# Victoria's Critical Infrastructure All Sectors Resilience Report

VICTORIA
State Government

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**Acknowledgement to Country**
The Victorian Government acknowledges Aboriginal and Torres Strait Islander people as the Traditional Custodians of the land. The Victorian Government also acknowledges and pays respect to the Elders, past and present.

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# MINISTERIAL FOREWORD

As Minister for Emergency Services, I am delighted to present Victoria's first Critical Infrastructure All Sectors Resilience Report.

The health, safety and prosperity of all Victorians is dependent upon critical infrastructure and the services these systems provide. Each day, we enjoy the benefits of access to water, food supply, health services, energy, transport, communications, banking and finance and government services. The importance of these fundamental services for our social and economic well-being is clear to us all.

Emergencies can have wide ranging impacts upon communities. Many Victorians have experienced the devastation of fire and floods, and the isolation of communities from basic lifelines and needs. In July 2015, Victoria introduced new arrangements to improve critical infrastructure resilience and reduce disruption of services to the community due to emergencies. Resilient critical infrastructure is more likely to endure changes or challenges to social, economic and environmental circumstances.

Nationally, Victoria is viewed as providing important leadership in this area. This Report provides an overview of each of Victoria's eight critical infrastructure industry sectors and how industry and government are working as one to continue to build the resilience of Victoria's critical infrastructure.

Disaster resilience is a shared responsibility. In an increasingly interconnected world, where critical infrastructure crosses state, national and global supply chains, the range of potential disruptions has become broader. Systems are becoming more advanced, interdependent and interrelated. The degree and complexity of a growing connectedness highlights the importance of collaborative partnerships. The Victorian community directly benefits from this collaboration between industry and government.

I would like to take this opportunity to thank the owners and operators of critical infrastructure for their commitment to implementing best practice in managing Victoria's critical infrastructure. Victoria will be better placed to meet future opportunities and challenges because of it.

**James Merlino MP**
Minister for Emergency Services

# CRITICAL INFRASTRUCTURE IN THE COMMUNITY

Victoria's social and economic wellbeing depends on its infrastructure. Each day, Victorians rely upon the continuity of important services provided by critical infrastructure. Critical infrastructure supports our most basic needs: safe drinking water, food, reliable transport, accessible public health services, energy for homes and industry, access to banking, finance and government services, and global communications networks to connect us socially and in business. Critical infrastructure includes those 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 on the social or economic wellbeing of the Victorian community.

The importance of our critical infrastructure to all Victorians highlights the need to build and strengthen its resilience. In emergency management, 'resilience' can be described as 'the capacity of individuals, communities, institutions, businesses and systems to survive, adapt and grow no matter what kinds of chronic stresses and acute shocks they experience'[1].

Victoria has adopted an industry sector-based approach to managing critical infrastructure resilience. It comprises eight sectors: water, food and grocery supply logistics, health, energy, transport, communications, banking and finance, and government. This Report by the State Crisis and Resilience Council is based on the analyses for each of these critical infrastructure sectors. It recognises the existing resilience measures that support the reliable and high quality critical infrastructure services Victorians enjoy. The Report summarises the arrangements that continue to improve critical infrastructure resilience through increased understanding of the emergency risks. It also includes the mitigation activities adopted for the year ahead by Victoria's critical infrastructure sectors.


Image by John Gollings

[1] Emergency Management Victoria, *Stage 1 Report: Mapping community resilience outcomes and resilience challenges*, Emergency Management Victoria, July 2016, modified from 100 Resilient Cities, http://www.100resilientcities.org/resilience#/-_/.

# VICTORIA'S CRITICAL INFRASTRUCTURE RESILIENCE ARRANGEMENTS

**Victoria has long understood the importance of critical infrastructure to our community. In 2003, following the 2001 terrorist attacks in the United States of America, Victoria introduced legislative and policy arrangements to protect our critical infrastructure from acts of terrorism. These arrangements were built upon a strong foundation of industry and government collaborative partnerships.**

Most of Victoria's critical infrastructure is either owned or operated by private entities that have strong risk management programs and practices. Victoria has existing measures to strengthen the position of its critical infrastructure to meet future challenges, including:

- risk and safety management under various Commonwealth and State legislation and regulations
- international, Australian and industry standards and policies including emergency resilience, safety, preventative maintenance and quality management
- existing industry networks and
- individual owner and operator initiatives including preventative maintenance regimes, service continuity and emergency response plans.

