victorian emergency services, Victoria Police, AEMO, EMV, DFFH, DH and other government agencies.  VEEC can be convened concurrently with NEMEMF to manage any Victorian specific elements of an electricity emergency. This committee is not convened in emergencies, but meets twice a year to:   * Define and review electricity emergency information sharing processes to enhance coordination activities and information management. This includes the annual review of the VEEC Protocol. * Promote sector resilience in relation to preparedness, response and recovery activities from electricity emergencies. * Provide input to the development of annual VEEC emergency exercises including: * Provide representation in work teams to implement actions identified through VEEC emergency exercises and meetings that have been endorsed by the committee. * Review post exercise reports and. * Identify areas of opportunity for improvement initiatives. |
| Victorian Electricity Emergency Communication Protocol (VEECP). | The Victorian Electricity Emergency Communications Protocol (VEECP) facilitates timely sharing of information between Victorian Electricity Emergency Committee (VEEC) members when responding to an actual or likely energy emergency event. Triggers for activation of the protocol include actual or forecast events that threaten the power system. |
| Single Industry Spokesperson Protocol for Electricity in Victoria (SISP) | SISP participants include: AEMO, CitiPower and Powercor, AusNet Services, Jemena, United Energy, ESV and DELWP (usually represented by the Communications Specialist).  The SISP ensures coordinated and timely agreed key messages and give clear advice about the status of a widespread electricity emergency.  Contains relevant trigger, procedures, policies, roles, responsibilities, contact details and  draft media materials. |
| **Multi-jurisdictional** | National Electricity Market Emergency Management Forum (NEMEMF) | The National Electricity Market Emergency Management Forum (NEMEMF) is chaired by AEMO and consists of representatives from industry and state and federal governments. It is charged with reviewing and improving the emergency plans and procedures that apply during power system emergencies, including the PSEMP. Key to this improvement process is participation in annual exercises that test these emergency arrangements.  For a dual energy multi-jurisdictional event impacting both electricity and gas supply, the NEMEMF will coordinate with the NGERAC and **associated Interruption to Supply Process (ITSP).** |
| Memorandum of Understanding on the Use of Emergency Powers and National Electricity Market Emergency Protocol | The Memorandum of Understanding (MOU) and the Protocol were developed by the Jurisdictions, that is, South Australia, Victoria, New South Wales, Queensland, Tasmania, and AEMO, to co-ordinate actions to be taken under individual state legislation to manage power system security emergencies |
| Power System Emergency Management Plan (PSEMP). | Developed by AEMO in consultation with NEM state and territory government and industry. The Power System Emergency Management Plan (PSEMP) facilitates a coordinated approach to NEM power system incidents. The PSEMP is the single point of reference for the electricity industry, government and stakeholders and provides the emergency management arrangements for the power system. |
| **Defined roles** | Jurisdictional Responsible Officer (RO) | Advises the Victorian government regarding electricity emergency risks and events. Participates in the VEEC and NEMEMF |
| Jurisdictional System Security Coordinator (JSSC) | Advises government on the use of electricity emergency powers. Participates in the VEEC and NEMEMF |
| Jurisdictional Designated Officer (JDO) | Represents Victoria on the National Electricity Market Emergency Management Forum |

## Gas

|  |  | **Arrangement** | **Description** |
| --- | --- | --- | --- |
| **Gas** | **State-level** | Gas Emergency Protocol.                      Gas Emergency Management Consultative Forum  ) | Developed by AEMO in consultation with the Victorian Government, the Gas Emergency Protocol consists of the Emergency Procedures Gas, that sets out the response, responsibilities, and communication requirements in the event of a Victorian gas emergency.  The Protocol also includes the Gas Load Curtailment, Gas Rationing and Recovery Guidelines that provide detail of the priorities, principles, considerations, measures and processes that AEMO will apply when curtailment is required, and for the rationing and recovery of gas supplies.  The Gas Emergency Protocol can be convened concurrently with the NGERAC to manage any Victorian specific elements of a gas emergency.      The **Gas Emergency Management Consultative Forum (GEMCF)** is a planning and coordination forum of industry representatives to consider issues relating to the effective management of emergencies related to the Victorian gas system. Jointly Convened by ESV and AEMO. The GEMCF meets twice annually and holds an exercise every year. |
| Victorian Gas Emergency Communications Protocol | The **Victorian Gas Emergency Communications Protocol (2020)** has been developed by AEMO, government agencies, industry, and emergency services. The VGECP outlines the process for information sharing between VEECP members in preparation for and response to gas emergencies impacting the state of Victoria. |
| Single Industry Spokesperson Protocol for Gas in Victoria (SISP) | SISP participants include: AEMO, APA Networks, Multinet, AusNet Services, ESV and DELWP (usually represented by the Communications Specialist).  The SISP ensures coordinated and timely agreed key messages and give clear advice about the status of a widespread gas emergency.  Contains relevant trigger, procedures, policies, roles, responsibilities, contact details and draft media materials. |
| **Multi-jurisdictional** | National Gas Emergency Response Advisory Committee | The **National Gas Emergency Response Advisory Committee (NGERAC)** is a planning and coordinating forum made up of industry, federal and state government representatives. NGERAC facilitates efficient and effective communication across industry and government during major natural gas supply shortages with the intent of minimising significant consequences for the community. The NGERAC meets twice a year.  For a dual energy multi-jurisdictional event impacting both electricity and gas supply, the NEMEMF may coordinate with the NGERAC and **associated Interruption to Supply Process (ITGSP).** |
| **Defined roles** | Jurisdictional Responsible Officer (RO) | Represents Victoria on the National Gas Emergency Response Advisory Committee. |

