



National Civil Defence Emergency Management Fuel Plan

Supporting Plan [SP 03/12]

June 2012. Version 1.0



Resilient New Zealand

Aotearoa Manahau

New Zealand Government

National Civil Defence Emergency Management Fuel Plan

Supporting Plan [SP 03/12]

June 2012

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Authority

This document has been issued by the Director of the Ministry of Civil Defence & Emergency Management pursuant to s9 of the Civil Defence Emergency Management (CDEM) Act 2002. It is a support plan to the functional arrangements set out in the *National CDEM Plan* and *The Guide to the National CDEM Plan*.



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National Civil Defence Emergency Management Fuel Plan

Part A: Readiness

Forward

Petrol, diesel, aviation-fuels and other oil-based products are essential for everyday life and the economy of New Zealand. They are also critical resources in the event of an emergency: with response agencies, businesses and the community all reliant to some extent. The oil industry has a national footprint which exposes various parts of its supply chain to the whole suite of New Zealand's hazards. Disruptions to fuel distribution networks in an emergency and disaster are a real possibility and planning and coordination between the fuel sector and civil defence emergency management is vital in order to ensure the impacts of any disruptions are minimised and well managed. All CDEM Groups will have to be involved in planning with the fuel sector be it service stations, distribution, shipping terminals, or with the refinery.



Oil companies have exceptionally efficient logistics operations, which are versatile and well versed at making adjustments to allow for disruptions and to ensure continuity of supply. Civil defence emergency management will never replace these systems during an emergency, but it is critical that civil defence emergency management work with the fuel sector to ensure that oil companies understand local hazards and collaborate to ensure that options and support mechanisms are identified before emergencies.

The plan provided in this document has been created to provide a readiness planning framework for the fuel sector and civil defence emergency management. It includes agreed roles and responsibilities for agencies and documents agreed operational communications and coordination for use by the National Crisis Management Centre, CDEM Group Emergency Coordination Centres and oil companies.

The plan has been developed in conjunction with oil companies, government departments and agencies, local government, and CDEM Groups. It is issued under the authority of the Director of Civil Defence Emergency Management and the provisions of Section 9 of the Civil Defence Emergency Management Act 2002.

The plan will be reviewed periodically and adjusted to take into account changes in the understanding of the threats to oil securities, likely impacts of outages and developments in the fuel sector.

A handwritten signature in black ink, appearing to read 'John Hamilton', written in a cursive style.

John Hamilton
Director of Civil Defence Emergency Management

Section 1: Introduction

1. Plan purpose

The purpose of this National Civil Defence Emergency Management (CDEM) Fuel Plan is to:

- provide a readiness planning framework between the CDEM and fuel sectors; and
- document agreed communication and coordination arrangements at the national level for response operations.

2. Structure

This plan is separated into two parts:

Part A is focused on readiness activities and lays out a three-tiered framework for the Ministry of Civil Defence & Emergency Management (MCDEM) and the CDEM Groups when undertaking planning activities with the fuel sector.

Part B is an operational plan for the National Crisis Management Centre (NCMC) that documents:

- agreed processes for communications between fuel sector companies and the NCMC;
- fuel supply prioritisation to CDEM critical fuel customers; and
- national CDEM support to the fuel sector.

Supply priorities and escalation processes documented within Part B are designed to be used in any size emergency response.

3. Plan activation

Following the activation of the NCMC Part B of this plan may be activated for the purposes of communication with, and reporting from, the fuel sector. General triggers for escalation of activities and fuel prioritisation are detailed in **Part B Appendix 4: Fuel Prioritisation Response Matrix**.

4. Audience

This plan is intended for the following users:

- a) MCDEM;
- b) Ministry of Business, Innovation & Employment (MBIE);
- c) CDEM Groups;
- d) CDEM Controllers;
- e) Lifeline Utility Co-ordinators;
- f) the NCMC;
- g) oil companies;
- h) fuel distribution companies; and
- i) service station owner/operators.