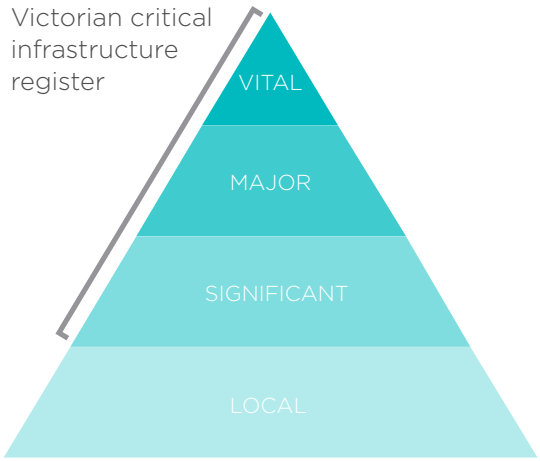
Recently, severe and prolonged droughts, storms, floods, heatwaves, fires and other natural disasters have challenged Victoria. The often devastating consequences of these emergencies demonstrates the need for policy and decision-making that better manage the critical infrastructure consequences of all emergencies, including security events and terrorism.

Building resilience recognises that different hazards can have similar consequences. For example, both floods and bushfires can lead to a loss of power, impacting communities, businesses and industry. The devastating 2009 Victorian bushfires, the 2010-11 Victorian floods and the 2012 Warrnambool Telephone Exchange fire all resulted in the isolation of communities from various basic services, highlighting the importance of resilient critical infrastructure.

More recently, the 2015 Wye River – Jamieson Track fire burned 2500 hectares, destroyed more than 100 homes and interrupted essential services. During relief and recovery operations, critical infrastructure operators, including electricity companies and road and water authorities, worked alongside traditional relief and recovery agencies. For example, Barwon Water Corporation, while not responsible for providing water to the area, recognised the community need for safe and clean water, organised for community water tanks and assisted with cleaning contaminated water tanks and refilling them. In the 'before, during and after' emergency management model, there is a focus on communities, businesses, industry, agencies and Government working together.

## Victorian Critical Infrastructure Model

In recognition of the consequences of major emergencies, Victoria initiated new critical infrastructure resilience arrangements in July 2015.[2] These reforms augment existing emergency risk management practices. They also build upon the former terrorism-protection arrangements, moving towards a resilience focus where industry and government consider and plan for the consequences of all emergencies. This aligns with the adoption by all Australian governments of a resilience based approach to disaster management to enhance Australia's capacity to withstand and recover from all emergencies.[3]




Under the Victorian Critical Infrastructure Resilience Strategy[4], the Victorian Critical Infrastructure Model is a key reform that aims to keep building the emergency resilience of Victoria's critical infrastructure by:

- adopting an all hazards, consequence management focus, which recognises that similar consequences may flow from different hazards
- broadening its focus from terrorism to all hazards, which includes terrorism
- strengthening partnerships between industry and government
- developing a standardised criticality assessment methodology. This assists in categorising critical infrastructure, according to its importance to the community: vital, major, significant and local
- developing and maintaining the Victorian Critical Infrastructure Register, which records infrastructure that is most important to the functioning of the Victorian community
- requiring that owners and operators of Victoria's infrastructure that is declared as 'vital' undertake legislated emergency risk management planning. This planning requires owners and/or operators to understand their emergency risks, develop mitigation plans and test preparedness
- requiring government departments to provide assurance that they are supporting and monitoring the performance of their critical infrastructure sectors and emergency risk management and
- industry sectors focussing on resilience improvement and better understanding systemic emergency management risks.

[2] Part 7A of the *Emergency Management Act 2013, Emergency Management (Critical Infrastructure Resilience) Regulations 2015, Ministerial Guidelines for Critical Infrastructure Resilience, and Victoria's Critical Infrastructure Resilience Strategy 2015.*

[3] Council of Australian Government, *National Strategy for Disaster Resilience*, Commonwealth of Australia, February 2011.

[4] Emergency Management Victoria, *Critical Infrastructure Resilience Strategy*, State Government of Victoria, July 2015.

## Strong industry and government partnership

Industry contribution and partnership with government underpins Victoria's ability to effectively address the challenges to, and provide new opportunities for, critical infrastructure resilience. Owners and/or operators of critical infrastructure have strong business continuity improvement processes. They also perform continuous improvement through quality and safety certification initiatives and contractual requirements. Through active sector engagement, industry contributes technical expertise and knowledge about key dependencies, intra-sector dependencies and the consequences of emergencies.