## Liquid fuels

| **Fuel with solid fill** |  | **Arrangement** | **Description** |
| --- | --- | --- | --- |
| **Liquid fuels** | **State-level** | Liquid Fuel Working Group (LFWG) | The **Victorian Liquid Fuels Working Group (LFWG)** comprises DELWP, the Australian Institute of Petroleum (AIP), Viva Energy, ExxonMobil, Ampol and BP. Per the AIP Communications Protocol (2015), the Victorian Government may convene the LFWG where there is a significant disruption to supply for fuel users.  This forum provides an ongoing two-way exchange of information and advice between government and industry on the expected extent of the disruption, impacts and consequences, and what the most effective response mechanisms would be.  The LFWG can be convened concurrently with the NOSEC to manage any Victorian specific elements of a national liquid fuel emergency. |
| Australian Institute of Petroleum Communications Protocol (2015) | The AIP Communications Protocol (2015) on major fuel supply situations or disruptions is a framework for notifications, reporting and coordination of emergency response between and industry and the Victorian Government.  The protocol is activated, as soon as practicable, if a known fuel supply situation is or will likely have visible implications for fuel users in a jurisdiction(s). |
| **Multi-jurisdictional** | National Oil Supplies Emergency Committee (NOSEC) | **NOSEC** consists of Commonwealth, State and Territory government representatives who in cooperation with the liquid fuel industry respond to widespread fuel shortages or emergencies. NOSEC provides relevant advice and information on issues confronting national supply of crude oil and petroleum products and reports annually or as required to the Senior Committee of Officials on operations and the state of readiness. |
| National Operating Committee (NOC) for Jet Fuel Assurance | The NOC is a voluntary industry-led body established to minimise the risks of jet fuel supply disruption at eight major Australian airports and three regional international airports.  The NOC comprises all of the major Australian jet fuel suppliers, and its key purposes is to communicate the status of current and future jet fuel supply availability at Australian and New Zealand major airports.  It communicates through regular reporting to nominated members of government and industry. |
| Intergovernmental Agreement | States and territories must be consulted prior to the declaration of a national emergency. An Intergovernmental Agreement (2006) sets out parameters for a co-operative response, and the National Liquid Fuel Emergency Response Plan and supporting documents describe these arrangements. |
| National Liquid Fuel Emergency Response Plan (NLFERP) | The NLFERP reinforces established industry and market strategies for returning Australia to normal fuel supply levels. It includes a communication plan designed to support the successful management of any liquid fuel emergency. It can be used to bring powers under the *Liquid Fuel Emergency Act 1984* into operation, if a national supply disruption is severe or may last for a long time.  It aims to ensure fuel is allocated in the most efficient and fair way, and that the impact of any shortage on fuel users is minimised. |
| Liquid Fuel Emergency Guidelines 2019 | The Guidelines are subordinate instrument under the *Liquid Fuel Emergency Act* 1984, which aims to ensure that both essential and non-essential users in the Australian market receive fuel in an equitable and transparent manner during an emergency, based on available supplies. |
| Liquid Fuel Emergency (Activities—Essential Users) Determination 2019 | The Determination is a subordinate instrument under the *Liquid Fuel Emergency Act 1984* which provides a predetermined list of essential user activities.  This allows for greater planning and preparation, so that if a liquid fuel emergency does occur, there will be an existing strategy to prioritise the needs of these Essential Users. |
| Guidance Note on Retail Rationing | The Retail Rationing Framework is part of the NLFERP, and governs the way liquid fuel is rationed in Australia.  The current rationing approach would involve limiting the volume of fuel a motorist can purchase up to a pre-defined daily dollar-value.  A NOSEC Guidance Note on Retail Rationing was agreed in 2016 to help retailers and members of the public plan for the unlikely event that retail rationing is required. All essential users are prioritised under a retail rationing framework. |