5. Responsibilities

Agencies with responsibilities under this plan are listed in **Section 3: Roles and responsibilities**.

6. Context

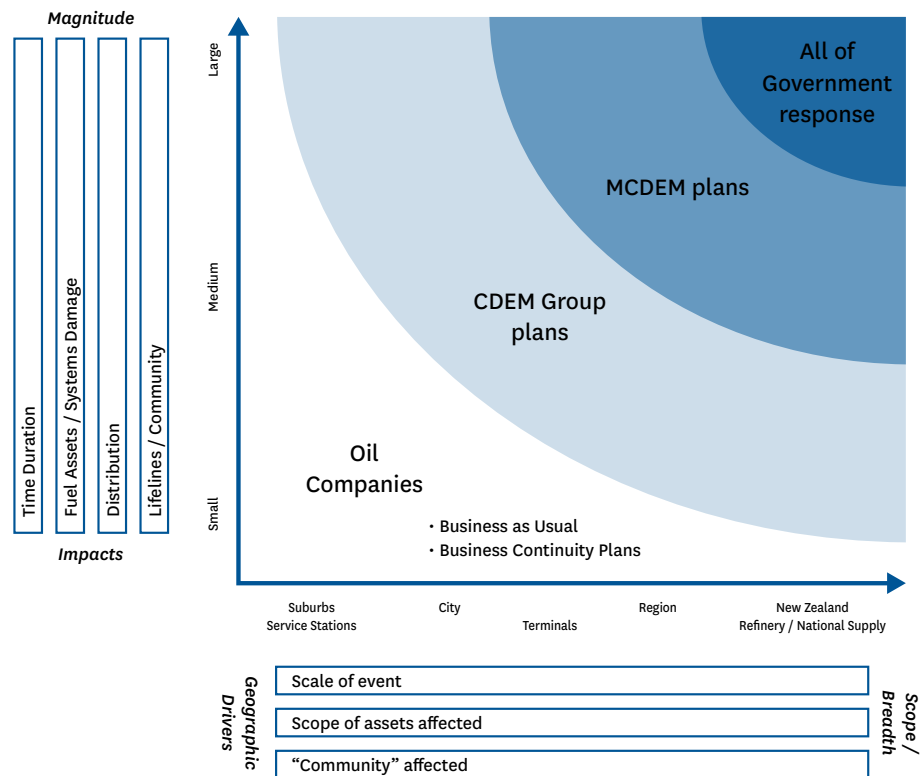
This National CDEM Fuel Plan fits within the context of the CDEM Act 2002 and National CDEM Plan Order 2005, for an emergency that has impacted the national distribution of petroleum products. This plan also fits within the wider national oil supply security framework overseen by the Ministry of Business, Innovation & Employment, including the Petroleum Demand Restraint Act 1981, the International Energy Agreement Act 1976, and the various considerations in the Oil Emergency Response Strategy.

This National CDEM Fuel Plan is a supporting plan designed to operate within the framework and structures described in the National CDEM Plan (and Guide to the National CDEM Plan 2006).

Communication and coordination arrangements described in Part B of this plan will continue whilst the NCMC is operating at Mode 3 or 4, or whilst the NCMC Lifeline Utility Coordination cell is active.

CDEM Group offices and Local Authorities will be able to use this plan to develop their own plans and arrangements with fuel sector companies before an emergency. This plan refers to regional and local issues for planning primarily due to the nature of the fuel sector and their logistics operations for fuel supply.

National, regional and local CDEM fuel plans need to work in conjunction to address the issues which affect each level and to support the potential escalation of emergency activities. The general focus of CDEM fuel planning is shown in the diagram below:



7. Exclusions

This plan does not cover:

- Detailed actions of individual organisations; or
- Disruptions affecting off-shore fuel supply into New Zealand.

8. Review

This plan will be reviewed at three yearly intervals from the time of publication. MCDM will lead the review and will consult with all agencies with responsibilities under this plan.