Industry and government are working together to identify the assets and services that are most critical to the Victorian community. A key interface between industry and government is through the **Sector Resilience Networks** for each of the eight critical infrastructure sectors. Sector Resilience Networks are convened by government departments and provide forums for industry and government to discuss sector challenges, dependencies, opportunities and better practices.

| Sector | Responsible department |
|---|---|
| Water | Department of Environment, Land, Water and Planning |
| Food and grocery supply logistics | Department of Economic Development, Jobs, Transport and Resources |
| Health | Department of Health and Human Services |
| Energy | Department of Economic Development, Jobs, Transport and Resources* |
| Transport | Department of Economic Development, Jobs, Transport and Resources |
| Communications | Department of Economic Development, Jobs, Transport and Resources |
| Banking and finance | Department of Treasury and Finance |
| Government | Department of Premier and Cabinet |

Table 1 Sector Resilience Networks | *Transition arrangements to Department of Environment, Land, Water and Planning under discussion.

Industry groups, such as the Central Gippsland Essential Industries Group, are leading critical infrastructure resilience initiatives to improve cross-sector resilience and service continuity. Similarly, portfolio agencies coordinate public-private sector resilience initiatives. For example, Public Transport Victoria leads the Public Transport Coordination Group and the Public Transport Multi-Modal Forum. These groups enable the sharing of resources under the 'before, during and after' emergency management model.

Victoria also learns from other state jurisdictions through State-Commonwealth partnerships. Trusted Information Sharing Networks are the primary national engagement mechanism for industry-government information sharing and cooperation within and across sectors to address resilience and service continuity challenges. A significant number of Victorian industry members participate in these resilience building initiatives, with the chairs of banking and finance, energy and water services groups led by Victorian industry. Victoria's banking and finance sector participates in an ongoing exercise program to help secure continuity of supply for the nation and understand the dependencies and redundancies of national supply systems for Victoria's community.

# VICTORIA'S CRITICAL INFRASTRUCTURE SECTORS KEY EMERGENCY RISKS AND DEPENDENCIES

**Victoria's eight critical infrastructure sectors focus on sector-wide, consequence management and on building systemic resilience initiatives.**

## Key emergency risks facing Victoria's critical infrastructure sectors

Identifying, evaluating and understanding key emergency risks for each sector enables that sector to make more informed emergency management planning decisions to strengthen sector resilience. Each Sector Resilience Network has considered the key emergency risks for its sector's infrastructure, systems, assets and ability to supply services to the community. Sectors evaluated their identified risks and grouped them into areas of most concern (based on likelihood and consequence) to better support strategic priorities during emergency risk management planning.

Across the eight critical infrastructure sectors, a range of key emergency risks were identified, including:

- Animal disease
- Asset failure
- Cyber-attack
- Dam safety
- Earthquake
- Electricity disruption
- Extreme weather
- Fire
- Flood
- Gas supply disruption
- Hazardous materials
- Heatwave
- Industrial action
- Liquid fuel shortage
- Mine failure
- Pandemic
- Plant disease
- Security
- Storm
- Telecommunications loss
- Transport emergency
- Water disruption

# Victoria's critical infrastructure sectors

**Following are summaries of the key activities and focus of each of Victoria's eight Sector Resilience Networks.**

## Water sector

Reliable, safe water supplies are needed for drinking, sanitation and irrigation, as well as for industry, communities and the environment. The sector collects, treats, transports and delivers water to Victorians and also manages wastewater. Its activities include the management of catchments, water storages, pipelines, pumping stations, treatment plants and control facilities. Members of the Sector Resilience Network for Water are key participants in many of the sector resilience building initiatives coordinated at the Commonwealth level. The chair and co-chair of the Trusted Information Security Network - Water Services Group are from Victoria's water sector.

## Sector overview

- 19 water corporations and the desalination plant operator manage key infrastructure and services
- Victoria's water transfer system is interconnected with high redundancy, which increases sector resilience.

### Key sector stakeholders

- water corporations
- desalination plant operator.

### Key sector assets and infrastructure

- water supply catchments, storage infrastructure, treatment facilities and transfer systems
- Victorian Desalination Project.

