National Fuel Plan

Planning and Response Arrangements for Fuel Supply Disruptions and Emergencies Supporting Plan [SP 04/24]

MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

Resilient New Zealand
Aotearoa Manahau
New Zealand Government

CIVIL DEFENCE

National Fuel Plan

Supporting Plan [SP 04/24]

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Foreword

Petrol, diesel, aviation and marine fuels are essential for everyday life and the economy of Aotearoa New Zealand. They are also critical resources in the event of an emergency, with response agencies, businesses and communities all reliant on fuel to respond and recover.

The Department of the Prime Minister and Cabinet have identified the four global megatrends of climate change, a deteriorating national security environment, economic fragmentation and rapid technological change as placing increased pressure on New Zealand's critical infrastructure system.

New Zealand faces significant risks from natural hazards and other threats. As we saw during Cyclone Gabrielle in 2023, these hazards can result in significant disruptions to fuel distribution networks. With the growing interconnectedness of critical infrastructure, impacts to roading, electricity or telecommunications networks can severely impact the fuel supply network too. We are seeing an increase in the frequency and severity of severe weather events and, over the past few years, science and advanced modelling techniques have combined to give a far clearer picture of the likelihood and consequences of catastrophic events such as a major Alpine Fault earthquake or Hikurangi Subduction Zone earthquake and tsunami.

Against this backdrop, planning and coordination between the fuel sector, government agencies and Civil Defence Emergency Management Groups is vital to ensure the impacts of any fuel supply disruptions are minimised and well managed. The National Fuel Plan sets out planning requirements and provides the response framework for a fuel supply disruption or emergency.

This 2024 update of the National Fuel Plan reflects the significant change in New Zealand's fuel supply chain to an import only model since the closure of the Marsden Point Oil Refinery in April 2022, and the associated coastal shipping changes. With the changes to an import only model additional risks to supply, especially within the aviation fuel supply chain, have emerged. This Plan has introduced an Aviation section to address these and the differing mitigation and response activities that the aviation sector can enact.

The updated Plan also reflects the new fuel Minimum Stockholding Obligations introduced in the Fuel Industry (Improving Fuel Resilience) Amendment Act 2023. Regulations on these requirements are being developed at time of publication of this Plan.

This Plan replaces the 2020 National Fuel Plan. It will be tested annually through fuel sector or national exercise, and will be jointly reviewed by the National Emergency Management Agency and the Ministry of Business, Innovation and Employment every three years.

We would like to acknowledge and thank representatives from fuel companies, industry stakeholders, government agencies, local government and CDEM Groups who have provided input and feedback during the development of this Plan.

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Part A

Arrangements and Planning for a Fuel Supply Disruption or Emergency

In a response situation, refer to Part B.

Section 1 Introduction

This section sets out the Plan's purpose, scope, authorities and related legislation.

1.1 Plan purpose

Background

There are many events that could cause fuel supply disruptions in New Zealand: hazards damaging significant facilities such as regional fuel terminals, pipelines, offshore disruptions to international fuel markets, trucking distribution disrupted by road failures and many others.

Objective

The overall objective of the arrangements outlined in this Plan is to minimise the effects of a fuel supply disruption on New Zealand, whatever the cause, as far as reasonably practicable.

Purpose of this plan

The purpose of this Plan is to:

- provide an agreed planning framework between government agencies, Civil Defence Emergency Management (CDEM) Groups and fuel sector organisations to respond to major disruptions to fuel supplies;
- document agreed communication and coordination arrangements at the national level for response operations during major disruption of fuel supplies; and
- support the implementation of regional fuel supply arrangements.

1.2 Plan scope and exclusions

Plan scope

This Plan covers government and fuel sector coordination and responses in the event of a major disruption to fuel supply, including petrol, diesel, aviation fuel and marine fuel.

The Plan is jointly developed by the National Emergency Management Agency (NEMA) and the Ministry of Business, Innovation, and Employment (MBIE). This plan supersedes the *National Fuel Plan 2020*.

Plan exclusions

Natural Gas sector coordination arrangements are not covered in this Plan – they are described in the *First Gas Critical Contingency Management Plan* (*http://www.cco.org.nz/Publications/*). CO^2 is also excluded from this Plan as it is not a liquid transport fuel.

LPG is also not included in this Plan as the supply chain, agencies involved, and response mechanisms are quite different. Development of a national plan for LPG emergencies will be considered in future planning.

Transitional transport modes, such as Electric Vehicle charging is excluded from this plan, as the supply chain, agencies involved and response mechanisms are quite different.

This Plan does not replace the need for:

- critical fuel customers to develop and test business continuity plans and arrangements in case of fuel supply disruption,
- detailed risk management and business continuity planning by individual fuel companies to mitigate risks where practicable,
- regional and local CDEM fuel plans detailing local issues and priorities (refer to *Section 3.3*),
- monitoring of the security and resilience of the fuel sector, or
- government strategy in relation to energy conservation and efficiency.

1.3 Key terminology

Disruption

A fuel supply disruption is any event that either has caused, or has the potential to cause, fuel shortages at the supply point. A fuel supply disruption can be defined as minor, moderate, major, or severe, as per the escalation process described in Section 4.2.

In this Plan, the over-arching term ‘major disruption’ is used to refer to an event that may require activation of arrangements in this Plan.

Emergency

A fuel disruption may cause, or be part of, an emergency under the CDEM Act 2002.

A fuel disruption may also trigger the declaration of a Petroleum Emergency under the International Energy Agreement (IEA) Act 1976.

1.4 Plan authorities and regulation

Enabling powers

Table 1-1 summarises the legislation and legislated plans that provide enabling powers for the Government and set out expectations and requirements of fuel companies. The main Acts are:

1. The **International Energy Agreement Act (1976)**, which provides for emergency regulations to be made when required by New Zealand's obligations under the International Energy Agreement to deal with a reduction or threatened reduction of petroleum supplies. These powers could be invoked in response to a global oil supply disruption.

2. The **Petroleum Demand Restraint Act (1981)**, which provides for regulations to be made for the purpose of restraining the demand for, or reducing the consumption of, petroleum products in New Zealand or for the purpose of ensuring the equitable distribution in New Zealand of petroleum products that are, or are likely to be, in short supply in New Zealand.

3. The **Civil Defence Emergency Management Act 2002**, which requires lifeline utilities to ensure they are able to operate to the fullest possible extent, even though this may be at a reduced level, and provides Controllers with various powers under a declared state of emergency (such as directing people to take action to limit the extent of an emergency).

4. The **Fuel Industry (Improving Fuel Resilience) Amendment Act 2023:** Requires importers to retain Minimum Stockholding Obligations and report these stockholding details to the Government. Please see *section 2.2* for more detail.

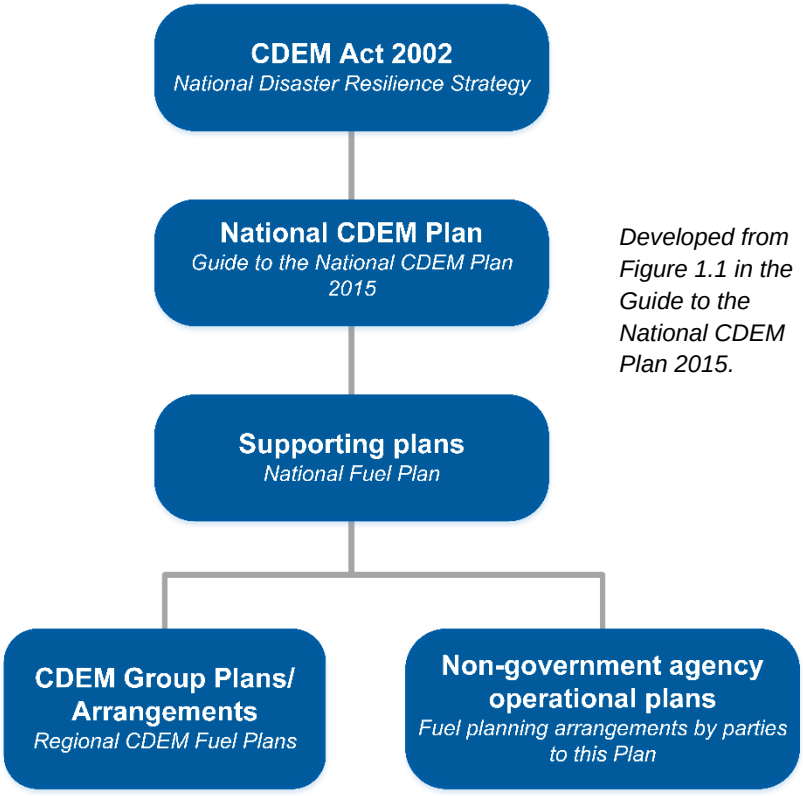
Table 1-1 Key legislation relating to fuel supply disruptions

Legislation or Plan	Notes
International Energy Agreement (IEA) Act 1976: Under section 3 of the IEA Act 1976, the Governor-General may declare a "petroleum emergency" when required by New Zealand's International Energy Agreement obligations. International Energy Agreement Act 1976 No 155 (as at 28 October 2021), Public Act – New Zealand Legislation	Following such a declaration, section 4 of this Act provides similar regulation-making powers as those described below under the Petroleum Demand Restraint Act 1981, while such a petroleum emergency exists.
Petroleum Demand Restraint Act 1981: Under section 4, the Governor-General may make regulations to restrain the demand for, or ensure the equitable distribution of, petroleum products that are in short supply. Petroleum Demand Restraint Act 1981 No 12 (as at 28 October 2021), Public Act Contents – New Zealand Legislation	Regulations made under section 4 may control, regulate, prohibit or otherwise make provision as to the acquisition, distribution, supply, storage, sale or use of petroleum products in New Zealand. Regulations under this Act may only be made when the Governor-General is satisfied that reasonably available supplies of petroleum products are, or are likely to be, insufficient to maintain stocks at normal levels in New Zealand or parts of New Zealand.
Civil Defence Emergency Management Act 2002 s60(a): Requires lifeline utilities to ensure that they are able to function to the fullest possible extent, even though this may be at a reduced level, during and after an emergency. (Refer to *Glossary* for definition of *emergency*). Civil Defence Emergency Management Act 2002 No 33 (as at 23 December 2023), Public Act 60 Duties of lifeline utilities – New Zealand Legislation	Oil companies and associated distribution companies are defined as 'lifeline utilities' under the CDEM Act 2002, Schedule 1, Part B (7): *"An entity that produces, processes, or distributes to retail outlets or bulk customers any petroleum products used as an energy source or an essential lubricant or additive for motors for machinery."*

Legislation or Plan	Notes
Civil Defence Emergency Management Act 2002 s85(1)(e): A CDEM Group may provide for the conservation and supply of food, fuel and other essential supplies. Civil Defence Emergency Management Act 2002 No 33 (as at 23 December 2023), Public Act 85 Emergency powers of Civil Defence Emergency Management Groups – New Zealand Legislation	A state of emergency is required to be declared for the area.
Civil Defence Emergency Management Act 2002 s90: Provides requisitioning powers of materials, equipment and supplies where considered necessary for the preservation of human life. Civil Defence Emergency Management Act 2002 No 33 (as at 23 December 2023), Public Act 90 Requisitioning powers – New Zealand Legislation	A state of emergency is required to be declared for the area. Requisitioning powers are seen as a tool of last resort when the fuel sector fails to implement lead agency instructions and/or the measures in this Plan are inadequate to secure supply to critical customers.
Civil Defence Emergency Management Act (2002) s91: Provides powers for a Controller or a Police Constable to direct a person to stop an activity that may substantially contribute to an emergency; and to request a person to take action to limit the extent of the emergency. Civil Defence Emergency Management Act 2002 No 33 (as at 23 December 2023), Public Act 91 Power to give directions – New Zealand Legislation	A state of emergency is required to be declared for the area. This provides a legal basis for fuel companies to interrupt their commercial contracts allowing for greater allocations to critical customers.
National Civil Defence Emergency Management Plan Order (2015) (s59-61): Requires lifeline utilities to plan for responsibilities across the '4Rs' (reduction, readiness, response and recovery). National Civil Defence Emergency Management Plan Order 2015 (LI 2015/140) (as at 05 April 2023) Contents – New Zealand Legislation	Under Plan Order Sections 60 and 61, Lifeline Utilities are required to: • analyse hazards and risks to implement reductions strategies, • plan collaboratively with CDEM Groups and lifeline utilities, • provide information on network status, • plan response arrangements, and • establish communications procedures.
Fuel Industry (Improving Fuel Resilience) Amendment Act 2023: Requires importers to retain Minimum Stockholding Obligations and report these stockholding details to the Government. Fuel Industry (Improving Fuel Resilience) Amendment Act 2023 No 58, Public Act Contents – New Zealand Legislation	By maintaining minimum onshore fuel stockholding obligations, the resilience of the fuel sector is increased, and therefore provides a bigger buffer from supply disruptions.

CDEM Plan framework

This Plan is a supporting plan to the National CDEM Plan and is designed to operate within the legislative framework. Figure 1-1 illustrates how this Plan fits in the national CDEM planning framework.



Developed from Figure 1.1 in the Guide to the National CDEM Plan 2015.

Figure 1-1 Relationship between CDEM Plans

IEA requirements

The IEA was set up by fuel importing countries in response to the 1973-74 fuel crisis. In the event of a major international oil supply disruption, IEA countries are required to release oil stocks, restrain demand, switch to other fuels, increase domestic production and share available oil, if necessary.

Commercial stocks of crude oil and refined product held within New Zealand (owned by the fuel companies) currently cover about 40 days of fuel demand net of oil exports. Membership of the IEA requires New Zealand to hold stocks equivalent to 90 days of net demand. To make up the shortfall (currently about 50 days), the government contracts with other parties for provision of petroleum reserve stocks. These reserves are currently held offshore, and the government has an option to purchase the stocks in the event of an IEA declared global emergency.

Fuel Industry (Improving Fuel Resilience) Amendment Act 2023

Fuel companies remain responsible for ensuring that adequate commercial stock levels throughout New Zealand are maintained. This will be more heavily regulated under the Minimum Stockholding Obligations, as part of the Fuel Industry (Improving Fuel Resilience) Amendment Act 2023 (The Act). The Act provides for regulation-making power to prescribe requirements for disclosing information on fuel resilience. Regulations on these requirements are being developed at time of writing.

These requirements will allow the government to collect more detailed information on fuel stocks at national and regional levels, international supply chains, and contingency arrangements. This will allow for a more accurate assessment of New Zealand's fuel resilience, help identify opportunities to improve fuel resilience, and monitor compliance with the proposed minimum onshore fuel stockholding obligation.

1.5 Plan activation

Plan activation

This Plan may be activated for the purposes of government communicating and coordinating with the fuel sector in a major fuel disruption.

Government action under statutory powers will generally only be taken where required to fulfil New Zealand's obligations under the IEA, or to respond to major disruptions to fuel supply where a fuel industry response may not be enough to ensure continued supply to critical customers (critical customers are defined in *Section 3.4.2*).

It is intended that any fuel supply disruption will be managed within the fuel sector and existing supply / distribution processes as far as possible.

Government powers

Government powers can be enabled through any of the legislation listed in Table 1-1 (IEA Act 1976, Petroleum Demand Restraint Act (PDR) Act 1981, CDEM Act 2002), following a declaration of a petroleum emergency (Governor-General) or a state of emergency (CDEM). Use of these powers are discussed in *Section 4.1.2*.

1.6 Plan monitoring, review and testing

Plan reviews

This Plan will be reviewed at three yearly intervals from the time of publication. NEMA and MBIE will jointly undertake this review and will consult with all agencies with responsibilities under this Plan.

This Plan must be tested every year, either as a separate fuel sector exercise, or whenever possible, as part of the National Exercise Programme, particularly Tier 3 and 4 exercises.

Fuel company reports

A brief annual report is required by the end of April each year by all fuel importing, processing or producing companies plus any company owning or managing more than 80 fuel retail outlets[1] (ground, marine or aviation) in New Zealand. This report shall cover:

- confirmation of compliance with the responsibilities under the CDEM Act 2002 and in this Plan;
- specific participation in CDEM and lifeline utilities group activities, exercises and projects during the year; and
- lists of priority fuel retail outlets (as determined by Regional CDEM Groups), aligned to lists in Regional Fuel Emergency Plans (where

[1] Note this is not intended to limit engagement by CDEM Groups with any fuel retail outlets in their region.

they exist), including status of power backup arrangements and arrangements with fuel retail outlet managers around implementing critical fuel customer measures. These measures should include confirmation of staff training to process offline payments, if required to. Please see *section 3.4.3* for more information of consolidation of this element of the report with Retail fuel Dataset collection.

The report shall be provided to MBIE and NEMA and made available to regional CDEM Groups, along with updated information on main terminal storage and offtakes (Figure 2-3 and Figure 2-4 of this Plan).

Fuel incident/ emergency plans

Every three years, with the first delivery being before the end of December 2024, the fuel companies noted above (with 80 retail fuel outlets or more) shall provide their emergency management plans to the Fuel Sector Coordinating Entity (Fuel SCE) Chair, along with confirmation of alignment of arrangements with this National fuel plan.

These plans may be referred to as emergency, crisis, business continuity, incident management plans. Where companies have contracted out key parts of the supply chain (e.g. haulage) the plans should summarise arrangements of key contractors or append their plans.

CDEM Group reports

Every three years, with the first delivery before the end of April 2025, CDEM Groups shall provide the latest version of the regional fuel plan to NEMA.