This plan, or elements within it, should be tested whenever possible as part of the National Exercise Programme, particularly exercises of Tier 3 and 4.

Section 2: Planning and operational environment

FUEL SECTOR OVERVIEW

9. Oil companies

There are five major oil companies operating within New Zealand:

- BP;
- Chevron (Caltex, Challenge);
- Mobil;
- Z Energy (previously Shell and Greenstone Energy Ltd); and
- Gull.

10. Associated oil industry companies

There are several companies which are critical to the fuel supply chain:

- Refining NZ, which operate the Marsden Point refinery;
- Coastal Oil Logistics Ltd (COLL), which schedule and manage shipping of most of the fuel stock from the refinery and some of the feedstock into the refinery;
- Wiri Oil Services Ltd (WOSL), which manage the Wiri oil terminal in Auckland and the Marsden Point terminal;
- NZ Oil Services Ltd (NZOSL), a joint venture between BP and Z Energy, which operate certain terminals around the country;
- Port companies (Whangarei, Auckland, Tauranga, Port Taranaki, Napier, Wellington, Nelson, Lyttleton, Timaru, Port Chalmers and Bluff);
- Various freight contractors, which drive fuel tankers from the various oil terminals throughout the country;
- Distributors contracted to oil companies, which provide a local fuel supply to communities; and
- Service stations, which provide point of sale to the public.

11. More information

For more information on the fuel sector in New Zealand see **Appendix 1: New Zealand Fuel Sector Summary**.

ASSOCIATED LEGISLATION AND PLANS

12. Introduction

There are several pieces of legislation and associated plans which affect planning regarding fuel contingencies.

13. CDEM Act 2002

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."

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.

s85(1)(e)

While a state of emergency is in force in its area, a CDEM Group may provide for the conservation and supply of food, fuel and other essential supplies.

s90

This section provides requisitioning powers of materials, equipment and supplies while a state of emergency is in force and where in the opinion of the Controller or member of the police, the action authorised by this section is necessary for the preservation of human life.

Note: Although the CDEM Act provides requisitioning powers, these are seen as tool of last resort and should not be considered as a substitute for planning.

s91

This section provides powers for a Controller or member of the police 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.

14. Petroleum Demand Restraint Act 1981

Section 4 and Section 7 of the Petroleum Demand Restraint Act 1981 gives the Governor-General and the Minister of Energy and Resources respectively the powers to make regulations with regard to restraining the demand for petroleum products, or reducing their consumption in order to ensure "*equitable distribution*" and give directions which prohibit or restrict the "*acquisition, supply, or distribution*" of petroleum products.

Section 5 of the Act stipulates that regulations under this Act are only 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 either within New Zealand as whole or within a specified part of New Zealand

15. International Energy Agreement Act 1976

Section 3 of the International Energy Agreement Act 1976 gives the Governor-General the power to declare a "*petroleum emergency*" under New Zealand's International Energy Agreement obligations.

Following such a declaration, section 4 of this Act gives the Governor-General and the Minister of Energy and Resources similar powers as those described above under the Petroleum Demand Restraint Act 1981, whilst such a petroleum emergency exist.

16. Oil Emergency Response Strategy

The Oil Emergency Response Strategy (OERS) is published by MBIE and details potential government response to a major disruption of fuel supplies.

The OERS Operational Handbook details the processes for implementing fuel specification relaxation measures, fuel rationing, and other response options which may be useful for certain significant regional disruptions during emergencies.

17. The Guide to the National CDEM Plan 2006

Section 10 of the Guide to the National CDEM Plan 2006 expands on issues associated with lifeline utilities and includes requirements of agency contingency and business continuity planning, and lifelines sector coordination.

18. Wellington Earthquake National Initial Response Plan

The Wellington Earthquake National Initial Response Plan [SP02/10], a Supporting Plan to the National CDEM Plan, directs and coordinates the immediate national response to a major Wellington earthquake until a formal response structure and specific National Action Plan has been established. Oil companies, along with other lifeline utilities, have specific actions and requirements detailed within this plan.