# Appendix C: Related plans, documents and services

| DOCUMENT | LINK |
| --- | --- |
| Assistance for power dependent people during power outage emergencies SOP v2.4 | Department of Health |
| Critical Infrastructure All Sectors Resilience Annual Report (2020) | [Critical Infrastructure Resilience | Emergency Management Victoria (emv.vic.gov.au)](https://www.emv.vic.gov.au/our-work/critical-infrastructure-resilience) |
| Electricity Distribution Code 2021 | [Electricity Distribution Code | Essential Services Commission](https://www.esc.vic.gov.au/electricity-and-gas/codes-guidelines-and-policies/electricity-distribution-code) |
| Electricity Safety (Bushfire Mitigation) Regulations 2013 | [Electricity Safety (Bushfire Mitigation) Regulations 2013 (legislation.vic.gov.au)](https://www.legislation.vic.gov.au/in-force/statutory-rules/electricity-safety-bushfire-mitigation-regulations-2013/005) |
| Electricity Safety (Electric Line Clearance) Regulations 2020 | [Electricity Safety (Electric Line Clearance) Regulations 2020 (legislation.vic.gov.au)](https://www.legislation.vic.gov.au/as-made/statutory-rules/electricity-safety-electric-line-clearance-regulations-2020) |
| Electricity Safety Act 1998 | [Electricity Safety Act 1998 (legislation.vic.gov.au)](https://www.legislation.vic.gov.au/in-force/acts/electricity-safety-act-1998/077) |
| Electricity Statement of Opportunities | [AEMO | NEM Electricity Statement of Opportunities (ESOO)](https://aemo.com.au/en/energy-systems/electricity/national-electricity-market-nem/nem-forecasting-and-planning/forecasting-and-reliability/nem-electricity-statement-of-opportunities-esoo) |
| *Emergency Management Act 2013* | [Emergency Management Act 2013](https://www.legislation.vic.gov.au/in-force/acts/emergency-management-act-2013/019) |
| *Environment Protection Act 2017* | [Environment Protection Act 2017 (legislation.vic.gov.au)](https://www.legislation.vic.gov.au/in-force/acts/environment-protection-act-2017/004) |
| *Fuel Emergency Act 1977* | [Fuel Emergency Act 1977 (legislation.vic.gov.au)](https://www.legislation.vic.gov.au/in-force/acts/fuel-emergency-act-1977/015) |
| *Gas Industry Act 2001* | [Gas Industry Act 2001 (legislation.vic.gov.au)](https://www.legislation.vic.gov.au/in-force/acts/gas-industry-act-2001/065) |
| *Gas Safety Act 1997* | [Gas Safety Act 1997 (legislation.vic.gov.au)](https://www.legislation.vic.gov.au/in-force/acts/gas-safety-act-1997/045) |
| Liquid Fuel Emergency (Activities—Essential Users) Determination 2019 | [Liquid Fuel Emergency (Activities—Essential Users) Determination 2019](https://www.legislation.gov.au/Details/F2019L00436) |
| *Liquid Fuel Emergency Act 1984 (Cth)* | [Liquid Fuel Emergency Act 1984 (legislation.gov.au)](https://www.legislation.gov.au/Details/C2019C00059) |
| National Electricity Law | [South Australian Legislation](https://www.legislation.sa.gov.au/LZ/C/A/NATIONAL%20ELECTRICITY%20(SOUTH%20AUSTRALIA)%20ACT%201996.aspx) |
| National Electricity Rules | [National Electricity Rules | AEMC](https://www.aemc.gov.au/regulation/energy-rules/regulation-1) |
| National Liquid Fuel Emergency Response Protocol | [National Oil Supplies Emergency Committee (NOSEC) | Australian Institute of Petroleum (aip.com.au)](https://www.aip.com.au/resources/national-oil-supplies-emergency-committee-nosec) |
| *NOSEC Guidance Note Essential Users under the Liquid Fuel Emergency Act 1984* | [Guide Note on Essential Users (environment.gov.au)](https://www.environment.gov.au/system/files/energy/files/guidance-note.pdf) |
| Occupational Health and Safety Regulations 2017 - Part 5.2 Major Hazard Facilities | [Occupational Health and Safety Regulations 2017 (legislation.vic.gov.au)](https://content.legislation.vic.gov.au/sites/default/files/2021-02/17-22sra009%20authorised.pdf) |
| *Pipelines Act 2005* | [Pipelines Act 2005 (legislation.vic.gov.au)](https://www.legislation.vic.gov.au/in-force/acts/pipelines-act-2005/017) |
| Power System Emergency Management Plan | [AEMO | National role](https://www.aemo.com.au/energy-systems/electricity/emergency-management/national-role) |
| Powerline Replacement Fund | [Powerline replacement (energy.vic.gov.au)](https://www.energy.vic.gov.au/electricity/powerline-replacement) |
| Single Industry Spokesperson Protocol for Electricity in Victoria (2019) | [AEMO-Single-Industry-Spokesperson-Protocol-VIC-Electricity.pdf](https://www.aemo.com.au/-/media/Files/Electricity/NEM/Emergency_Management/2019/AEMO-Single-Industry-Spokesperson-Protocol-VIC-Electricity.pdf) |
| Single Industry Spokesperson Protocol for Gas in Victoria (2019) | [2D58AADB8B04406CA2E3A10D2C89C744.ashx (aemo.com.au)](https://aemo.com.au/Gas/~/-/media/2D58AADB8B04406CA2E3A10D2C89C744.ashx) |
| State Emergency Management Plan | [State Emergency Management Plan (SEMP) | Emergency Management Victoria (emv.vic.gov.au)](https://www.emv.vic.gov.au/responsibilities/semp) |
| Victorian Critical Infrastructure Resilience Strategy | [Critical Infrastructure Resilience | Emergency Management Victoria (emv.vic.gov.au)](https://www.emv.vic.gov.au/our-work/critical-infrastructure-resilience) |