Each year, before the end of September, CDEM Groups shall provide any updated information in relation to:

- the list of critical regional customers,
- the summary of fuel requirements of critical customers, and
- priority fuel retail outlets.

Section 2 Fuel sector overview

This section provides an overview of the fuel sector in New Zealand, including fuel companies, fuel products, and how they are stored and distributed.

2.1 Fuel sector companies

2.1.1 Main fuel companies (importers and distributors)

Table 2-1 Main fuel companies operating in New Zealand

Company	Description
bp	• Bulk terminals at Mount Maunganui, Napier, New Plymouth, Seaview, Hutt City, Nelson, Lyttelton and Dunedin. • Joint aviation facilities at Christchurch Airport, Wellington Airport, and Auckland Airport, and joint jet fuel storage with Wiri Oil Services Limited. • Around 104 owned and operated retail sites, with approximately 105 independent dealers. • 60 truck stops.
Mobil	• Bulk terminals at Mount Maunganui, Seaview, Kaiwharawhara, Woolston, Lyttelton and Bluff. • Pipeline from Lyttelton Port terminal to inland terminal at Woolston. • Pipelines from all terminals to the local wharf (except Woolston) and marine bunker pipelines at Mt. Maunganui, Kaiwharawhara and Lyttelton. • Airport terminal at Miramar, supplied by pipeline from Burnham Wharf. • Aviation facilities at Auckland and Wellington Airports, and jet fuel storage with Wiri Oil Services Limited and Auckland Joint User Hydrant Interplane (JUHI). • Around 170 branded retail sites (some company-owned and agent-operated, some dealer-owned).
Z Energy	• Bulk terminals at Mount Maunganui, Napier, Seaview, Nelson, Lyttelton, Timaru and Dunedin. • Aviation facilities at Auckland Airport and Christchurch Airport. • Around 80 truck stops and 180 fuel retail outlets under the Z Energy brand. • Around 60 truck stops and 130 retail service stations under the Caltex brand.
Gull	• Bulk terminal at Mount Maunganui. • Around 80-90 branded fuel retail outlets.
TOSL	• Timaru Oil Services Limited (TOSL), a subsidiary of Pacific Energy, imports fuel to a terminal in Timaru.

2.1.2 Associated fuel companies (bulk storage and key infrastructure owners)

Table 2-2 Associated fuel companies

Company	Description
Channel Infrastructure	• Operates mass import and fuel storage at Marsden Point, including petrol, diesel, and Jet A-1. • Owns the Marsden Point to Auckland (Wiri) Pipeline. • Currently operating 280 million litres of fuel storage capacity.

Wiri Oil Services Ltd (WOSL)	• Independent Joint Venture consisting of bp, Mobil and Z Energy.
	• Manages the following facilities:
	  ○ Wiri terminal, the main petroleum depot and distribution centre.
	  ○ Truck loading facility at Marsden Point Terminal, supplies Northland and northern Auckland.
	  ○ Wiri-Airport Pipeline (WAP), supplies Jet A-1 fuel to the Joint User Hydrant Installation (JUHI) terminal.

Joint User Hydrant Installation (JUHI) terminal	• Auckland airport jet fuel facility, supplied by the Wiri-Airport Pipeline (WAP). • The JUHI consists of storage tanks and an underground hydrant system around the tarmac for supplying jet fuel to international aircraft. • Tank trucks are used to supply Jet A-1 to domestic aircraft.
Joint Operating Storage Facility (JOSF)	• Christchurch airport jet fuel facility, a joint venture of Z Energy (operator), bp and Mobil. • JOSF has an underground pipe system, which supplies fuel to domestic and international jet operations. • Fuel supplied either by bp or to the Regional and Antarctic aprons by fuel truck.

2.1.3 Haulers and distributors

Major haulers and distributors in New Zealand

Haulage operators are contracted by the fuel companies to supply fuel product to fuel retail outlets. Distributors purchase fuel from the fuel companies and sell to fuel retail outlets and other customers (such as farms). At the time of writing this Plan, the following major haulers and distributors are:

- Allied Petroleum Limited,
- Linfox,
- McFall Fuel,
- McKeown Petroleum,
- MOVe Fuel,
- Nelson Petroleum Distributors Limited,
- RD Petroleum – and Aratuna,
- TOLL logistics,
- Tranzliquid Logistics, and,
- Waitomo Petroleum Limited.

2.1.4 Other major retailers

Other major fuel retailors

As well as the main fuel companies and distributors, there are other fuel retail outlet providers supplied by the major fuel companies, including a growing network associated with supermarket retailers.

The largest networks (as at March 2024) are maintained by:

- Allied Petroleum,
- Challenge – co-owned by Farmlands,
- Fern Energy,
- Foodstuffs – PAK’nSAVE and New World fuel stations,
- Gasoline Alley,
- McFall Fuel,
- McKeown Group,
- Nelson Petroleum Distributors Limited / NPD,
- RD Petroleum, and,
- Waitomo Petroleum Limited.

2.2 The Fuel Supply Chain

Importing fuel

New Zealand's fuel supply chain is a complete import model since the closure of the Marsden Point Oil Refinery in April 2022.

The domestic demand is entirely met by the fuel companies importing refined petroleum products directly to selected regional terminals[1]. Most of these imports come from Asia and take at least 17 days' shipping time.

Distribution

Refined petroleum products are distributed from Marsden Point and other ports via pipeline and road transport. Figure 2-1 shows the distribution of petroleum throughout New Zealand, discussed further below.

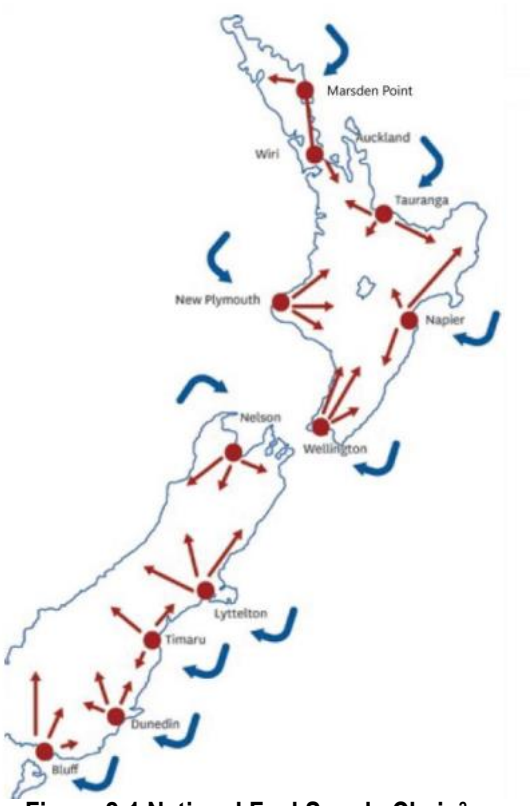


Figure 2-1 National Fuel Supply Chain[2]

Pipelines and wharf lines

All import terminals are connected by pipe from the wharves (wharf lines) and failures of these would prevent terminals from filling.

There are also several pipelines taking fuel from port/wharf terminals to other terminals and transferring fuel between terminals, including:

- the Marsden Point-Auckland pipeline (MPAP), which transports most of Channel Infrastructure's stored product to the Wiri terminal, providing around 95% of Auckland's petroleum supply (the pipeline is used for Regular, Premium, Diesel and Jet-A1 including all jet fuel for Auckland and regional airports in the upper North Island);
- the Wiri-Airport Pipeline (WAP), which supplies Jet-A1 to Auckland International Airport from the Wiri terminal; and
- the pipeline from fuel terminals at Lyttelton to the inland Woolston Terminal in Christchurch, which is a critical piece of infrastructure for the South Island (note Jet A-1 is not distributed through this pipeline – it is trucked from Lyttelton).

Products are shipped to Marsden Point storage and to nine ports around the country.

[1] Not all regional terminals have the capacity to receive imported refined product.
[2] Map source: New Zealand Infrastructure Vulnerability Assessment, 2023 Edition.

Road

Fuel is delivered from bulk fuel terminals to fuel retail outlets and bulk customers via trucking networks. The trucks used by some fuel companies are a dedicated fleet and others contract out their transport to third-party haulage companies.

Storage/fuel terminals

Commercial fuel stockholding in New Zealand will be regulated once the Minimum Stockholding Obligations come into effect from 1st January 2025. This will change the levels of fuel held onshore by importers to be on average:

- 21 days use of diesel
- 24 days use of jet fuel
- 28 days use of petrol

Channel Infrastructure at Marsden Point holds the largest stocks of fuel in the country. The fuel grade stored at each of the terminals is illustrated in *Figure 2:2*.

Stocks and supply are managed to minimise stock outs (tanks running empty). If stored product in a terminal reaches a critical threshold (e.g. three days of cover for normal demand) due to a minor supply chain event, the relevant companies use mechanisms such as those described in *Section 5.1*.

There are also large fuel stocks in New Zealand held by companies other than the main fuel companies, including:

- the New Zealand Defence Force (NZDF), which has its own stocks to be self-sufficient for several weeks;
- New Zealand Corrections Facilities, where some of the network have storage capacity for days to weeks supply;
- roading contractors that store diesel for vehicles, plant and equipment – for example New Zealand Transport Agency (NZTA) network contractors in 9 out of 26 of their regions hold around 243,000 litres at depots in total; and
- many agencies with backup generators, such as some Te Whatu Ora hospital facilities, that hold 1-2 days worth of fuel in the generators and sometimes extra tank storage to enable longer operation before fuel can be supplied to the site.

Retail operations

Service (petrol) stations and truck stops are the main point-of-sale for the public, including commercial vehicles. Fuels are also delivered directly to some customers, including the farming, forestry, marine, corrections, health and disability, and construction sectors.

Fuel retail outlets have a variety of ownership and operating models, though all fuel is currently sourced from the five importing fuel companies (Z Energy, Mobil, bp, Gull and Timaru Oil Service Limited). These operating models include:

- fuel company owned and operated,
- fuel company owned and independently operated,

- independently owned and operated, and
- independently owned and operated (branded by fuel company supplying product under contract).

Truck stops are usually unattended and unattended fuel retail outlets for all vehicles are also increasingly common. These dispense fuel to commercial customers with fuel cards and most fuel retail outlets accept credit cards and EFTPOS as well.

Petrol and diesel are also available at marinas for use in recreational vessels. Marine fuel oil, diesel and other fuels are available to commercial vessels at some ports.

Geographic gaps in fuel supply network

There are some geographic gaps in the fuel supply network, most notably the Chatham Islands. The Chatham Islands Enterprise Trust owns and operates all the island's infrastructure and utility companies. The Chatham Islands Enterprise Trust purchases bulk fuel from mainland terminal's and ships it to the Chatham Island's with Chatham Islands Shipping Ltd. The fuel is then bunkered for resale at the wharf bowsers and pumps, alongside providing diesel for power generation for the whole community via Chatham Islands Electricity Ltd.

One of the key risks of this model is that the vessel that Chatham Islands Shipping Ltd uses for bunkering fuel, the MV Southern Tiare, is the only vessel of its nature within New Zealand, and it is old and can be unreliable. The MV Southern Tiare was built in 1988 as a General Cargo Ship, and services the Chatham Islands with bulk fuel, bulk cargo supplies including fish, timber, fertiliser, food, livestock and special projects.

Maintaining a consistent supply of fuel is vital for ensuring that there is ongoing power generation, that the fishing industry has the ability to fuel their vessels and freeze/store their catch, that primary sector can continue to produce food to ensure food security and prevent animal welfare issues arising, and for communities to use essential facilities such as the hospital.

As the fuel supply is not from any of the importers or mainland distributors or retailers, there is an identified gap in ability to mitigate any supply disruptions. This was evidenced in August 2023 when the MV Southern Tiare had an extended period of time in dry dock undergoing assessment and repair. Due to the extended timeframe of this work the stores of diesel on island were severely depleted. As none of the mainland fuel companies are involved in the supply of diesel, there are very few, if any, mitigations that can be put in place if a similar event were to occur again. The Chatham Islands are located approximately 800km east of the South Island, and therefore any vessel utilised for this trip is required to have an Offshore High Seas certification from Maritime NZ.

There are also other islands (such as Stewart Island, Great Barrier Island and Waiheke Island) that are supplied with ISO Tanks or road tankers on board a ferry. These are more resilient to supply disruptions, as alternative ISO tanks, tankers, or ferries can be moved/sourced to maintain supply. Due to the geographic location of these islands not crossing open sea areas there are more options available for response or mitigation activities.

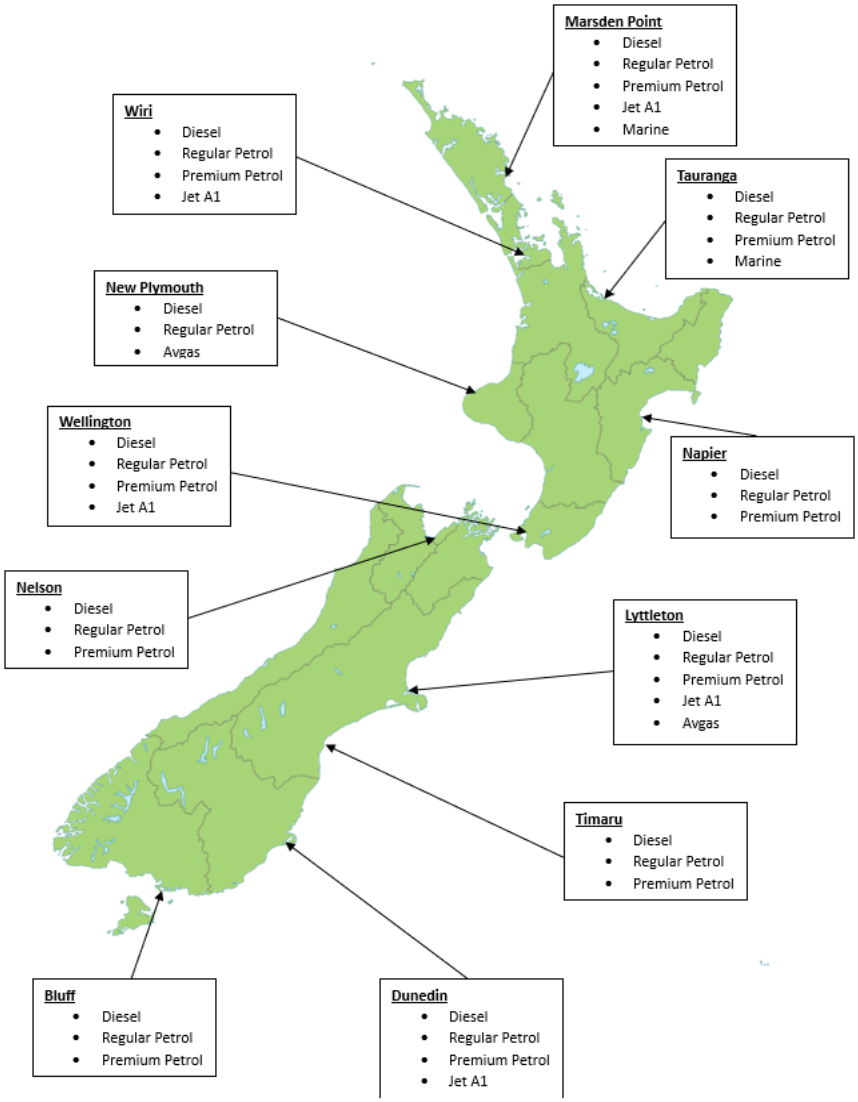


Figure 2-2 Fuel type stored at terminals (2024)

2.3 Fuel products

Petrol / motor gasoline

Petroleum products are distributed by ship at time of import and by road as described in the previous section. The petroleum categories are by minimum Research Octane Number (RON) – RON91, RON95 and RON98. Many fuel companies provide proprietary additives.

Diesel

Diesel (which refers to all liquid fuel used in diesel engines) is also known as automotive gas oil and marine gas oil. It is distributed by ship at time of import and by road to all terminals in New Zealand.

Note: 94% of petrol use is for light passenger vehicles while 80% of diesel use is for trucks, utilities and vans, and 7% for buses and trains (source: MBIE). However, in an emergency with power outages there will likely be a significant increase in fuel types required for generators.

Figure 2-3 shows the demand of imported premium petrol (RON95 and RON98), Regular Petrol (RON91) and diesel from January 2013 to November 2023

The significant rise in diesel and regular petrol coincide with the closing of the refinery.