19. Related local plans and studies

At the time of writing there have been several fuel-related studies and plans completed or underway by various CDEM Groups and Lifelines Groups. These include:

- Northland Fuel Contingency Plan;
- Auckland CDEM Fuel Contingency Plan (AELG/15);
- Waikato Regional Fuel Supply Status project;
- Bay of Plenty Fuel Contingency Plan;
- Fuel supply in the Wairarapa;
- Wellington CDEM Group Fuel Support Plan;
- Fuel storage in Marlborough report by CEG (2008);
- Nelson-Tasman Fuel storage study (2009);
- Fuel Storage on the West Coast (2008); and
- Canterbury Lifelines Group Hazard Assessment for Petroleum Storage, Transportation and Supply (2006).

Section 3: Roles and responsibilities

This section documents the roles and responsibilities of agencies referred to in this plan.

20. Oil companies

- Comply with statutory requirements as covered in section 60 of the CDEM Act 2002;
- Plan to deal with risks to their own organisation and sector in readiness for emergencies; and
- Participate in CDEM exercises on an on-going basis.

21. Associated oil industry companies

- Comply with statutory requirements as covered in section 60 of the CDEM Act 2002;
- Plan to deal with risks to their own organisation and sector in readiness for emergencies; and
- Participate in CDEM exercises on an on-going basis.

22. Service stations

- Maintain business continuity plans;
- Maintain power back-ups or maintain alternative fuel pumping capability (where appropriate);
- Participate in local CDEM planning; and
- Test local arrangements and participate in Local Authority CDEM exercises.

23. MCDEM

- Maintain National CDEM Fuel Plan;
- Identify national CDEM critical fuel customers and priorities; and
- Support fuel sector and CDEM Groups, as required for regional fuel supply disruptions.

24. Ministry of Business, Innovation & Employment

- Maintain the Oil Emergency Response Strategy;
- Manage and coordinate government response to a national fuel supply disruption;
- Chair National Emergency Sharing Organisation (NESO); and
- Participate in National CDEM exercises.

25. CDEM Groups

- Maintain regional CDEM fuel plans;
- Identify regional CDEM critical fuel customers and priorities; and
- Support fuel sector and Local Authorities, as required for regional fuel distribution disruptions.

26. Local Authority CDEM

- Maintain local CDEM fuel contingency arrangements; and
- Support fuel sector, as required for local fuel distribution disruptions.

Section 4: Planning Arrangements

This section details planning issues to be addressed between and the fuel sector at the national, regional and local levels.

27. Contacts

Due to the 'devolved accountability' model of CDEM in New Zealand and the generally national nature of fuel industry companies, there will inevitably be cross-over in planning issues.

The CDEM and fuel sectors should be mindful of this plan and existing CDEM / industry plans when starting fuel-related emergency planning activities.

Different organisational structures of oil companies means that points-of-contact for each company will vary depending on the company and the nature of any pre-event planning or exercising activities.

28. Non-disclosure of proprietary information

Fuel companies should not have to release customer information to any party involved in emergency management planning.

Fuel company customer details may only need to be released (to CDEM staff) during the course of a response/recovery operation where there is a supply conflict which needs to be resolved by a CDEM Controller.

NATIONAL FUEL PLANNING

29. Considerations

National level planning considerations between MCDEM and the fuel sector are primarily:

- Plan review and testing;
- Planning framework;
- Supply prioritisation to CDEM critical fuel customers;
- NCMC lifelines sector coordination; and
- National CDEM support to the fuel sector.

These points are summarised below, and detailed throughout this plan.