### Key risks identified

- highest concerns: fire, severe weather including floods or storms, liquid fuel shortage, earthquake and drought
- electricity supply disruption, dam safety, cyber-attack, hazardous material incident, treatment chemical shortage, loss of telecommunications, source water contamination, human influenza pandemic, threats against people, property or environment, and heatwave event.

### Key dependencies identified

- energy, food supply, transport and health.

## Food and grocery supply logistics sector

Essential to maintain life and growth, the food and grocery supply logistics sector includes the provision of fresh, refrigerated and packaged food and groceries to Victorian communities and businesses. Maintaining food and grocery supply continuity relies on assets and functions held by multiple large aggregators, retail outlets and key industry associations that operate over multiple modes of transport and infrastructure. These privately owned, individual businesses maintain a national network and participate in the Trusted Information Security Network – Food and Grocery Group.

## Sector overview

- has multiple suppliers, aggregators, distributors and retailers
- maintains a high level of redundancy within the food supply chain, which increases sector resilience.

### Key sector stakeholders

- Victorian communities and businesses, including other critical infrastructure sectors
- aggregators and distributors
- industry associations.

### Key sector assets and infrastructure

- large warehousing and distribution centres, complex logistics networks, and multiple modes of transport.

### Key risks identified

- disruption to major producers, logistics networks, storage and distribution centres, as well as transport and energy infrastructure
- disruption of essential food supply to communities physically isolated by an event
- an event that prevents producers from delivering their product to market.

### Key dependencies identified

- electricity supply, human resources, liquid fuels, produce and transport infrastructure.

## Health sector

The sector provides all Victorians with a range of health services to address their needs. It focuses on holistic care that addresses health conditions at the local level. Health services include: acute health, ambulance, mental health, ageing, aged and home care, primary, community and dental health, small rural services, drugs, public health and preventive health. Victoria has over 300 hospitals and health services, including large public and private hospitals, rural and regional health services, and a range of specialist hospitals.

## Sector overview

- flexibility and spread of its skilled workforce, technology and infrastructure allows redundancy within the system.

### Key sector stakeholders

- service providers for: acute health, pre-hospital care, mental health, aged and home care, primary, community and dental health, drug and alcohol support and Red Cross Blood Service
- Primary Health Networks, specialist health professional colleges and organisations, and Pharmacy Guild of Australia
- Department of Health and Human Services, Victoria Police and Department of Premier and Cabinet.

### Key sector assets and infrastructure

- highly diverse mix of staff and skills
- large public and private hospitals, rural and regional health services, specialist mother and child hospitals, small specialist rehabilitation and psychiatric hospitals.

### Key risks identified

- emergencies such as bushfires and floods, heatwaves and pandemic influenza may affect public health and wellbeing
- security incident (protests or criminal action), pandemic, cyber-attack on critical systems, terrorism, hazardous material incident and communicable diseases.

### Key dependencies identified

- energy, water and transport.

Image by Peter Bennetts

## Energy sector

The sector provides Victorians with energy for personal and business use and enables all other critical infrastructure sectors to function. The Sector Resilience Network for Victoria's energy sector mainly comprises of three privately owned and operated subsectors - electricity, gas and liquid fuels. These subsectors are part of national networks that import and export energy to and from other states. Victoria's energy sector industry owners and/or operators are also active participants in sector resilience building initiatives at the Commonwealth level. The co-chair of the Trusted Information Security Network - Energy Group is from Victoria's energy sector.

## Sector overview

- covers raw materials, processing plants, energy production/generation facilities, storage facilities, and transmission and distribution networks
- Victoria's electricity, gas and liquid fuels are owned and/or operated by multiple organisations.

### Key sector stakeholders

- Victorian communities and businesses, including other critical infrastructure sectors
- providers of electricity, gas and liquid fuel products and services to Victoria.

### Key sector assets and infrastructure

- electricity: generators, high and low voltage transmission systems and distribution systems
- gas: production and storage facilities, transmission and distribution systems
- liquid fuels: production and import facilities, fuel refineries, storage, distribution system (pipelines and transport) and retail outlets.

### Key risks identified

- highest concerns: storm, bushfire, flood and liquid fuel shortage
- heatwave, pandemic, security incident (protests or criminal action), earthquake, electricity disruption, mine failure, third-party incursion (particularly for underground assets such as pipelines and cables), cyber-attacks, industrial action or events, and interdependencies between subsectors.