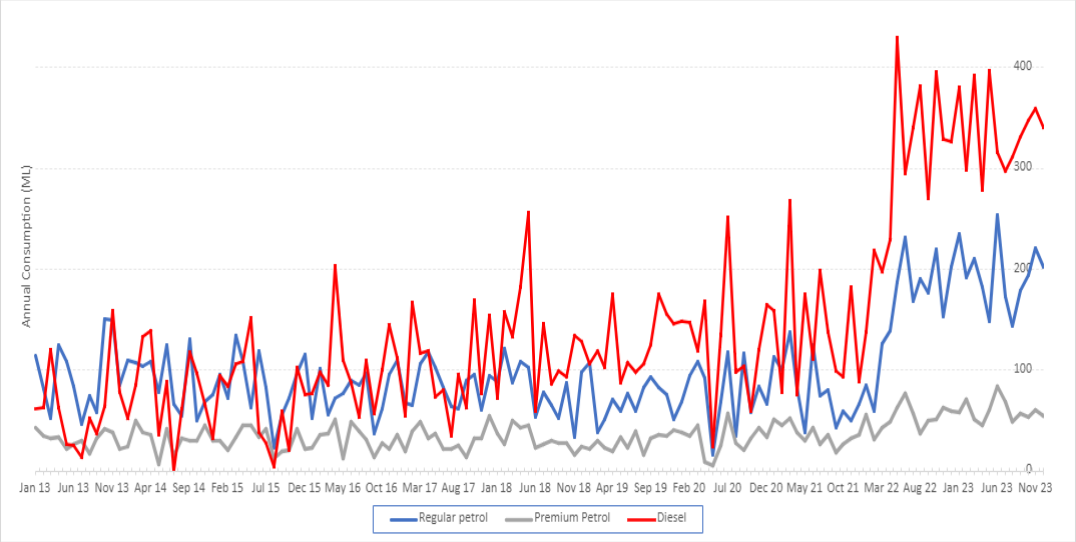


Figure 2-3 Demand for petrol and diesel 2013-2023 (MBIE)

Aviation fuels

Jet A-1 is used in jet propelled aircraft. It is imported to Marsden Point and piped to the Wiri terminal and then Auckland Airport. It is also imported directly to Dunedin, Lyttelton (Christchurch) and Wellington where it is then distributed by truck, or pipeline in the case of Wellington Airport, to airport fuel storage tanks.

Fuel hydrant operations at Auckland and Christchurch airports are summarised in Table 2-2.

Avgas (aviation gasoline) is used in some helicopters and small fixed wing aircraft with spark-ignited internal combustion engines. All avgas is imported to terminals at Mount Maunganui New Plymouth and Lyttelton and is distributed to airfields by road tanker. bp is currently the only importer of avgas.

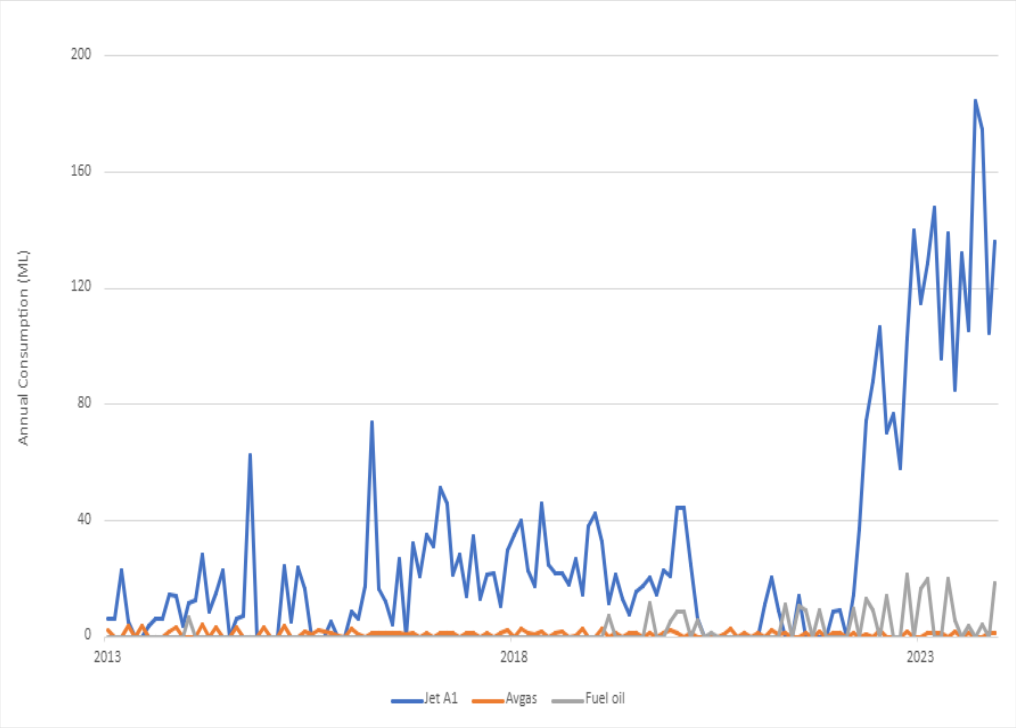


Figure 2-4 Demand for Jet A-1, avgas and fuel oil 2013-2024 (MBIE)

Marine fuels

All marine fuel for NZ (including marine diesel, light fuel oil, heavy fuel oil and bunker fuel oil) is imported to tank storage at most ports. Various grades of marine fuels are also stored at Mount Maunganui, Kaiwharawhara, Lyttelton, Timaru and Dunedin bulk storage terminals.

A large proportion of sales are by pipeline in the port where the tanker has delivered. Large vessels have bunkers which can be supplied by pipeline or truck. Most recreational vessels are supplied from marine/boat stops (which are supplied by truck from the main port location) – these are typically unmanned card-activated facilities.

2.4 Fuel disruption scenarios

2.4.1 Fuel supply chain vulnerabilities[2]

Marsden Point Import Terminal

Channel Infrastructure operations at the Marsden Point import terminal, including two jetties, are critical points in the national fuel supply chain. Without Marsden Point import terminal or its jetties operating, there could be fuel shortages in many parts of the country due to the sheer volume of fuel imported into the facility.

If the jetties were damaged, this would affect the ability to import fuels to the Port and the Marsden Point-Auckland Pipeline.

Fuel storage and pipeline facilities

In most cases of an isolated failure of a single port (or associated fuel storage facility), normal demand could be met by surging capacity at surrounding ports and trucking in fuel supplies. This is dependent on roads being open and the capacity in the trucking fleet, both of which could constrain the ability to meet normal demand.

The Wiri Oil Terminal and the Marsden Point-Auckland Pipeline are critical facilities in New Zealand in terms of numbers of customers potentially affected by outages. The availability of suitable trucks, drivers and a functional road network to distribute fuel is the key constraint in the ability to supply Auckland from other ports.

In recent years, jet fuel demand and Auckland regional fuel demand has increased significantly. While the Wiri Oil Terminal used to hold up to one week's demand, fuel supply is increasingly 'just in time', increasing the fuel shortage risks associated with a pipeline failure (there is typically 6 days supply at Wiri terminal and 2 days of Jet A-1 at Auckland Airport). Pipeline capacity has been increased to mitigate this risk to some extent.

The other critical fuel supply facilities are in Mount Maunganui, Lyttelton and Wellington. Lyttelton is important for the whole South Island.

Further south, both Dunedin and Bluff terminals are critical supply points, particularly following a major earthquake as road and rail links will likely be compromised.

Marsden Point-Auckland, Wiri-Auckland Airport and Lyttelton-Woolston Pipelines are designed to withstand seismic events but are at risk from major land movement. Regular inspections, testing, spares and contingency planning are all undertaken to mitigate the risk of failure and facilitate restoration as soon as practicable if failure does occur. The consequences of outages lasting longer than a few days were discussed earlier in this section.

[2] National Infrastructure Vulnerability Assessment, 2023 Edition

Risks of facility outages

The operators of fuel storage facilities take risk management very seriously. However, there are many potential hazards that are challenging to mitigate, for example:

- Most fuel terminals are in a tsunami zone;
- The Marsden Point terminal is dependent on the electricity supply, (which is in itself vulnerable to hazards), with only sufficient backup generation for a safe shutdown;
- Other terminals are also dependent on electricity supply, though some have generator backups;
- Fire is a risk for all fuel terminals;
- Fuel pipelines are at risk from major landslides, third party damage / explosion and loss of electricity supply to pump stations feeding the pipeline;
- Availability of appropriate fuel loading and unloading facilities can also prove challenging when covering for contingency events.

Constraints in the road distribution network

Fuel distribution in New Zealand is highly road dependent. Many areas and in fact some entire regions (the West Coast of the South Island and Manawatū-Wanganui) are entirely dependent on trucked fuel. Many other regions, such as Wellington, are likely to see damage to coastal terminals in many hazard scenarios and may be reliant on trucked road fuel for weeks or months. With the change to a full import model, smaller import vessels are used for some terminals, which enhances the ability to move fuel around the country to deliver to different terminals. This allows for adaptation to supply chains in the event of a terminal or road network disruption.

For these areas, isolation by road essentially means loss of fuel supply into that area until the logistics to enable air or sea transport can be put in place.

2.4.2 Summary of fuel disruption scenarios

Table 2-3 Summary of fuel supply disruption scenarios

External Outage Scenario	
International disruption	Natural or man-made disasters, war or other geo-political disruption in significant oil-producing regions, likely to result in an international shortage / price spike. Most recent example: Russia-Ukraine war (2022).
Internal Supply Breakdown Scenarios	
Long-term Marsden Point-Auckland Pipeline / Wiri disruption	Long-term disruption at Wiri, making the terminal inoperable. Supply to Auckland and airports in the upper North Island would be impacted. Trucking and fuel tankering from airlines would be involved in response. Restoration of petrol and diesel would involve trucking from other terminals.
Short-term Marsden Point-Auckland Pipeline / Wiri disruption	Disruption to the Marsden Point-Auckland Pipeline. Supply to Auckland region would be impacted. Such disruptions are likely to be resolved within days to weeks, except in the case of a major natural disaster (for example, the pipeline outage in September 2017 was resolved within 14 days).

Long-term Wellington disruption	Damage to the Seaview terminal. Supply to Wellington and the lower North Island would be impacted. Restoration of supply to Wellington could involve trucking from other terminals, provided roads into Wellington (SH1 and SH2) remain open.
Long-term Christchurch disruption	Damage to the Lyttelton terminal. Supply to Christchurch and the wider region would be impacted. Restoration would involve trucking from other terminals, assuming roads remain open.
Isolation of geographical area or region by road	This is a particular vulnerability for regions potentially without the facilities to import fuel by ship. For example, in a major Alpine Fault disruption, it may be weeks before road access to bring fuel into the West Coast can be restored, as the same time this region will have an increasing need as communities use generators to maintain power and communications.
Multiple facility and transport disruptions	A significant natural hazard event (tsunami, earthquake, cyclone, volcano) has the potential to cause damage to multiple terminals as well as isolating regions by roads, cutting off the alternative supply route. This is a particular vulnerability highlighted in Wellington Resilience Planning.
Widespread power outage	There is very little backup generation on site in the retail sector, although capability to 'plug in' generators is increasing. Many key terminals can use generators and can continue to work without power from the national grid. However, widespread outages will impact the ability to distribute fuel on a wider scale.
Catastrophic events	These can include concurrent events, and concurrent outages of other critical infrastructure sectors, such as electricity or telecommunications. Port infrastructure damage due to earthquakes, cyclones or tsunamis, especially at the major port terminals would be complex to repair. Noting lessons from Cyclone Gabrielle in 2023.
Other scenarios	There can also be disruptions to fuel supply with fuel quality or contamination events at scale. Although there are domestic mechanisms to deal with strike action, due to the critical infrastructure need of supply, industrial action can impact logistics (domestically or internationally).

2.4.3 Risk mitigation considerations

Increased fuel storage

To mitigate some of the supply chain risks, several areas have been recommended for consideration following reviews by industry and government (e.g. New Zealand Petroleum Supply Security 2017 Update, September 2017; Hale and Twomey, for MBIE; and the Government Inquiry into the Auckland Fuel Supply Disruption, August 2019).

Recommended mitigations include:

- increase the storage at Wiri (provides more redundancy in a Marsden Point-Auckland Pipeline disruption), and
- increase jet storage at Auckland Airport (to address significant demand increases/projections).

Fuel companies plan and fund new facilities with consideration for commercial arrangements (e.g. major customer requirements) and investment processes.

The Fuel Industry (Improving Fuel Resilience) Amendment Act 2023 provides for regulation-making power to prescribe requirements for disclosing information on fuel resilience. Regulations on these requirements are being developed at time of writing, that will come into effect in 2024.

These requirements will allow the government to collect more detailed information on fuel stocks at national and regional levels, international supply chains, and contingency arrangements. This will allow for a more accurate assessment of New Zealand's fuel resilience, help identify opportunities to improve fuel resilience, and monitor compliance with the minimum onshore fuel stockholding obligation.

Section 3 Planning requirements (readiness)

This section details the parties involved in planning in the event of a disruption to the fuel supply chain, and the roles and responsibilities of those parties.

3.1 Roles and responsibilities

Roles of parties

Table 3-1 outlines the roles and responsibilities of key parties in planning for major disruptions to fuel supply in New Zealand.

Fuel sector responsibilities

The primary responsibility for planning resides within the fuel sector, with their legislated responsibility under the CDEM Act 2002, as well as specific requirements for lifeline utilities in the National CDEM Plan Order (2015), to:

- identify and understand all hazards and risks to implement risk reduction strategies,
- collaborate with CDEM Groups and other lifeline utilities for planning, and
- plan response arrangements including appropriate contracting arrangements with key suppliers.

***Note**: While the CDEM Act 2002 requires lifeline utilities to provide technical advice to CDEM Groups, fuel companies are not required to release customer information to any party during pre-response planning. Fuel company customer details may be required by the lead agency during a response / recovery where there is a supply conflict that needs to be resolved (in which case this should be done in a timely manner).*

Table 3-1 Roles and responsibilities for fuel sector planning

Agencies	Roles and responsibilities
MBIE	• Maintain this Plan, in partnership with NEMA. • Convene and chair the Fuel Sector Coordinating Entity (*Section 3.2*) to coordinate fuel sector planning for major fuel disruptions, at least annually. • Maintain supporting operational procedures for Fuel SCE. • Conduct national exercises that test the arrangements in this Plan. • Monitor and advise the government on New Zealand's fuel supply security. • Ensure New Zealand meets the requirements of the IEA. • Participate in the National exercise programme, where relevant.
NEMA	• Maintain this Plan, in partnership with MBIE. • Maintain supporting operational procedures for the NEMA NCMC/NCC. • Participate in the Fuel SCE and contribute to coordinated fuel sector planning for major fuel disruptions. • Maintain a central register of regional fuel plans including collated lists of critical customers and priority retail outlets received from regional CDEM Groups and issue updates to fuel companies annually. • Identify the sectors deemed 'critical customers'. • Support CDEM Groups with regional fuel emergency planning. • Represent the Fuel SCE in regional fuel emergency planning. • Plan to coordinate support to the fuel sector as identified in *Section 4* of this document.
CDEM Groups / Local CDEM	• Develop regional/local CDEM fuel plans (*Section 3.3*). • Maintain regional/local arrangements to implement the plans, including: ◦ identifying and maintaining a database of regional / local critical customers (*Section 3.4.2*) and priority fuel retail outlets (*Section 3.4.3*), ◦ engaging with regional critical customers around their requirements in this Plan, ◦ engaging with priority retail outlet owners and planning to support the allocation of prioritised fuel to critical customer (*Section 3.4.3*), ◦ liaising with neighbouring regions to ensure alignment of plans and assumptions, ◦ conduct exercises that test the arrangements in regional / local fuel plans, and ◦ additional planning as detailed in *Section 3* and *Appendix C*.

Agencies	Roles and responsibilities
Fuel companies (producers/importers, processors, distributors)	• Comply with statutory requirements as outlined in section 60 of the CDEM Act (2002). • Develop and maintain business continuity plans to identify risks and steps to eliminate or reduce their likelihood, and to maintain services during an emergency. • Incorporate the planning and response arrangements in this Plan into their own planning (priority fuel retail outlets, critical customer lists, etc.). • Participate in the Fuel SCE and contribute to coordinated fuel sector planning for major fuel disruptions. • Participate in regional lifeline utilities and CDEM sector planning and exercises (while ensuring compliance with the Commerce Act (1986) and acknowledgement and management of commercial sensitivities). • Oversee the requirements below of company-owned fuel retail outlets.
Fuel retail outlets, including unmanned	Owners of retail outlets identified as a priority site by CDEM Groups shall: • Maintain business continuity plans, including testing and procedures for use of backup arrangements (e.g. for power / internet / water supply failure / staffing and any other critical resource). • Plan for the security of staff in an emergency event, being cognizant that in a major disruption that Police are unlikely to have resources to support this activity. • Participate in local and regional CDEM planning and exercises. • Liaise with CDEM for support required to implement prioritised supply to critical fuel customers.
Critical customers, including lifeline utilities	• Business continuity planning to maintain essential functions during fuel shortages, including fuel stored for generators, fuel-efficient vehicles, remote working, etc. • Provide information to support regional fuel planning. • Discuss priority access arrangement contracts with fuel supplier. • Establish processes for communicating with essential staff / contractors around priority fuel supply arrangements and ensuring they have ID. • Participate in multiagency exercises that test arrangements in this plan. • Participate in sub-Fuel SCE exercises and contribute to planning for major fuel disruptions.

3.2 Fuel Sector Coordination

3.2.1 Fuel Sector Coordinating Entity

Role

The Fuel SCE is the national governing body for planning for, and coordinating a response to, a major fuel disruption. It is established as per the role of SCEs defined in the National CDEM Plan Order (2015).

The role of the Fuel SCE also encompasses the role of the National Emergency Sharing Organisation (NESO) under the IEA. During the planning phase, its role is as per Table 3-1.

The Fuel SCE provides a coordinated approach to planning for a major disruption to fuel supplies, including progressing initiatives such as those identified in *Section 3.4.4*. During response, the Fuel SCE provides a single point of contact to the lead agency and coordinates the sector's response in a fuel emergency (*Table 4-1*).