30. Plan review and resting

This plan, or elements within it, should be tested whenever possible as part of the National Exercise Programme, particularly Tier 3 and 4 exercises. **See Part A, Section 1, Review.**

31. Planning framework

The planning framework described in this section highlights the particular subjects of focus between CDEM and the fuel sectors nationally, regionally and locally. They are described geographically due to the operational focus of CDEM and due to the logistics mechanisms within the fuel sector. **See Part A, Section 4.**

32. Supply prioritisation to CDEM critical fuel customers

MCDEM is to define and maintain a list of named 'CDEM critical fuel customers' to ensure that fuel is supplied primarily to those agencies that are critical during response to an emergency. **See Part A, Section 5** and **Part B, Section 4** and **Appendix 5**.

33. NCMC lifelines sector coordination

This plan defines the operational arrangements as to how the NCMC will engage and coordinate with the fuel sector during an emergency. **See Part B, Section 2**.

34. National CDEM support to the fuel sector

This plan details the support that may be provided by the NCMC to assist the fuel sector when the scale of an emergency has escalated beyond the capacity of the affected oil companies, or the affected CDEM Group; or the impact of an emergency event starts impacting on fuel supply/distribution in multiple CDEM Groups. **See Part B, Section 3**.

REGIONAL (CDEM GROUP) FUEL PLANNING

35. Considerations

Regional planning considerations between the CDEM and fuel sectors are primarily:

- Specific impact/consequence based planning;
- Lifeline utility coordination;
- Regional CDEM critical fuel customer list;
- Regional prioritisation to CDEM critical fuel customers;
- CDEM Group support to regional fuel distribution networks;
- Oil industry participation in regional lifeline groups; and
- Regional fuel plans.

A CDEM Group fuel plan should address each of these items.

36. Specific impact / consequence based planning

Details of response and recovery arrangements of both the fuel and CDEM sectors specific to the consequences of hazard impact which may affect regional petroleum related assets (ports, pipelines, hubs, etc), distribution systems or assets on which petroleum networks are dependent.

37. Lifeline utility coordination

Details of the interactions between the CDEM Group ECC and the fuel sector during operations.

See Part B, Section 2 for details of fuel sector coordination.

38. Regional CDEM critical fuel Customer list

CDEM Group is to define a list of CDEM critical fuel customers for fuel supply within the region based on the categories listed in **Part A, Section 5**.

39. Regional prioritisation to CDEM critical fuel customers

Methodology for prioritisation of supply to CDEM critical fuel customers. **See Part A, Section 5** and **Part B, Section 4** and **Appendix 4** for more details.

40. CDEM Group support to regional fuel distribution networks

Details of any logistical or other support that may need to be provided by the CDEM Group to assist the fuel sectors continued operation or recovery during an event.

Primarily this will be to support fuel terminals and their delivery mechanisms, focusing on their delivery of prioritised fuel stock around the region.

LOCAL FUEL PLANNING

41. Considerations

Local planning considerations between the CDEM and fuel sectors are primarily:

- Priority local routes/roads;
- Service stations continuity;
- Service station security;
- Local CDEM critical fuel customer list;
- Local CDEM support to local fuel sector; and
- Identify local bulk distributors.

A Local Authority CDEM fuel plan should address each of these items.

Note: these local issues may be covered within the CDEM Group fuel plan, depending on how that Group fuel plan is written.

42. Priority local routes/roads

Details of roads identified as priorities either for the purposes of evacuation or access restoration following the impact of an emergency event. Identifying these routes gives a starting point for selecting service stations that require power back-ups and therefore to be designated as priorities for fuel company re-supply.

43. Service stations continuity

The continuity of service station operations is paramount to the supply of fuel to emergency services and vehicles of other response agencies, as well as to the public. Issues for service stations to consider include:

- Plans for opening and staffing during an emergency;
- On-site power back-ups and/or connectivity for portable mobile electricity generators; and
- Alternative non powered delivery methods.

Plans for opening and staffing during an emergency

Service station managers should have plans in place on how they will maintain operation (albeit limited) during an emergency event. This is primarily in regard to business continuity planning (staffing, services, contact details, etc).