# Appendix D: Acronyms

| Acronym | Definition |
| --- | --- |
| AEMO | Australian Energy Market Operator |
| AIP | Australian Institute of Petroleum |
| BMP | Bushfire Management Plan *(electricity)* |
| CAOiC | Control Agency Officer in Charge *(Secretary-DELWP)* |
| DELWP | Department of Environment, Land, Water and Planning |
| DNSP | Distribution Network System Providers |
| DTS | Declared Transmission System |
| DWGM | Declared Wholesale Gas Market |
| EIRC | Energy Industry Response Committee |
| EPA | Environment Protection Authority |
| ESOO | Electricity Statement of Opportunities |
| ESV | Energy Safe Victoria |
| GED | General Environmental Duty |
| GEMCF | Gas Emergency Management Consultative Forum |
| GEMG | Gas Emergency Management Group |
| ITSP | Interruption to Supply Process *(Gas)* |
| LFWG | Liquid Fuels Working Group *(Victoria)* |
| LOR | Lack of Reserve |
| MEC | Major Electricity Companies |
| MHF | Major Hazard Facility |
| NEM | National Electricity Market |
| NEMEMF | National Electricity Market Emergency Management Forum |
| NGERAC | National Gas Emergency Response Advisory Committee |
| NGERP | National Gas Emergency Response Protocol |
| NGR | National Gas Rules |
| NLFERP | National Liquid Fuel Emergency Response Plan |
| NOSEC | National Oil Supplies Emergency Committee |
| POEL | Private Overhead Electric Line scheme |
| PSEMP | Power System Emergency Management Plan |
| RECFL | Rapid Earth Fault Current Limiters |
| SC-E | Class 2 State Controller – Energy |
| SISP | Single Industry Spokesperson Protocol |
| SRN | Sector Resilience Network |
| VEEC | Victorian Electricity Emergency Communications Committee |
| VEECP | Victorian Electricity Emergency Communications Protocol |
| VGECP | Victorian Gas Emergency Communications Protocol |

1. Risks as identified in the state-level Emergency Risk Assessment (ERA) May 2021 based on:

   consultation with the Energy Sector Resilience Network convened by DELWP, and Energy Sector Group Trusted Information Sharing Network (TISN) convened by the Commonwealth Government’s Department of Home Affairs

   information included in ‘vital’ energy critical infrastructure businesses’ Statements of Assurance

   Victorian Government state level risk management priorities and risk assessments. [↑](#footnote-ref-2)
2. Load shedding is where network businesses remove electricity demand by switching off areas of demand. [↑](#footnote-ref-3)
3. Consumers are asked or directed to reduce their gas consumption or demand through voluntary or mandatory measures. [↑](#footnote-ref-4)
4. ‘Essential fuel users’ are defined in the Liquid Fuel Emergency (Activities—Essential Users) Determination 2019. [↑](#footnote-ref-5)