It was identified during the Cyclone Gabrielle response in February/March 2023 that the membership of the Fuel SCE would greatly benefit expanding membership to include independent fuel retailers and distributors. Due to the geographic locations of the most impacted regions, many of these are serviced by these fuel companies, and including them in the response was a key lesson identified and implemented during the response. These companies have now permanently been added to the Fuel SCE as members and attend regular meetings.

Membership

The Fuel SCE is chaired by MBIE, and its core members include:

- Allied Petroleum,
- bp Oil New Zealand,
- Challenge Dealer Group,
- Channel Infrastructure NZ,
- Fern Energy,
- Foodstuffs,
- Gasoline Alley,
- Gull Petroleum New Zealand,
- MBIE (Energy Markets and Resource Markets Branches, and National Security System),
- McFall Fuel,
- McKeown Group,
- Ministry of Transport, during a response (in a response, the Ministry of Transport Chairs the national Transport Response Team which provides national coordination for the transport sector),
- Mobil Oil New Zealand Ltd,
- Nelson Petroleum Distribution,

- NEMA (National Lifeline Utilities Coordinator (National LUC),
- RD Petroleum,
- Timaru Oil Services Limited,
- Waitomo, and,
- Z Energy Ltd.

Meeting requirements

As per Table 3-1, the Fuel SCE Chair will convene a Fuel SCE meeting at least annually to review the plan, and to progress matters identified in *Section 3.4*.

Inclusion of other parties

Other key parties will be invited to Fuel SCE planning meetings, relevant to the matters being discussed, for example:

- other fuel sector companies (terminal operators, distributors/haulers);
- CDEM Groups (where significant regional issues are being discussed), otherwise the sector will be represented by the National LUC;
- transport industry representatives – airlines, airports (where jet fuel issues are a focus); and
- The Department of Prime Minister and Cabinet, New Zealand Police, New Zealand Defence Force, and other government agencies as required, such as the Ministry of Primary Industries, and the Ministry of Foreign Affairs and Trade.

Commerce Act 1986 considerations

Many participants in the fuel industry are also competitors, so any joint response to a fuel supply disruption must be done so in compliance with the Commerce Act 1986 and ensure any commercial sensitivities are acknowledged and managed appropriately.

The Commerce Commission published guidance for businesses collaborating in a response in March 2023 (Business Collaboration in Response to an Emergency, March 2023, Commerce Commission), which is a useful tool to navigate acceptable activities.

Key elements from this guidance include:

- The declaration of an emergency as per the CDEM Act (2002), is important to establish the need to collaborate.
- When there is no declaration of an emergency, the ability to agree with the Commerce Commission of a fuel specific emergency (that does not trigger a declaration itself) will be important. This will be greatly supported by the official activation of the Fuel SCE.
- Unless otherwise required by law, sensitive information shared in a response should be destroyed once it is no longer needed to respond to the emergency.

- Where confidentiality and time permit, the Commerce Commission may seek comment on the collaboration from other parts of government, stakeholders, and market participants. This will be greatly supported by the official activation of the Fuel SCE.
- The Fuel SCE directing companies to participate in activities will be an important step in reducing risks. Avoiding a two spoked 'direction' is important, so the Fuel SCE cannot be provided with the specific activity that companies would like the Fuel SCE to direct.

Note: *Due to the varying nature of emergencies, the Fuel SCE has been unable to obtain universal reassurance of collaboration activities for response, and therefore legal advice is always recommended prior to collaborating.*

3.3 Regional and local CDEM fuel plans

CDEM Plan Framework

There are three levels of CDEM planning in New Zealand – national, Group (regional) and local. This Plan provides the national planning and response framework and is one of three supporting plans to the National CDEM Plan Order (2015) under section 9(3) of the CDEM Act (2002).

Requirement for regional fuel emergency plans.

CDEM Groups are required to develop regional CDEM fuel plans to give effect to this National fuel plan, as shown in *Table 3-2*.

The Regional CDEM Fuel Plan should be developed in collaboration with critical fuel customers, including lifeline utilities. Regional Lifeline Utilities Groups often lead or jointly develop these plans with CDEM Groups, due to their interest in ensuring prioritised supply to essential lifeline utilities.

A Regional CDEM Fuel Plan template example is provided in *Appendix C*.

Option for local CDEM fuel plans

Local authorities and CDEM Groups may have a single Regional CDEM Fuel Plan covering regional and local issues or separate regional and local fuel plans.

Table 3-2 National, Regional and Local CDEM Fuel Plans

National fuel plan	Regional and Local Fuel Plans (detail in Appendix C)
• National fuel supply overview and key risks (*Section 2*). • Government and fuel sector responsibilities (Planning: *Table 3.1* and Response: *Table 4.1*). • National fuel planning framework (*Section 3*). • National fuel emergency response framework (*Section 4*). • Critical customer sectors (*Section 3.4.2*). • Fuel management measures (*Section 5*). • Plan review and testing arrangements.	• Scope of the Regional fuel plan, giving effect to the National Fuel Plan. • Overview of fuel supply chain within the region. • Major stocks of fuel within the region. • Regional/local hazard/impact assessments on fuel sector. • Regional critical fuel customer list and emergency fuel demand requirements. • Regional/local priority fuel retail outlets and continuity arrangements at those sites (e.g. power backup). • Support to be provided to priority retail outlets, such as critical customer identification, queue management, crowd control. • CDEM Group support to regional fuel distribution networks (e.g. transport regulation relaxations, per *Section 6*).

3.4 Planning arrangements for fuel management measures

3.4.1 Fuel management options

Fuel sector role

The primary responsibility lies with the fuel sector for managing fuel shortages and a range of mechanisms are / can be used, as summarised in *Section 5.1*.

Government support

Government can implement other measures to either improve supply or constrain demand where there is a risk that supply to critical customers may be threatened.

The main government agencies responsible for planning these arrangements are MBIE, MoT and NEMA.

The Fuel SCE provides oversight of preparation for the following arrangements, and that options to improve resilience (*Section 3.4.4*) are investigated and implemented where practicable.

Options to improve supply

Options to improve supply include:

- Relaxation of fuel specifications (*Section 5.2*),
- Relaxation of transport regulations (*Section 5.3*),
- Government logistical support (*Section 5.4*), and
- Release of overseas-held oil stocks (MBIE procedures).

Options to restrain demand

Options to restrain demand include:

- Voluntary demand constraints (*Section 5.5*), and
- Mandatory savings mechanisms (*Section 5.6*).

Implementing measures to prioritise supply to 'critical customers' is the most likely response to a short to medium term disruption. Planning to establish these arrangements is covered in *Section 3.4.2.* Implementing these arrangements in a response is dealt with in *Section 5.7*.

3.4.2 Planning arrangements for critical customer prioritisation

Critical customer definition

Critical customers are those agencies responsible for the health, safety and welfare of the community and, in an emergency, CDEM response and recovery activities. Noting planning to support isolated users is also required as they are reliant on fuel generators.

Critical customer sectors

The following sectors (not in a priority order, as this alters with each response) are defined as critical customers, with the right to access priority supply at nominated sites ***for the purpose of continuing essential functions***:

- Agriculture (including food supply chain, milk collections, preventing animal welfare issues, crops, fisheries, and activities of significant economic export value),
- Airlines,
- Civil defence emergency management (national/regional/local CDEM Group),
- Corrections (facilities and the monitoring of offenders in the community),
- Fire and Emergency New Zealand (FENZ) (response to public and property health and safety),
- Health and disability sector (hospitals, public health services, health emergency coordination centres, primary care, ambulance services, and aged care facilities),
- Lifeline utilities (major supplies of energy, transportation, telecommunications, water, and wastewater services),
- Local authorities, for lifeline utility services, solid waste and other essential functions,
- New Zealand Police (response to public and property health and safety),
- New Zealand Search and Rescue,
- NZDF (noting that they hold limited stocks for normal NZDF operations),
- Public transport – rail, bus and ferry,
- Transport and storage of food, and

- Welfare services (household goods and services, Civil Defence Centres, Oranga Tamariki facilities, large-scale animal husbandry and veterinary officials).

Critical customer identification in regional fuel plans

Regional Fuel Emergency Plans shall define specific critical customer organisations for fuel supply within the region based on the above categories. These will include key contractors to the main agencies that are required to provide essential services.

Critical fuel customers are required to ensure essential staff / contractors have a means of identification if they are not in a branded vehicle – either a company ID card or a letter from the company identifying them as essential staff or a contractor.

Critical customer identification at fuel outlets

There is no national identification system with pre-approved lists of approved vehicles or people. However, CDEM Groups may make their own arrangements if they believe the effort to maintain the system warrants this.

The lead agency, in consultation with the Fuel SCE Chair, shall determine any other critical customer organisations to be included in the prioritisation process, specific to the event response (refer to *Section 3*).

Marae as a critical customer

In many regions Iwi carry out response activities that require diesel, for example fuelling generators at marae that are being utilised as an official or unofficial Civil Defence Centre (CDC). Although these communities are not official critical customers, and will be region and event specific, consideration should be made to include marae or Iwi/Hapū response groups in the critical customer list. Ensuring marae are able to maintain their response welfare activities is important to strengthen community welfare as a whole.

3.4.3 Planning arrangements for priority fuel retail outlets

Identifying priority fuel retail outlets

Regional Fuel Emergency Plans shall identify the ‘priority fuel retail outlets’ that, in a fuel emergency are the priority for re-opening and supplying fuel to critical customers.

MBIE has engaged with all fuel retailers to create a fuel retail dataset that contains all fuel stations, with additional details including:

- Identification of priority status,
- If there is a generator on site,
- Ability to plug in a generator,
- If the site is manned or unmanned, and
- Other key attributes worth noting such as a supplier of LPG.

This dataset has been circulated to all CDEM Groups.

It is recognised that event-specific issues (such as damage to priority fuel retail outlets) may require flexibility in deciding which fuel retail outlets are used for critical customer use during response. The identification of these sites is not intended as a commitment by fuel companies to open all of these stations immediately following a disaster.

The dataset can be used as a list or transposed into visuals, as seen in *Figure 3-1*. This data can be refined for specific purposes during a response.

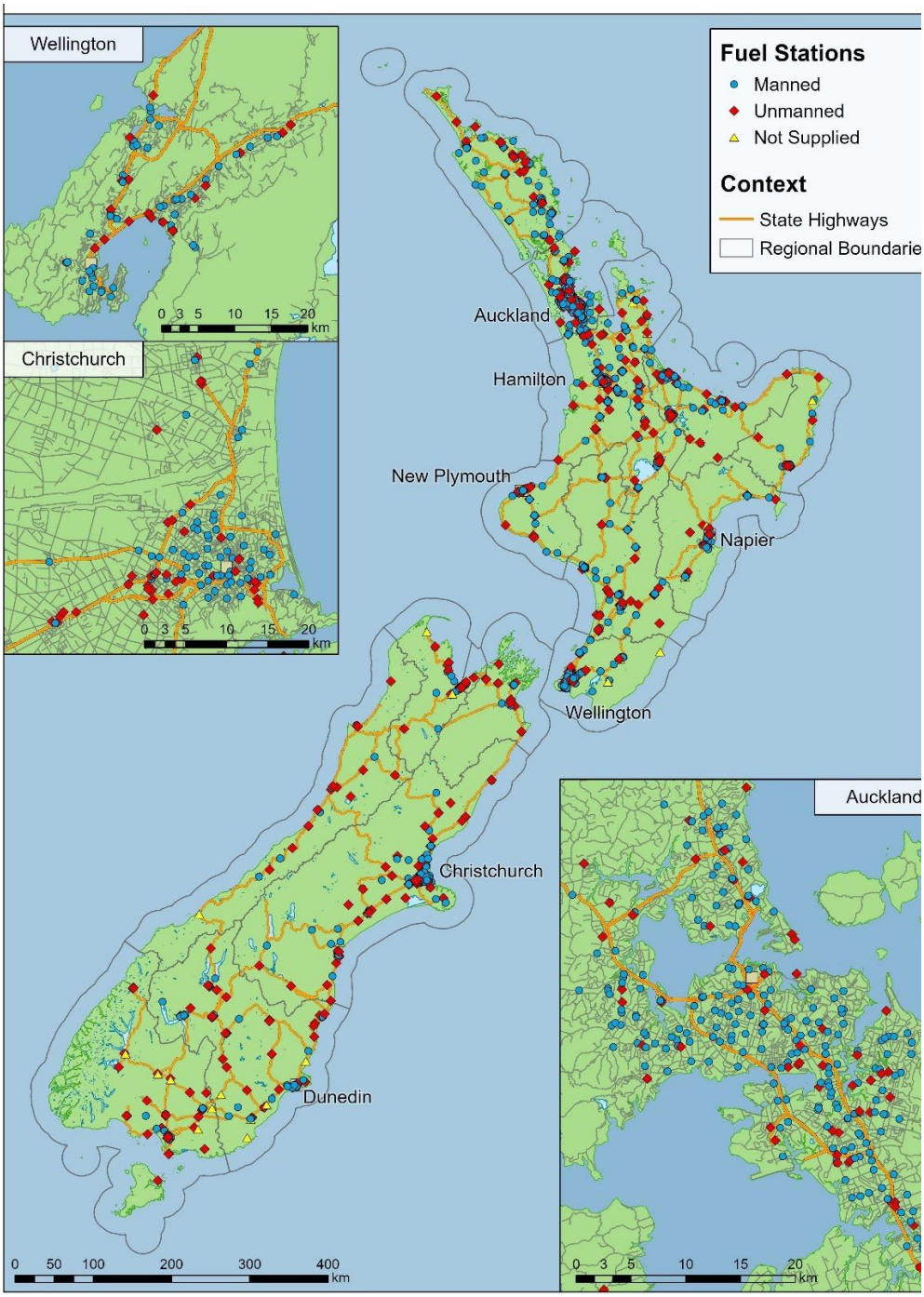


Figure 3-1 Retail Fuel Outlets Dataset

Considerations in selecting priority fuel retail outlets

In determining the list of regional priority fuel retail outlets, CDEM Groups shall engage with major retail fuel organisations in the region (*Section 2.1*) and consider:

- priority local routes/roads (those that have been identified in lifelines group planning as a priority to re-open for evacuation routes or access to critical sites),
- availability of on-site generators or generator plugs (to be able to operate in an emergency),
- retail sites that are owned and managed by fuel companies (easier to direct and coordinate through fuel companies rather than dealing with individual dealers),
- sites that fuel companies have designated as a priority – because of larger storage capacity / throughput and/or proximity to critical customer depots,
- access to all parts of the region,
- newer retail sites (which may be more robust if designed to modern standards), and
- hazards and risks associated with each fuel retail outlet.

Engagement between CDEM Groups and priority fuel retail outlets

The engagement between CDEM Groups and priority retail outlets will be determined by the CDEM Group, but should include maintaining relationships, emergency contact lists and possible inclusion in CDEM exercises. A Memorandum of Understanding (MoU) is an option that can be considered but can be difficult to establish and maintain.

Major fuel companies shall confirm the inclusion of priority fuel retail outlets in their business continuity planning arrangements in their annual update to MBIE and NEMA.

Business continuity planning for priority fuel retail outlets

Business Continuity Plans (BCP's) for owners and managers of fuel retail outlets to consider include:

- plans for opening and staffing during an emergency, with consideration of likely staffing impacts in a major emergency situation where many staff may not be able to come to work – for example, ability to bring in additional staff, support that may be required in relation to managing critical customer prioritisation,
- on-site power back-ups and/or connectivity for portable mobile electricity generators,
- alternative non-powered delivery methods: non-powered fuel delivery means such as compressed air methods. These methods may be locally available via FENZ or petroleum industry suppliers. Joint arrangements between local or regional CDEM Groups and fuel retail outlet operators may be appropriate. ***Note:*** *Methods that require repeated removal of fuel storage covers are not preferred due to the need to manage fuel contamination and/or safety risks,*

- Alternative payment methods in power or communications failures, considering transaction recording and processing options for retail outlets, and
- security of fuel retail outlets, which is primarily the responsibility of the fuel retail outlet owner/operator. However, in order to ensure safe and effective management fuel supply to critical customers at priority fuel retail outlets, CDEM Groups will most likely need to provide support, as detailed in *Section 3.1*, and should have plans in place to provide this. In a significant emergency, New Zealand Police are also likely to be under their own resourcing constraints, and therefore cannot be relied upon to deliver security arrangements.

  This recognises that fuel station staff are not resourced or trained to manage these processes and that fuel companies will close fuel retail outlets if there are health and safety concerns or any risk they are not delivering their obligations under the Health and Safety at Work Act (2015).

Other fuel supply options

Another option where fuel companies and CDEM Groups are unable to make appropriate management and security arrangements at retail outlets is to establish temporary supply points for critical customers at other locations.

However, there are a limited number of mobile units that can be currently deployed, and further work is needed to plan for this option.

3.4.4 Future planning activities

Considerations for Fuel SCE future planning

More detailed planning and development of procedures will be led by the Fuel SCE Chair and supported by fuel companies, as follows:

- plans for fuel specification relaxation (‘ready to go’ applications),
- emergency transport of fuel by sea, air, off-road,
- use of other ships for transport, including planning within the maritime sector (NZDF) including the use of current fuel carrying ferries in different ports *(New Zealand Maritime emergency certification for offshore high seas travel may be required),*
- pre-approved routes for transport of Jet A-1,
- feasibility of setting up identification systems for critical customers,
- feasibility of setting up temporary compounds / supply points for critical fuel customers (if the concept is generally agreed, the detailed planning would be led by CDEM Groups, supported by NEMA),
- arrangements for payment that could be made where EFTPOS retail sites are down *(currently able to be done with some fuel cards, where there is a power supply to the terminal), and*
- develop information sharing protocols with fuel sector for efficient information sharing during events. Please see Situation Report template in *Appendix D* Fuel SCE Situation Report Templateand advice around the Commerce Act (1986) in *Section 3.2.1.*

Part B:
Response to a Fuel Supply Disruption or Emergency

Section 4 Response framework

This section describes the national response framework for responding to a major disruption to fuel supplies.