### Key dependencies identified

- critical issues that could lead to disruption: loss of inputs (such as gas or coal for electricity production), loss of production (such as damage to critical production equipment or industrial action), and loss of distribution capability (for example, delayed fuel delivery)
- key inputs: liquid fuel supplies, gas supply (production/transmission/storage), coal supply for electricity generators, electricity supply and human resources.

## Transport sector

Victoria's transport sector supports the State's economic and social functioning. It has a highly developed, complex network of infrastructure that moves people and freight within and beyond the State. The sector is locally coordinated and many of the public and privately owned entities that manage its assets, systems and infrastructure are focused on resilience building initiatives.

## Sector overview

- assets owned and/or operated by multiple publicly and privately owned organisations
- complex infrastructure network that includes ports, airports, road and rail lines used by trams, freight trains, passenger trains, ships, cars, trucks, planes, buses, taxis and motorcycles.

### Key sector stakeholders

- Victorian communities and business, including other critical infrastructure sectors
- Victorian Government
- public and freight transport providers.

### Key sector assets and infrastructure

- public transport systems: metropolitan rail, tram, rural rail, metropolitan and rural bus, and ferries
- freight and logistics: logistics infrastructure and service provider assets
- road and rail infrastructure
- airports and marine ports.

### Key risks identified

- highest concerns: fire, electricity supply disruption, liquid fuel disruption, transport infrastructure emergency, heatwave and security
- pandemic, hazardous material incidents, storm/flood, earthquake, emergency animal disease, plant disease, major infrastructure disruption including water, waste and transport accidents and cyber-attacks (terrorism, criminal or other).

### Key dependencies identified

- highest concerns: electricity supply, telecommunications (signalling/real-time information), liquid fuels, water and sanitation
- human resources, safety accreditation and road and rail infrastructure.

## Communications sector

The communications sector, which includes information technology, facilitates business and societal communications and is a foundation for economic and social development and stability. Internet, phone, radio, television, online transactions and business operations all involve the exchange of data and information through an interconnected communications network. With many of the service providers nationally or internationally owned and regulated at the Commonwealth level, Victoria's communications sector works closely with Commonwealth partners on resilience initiatives.

## Sector overview

- transmits large-volume voice and data services via intricate networks to facilitate almost instant communications with worldwide reach
- includes carriers, carriage service providers, content service providers, and application service providers and developers.

### Key sector stakeholders

- Victorian communities and businesses, including other critical infrastructure sectors
- Victorian Government
- communication infrastructure and service providers.

### Key sector assets and infrastructure

- copper networks, hybrid fibre-coaxial networks, fibre-optic cable networks, mobile telephone and wireless internet towers (3G/4G) and satellites
- Victoria's backhaul infrastructure that transfers high data volumes to and from the core network is complemented by eight intercontinental submarine cables between onshore nodes in Australia and other countries.

### Key risks identified

- fire, flood, extreme weather, pandemic, security, electricity disruption, cyber security, redundancy asset failure and disruption of underground cables.

### Key dependencies identified

- electricity and human resources.

## Banking and finance sector

A financial sector is necessary for economic growth and social stability. It facilitates financial transactions, the protection of financial loss through insurance services and leveraging of assets to create wealth. These services are delivered by multiple global and small community financial institutions that are interconnected and operate on an international platform. With services delivered from and reaching far beyond Victorian borders, the sector is regulated by Commonwealth legislation and coordinates sector resilience building initiatives at the national level. The current chair of the Commonwealth Trusted Information Security Network – Banking and Finance Group is from Victoria's banking and finance sector.

## Sector overview

- has over 40 financial sites identified as operationally important in Victoria and hosts the headquarters of two of Australia's major four banks
- services include payments, consumer electronics, settlements, foreign exchange, equities and derivatives trading, money market and debt securities, cash supply management, call centres, claims processing, core risk management, general ledger and insurance.

### Key sector stakeholders

- financial institutions.

### Key sector assets and infrastructure

- primary data centres, back-up data centres, call centres, corporate headquarters, operations/processing centres and trading centres.

### Key risks identified

- highest concerns: loss of electricity, water and gas supply
- loss of telecommunications.

### Key dependencies identified

- electricity, water, gas and telecommunications.

## Government sector

Government in Victoria has either a direct or regulatory role in providing services to communities such as education, public safety, transport, communications, social security and welfare, public health and land management. These are managed through seven key portfolio departments and Victoria Police, overseen by the Department of Premier and Cabinet, which helps the government achieve its strategic objectives. These portfolio departments have developed varied strategic frameworks aimed at continuing to build resilience for government service delivery and areas of regulatory responsibility.