On-site power back-ups

Of primary concern is access to fuel at service stations should electricity into a region be affected. Service stations identified by Local Authority CDEM as critical should be encouraged to make arrangements for power back-ups to enable emergency responders to access fuel. Power back-ups may take the form of a permanently mounted generator or hard wiring 'hot-plug' fittings at the service station to allow a generator to be used as required.

Alternative non-powered delivery methods

In cases where on-site electricity backups are not available, consideration may be given to the use of non-powered fuel delivery means such as compressed air methods. These methods may be locally available via the Fire Service or petroleum industry suppliers. Joint arrangements between Local Authority CDEM and service station operators may be appropriate. It should be noted that methods that require repeated removal of fuel storage covers are not preferred due to the need to manage fuel contamination and/or explosion risks.

The fuel sector, Local Authorities and the CDEM Group Office should work closely in deciding which service stations are selected for power back-ups/priorities. Due to the business nature of the fuel sector (see **Part A, Appendix 1**) local emergency management officers will need to discuss these issues either directly with the service station manager or with the corporate owners of the service station(s).

44. Service station security

Security at service stations is primarily the concern of the station owner/operator. However, during certain events it may be necessary for the Local Authority Emergency Operations Centre (EOC) or Group Emergency Coordination Centre (ECC) to facilitate limited security services in liaison with the Police to ensure the continuation of fuel supply to either the public and/or responding agencies.

45. Local CDEM critical fuel customer list

The Local Authority is to define a list of CDEM critical fuel customers for fuel supply within the local area based on the categories listed in **Part A, Section 5**.

46. Local CDEM support to local fuel sector

Details of any logistical or other support that may need to be provided by the Local Authority to assist the fuel sectors continued operation or recovery during an event.

Primarily this will be to service stations within the local area.

47. Identify local bulk fuel distributors

Certain areas will have fuel distributors operating within them, such as those who supply bulk fuel stock to the rural community. It may be beneficial for Local Authority CDEM to enter into arrangements with such distributors to facilitate ready access to fuel stock in particular emergency events.

Note: It may appropriate for these arrangements to be handled at CDEM regional level, depending on the nature of the CDEM Group, distributor, and nature of the event.

Section 5: Fuel Supply Prioritisation

In order to ensure continuity of petroleum supplies, emergency services, lifeline utilities, and critical facilities should establish contracts with oil companies. CDEM Groups and Lifelines Groups should encourage their members to establish contracts for fuel supply, as part of general readiness activities.

Note: Most emergencies should require no intervention to the petroleum industry's normal business operations. However, in certain circumstances it may be necessary to change normal supply operations to ensure that fuel is supplied primarily to those agencies that are critical in responding to the emergency.

48. Methodology

During an emergency event, fuel supply and distribution should function under normal commercial arrangements for as long as the situation allows. Within business as usual arrangements, oil companies will take certain measures with regard to allocating supplies to their contracted customers in order to continue a level of service.

As an emergency event escalates in severity and fuel supplies into a region decrease, or are predicted to decrease, it may be necessary to instigate levels of fuel prioritisation to ensure that 'CDEM critical fuel customers' are able to continue to function and maintain response and recovery efforts. The levels of fuel prioritisation and explanations of the organisational arrangements for each level are described in **Part B, Appendix 4**.

When fuel supply prioritisation is required, it is invoked by the Local Controller, CDEM Group Controller, or the National Controller, using the power to give directions.¹

As an emergency worsens and more fuel needs to be reserved for CDEM critical fuel customers, oil companies will decrease the percentage of stock allocated to their commercial customers and the difference will be allocated to CDEM critical fuel customers.

CDEM 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.

This fuel prioritisation methodology is based on minimal interference with fuel company operations, thus maintaining as close to business as usual arrangements as possible; followed by a return to business as usual practices as soon as practicable.

49. Activating fuel priority allocation

For details of how to officially initiate fuel prioritisation refer to **Part B, Section 4**.

¹ Civil Defence Emergency Management Act 2002, section 91.