4.1 Roles and responsibilities

4.1.1 ODESC System

ODESC System

Three levels of operation

Any significant government response to a national fuel supply emergency that meets the criteria for the activation of the Official Committee for Domestic and External Security Coordination (ODESC) system, will take place within the ODESC system arrangements.

The ODESC system operates at three levels during a crisis response:

Ministers, led by the Prime Minister (call the External Relations and Security Committee (ERS);

Chief Executives (Officials' Committee for Domestic and External Security Coordination / ODESC); and

Officials (Watch Group and Inter-Agency Working/Specialist Groups).

ODESC, Watch Group, and Inter-Agency Working Group meetings are all chaired by the Department of the Prime Minister and Cabinet (DPMC).

There are multiple criteria to consider activating the ODESC system.

Here are the criteria to consider activation of the ODESC system:

- Unusual features of scale, nature, intensity or consequence,
- Conveys significant challenges for sovereignty or nation-wide law and order,
- Suggest multiple or inter-related problems- creating national or systemic risk,
- Involves high degree of uncertainty or complexity,
- Concurrency of events,
- No clear lead agency, or
- Emerging issues that might meet the criteria in the future.

4.1.2 Lead agency

Lead agency

MBIE, as the Government's lead advisor on the fuel industry and as the chair of the Fuel SCE, will always manage and coordinate the Government's response to a major fuel disruption. This role continues even if the event becomes an emergency under the CDEM Act (2002).

Depending on the cause of the disruption, the lead agency for coordinating the overall management of the emergency will initially be as per *Appendix 1* of the National CDEM Plan Order (2015) e.g. NEMA for Geological/Meteorological hazards, New Zealand Police for Terrorism, FENZ for Fire. MBIE is the lead agency for Fuel infrastructure failure*.

If the event escalates and a state of emergency is declared (local or national), CDEM is always the overall lead agency (CDEM Group or NEMA). In this case MBIE is a support agency and MBIE will still chair the Fuel SCE and manage and coordinate the response to any fuel disruption that is part of the overall emergency.

**Currently, under Appendix 1 of National CDEM Plan Order (2015), NEMA is the lead agency for Infrastructure Failure. Under the National Fuel Plan, MBIE is responsible for leading the sector in a Fuel infrastructure failure, while the consequences will be led by NEMA. The National CDEM Plan Order (2015) will be updated in the upcoming review to reflect this change.*

4.1.3 Other key roles

Table 4-1 describes the roles and responsibilities of the relevant agencies during a major disruption to fuel supplies. The roles of other key parts of the National Security System (NSS) and other lead agencies are described in the NSS Handbook (https://dpmc.govt.nz/publications/national-security-system-handbook-html).

Table 4-1 Roles and responsibilities during response

Sector	Roles and responsibilities
Minister for Emergency Management and Recovery	• The Minister may declare a state of national or local emergency under which the National Fuel Plan is activated.
Minister for Energy	• Activate the authorities under the IEA and/or Petroleum Demand Restraint Act 1981 to implement fuel demand measures or measures to meet IEA obligations.
MBIE	• Chair the Fuel SCE to manage and coordinate the government response to a national fuel supply disruption (regardless of the lead agency). • Provide advice to the Minister for Energy and Associate Minister for Energy on measures to be implemented. • Collect information from the fuel industry and, where necessary, coordinate the implementation of response measures. • As Chair of the Fuel SCE, interface and information share with other lifeline utilities SCE's through the Intra-Infrastructure Coordination Group (IICG) for Sector Coordinating Entities (SCE's) (chaired by NEMA).

Sector	Roles and responsibilities
NEMA (through National LUC) [4]	• Coordinate information from other lifeline utilities to support response (e.g. road status, electricity status), this can be through activating the IICG for SCE's (chaired by NEMA). • Communicate situational information to CDEM Groups and other response agencies, as per the National CDEM Plan Order (2015). • Participate in, and contribute to the role of, the Fuel SCE. • Support CDEM Groups as required. • Provide logistical support to the fuel sector as per *Section 5*.
CDEM Groups / ECC[5]	• Maintain critical customer lists and make available to the National LUC. • Provide support to the management of allocation of fuel to critical customers (e.g.: confirming critical customer identification, queue management / crowd control). • Provide situational information (e.g. road access) to support the fuel response. • Cover costs associated with the provision of security at fuel retail outlets that the CDEM Group has procured. • Provide other logistical support to the fuel sector as per *Section 5*.
Fuel companies and Fuel Infrastructure companies	• Coordinate their own organisation's response. • Undertake business continuity and contingency planning. • Undertake operational tasks to manage fuel demand or increase fuel supply as part of their normal response and as directed by the lead agency. • Provide information to the lead agency, as per *Section 4.4.3*. • Provide a communication point for organisations supplied by the fuel company (e.g. dealers, distributors)[5]. • Support/advise the government response through the Fuel SCE and jointly undertake Fuel SCE roles with other fuel organisations. • Chair and operationalise the Jet Fuel Working Group, that facilitates all Jet A-1 to Auckland Airport.
Fuel SCE	• Facilitate sector solutions. • Request/coordinate support from the government. • Coordinate and provide fuel sector situational information to the lead agency. • Distribute situational information from the lead agency (through members to their sector / organisation / supply chain). • Coordinate with other affected sectors, particularly where dependencies exist (e.g. the electricity sector), ad hoc or through the IICG for SCE's (chaired by NEMA), if activated.
Fuel retail outlets	• Implement demand restraint measures as requested by the lead agency (communicated through fuel companies) or as directed via regulations. (Planning for priority fuel retail outlets is covered in *Section 3.4.3).*

[4] This description of roles is not intended to limit the powers of Controllers under the CDEM Act (2002), including Section 85(1)(e) provide for the conservation and supply of food, fuel, and other essential supplies, Section 90 Requisitioning Powers and Section 91 Power to give directions.

[5] The major fuel companies can control the business actions of their company owned and operated fuel retail outlets but have little direct influence over those independents that carry their branding. However, they are required under this Plan to provide a communication link between the lead agency in an emergency and the retail outlets that they supply.

Sector	Roles and responsibilities
Critical customers	• Critical customers fall into one of three categories; those buying fuel at an individual level for work vehicles (e.g. Linesmen), those buying fuel at an individual level for personal vehicles to get to work as critical workers (e.g. nurses), and those with large-scale commercial purchases of fuel to maintain critical services (e.g. fast moving goods). • Ensure staff and contractors responsibly access prioritised fuel supply arrangements (essential staff and contractors only). • Reduce fuel demand as far as practicable without compromising services. • Have a process of identifying staff and/or vehicles to access fuel. • Have a means of payment if normal means (e.g. cards) cannot be used.

4.2 Escalation and activation of arrangements

4.2.1 Escalation of event

Escalation of emergencies

A major disruption to fuel supplies may be categorised in severity as well as scope – this concept is illustrated in the Coordinated Incident Management System (CIMS) 3rd Edition Response Levels shown in *Table 4-1.* The fuel escalation process for this Plan is summarised in *Figure 4-2* and detailed in *Table 4-2*.

The 'response' level will determine whether the response is being led at the local, regional, or national level (an incident level event is unlikely to trigger arrangements in this Plan). The decision to activate the Fuel SCE will depend on the severity of the impact on the fuel sector and may use activation arrangements described in *Section 4.2.2*.

An emergency may progress from one level to another (for example, a damaged pipeline that takes longer than expected to repair) or move straight to a high level (for example, a sudden, major infrastructure disruption expected to last longer than a few days).

The lead agency shall determine when to escalate or de-escalate to lower levels or business-as-usual, in consultation with the Fuel SCE.

		Severity			
		1 Minor	2 Moderate	3 Major	4 Severe
Response level	National (N)	N1 A minor national level response	N2 A moderate national level response	N3 A major national level response	N4 A severe national level response
	Regional (R)	R1 A minor regional level response	R2 A moderate regional level response	R3 A major regional level response	R4 A severe regional level response
	Local (L)	L1 A minor local level response	L2 A moderate local level response	L3 A major local level response	L4 A severe local level response
	Incident (In)	In1 A minor incident level response	In2 A moderate incident level response	In3 A major incident level response	In4 A severe incident level response

Figure 4-1: Response Levels, CIMS 3rd Edition

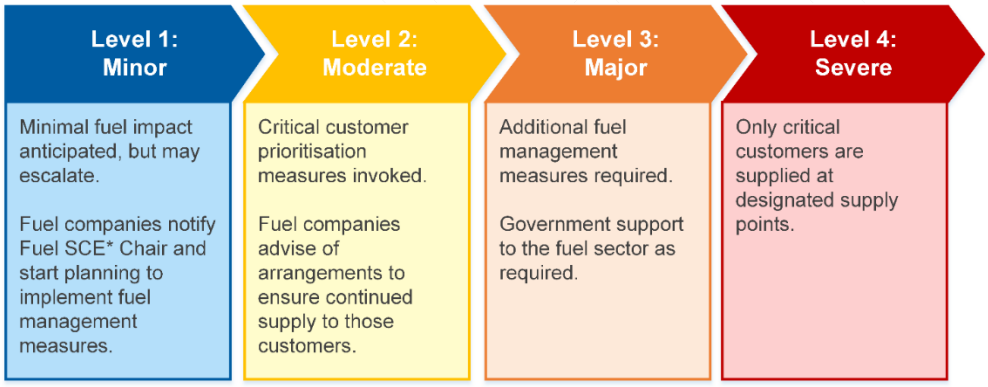


Figure 4-2: Fuel escalation level based on severity of impact

Table 4-2: Description of Escalation Levels for Fuel Response

Escalation Level	Description
Level 1: Minor Impact on Fuel Sector	• Potential for escalating fuel supply disruption to Levels 2-3 but minimal current impact on fuel distribution. • Fuel companies notify Fuel SCE Chair and start planning for potential disruption. • Fuel SCE convened to monitor situation and start planning for potential escalation. • NEMA notifies CDEM Groups (noting CDEM Emergency Operations Centres (EOC's) and Emergency Coordination Centres (ECC's) may already be activated if this is part of wider emergency).

Escalation Level	Description
Level 2: Moderate Impact on Fuel Sector	• Moderate fuel distribution impacts, most customers still serviced but causing risk of shortages to critical fuel customers. • Fuel SCE activated (*Section 4.2.2*) to monitor demand levels and re-supply options and coordinate Government support as required for the fuel sector (*Section 5.4*). • Critical Fuel Customer prioritisation is invoked (*Section 5.7*). Fuel companies to take steps to ensure critical customers are supplied. Government powers may be used to enforce this. • CDEM ECCs maintain list of critical customers and communicate changes to national LUC and local service stations. • State of emergency may be in place (see note).
Level 3: Major Impact on Fuel Sector	• Serious impact on fuel distribution with severe resource and capacity constraints and multi region and/or major impacts to critical customers. • Actions as above, plus additional demand management measures implemented (*Section 5.6* and *Section 5.7*) and coordinated through the Fuel SCE. • State of emergency likely to be in place (see note).
Level 4: Severe Impact on Fuel Sector	• Severe impact on national fuel supplies and resource and capacity limits well exceeded. • Actions as above, plus fuel companies to supply only critical fuel customers and these customers to be serviced by any supplier. • State of emergency likely to be in place (see note).

Note: The level of activation of CDEM and declaration of emergencies will not necessarily follow the level of fuel disruption if a wider emergency is in place.

4.2.2 Activation of arrangements in this Plan

Activation of Arrangements

Arrangements in this Plan may be activated through any of the following (referenced legislation is detailed further in *Section 1.4*).

1. By a National or Group Controller in a declared state of emergency,
2. Upon the declaration of an IEA oil emergency under the IEA Act (1976) (the IEA is required to consult with member countries before declaring, which is likely to allow some time for consideration of response measures),
3. Upon the declaration of a petroleum emergency under the PDR Act (1981) by the Minister for Energy, on the advisement of MBIE, subject to cabinet decisions and the drafting of regulations and associated ministerial directions, and
4. Upon the activation of the ODESC System, on the advisement of MBIE, NEMA and/or other lead agency.

Notes: A declaration under the IEA Act would only be in response to a global oil disruption. Regulations under the PDR Act (1981) can be made whenever supply is short. If a CDEM state of emergency is in place, IEA Act and PDR Act (1981) authorities are unlikely to be triggered; however, it is possible.

IEA Declarations

Prior to any formal declaration of an IEA emergency under the International Energy Programme Agreement, the IEA is obliged to consult with member countries. This means there will be a warning of up to several days before an emergency is declared, affording New Zealand the opportunity to hold preliminary discussions (between government and industry) about response options. Approval from the Minister for Energy is required before New Zealand can agree to any IEA-mandated action.

Once it has consulted with and received agreement from member countries, the IEA can officially declare an emergency and call for a specific response under the International Energy Programme. The IEA will notify each country of what is required from them (e.g. how much stock they are expected to release or conserve).

4.3 Fuel Sector Coordination Arrangements

4.3.1 Fuel Sector Coordinating Entity

Objectives

The objectives of the Fuel SCE arrangements are to:

- assist the effective management of potential or actual fuel supply emergencies; and
- ensure government, key stakeholders and the public are kept informed with consistent information.

SCE Activation

MBIE shall convene an initial teleconference/Teams call of Fuel SCE members (*Section 3.2.1*) when:

- oil company representatives believe it to be necessary;
- the emergency or event has / is likely to have a major effect on national or regional fuel infrastructure and/or distribution; or
- the NEMA Duty Manager, National LUC or National Controller believe it to be necessary.

Initial teleconference

MBIE will convene this by individually contacting Fuel SCE members and notifying them of the time, teleconference number/Teams link and location for the meeting, which may be by teleconference (MBIE and NEMA jointly hold an emergency contact list for all members).

Other SCE participants

Other participants may be invited to participate if their organisation is considered to have a material contribution to the event, such as:

- CDEM Group LUC (where one or two regions are the main affected regions),
- Group Controllers of affected region(s), and
- Major users impacted, for example Ministry of Corrections, Ministry of Health, Ministry for Primary Industries.

The Fuel SCE Chair shall determine, in consultation with the SCE members, whether ongoing communications shall be by teleconference or in person and the timing/location of those meetings.

4.3.2 Other working groups

Other specific working groups may be convened during response to support local prioritisation arrangements or specific sector issues. The Chair of these Groups would liaise with the Fuel SCE to coordinate actions.

Local fuel working group

Where a disruption to fuel supply is primarily affecting a single region, the CDEM Controller in the jurisdiction may convene a local working group (by conference call or in person) to coordinate local prioritisation arrangements.

For localised disruptions to fuel supplies, a local fuel working group under the direction of the Group or Local Controller may be convened without the national Fuel SCE being convened. Communication should be maintained with the Fuel SCE Chair and NEMA National LUC to ensure arrangements are put in place to support if the situation escalates.

Jet fuel working group

Where there is a significant disruption to the jet fuel supply, a working group or sub-Fuel SCE may be convened by the Fuel SCE with representatives from the most affected organisations, for example:

- Airports,
- Air NZ and other airlines,
- Senior fuel company representatives,
- BARNZ,
- Fuel terminal and major infrastructure operators, and
- Regional CDEM Groups.

4.4 Communications

4.4.1 Communication lines in an emergency under the CDEM Act

Communication arrangements in a CDEM emergency

Once the Fuel SCE is convened, key communication lines are shown in *Figure 4-3* and discussed below.

- The National LUC shall provide links between the Fuel SCE, NEMA NCMC/NCC and affected Group LUCs to share situational awareness information (e.g. road/power outages, etc.) and communicate information on the fuel sector situation with the CDEM Groups,
- CDEM ECCs and fuel retail outlets within the local area will communicate directly as needed and as per any local arrangements, such as providing CDEM support to manage priority fuel retail outlets for critical customers,
- An MBIE or fuel company communications person may be appointed to the Fuel SCE to support public communications (under the overall direction of the lead agency's Public Information Management function),
- The fuel companies shall provide a communications link between the Fuel SCE and retailers that they own, manage and/or supply. It is noted that they may not be able to control the retail operations (other than how they supply the site) but can coordinate information and direction,
- A reporting timeline will be determined by the lead agency for status reports, action plans and further conference calls, and
- Major disruptions to fuel supplies will also affect the transport industry. The MoT may convene the national Transport Response Team (TRT) to coordinate the transport sector response to the emergency (the TRT is not shown in *Figure 4-3* for simplicity).