## Sector overview

- provides high-level strategic advice on resilience risks, opportunities and priorities within the Victorian Government departments and Victoria Police
- focuses on government sector coordination of risk management practices, information sharing on best practice, and developing a consistent approach to government sector resilience and consistent standards for benchmarking.

### Key sector stakeholders

- Victorian community
- State Crisis and Resilience Council
- Department of Premier and Cabinet, Department of Treasury and Finance, Department of Environment, Land, Water and Planning, Department of Economic Development, Jobs, Transport and Resources, Department of Justice and Regulation, Department of Education and Training, Department of Health and Human Services and Victoria Police.

### Key sector assets and infrastructure

- staff, contractors, IT systems and departmental buildings that are spread across the State.

### Key risks identified

- terrorism and pandemic
- ability to provide appropriate resources in response to a prolonged emergency event
- diverse range and distribution of key sector assets and infrastructure provides a network of redundant systems, making disruption to whole sector unlikely.

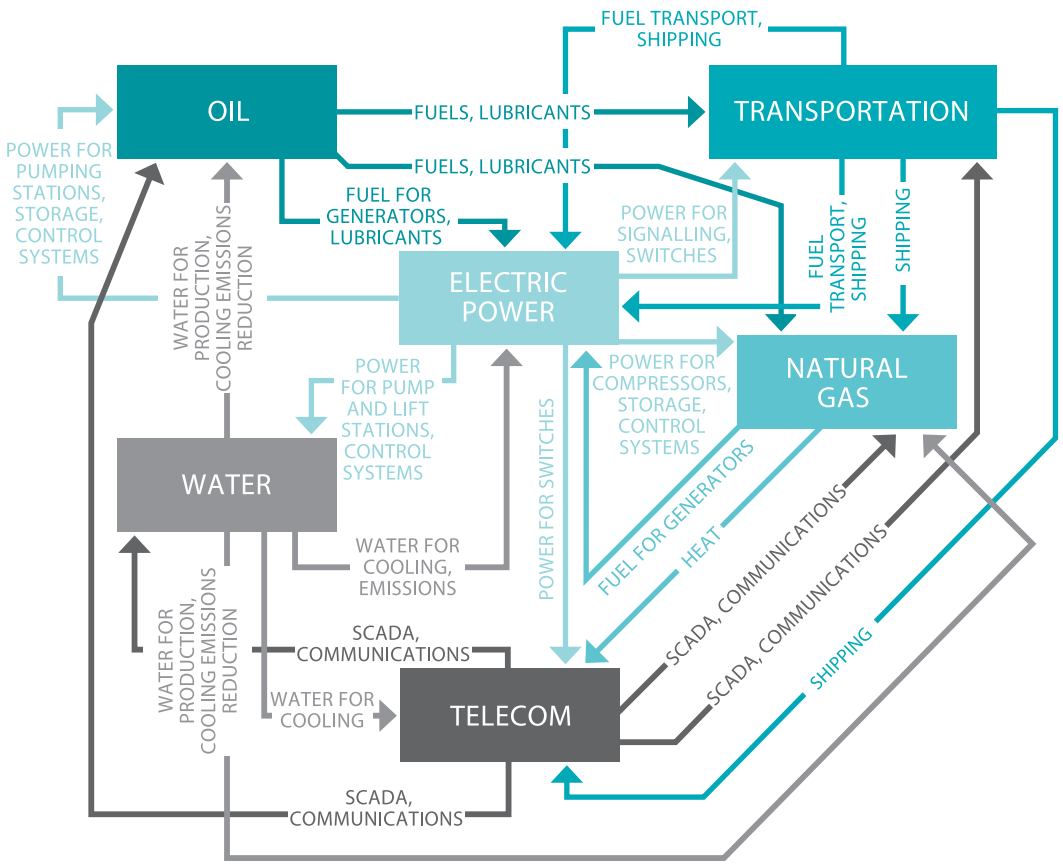
### Key dependencies identified

- energy and water.

# CROSS-SECTOR DEPENDENCIES

**All sectors identified the importance of understanding the dependencies between critical infrastructure sectors. Their high interdependence means that disruption in one sector will disrupt service delivery in another. The degree and complexity of these interdependencies is increasing as society becomes more reliant on advanced, automated and interconnected technologies and systems to drive everyday activities.**

**Figure 1** Examples of infrastructure interdependencies[5]




[5] S. Rinaldi et al., *Identifying, Understanding and Analysing Critical Infrastructure Interdependencies*, IEE Control Systems Magazine, December 2001, p. 15.