50. CDEM critical fuel customers

CDEM critical fuel customers are the organisations that are generally critical to response operations and have a reliance on fuel re-supply to carry out response activities. These are subject to operational change and prioritisation at the discretion of a Controller.

In order for fuel priority allocation to occur, CDEM Groups are to define a list of CDEM critical fuel customers based on the priorities for restoration listed in 10.1 of The Guide to the National CDEM Plan and the emergency response objectives detailed in clause 59 of the National CDEM Plan.

CDEM critical fuel customer lists should include named organisations from the following categories:

- Emergency services;
- Health care / hospital facilities;
- Welfare agencies;
- CDEM (local authorities);
- Lifeline utilities;
- Service stations;
- Military;
- Central Government;
- Fast moving consumer goods; and
- Known critical contractors for the above listed categories.

CDEM critical fuel customer lists should be provided to fuel supply companies and service station operators before and during an emergency.

51. National CDEM critical fuel customers

National CDEM critical fuel customers are listed in **Part B, Appendix 5**.

Section 6: Rationing Fuel Supply to the Public

52. Introduction

Rationing refers to government imposed restrictions on all individual sales of oil by quantity (based on either 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 from running out.

Fuel rationing is only used when additional controls are needed to ensure continuation of supply to the public. Implementing rationing schemes takes considerable time and is heavily reliant on communicating effectively with the public.

Rationing of fuel for public use is an extreme measure, and will not be needed for most civil defence emergencies.

Public fuel rationing is only to be used when fuel supplies are severely threatened and public requirements for fuel usage remain high.

Note: The use of escalating fuel prioritisation levels (as per Part B, Appendix 4) should be used in the first instance to guarantee supply of fuel to all essential services and infrastructure.

53. Authority

The Minister for Energy and Resources holds the authority to approve legislated rationing schemes under the International Energy Agreement Act 1976 and the Petroleum Demand Restraint Act 1981. Such legislation may only be introduced during, and for the purposes of dealing with a specific oil emergency.

Rationing controls may be:

- a) National; or
- b) Regional.

The Oil Emergency Response Strategy (OERS) and OERS Handbook detail how rationing measure might be put in place by the government.

54. Activating rationing

If needed in response to civil defence emergencies, the National Controller will request rationing measures be approved by the Minister of Energy and Resources (via the Ministry of Business, Innovation & Employment).

For details on enacting rationing during an event refer to **Part B, Section 5**.

Appendix 1: New Zealand Fuel Sector Summary

OIL COMPANIES

There are five oil companies and several associated companies (such as transportation and refining) operating in New Zealand. The five oil companies operating in New Zealand are:

- BP
- Chevron (Caltex, Challenge)
- Mobil
- Z Energy (previously Shell and Greenstone Energy Ltd)
- Gull

BP Oil New Zealand Limited

Head Office	BP Oil New Zealand Limited P O Box 892 20 Customhouse Quay Wellington
Key Facilities	8 Bulk Fuels Terminals: Mt Maunganui, Napier, New Plymouth, Seaview (Wellington), Hutt City [Joint Venture with Z Energy] (Wellington), Nelson, Lyttelton, Dunedin 3 Aviation Facilities: Harewood (Christchurch Airport), Wellington Airport, Auckland JUHI 2 Offices: 6 Monier Place, Penrose, Auckland; Chapmans Road, Woolston, Christchurch
Distribution Networks	Bulk Fuel Distribution to Service Stations and Truckstops Contractor Fleets based at: Marsden Point Loading Gantry, Ruakaka; Wiri Oil Services Limited Terminal, Wiri, Auckland; Mt Maunganui; Napier; New Plymouth; Wellington; Nelson; Lyttelton; Dunedin; Greymouth Distributors: deliver to farm and small drop market, fleets based at Palmerston North; Tauranga; Dunedin/Milton; Woolston; Te Awamutu
Service Stations	BP owns and operates a national network of 80 BP Connect Service Stations. BP has supply agreements with approximately 150 independent dealer service stations. BP has a wholesaling agreement to supply approximately 120 Gasoline Alley Service Stations.