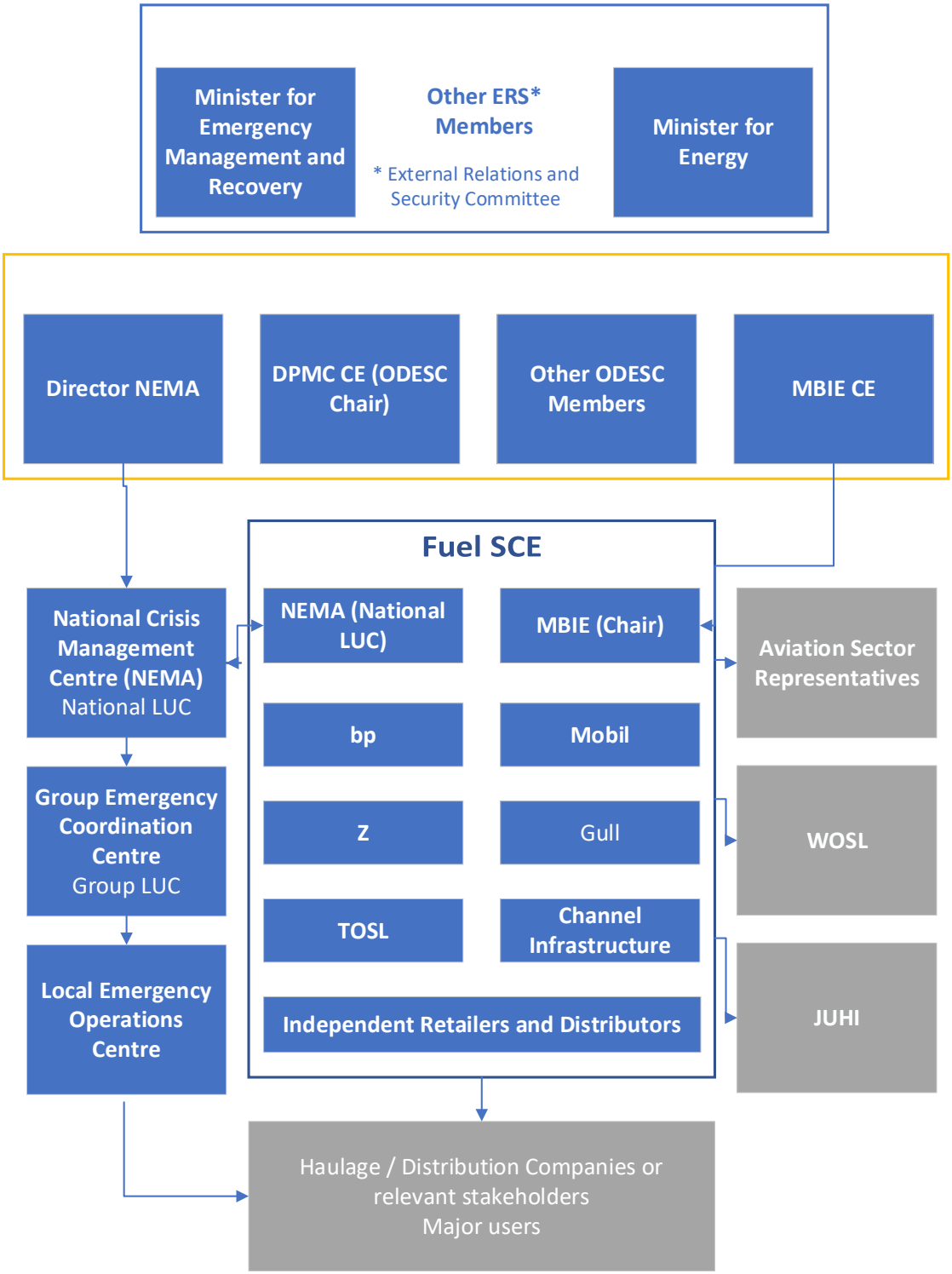


Figure 4-3 Communication lines in a CDEM emergency

4.4.2 Communication lines when it is not an emergency under the CDEM Act

Communications with other lead agencies

If the Fuel SCE has been convened for a major fuel disruption that does not result in an emergency requiring coordination by CDEM under the CDEM Act, the arrangements will be similar but without the activated CDEM structure shown in Figure 4-4.

However, the National LUC will still be on the Fuel SCE to monitor the situation, facilitate support by CDEM if required and provide information to NEMA NCMC/NCC to determine whether CDEM activation may be required (such as where there is potential for welfare issues to be managed).

4.4.3 Fuel sector reporting requirements

General information to be provided

During emergency response and recovery activities there will be a need for ongoing communications between the lead agency and fuel sectors. Information will be provided by fuel companies to the Fuel SCE Chair on:

- status of fuel distribution and storage infrastructure (operational / not operational),
- risk of imminent fuel shortages at fuel terminals or at multiple retail outlets (potential impact on fuel customers),
- requirements for CDEM support to maintain/re-establish service, and
- methods of allocating fuel to critical fuel customers (where critical customer prioritisation measures are being invoked).

Reporting measures

Reporting should be structured to enable information to be provided specific to CDEM regions, where possible.

Specific metrics to be reported will be agreed at the first Fuel SCE meeting with consideration of the objectives of those receiving information, and may include:

- status of fuel sector facilities, stocks and networks;
- current fuel stocks by type and location;
- estimation of scheduled replenishment times and other future changes to fuel stock; and
- estimated likelihood of fuel stock-outs at terminals or retail outlets.

Frequency of reporting

Frequency of reporting will be determined by the lead agency, but will consider resourcing required to provide information and, where possible, be limited to no more than once per day (preferably later in the day).

An example reporting template can be found in appendix D.

4.4.4 Communication with CDEM Groups

Communication lines

The relationship between the Fuel SCE and CDEM Groups is via the National and Group LUCs (unless only one or two regions are primarily affected, in which case the Group LUC will be directly represented on the Fuel SCE).

Information to be communicated

Key information to be exchanged between the National LUC and Group LUCs include:

- fuel sector status information (to be provided promptly from the National LUC when received); and
- regional situation status, particularly relating to fuel dependencies such as road and other lifeline utilities' status.

In the early stages of an emergency and/or where the Group LUC role is not activated, the CDEM Duty Officers and Controllers are likely to be the key points of contact.

4.4.5 Public communications

Coordination of public communications

Where significant public communication is required, the lead agency will establish a Public Information Management (PIM) Function (or similar). This team will:

- coordinate with the Fuel SCE over key messaging required,
- implement a communications strategy to support the agreed plan of action, particularly for measures where public understanding and voluntary action is required, and
- coordinate with other agencies/groups that may be releasing public information about the event to coordinate public messaging.

Appendix E provides suggestions and templates for Public Information as guidance.

Industry spokesperson

The Fuel SCE will seek to identify an industry spokesperson by consensus to provide consistent media messaging, with an agreed scope of content that can be discussed. The spokesperson will often be from the company most impacted; however, this is flexible, and arranged at the time, taking into consideration the ability to fulfil this role alongside response activities.

Note: *Fuel companies retain the right to release their own information to the public, and publicly listed companies have obligations to release information under the NZX. However, they must coordinate with the lead agency Public Information Management function to ensure consistency of information provided to the public. It is expected that the fuel companies will provide all planned correspondence in advance of media sharing to the Chair of the Fuel SCE as part of the "no surprises" policy between the sector and Fuel SCE.*

4.4.6 Communications with the International Energy Agency

MBIE communications with IEA

The IEA and its member countries have an ongoing responsibility to exchange information in the event of an emergency. The IEA provides information on the nature of the disruption to member countries and involves them in the decision-making on the declaration. Member countries have a reporting obligation.

MBIE is responsible for leading communications with the IEA.

Section 5 Implementing fuel management measures

This section describes the specific measures that the fuel sector can (and does) use in order to manage the quality and quantity of fuel during disruptions to the normal supply chain.

It also identifies measures that the Fuel SCE, in consultation with the lead agency, may consider using to assist fuel companies to mitigate the impact of a disruption.

Fuel companies and critical fuel users should not plan on the assumption such measures will always be available.

5.1 Fuel sector mechanisms to manage disruptions to fuel supply

The fuel sector has a wide range of mechanisms that they use to manage fuel supply distribution in both minor and severe disruptions to the fuel supply chain.

Diverting nearby ships

In a disruption to a ship's delivery or a testing failure upon delivery, to deploy an additional ship from normal ports of origin such as Singapore could take several weeks. The fuel sector would seek to divert a closer ship to bring in additional refined fuel (for example a ship diverted from Australia could take only a few days). However, this is not always possible due to dependencies, which include the urgency with which the vessel's cargo is required at the original port and the fuel meeting New Zealand specifications.

Note: *New Zealand fuel specifications may differ from Australian specifications and may not be substituted with fuel that meets New Zealand specifications unless regulations are relaxed (see* Section 5.2*).*

Mobile fuel storage units

Some companies have mobile fuel storage units (ISO Tanks) that can be deployed to supply fuel to areas where normal supply points are unavailable, though there are very limited numbers of these in the country.

Other transport mechanisms

Other mechanisms for enabling transport of fuel where normal supply routes are disrupted include:

- Ferries/Barges – where populations are isolated by road, fuel companies have at times transported fuel on ferries/barges where available. This occurred in 2018 to transport fuel to Takaka[6]; however, there are limited ferries/barges available in New Zealand and this option will not be viable in areas inaccessible by ferry/barge. Fuel products can only be transported on vessels that meet the appropriate dangerous goods requirements as part of their Maritime New Zealand (MNZ) survey,
- Air transport – noting that volumes that can be transported by NZDF and other local aircraft are small and only likely to be sufficient to fuel a small number of critical facilities. Commercial carriers cannot carry fuel as cargo under current legislation due to it's classification as a Dangerous Good. Aircraft tankering for other aircraft is also unlikely due to contamination issues,
- Ship to shore mechanisms – such as pumping directly from ships to truck. These require an onshore offloading facility and storage and there are many safety considerations including appropriate MNZ certifications. It is noted that this technology has been tested by Interislander (Kiwirail), however, this has never been used by the fuel industry or in a response,
- Tanker trucks brought in on roll-on, roll-off ships or barges, where there is facility for these vessels to dock, and
- Carrying diesel in the running tanks for ships.

5.2 Relaxing fuel specifications

Reasons for relaxing fuel specifications

Relaxed fuel specifications can facilitate supply and:

- enable imports of fuel from a wider range of overseas sources,
- permit fuel meeting specifications of another country or specific regions (e.g. winter specifications) to be supplied.

***Note**: The requirements of the Consumer Guarantees Act (1993) still apply, although may require waiver of rights for critical fuel customers during a state of emergency (to enable fuel of changed specifications to be supplied).*

Process to be followed to relax fuel specifications

The process to be followed for relaxing fuel specifications is as follows.

- The lead agency, in consultation with MBIE and the Fuel SCE, considers the type of specifications that are constraining the supply of products to New Zealand.

[6] Barges were used to transport and supply Takaka and Golden Bay following closure of the Takaka Hill road due to slips in 2018.

- MBIE liaises with other government agencies – including the Ministry for the Environment (MfE), MoT and Ministry of Health (MoH) – to assess the potential impacts.
- MBIE advises the Minister for Energy whether to approve the relaxation of the specifications.

5.3 Relaxing transport regulations

Processes for relaxing transport regulations

The process to be followed for relaxing transport regulations[7] is as follows.

1. The Fuel SCE, in consultation with the lead agency, considers whether any of the following is necessary to ensure continued supply to critical customers.
    a. Increasing the capacity that can be carried by road tankers (mass and dimension limits apply and can be varied by permit application to NZTA for designated routes). Road and bridge limits that may have been impacted will need to be considered.
    b. Relaxing enforcement of resource consents or bylaws restricting the operation of fuel tankers (e.g. noise restrictions on night deliveries in residential areas).
    c. Varying traffic management rules or arrangements to facilitate more frequent truck movements (e.g. allowing use of bus lanes).
    d. Relaxing restrictions on use of road tunnels (e.g. specifying dedicated time period when petrol tankers may use a tunnel).
    e. Relaxing cabotage rules (relating to the shipping of fuel).
    f. Relaxing restrictions on driving hours.
2. The Fuel SCE, in consultation with the lead agency, makes recommendations for NZTA, local authorities and any other agencies that have jurisdiction to consider and implement the measures above. Considerations of Health and Safety are at the forefront of these decisions, therefore the most appropriate short-term solution in most circumstances is 1.a (above).

5.4 Government logistical support

Lead agency / NEMA support with logistics, regulation

The fuel companies are responsible for ensuring continuity of fuel supplies, as per the CDEM Act 2002. However, in events such as when road closures have isolated an area or region, the lead agency or NEMA/NCMC/NCC will facilitate logistics support in collaboration with fuel companies to assist fuel supplies to reach affected areas.

[7] Some of these processes will take time to implement or get approvals.

This may include:

- air or overland vehicle transport;

  ***Note**: that volumes that can be transported by this method are small and only likely to be sufficient to keep the most essential facilities operating (e.g. hospitals).*

- a range of support by NZDF, where resources are available, such as NZDF ships, drivers, engineering resources or specialist aviation resources; **Note:** *NZDF cannot be relied upon to have assets and staff available domestically.*
- assistance with sourcing key international resources including barges and fuel air transport capacity; and
- relaxation of regulations, such as those identified in *Section 5.2* and *Section 5.3* and others.

  For example, allowing night-time fuelling to increase distribution capacity.

Local/Regional CDEM support

Through local and regional CDEM Groups, government can also facilitate:

- giving priority to re-establishing road routes to fuel terminals and priority fuel retail outlets;
- giving priority to road use for essential supplies (such as fuel), for example if there is a single road into the West Coast; and
- assistance with prioritisation of lifeline restoration, particularly including water and electricity.

5.5 Voluntary fuel demand constraints

Implementing voluntary demand constraints

The public can be encouraged by Government and the fuel sector to voluntarily reduce fuel consumption by implementing fuel conservation measures. This can be achieved through reducing speed on open roads, carpooling, working from home, checking tyre pressure and reducing unnecessary trips or using other transport modes.

This is only considered a practicable option when managing a long-term supply disruption where immediate stocks are not at threat (panic buying will be a likely result otherwise).

Following a decision to seek voluntary fuel conservation measures, the Fuel SCE Chair shall:

1. Confer with the Energy Efficiency and Conservation Authority, National LUC, lead agency PIM and Group LUC,
2. Agree roles for developing and disseminating key public information messages (key spokespeople),
3. Liaise with relevant government agencies to seek approval for media releases, and
4. Monitor the effectiveness of the response and consider a move to mandatory measures if required.

The Energy Efficiency and Conservation Authority has done planning on fuel conservation campaigns and can assist.

5.6 Mandatory fuel demand constraints

Deciding mandatory fuel conservation measures

Some mandatory savings mechanisms (e.g. temporary closures of fuel retail outlets) are likely to be an industry response to a major fuel supply disruption, as tanks run dry and take time to be re-filled. However, government has powers to require action under both the Petroleum Demand Act (1981) (in a Petroleum Emergency as per IEA Act (1976)) and the CDEM Act (2002) (in a declared state of emergency).

Following a decision to seek mandatory fuel conservation measures, the Fuel SCE Chair shall, in consultation with the Fuel SCE; Minister for Energy; and National, Group or Local Controller (if part of a declared state of emergency) determine which of the following measures shall be implemented:

- Opening hour restrictions (reduced hours, only open on alternate days),
- Setting maximum purchases at point of sale – either price or volume,
- Restricting sales into containers (to discourage hoarding), and
- Critical customer prioritisation measures (discussed in more detail in the following section).

Price limits can be set at unmanned fuel retail outlets (e.g. truck stops). However, maximum purchase limits do not prevent customers from re-filling several times.

Process for implementing fuel conservation measures

MBIE, as the Fuel SCE Chair, shall:

- prepare draft regulations for agreement by the Minister for Energy and Cabinet;
- draft directions to fuel companies and retailers to be issued, if necessary, by the Minister for Energy, if provided for in any Petroleum Demand Restraint Regulations that are made, or by the CDEM Controller, if a state of emergency has been declared under the CDEM Act (2002),
- monitor fuel companies' compliance with any directions issued by the Minister for Energy or CDEM Controller, as relevant, and
- confer with relevant agencies around developing and disseminating key public messages (as per *Section 4.4*).

Messaging related to mandatory conservation measures

The key messages will include matters such as:

- the reason for the measures and what it requires from them, and
- continuing communications on ways to save fuel and reduce car use.

5.7 Prioritising fuel to critical customers

5.7.1 Ground fuels

Decision to invoke fuel prioritisation measures

Fuel prioritisation measures can be invoked by a Controller (where a state of emergency under the CDEM Act (2002) is in force) or through regulations and associated instructions issued by the Minister for Energy (where a petroleum emergency is in place), as per *Section 4.2.2*.

The decision by the Controller or Minister for Energy to invoke fuel prioritisation should be made in consultation with the Fuel SCE and lead agency with consideration to the nature and magnitude of the emergency, current fuel availability and re-supply capability and observed/anticipated consumer usage and behaviours.

Priority fuel users will continue to source fuel from, and be supplied by, their regular fuel suppliers until it is no longer possible or practicable to do so.

These are subject to operational change and prioritisation at the discretion of a Controller (when a state of emergency has been declared under the CDEM Act (2002)).

As per section s9(2)(a) of the CDEM Act (2002), the powers of the Controller transition into recovery to the National Recovery Manager.

During a fuel disruption that has not led to an emergency under the CDEM Act (2002), the list of priority fuel users is subject to Cabinet's decision and will be contained in regulations made under the Petroleum Demand Restraint Act (1981).

Fuel prioritisation measures at different levels of emergency

Fuel supply and distribution should function under normal commercial arrangements for as long as the situation allows. Within business-as-usual arrangements, fuel companies will take certain measures to allocate supplies to their contracted customers in order to continue a level of service.

Critical fuel customers will continue to source fuel from, and be supplied by, their regular fuel suppliers until it is no longer possible or practicable to do so.