Victoria's critical infrastructure sectors continue to examine sector dependencies that may affect service delivery. This will clarify the flow-on effects in ways that improve planning, response and renewal. For example, the banking and finance sector has commissioned an infrastructure dependency analysis of sites in Victoria to better understand its dependencies with the communications, energy and water sectors.

Cross-sector forums and exercises also help improve understanding of key sector infrastructure components and the consequences if those components are lost or degraded. In May 2016, industry members from the communications, energy and water sectors participated in a joint, cross-sector workshop organised by industry, and State and Commonwealth governments to highlight cross-sector interdependencies in an emergency (such as security, earthquake and dam failure).

In assessing dependency, the Sector Resilience Networks generally have identified their sector's reliance on the energy, communications, transport and water industries. For example, the Water Sector Resilience Network identified that disruption to the energy sector (electricity supply interruption or liquid fuel shortage) and communications sector (network disruption) would disable business control and maintenance processes, and hinder water release, production, treatment and delivery. This would mean the community would lose their water supply and be at risk from contaminated water. The flow-on consequences identified would include reduced quality standards that could threaten the human population (health sector), reduced water for agriculture and production of food (food and grocery supply logistics sector), and reduced water for steam generation and cooling to produce power (energy sector).

# SUPPORTING THE COMMUNITY THROUGH CRITICAL INFRASTRUCTURE RESILIENCE INITIATIVES

**Victoria's critical infrastructure sectors have identified several key resilience building initiatives for the coming year. They seek to synthesise the key resilience dimensions of resistance, reliability, redundancy, response and recovery. Many of the initiatives were common across sectors and address multiple themes, which interrelate. The themes are outlined below.**

## Consequence and emergency management awareness

Enhancing critical infrastructure resilience and corporate preparedness for emergencies by increasing awareness of:

- all hazards, emergency management understanding within an organisation, including development of an emergency management awareness pilot program
- joint industry-government understanding of the risks to the sector's ability to support sector requirements in an emergency
- protocols between nominated industry sectors and government in an emergency and
- preparedness and capability of industry to respond in an emergency.

## Strengthening and establishing new collaborative relationships

Strong partnerships and shared understanding between industry and government are essential to further building critical infrastructure resilience. A mature, information-sharing network assists with planning, preparedness and risk management, and greatly enhances the ability to respond to rapidly developing emergencies. The progression towards an all hazards, emergency management focus has provided an opportunity to expand industry membership and closer collaboration across the differing, but interrelated critical infrastructure sectors in Victoria.

Initiatives include:

- reviewing and expanding industry membership of Sector Resilience Networks to reflect sector diversity and resilience building focus
- building cross-sector awareness within an all hazards, emergency management focus and
- sharing sector member initiatives for building organisational and infrastructure resilience.

### Cross-sector dependencies and testing preparedness

Conducting joint emergency management exercises assists to evaluate operational and strategic management processes, improve leadership and crisis management skills and improve sector preparedness.

Sectors nominated to:

- expand joint exercising because it provides significant benefits, including interaction across organisations, fostering appreciation of a sector context and understanding of emergency consequence management
- undertake infrastructure dependency analysis and
- explore cross-sector opportunities to identify cross-sector vulnerabilities and build state-wide resilience.

### Knowledge sharing

All Sector Resilience Networks identified the need to further share information and knowledge by:

- sharing knowledge as a standard activity at Sector Resilience Networks
- developing a 'lessons learnt' database and
- reviewing domestic and international case studies of emergency events to build understanding and resilience.

## / CONCLUSION

*Victoria's Critical Infrastructure All Sectors Resilience Report* is an example of Victoria's leadership in critical infrastructure resilience and emergency risk management. Since Victoria's new critical infrastructure resilience arrangements started, the strong drive and commitment by industry and government has focused our efforts towards continuity of critical infrastructure service supply in the face of all types of emergencies.

This report highlights the complex and interconnected nature of critical infrastructure, involving many organisations across diverse sectors. It also reinforces the importance of the strong partnership between industry and government that will continue to drive future improvements and opportunities. This collaboration will further strengthen critical infrastructure resilience in the years ahead.