As per the escalation process in *Section 4.2.1* of the CIMS severity level:

1. Initial consideration of the need for government-mandated fuel supply prioritisation shall start at Level 1 (noting that some emergencies may immediately escalate to Level 3 or 4).
2. At Level 2, fuel prioritisation measures will be in place (designated fuel retail outlets, lanes, etc.) Other customers will continue to be supplied but fuel companies will prioritise re-supply to sites dedicated to critical customers and manage stocks to ensure ongoing supply to those customers.
3. At level 3, as an emergency worsens and more fuel needs to be reserved for priority fuel users, fuel companies will decrease the

percentage of stock allocated to their commercial customers and the difference will be allocated to critical customers.

4. At Level 4, only critical customers will be supplied at designated fuel retail outlets or at other designated distribution points (e.g. to refuel generators at critical sites).

Implementing fuel prioritisation measures

Following the decision to invoke fuel prioritisation measures:

1. The National Controller or Minister for Energy (under regulations) shall direct fuel companies to restrict supplies to customers as per normal business arrangements and instead prioritise supply to 'critical fuel customers' as per *Section 5.7* and detailed in regional fuel plans[8].
2. The National LUC shall confirm the list of critical fuel customers and priority fuel retail outlets, in consultation with CDEM Groups (a database of critical fuel customers and priority fuel retail outlets identified in regional fuel plans is held by the National LUC).
3. The Fuel SCE may, with consideration of the above, confirm a list of fuel retail outlets to be dedicated to critical customers.
4. Fuel companies shall communicate the requirements to retailers in their supply contracts. Fuel companies may designate lanes in fuel retail outlets or entire fuel retail outlets for critical customer use.
5. The Fuel SCE shall coordinate with CDEM agencies providing support in managing priority fuel retail outlets.
6. Fuel companies will provide ongoing information on stocks and demand for the bulk supply chain, plus storage and demand specifically at designated fuel retail outlets.

Security and management at priority fuel outlets

As noted in *Section 5.7.1*, CDEM Groups are likely to need to facilitate security arrangements and assist with identification of critical customers at fuel retail outlets and maintain a safe working environment for site personnel. CDEM Groups may also liaise with New Zealand Police to assist with providing community support and reassurance, maintaining law and order and providing crime prevention advice at fuel retail outlets if required.

***Note**: Any costs associated with the provision of additional security at fuel retail outlets provided by CDEM Groups is the responsibility of that Group – refer to section 33, The Guide to the National CDEM Plan Order (2015).*

[8] The use of s91 of the CDEM Act (2002) allows oil companies to implement force majeure (unforeseeable circumstances) on their commercial contracts, allowing for greater allocations to critical fuel customers.

5.7.2 Marine fuels

Marine fuel allocation

Under normal arrangements, the fuel allocation is based on industry ownership and each fuel company would determine priorities to its customers within that allocation.

The Fuel SCE may direct fuel companies to prioritise supply to critical customers, as per ground fuels.

5.8 Managing safety and quality

Some of the key safety and fuel quality requirements in storing and handling different fuel that need to be considered in implementation of the fuel restraint/supply mechanisms include:

- **Dangerous goods endorsements required by tanker drivers.** A dangerous goods-certified vehicle and local terminal approval are needed to enter terminals, particularly gantries, to load fuel. (Approved handlers are approved under the Hazard Substances and New Organisms Act (HSNO) 1996.
- **Following a damaging event, operations at many facilities are likely to cease** while safety inspections are completed. This includes checking adequate drafts for ships in case of sea bed changes. This process may take several days – more if remediation works are required.
- **Any additional restrictions/requirements imposed by terminal operators before allowing access to their sites.** Terminals also have verification processes around contractors allowed on site, e.g. health and safety policies, drug and alcohol testing procedures for drivers, police background checks, etc.
- **Dangerous goods are not permitted in State Highway tunnels.** Special rules may need to be put in place during an emergency response to enable transport.
- **Generators on forecourts** can be hazardous – consider connecting to the electricity network away from the station, e.g. to the local transformer and removing low tension fuses not feeding the service station.
- **Fuel companies may choose not to accept fuel deliveries to a retail outlet from a competitor.** This is mainly a legal issue concerning risk of liability from the sale of fuel that is not fit for purpose under the Consumer Guarantees Act (1993) or does not meet regulated specifications. A fuel company may consider this risk to be unacceptable if the fuel is acquired from outside its own ‘chain of custody’. A fuel company may also perceive legal risk under the Fair Trading Act (1986) if it sells fuel that does not contain the proprietary additives specified in its advertising and other marketing claims.
- **Jet fuel**, which requires a period of settling before it can be safely released for use.

Notes:

- Dangerous Goods licensing is managed by NZTA.
- Approved handler regime is managed by Worksafe New Zealand.

Section 6 Aviation Sector

6.1 Aviation Sector in New Zealand Overview

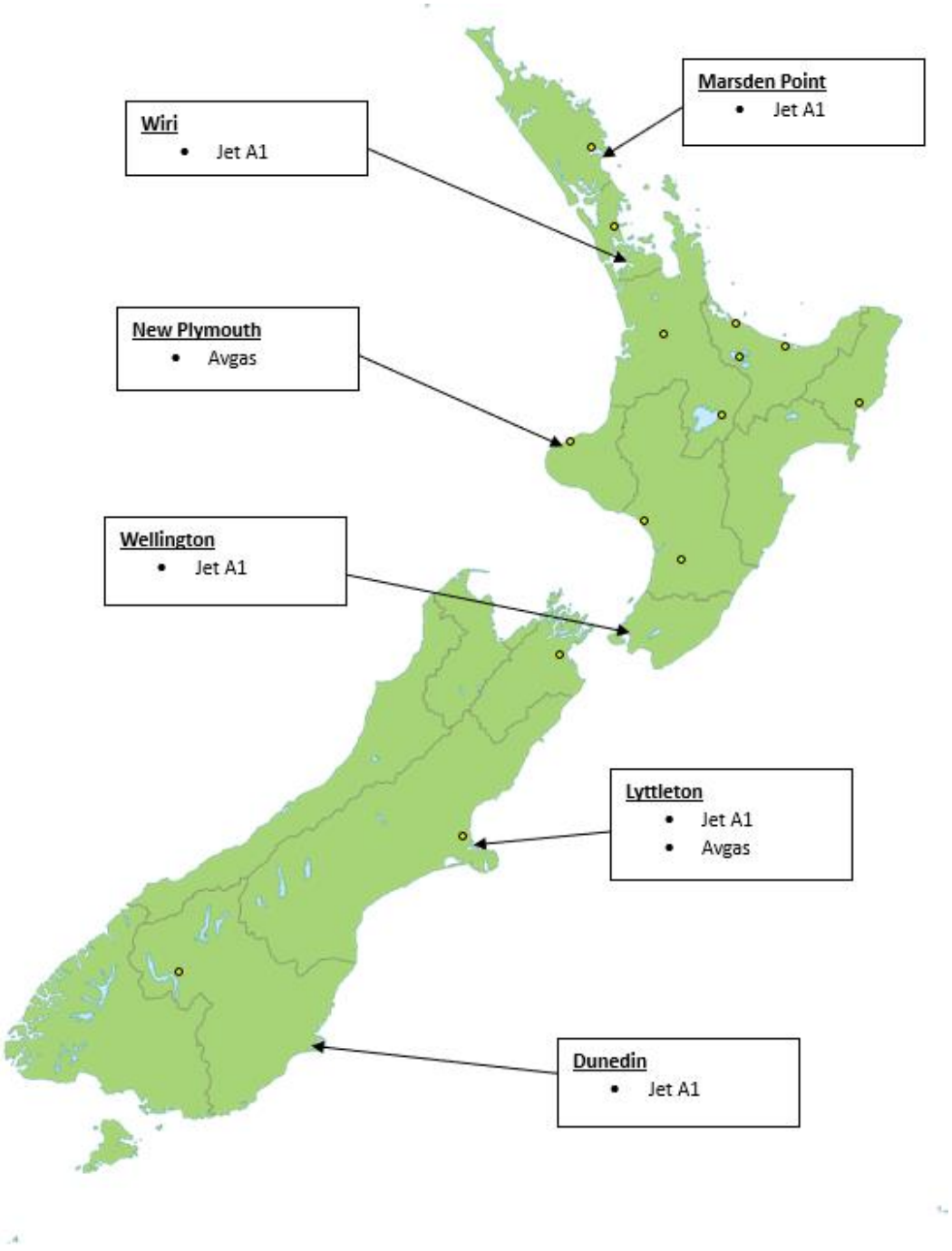


Figure 4-1 Airport and aviation fuel storage locations

Aviation Sector overview

The aviation sector in New Zealand is comprised of 5 international airports, and 25 regional airports including other islands.

The airport network has main international hubs, and regional airports, supported by airfields and private landing strips. For the benefit of this plan, the focus is on the main international hubs, and key regional airports. The smaller airfields can be of great importance in the event of an emergency, however, storing and managing fuel for resilience purposes at these locations is untenable.

As of August 2022, there are 2583 powered aircraft in New Zealand, 896 helicopters, of which 564 are turbine (use Jet A-1). That equates to one powered aircraft per 1113 people, and one helicopter per 5692 people.[9]

The aviation sector was severely impacted with the border closures during the COVID-19 response and have been building their passenger numbers since. The summer 2023-2024 season has seen near pre-COVID-19 passenger numbers, and therefore continued growth within the sector is anticipated.

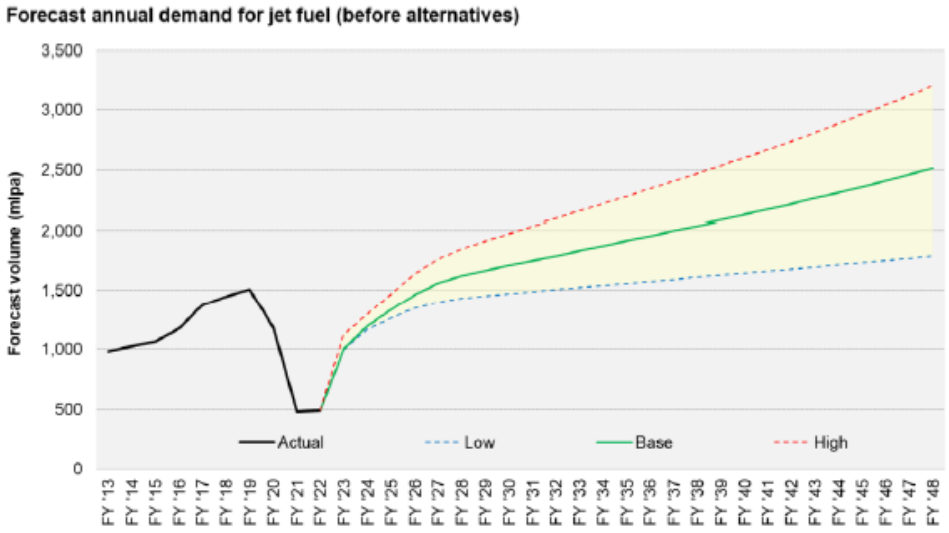


Figure 6-2 Forecast annual demand for jet fuel (Air New Zealand 2023)

With the increase in airline passengers as growth surpasses 2019 (pre-COVID-19) figures, higher volumes of Jet A-1 will be required to support the more frequent flights, and heavier cargo.

[9] https://www.aviationnz.co.nz/

6.2 Aviation Fuel Resilience

Massive disruptions to New Zealand's aviation sector caused by COVID-19 border closures (domestically and internationally), the disruption to Auckland Airport jet fuel supply in December 2022, as well as the Auckland Anniversary floods and Cyclone Gabrielle, highlighted the vulnerability and criticality of the aviation sector. Major responses such as Cyclone Gabrielle in 2023 and Kaikoura earthquake in 2016 were prime examples of when aviation was a critical link to communities that were cut-off from supply chains and response activities by road networks.

The resilience of aviation fuel across the network varies from airport to airport.

6.2.1 Aviation Resilience Toolkit

Accessing fuel from other terminals

Fuel tanker operators can access fuel from most (not all) terminals. If there are disruptions to any terminal, the operator will access the nearest available. For example, during the Refinery-Auckland Pipeline (now Marsden Point-Auckland Pipeline) disruption in September 2017, fuel was trucked from Marsden Point to supply Auckland and the surrounding area.

There are some constraints around the ability to truck fuel as an alternative when pipelines or terminals are disrupted. For example:

- There is only sufficient capacity to truck less than 25% of normal jet demand from Wiri to Auckland Airport if the Wiri-Airport Pipeline (WAP) is closed.
- There is only sufficient capacity to truck less than 15% of normal jet fuel demand from Marsden Point if the Marsden Point-Auckland Pipeline is closed.

Fuel Storage at Airports

Fuel Storage at airports has been highlighted across the sector as a costly, however, necessary resilience tool for business-as-usual operations and disruption response.

The International Air Transport Association considers 3 days' stockholding to be a reasonable level of resilience, subject to the assessments of other risk factors like supply diversity and contingencies.

Constructing additional storage is a long-term resilience option, that all industry parties (fuel companies, airports and airlines) will need to consult and agree upon the land, logistics and financial obligation division.

Fuel sector allocation mechanisms

The major fuel companies have agreed allocation mechanisms with airlines when jet fuel supply is disrupted. Typically, this involves determining the calculating the total amount of fuel able to be supplied during the anticipated disruption period and then allocating it proportionally to airline customers based on, for example, the previous

three months' demand. In response, airlines need to amend flight plans to:

1. Tanker fuel – carrying additional fuel on in-bound sectors to reduce the volume of uplift required for thr outbound sector,
2. Reduce payload – offload passengers or cargo to reduce fuel required for an outbound sector by reducing total payload of the aircraft,
3. Undertake technical stops – airlines add a stop to the in-bound or out-bound sector to uplift fuel at a port that may have surplus fuel available, or
4. Cancel services – airlines cancel a service to preserve fuel allocation.

All of these measures carry operational, financial and sustainability impacts to the airlines in addition to direct and indirect impacts to the wider economy.

Fuel SCE intervention

MBIE as the Fuel SCE Chair may decide that intervention is required to adjust this normal emergency allocation process. For example, where an airline is supporting response operations. This would be directed by a CDEM Controller (where a state of emergency is in force) or the Minister for Energy (under regulations where a petroleum emergency is in place), as per *Section 4.2.2,* or the National Recovery Manager (if a situation extends into a National Transition Period).

Where there is a significant disruption to the jet fuel supply, a working group or sub-Fuel SCE may be convened by the Fuel SCE with representatives from fuel suppliers and relevant government agencies. Key stakeholders will be regularly updated on the evolving situation and supported by relevant government agencies as required.

For smaller airports and airlines, jet fuel allocation will be managed under the 'critical fuel customer' prioritisation methods. The supply of aviation fuel to critical customers (e.g. such as helicopter operators) as key contractors in support of emergency response activity, noting a significant increase in demand for these services, is likely in a number of response scenarios.

Appendix A Glossary

Agencies

Agencies are government agencies (including public service departments, non-public service departments, Crown entities and Offices of Parliament), non-governmental organisations, local government bodies, emergency services and lifeline utilities.

Critical fuel customers

Critical fuel customers are named organisations that are generally critical to response activities and have a reliance on fuel re-supply to carry out response activities. The critical fuel customers list also includes major users outside of response activities that are critical to maintain service, such as Ministry of Health facilities (e.g., hospital and critical care facilities) and Corrections facilities (e.g., prison sites). These are subject to operational change and prioritisation at the discretion of a Controller based on the nature and magnitude of the emergency.

CDEM Group

In this plan, **CDEM Group** refers to the collective of local authorities, emergency services, and other agencies that work together to implement CDEM in their area. **CDEM Group** may also refer to the committee of elected officials that are accountable for CDEM in their area.

CDEM Groups are required under the CDEM Act (2002); every local authority is required to be a member of a CDEM Group.

There are 16 CDEM Groups in New Zealand. Each is responsible for CDEM in its area, including:

- identifying and managing hazards and risks,
- providing the organisational structure and resources necessary (including suitably trained personnel) for the effective delivery of CDEM,
- undertaking CDEM readiness activities, including raising public awareness about CDEM and preparing a CDEM Group Plan,
- coordinating or undertaking CDEM response and recovery activities, and
- providing support and assistance to other CDEM Groups, if required.

Appendix A Glossary

Civil defence emergency management

In this document, **Civil Defence Emergency Management (CDEM)** has the same meaning as in the CDEM Act (2002):

civil defence emergency management—

(a) means the application of knowledge, measures, and practices that—

(i) are necessary or desirable for the safety of the public or property; and

(ii) are designed to guard against, prevent, reduce, or overcome any hazard or harm or loss that may be associated with any emergency; and

(iii) includes, without limitation, the planning, organisation, co-ordination, and implementation of those measures, knowledge, and practices.

Critical customers

Critical customers are agencies responsible for the health, safety and welfare of the community and, in an emergency, CDEM response and recovery activities.

Duty Officer, NEMA

Duty Officer is an immediate 24/7 response position, as part of the NEMA Duty Team.

[Guide to the National CDEM Plan Order 2015]

Emergency

In this document, **emergency** has the same meaning as in the CDEM Act (2002):

emergency means a situation that—

(a) is the result of any happening, whether natural or otherwise, including, without limitation, any explosion, earthquake, eruption, tsunami, land movement, flood, storm, tornado, cyclone, serious fire, leakage or spillage of any dangerous gas or substance, technological failure, infestation, plague, epidemic, failure of or disruption to an emergency service or a lifeline utility, or actual or imminent attack or warlike act; and

(b) causes or may cause loss of life or injury or illness or distress or in any way endangers the safety of the public or property in New Zealand or any part of New Zealand; and

(c) cannot be dealt with by emergency services, or otherwise requires a significant and co-ordinated response under this Act.

Emergency services

Emergency services has the same meaning as in section 4 of the CDEM Act (2002), which means the New Zealand Police, Fire and Emergency New Zealand, and hospital and health services.

Hazard

Hazard has the same meaning as in section 4 of the CDEM Act (2002), which means something that may cause, or contribute substantially to the cause of, an emergency.

Lifeline utility

Lifeline utility has the same meaning as in section 4 of the CDEM Act 2002, which means an entity named or described in Part A of Schedule 1, or that carries on a business described in Part B of Schedule 1.

[CDEM Act 2002]

Local authority

A **local authority** can refer to a regional council or territorial authority.

[Local Government Act 2002]

Lead agency

The **lead agency** is the agency with the primary mandate for managing a particular hazard or risk across the "4Rs" of risk reduction, readiness, response and recovery. Whilst some risks are managed by the lead agency alone, many require the support of other government departments and agencies.

[National Security System Handbook 2016]

National Controller

National Controller is the Director of Civil Defence Emergency Management or person delegated by the Director to deal with any state of national emergency.

[CDEM Act 2002]

National Emergency Sharing Organisation (NESO)

The **National Emergency Sharing Organisation (NESO)** is a committee of fuel industry representatives chaired by the Ministry of Business, Innovation, and Employment. NESO is activated primarily when there is a threat or actual disruption to international fuel supplies.

Under the International Energy Agreement (IEA), every IEA member is required to have a NESO. It exists to make arrangements for sharing oil supplies between member countries in the event of a severe emergency. New Zealand also uses the NESO committee to assist with responding to lower level or non-IEA emergency measures. Under this Plan, the Fuel Sector Coordinating Entity takes on the role of NESO.

National significance

National significance includes, without limitation, any case where the Minister for Emergency Management and Recovery or the Director NEMA considers that—

- there is widespread public concern or interest; or
- there is likely to be significant use of resources; or
- it is likely that the area of more than one Civil Defence Emergency Management Group will be affected; or
- it affects or is likely to affect or is relevant to New Zealand's international obligations; or
- it involves or is likely to involve technology, processes, or methods that are new to New Zealand; or
- it results or is likely to result in or contribute to significant or irreversible changes to the environment (including the global environment).

[CDEM Act, Section 4]

Priority allocation	**Priority allocation** refers to the prioritisation of fuel to agencies listed as critical fuel customers over corporate commercial customers and the public.
Rationing	**Rationing** refers to government-imposed restrictions on all individual sales of oil by quantity (volume or price). The purpose of rationing is to reduce the demand for oil and discourage hoarding behaviour. In the event of physical shortages, it reduces the likelihood of oil products running out. The Minister for Energy must approve any formal rationing measure.
Risk	**Risk** has the same meaning as in section 4 of the CDEM Act (2002), which means the likelihood and consequences of a hazard.
Sector Coordinating Entities (SCEs)	The **Sector Coordinating Entity (SCE)** is the organisation, group of sector representatives, or individuals agreed by a lifeline utility sector to provide an effective single point of contact to the NEMA NCMC/NCC and which will undertake a range of sector coordinating functions during an emergency. *[Guide to the National CDEM Plan Order 2015]*
State of emergency	**State of emergency** has the same meaning as in section 4 of the CDEM Act (2002), which means a state of national emergency or a state of local emergency.
State of local emergency	**State of local emergency** has the same meaning as in section 4 of the CDEM Act (2002), which means a state of emergency that has occurred or may occur in the area or district of any CDEM Group.
State of national emergency	**State of national emergency** has the same meaning as in section 4 of the CDEM Act (2002), which means a state of emergency that exists over the whole of New Zealand or any areas or districts where the emergency is, or likely to be, beyond the resources of the CDEM Groups whose areas may be affected by the emergency.

Appendix B Acronyms and abbreviations

CDEM	Civil Defence Emergency Management
DPMC	Department of the Prime Minister and Cabinet
ECC	Emergency Coordination Centre
EOC	Emergency Operations Centre
ERS	External Relations and Security Committee (of Cabinet)
IEA	International Energy Agreement
JUHI	Joint User Hydrant Interplane Terminal
JOSF	Joint Operating Storage Facility
LUC	Lifeline Utilities Coordinator
MBIE	Ministry of Business, Innovation, and Employment
MoT	Ministry of Transport
MPAP	Marsden Point to Auckland Pipeline
NEMA	National Emergency Management Agency
NCMC	National Crisis Management Centre
NCC	National Coordination Centre
NESO	National Emergency Sharing Organisation
ODESC	Officials' Committee for Domestic and External Security Coordination
PIM	Public Information Management
PDR	Public Demand Restraint (PDR Act 1981)
SCE	Sector Coordinating Entity
TOSL	Timaru Oil Services Limited
TRT	Transport Response Team
WOSL	Wiri Oil Services Limited

Appendix C Regional Fuel Plan template

Section	Comments
1. Introduction	
1.1 Scope	• Explains that the Plan gives effect to the National Fuel Plan at a regional level. • Includes a brief summary of Plan content, noting that a main purpose is to set out arrangements to promote continued fuel supply to critical customers who may be involved in a response to an emergency under the CDEM Act (2002). • Note that this Plan supports the CDEM Group Plan.
1.2 Planning Framework	• Brief industry overview and description of relevant legislation. Reference details in the National Fuel Plan, *Section 1.2*.
1.3 Roles and Responsibilities	• Brief list of petroleum sector and CDEM entities noting their roles and responsibilities. Reference details in the National Fuel Plan *Section 3.1* (planning) and *Section 4.1* (response).
1.4 Fuel Supply to the Region	• A high-level summary of the national fuel supply chain with a focus on how fuel is supplied to the region. Reference details in the National Fuel Plan *Section 2*. • Include brief descriptions of fuel shortage scenarios that may be managed through the Plan. • A wider or more detailed regional analysis / risk assessment of the regional fuel supply chain may also be undertaken. It could identify supply chain vulnerabilities and backup options (e.g. if key port, pipeline or terminal shut). • If work along these lines is undertaken, a summary could be included as an attachment.
2. Activation and Communication	
2.1 Activation of Arrangements	• A summary of the escalation table from the National Fuel Plan *Section 4.2*, noting actions of the relevant response agencies as fuel shortages escalate from severity Level 1 (minor) to severity Level 4 (severe).
2.2 Communication Arrangements	Summarise from National Fuel Emergency Management Plan, for example: • The Taranaki CDEM Group will in most cases coordinate with the Fuel SCE via the national LUC. However, in an event mainly impacting the Taranaki Region, the Taranaki LUC (or other CDEM representative) will participate directly in the Fuel SCE. • Fuel companies will engage nationally through the Fuel SCE and are required to provide a communications link to retail outlets that they supply, such as to advise of fuel management requirements. • Direct communication between local/Group CDEM and fuel retail outlets may be required where fuel prioritisation arrangements are activated, and retail outlets require support to manage arrangements. • Fuel sector reports on supply and distribution impacts will be distributed to affected CDEM Groups. Include *Figure 4-2* from the National Fuel Plan.
3. Fuel Management Measures	

Section	Comments
3.1 Fuel Management Mechanisms	Summarise from National Fuel Plan.
3.2 Government/ CDEM Support	Note Group support such as: • assist with fuel prioritisation arrangements for critical fuel customers; • give priority to re-establishing road routes to fuel terminals and priority fuel retail outlets; • give priority to road use for essential supplies (such as fuel), for example if there is only a single road open to the region; and • assist with prioritisation of lifeline restoration, particularly including water and electricity.
3.3 Prioritising Supply to Critical Customers	Summarise options for prioritisation arrangements to critical sites and at fuel retail outlets, for example: • designated retail outlets only supplying critical fuel customers; • designated lanes or mini-tankers within retail outlets only supplying critical fuel customers; and • monitoring stocks at fuel retail outlets and closing the station to all except critical fuel customers until the station is re-supplied.
3.4 Priority Fuel Retail Outlets	• Map/table showing fuel retail outlets – geographical spread, which ones have backup power arrangements. • Identify priority sites, which may be used to supply critical customers, using criteria in the National Fuel Plan. Note that event-specific consideration will need to be given to which of these stations is used in an emergency (and others may need to be considered 'on the day'). • Agreements with these fuel retail outlets describing emergency responsibilities can be formalised (noting a preference by fuel companies for this to be managed via headquarters rather than directly with fuel retail outlets for stations owned by the fuel company). • Summarise arrangements for providing management and security support for priority fuel retail outlets (including contract arrangements with security companies).
4. Critical Fuel Customers	

Section	Comments
4.1 Critical Customers	• Critical customers are agencies responsible for the health, safety and welfare of the community and, in an emergency, CDEM response and recovery activities. • CDEM Groups are expected to specify critical customers for the region. While the list may require tailoring to recognise specific needs in an actual event, it is necessary to have a list to start from. The list typically includes customers from: ◦ Health, ◦ Emergency services, ◦ Lifeline utilities, ◦ Corrections, ◦ CDEM, ◦ Welfare (human and animals/livestock), ◦ Defence, ◦ Fast moving consumer goods, ◦ Agriculture, ◦ Broadcasting. • Contractors required for the main critical customers to function should be included. • The categories to be used to specify critical customers are set out in the National Fuel Plan. That list should inform development of regional lists of specific organisations.
4.2 Critical Customer Fuel Requirements	• This section should summarise critical customers' fuel usage to assist fuel company and CDEM sector understandings of the quantity of fuel that may be required. • Requirements should be estimated for both business-as-usual and emergency conditions. Petrol, diesel, avgas and Jet A-1 should be distinguished. • Differing impacts as fuel shortage duration varies (e.g. some customers self-sufficient for two days but not one week) should be noted. Customers' own arrangements to manage shortages should also be taken into account. • It may also be useful to describe increased fuel dependencies if the shortage is associated with a major electricity outage (increased amounts of diesel may be needed).

Section	Comments

4.3 Critical Customer Responsibilities	Critical customers are responsible for:
	• ensuring that the staff and contractors required for critical response functions:
	  ◦ are aware of their CDEM-critical customer status,
	  ◦ have suitable identification (branded cars, company ID cards and/or a signed letter on letterhead), and
	  ◦ have alternative means of payment if they are unable to use their contracted fuel company (some fuel companies allow fuel cards to be used at their retail sites if EFTPOS is down);
	• reasonably conserving fuel (to the extent possible, without impacting their ability to maintain core services);
	• if requested by the Controller, giving priority restoration to support bulk fuel supply (notably water supplies to depots and facilities where mains water is a requirement for them to function and roads);
	• ensuring that non-critical staff and contractors do not unnecessarily take advantage of priority status; and
	• having their own business continuity arrangements relating to fuel supply (priority supply arrangements, own stocks, etc.)

4.4 Critical Sites with Generators	• In a longer term, widespread fuel shortage, re-fuelling of generators is likely to be a key issue. To support local and regional coordination of re-fuelling critical lifeline utilities and community sites, a map and list of major sites potentially requiring generator fuel is recommended. • Plans may also consider the potential demand for hireage of generators and availability within the region (although this is sometimes covered in a separate Generator Plan).
5. Other Considerations	
5.1 Management of Critical Resources	Addresses issues relating to relevant critical resources (e.g. generators, pumps, road access, security). May reference more detailed work (e.g. regional generator resources). Includes a summary of arrangements for inspection of fuel retail outlet tanks (e.g. following serious earthquakes) and lists companies that undertake this service.
5.2 NEMA NCMC/NCC Support	Outline expectations of NEMA NCMC / NCC / government support (*Section 4* of the National Fuel Plan).
Other	Bring through any key information relevant for context from the National Fuel Plan.
Attachments	• Lists of critical customers • Fuel station lists and maps • Critical sites with generators

Appendix D Fuel SCE Situation Report Template

Situation dependant, some or all these elements could be used to report to the Fuel SCE of a situation.

Section	Comments
Situation	
Overview	Include a brief summary of the incident.
Details of company network	What regions or elements of your network are impacted or involved. Include terminals, infrastructure, retail sites, logistics partners, staffing. Include outages, scale and impacts – i.e. number of customers and/or geographic location. Status of fuel sector facilities, stocks and networks; including current fuel stocks by type and location.
Activation and Communication	
Activation of Arrangements **Roles, Responsibilities, and Communication**	Key contacts for this response – if different from usual Fuel SCE contacts. This may be expanding the Fuel SCE membership, for example if the logistics partners are significantly impacted, it may be appropriate to include their direct contact information here.
Fuel Supply restoration activities	Key actions and lines of effort planned or being undertaken, and progress or status of these actions. Estimation of scheduled replenishment times and other future changes to fuel stock; and Estimated likelihood of fuel stock-outs at terminals or retail outlets.
Risks	Identify key risks
Requests for Fuel SCE	Requests for resource, information, or support for these activities to be undertaken. E.g. real time bridge status information from NZTA.

Appendix E Public information

This guidance is intended for public information management (PIM) or communications personnel preparing public messaging about voluntary or mandatory fuel conservation measures.

C.1 Public information approach

Public information about voluntary or mandatory fuel conservation measures needs to be consistent with and incorporated into public information for the wider emergency response.

Work closely with key stakeholders, including local authorities, fuel companies and fuel retail outlets, to ensure accurate and coordinated information flows to the public.

C.2 Public information objectives:

- Provide reassurance to the public that there is a plan to manage the situation in place, and to minimise public concerns
- Provide accurate, up-to-date information on the situation, and as early a warning as possible of any need to move to mandatory measures.
- Explain the reasons for the move to fuel conservation measures and ensure that the public are fully informed on what it involves and what it requires from them.
- Provide continuing communications on ways to save fuel and reduce car use.

C.3 Key messages

Key messages should explain why the measures are necessary and appeal to the public desire to help. If relevant, provide messages explaining how fuel conservation and/or fuel prioritisation will enable response activities and allow essential services to operate. Key messages should be disability friendly and accessible to all members of the community.

C.4 Suggested voluntary fuel demand constraints messages

People are asked to reduce their use of petrol following the *[name of event or brief description of the situation]*.

[briefly explain why, e.g. fuel tankers are not able to deliver fuel to petrol stations due to landslides on SH1]

To help ensure that fuel is available for the essential services that need it, such as *[ambulances and contractors clearing slips [edit as appropriate]]*, and avoid further fuel restrictions, we need the public's help.

What you can do to reduce fuel use:

- Avoid unnecessary car trips.
- Walk, cycle, use public transport or carpool if you can.
- Work from home if possible.
- Check your tyre pressure – low tyre pressure can make your vehicle work harder to overcome road resistance, increasing fuel consumption.
- Reduce your load – take unnecessary items out of the car, remove roof racks/boxes and cycle racks if you're not using them.
- Reduce speed on the open road and practise good driving habits.

You can find more tips about driving efficiently at https://www.energywise.govt.nz/on-the-road/driving-efficiently/

C.5 Suggested mandatory fuel conservation measures messages

Fuel conservation measures are being introduced following *the [name of event or brief description of the situation]*.

[briefly explain why, e.g. there is a fuel shortage because tankers are not able to deliver fuel to petrol stations due to landslides on SH1]

To help ensure that fuel is available for the essential services that need it, such as *[ambulances and contractors clearing slips [edit as appropriate]]*, the following measures are now in place:

[insert description of measures in place]

What you can do to reduce fuel use:

- Avoid unnecessary car trips.
- Walk, cycle, use public transport or carpool if you can.
- Work from home if possible.
- Check your tyre pressure – low tyre pressure can make your vehicle work harder to overcome road resistance, increasing fuel consumption.
- Reduce your load – take unnecessary items out of the car, remove roof racks/boxes and cycle racks if you're not using them.
- Reduce speed on the open road and practise good driving habits.

You can find more tips about driving efficiently at https://www.energywise.govt.nz/on-the-road/driving-efficiently/

Appendix F References

Department of the Prime Minister and Cabinet. *National Security System Handbook.* Wellington, New Zealand: Department of the Prime Minister and Cabinet, 2018.

Ministry of Business, Innovation, and Employment. *Monitoring Fuel Supply in an Emergency: Proposed Protocol for Information Provision and Use.* Wellington, New Zealand: Ministry of Business, Innovation, and Employment, 2018.

Ministry of Business, Innovation, and Employment. *New Zealand Petroleum Supply Security 2017 Update.* Hale & Twomey Limited. Wellington, New Zealand: Ministry of Business, Innovation, and Employment, 2017.

Ministry of Economic Development. *Oil Emergency Response Strategy: Government Response to an Oil Supply Disruption.* Wellington, New Zealand: Ministry of Economic Development, 2008.

National Civil Defence Emergency Management Plan Order 2015

National Emergency Management Agency. *National Civil Defence Emergency Management Fuel Plan.* Supporting Plan [SP 03/12]. Wellington, New Zealand: National Emergency Management Agency, 2012.

National Emergency Management Agency. *The Guide to the National Civil Defence Emergency Management Plan 2015.* Wellington, New Zealand: National Emergency Management Agency, 2015.

New Zealand Lifelines Council. *New Zealand Lifelines Infrastructure Vulnerability Assessment:* New Zealand Lifelines Council, 2023.