Chevron

Head Office	Chevron New Zealand 604, Level 3, Great South Road Greenlane Auckland 1050
Key Facilities	Napier Terminal, Tuatu Street, Ahuriri, Napier Nelson Terminal, 55 Wildman Ave, Nelson Mt Maunganui Terminal, 212 Totara St, Mt Maunganui Dunedin Terminal, 203 Fryatt St, Dunedin Seaview Terminal, 59 Seaview Road, Seaview, Lower Hutt, Wellington Timaru Terminal, Corner of Hayman and Dawson St, Timaru
Distribution Networks	<p>The distribution for Auckland and Northland is managed out of Wiri and Marsden point joint venture terminals. For Canterbury region and lower South Island (Invercargill), Chevron has distribution arrangements with Woolston and Bluff terminal (both Mobil Terminals).</p> <p>For rest of the country, the distribution is managed out of five Chevron proprietary terminals (listed above).</p> <p>The bulk fuel haulage is managed by 3rd party service provider (Hookers Pacific) who own and manage the drivers and trucks. CRT manages distribution to Challenge sites.</p>
Service Stations	Around 260 operating under Caltex and Challenge brand.

Mobil

Head Office	Mobil Oil New Zealand Limited Plaza Level, 41 Shortland Street PO Box 1709 Auckland
Key Facilities	6 Bulk Terminals (Mt Manganui, Seaview, Kaiwharawhara, Woolston, Lyttelton, Bluff) 2 Airport Depots (Rotorua, Invercargill) 1 Airport Terminal (Miramar, Wellington) 2 Industry Airport JUHI (Auckland, Wellington) 1 Office (Shortland Street, Auckland)
Distribution Networks	<p>Bulk delivery of fuel into Distribution Coastal Terminals is via pipeline from wharf.</p> <p>Fuel is transferred to the Mobil Woolston terminal via the Lyttelton to Woolston Pipeline from the Mobil Lyttelton terminal.</p>

Distribution of gasoline and diesel from Mobil terminals is via Tank Trucks operated by contracted carriers, distributors or carriers contracted by other oil companies.

Fuel oil is delivered via pipeline from Kaiwharawhara, Mt Maunganui and Lyttelton terminals to the local wharf. Diesel may also be delivered by this method at these locations as well as at Bluff.

Delivery of fuel from airport facilities is via tank truck or pipeline to airport apron.

Service Stations

Approximately 179 Mobil branded service stations located around New Zealand – group comprises of a number of (1) company owned and managed, (2) dealer owned and managed and (3) company owned and dealer managed.

Z Energy

Head Office

Z Energy Ltd
3 Queens Wharf
Wellington
6140

Key Facilities

8 Z Energy owned terminals: Mt Maunganui, New Plymouth, Napier, Nelson, Lyttelton, Timaru, Dunedin, Bluff. (New Plymouth and Napier are supplied by the BP Gantries)

2 Z Energy contracted storage: Wynyard Wharf, Mt Maunganui

4 joint venture storage: Wellington, Marsden Point, Auckland (WOSL), JUHI (Auckland International Airport)

3 offices: Christchurch Airport, 826 Wairakei Rd, Christchurch; Christchurch Office, 16 Sheffield Crescent, Christchurch; Auckland Office, 9 Hargreaves St, Auckland

Distribution Networks

Z Energy operates a variety of distribution networks across New Zealand, the details of which are listed below, the information (excluding its bunker network) is also available on its website <http://z.co.nz/about-z/who-is-z-energy/our-brand-story/find-us/>

Truck Stop Network: A total of 75 truck stops around the country based at Auckland (16), Tauranga (19), Napier (6), New Plymouth (3), Wellington (8), Nelson (4), Christchurch (9), Timaru (3), Dunedin (4), and Invercargill (3).

Marine Bunker Facilities:

Z Energy Ltd owns bunker delivery pipework in the following 10 locations – Wynyard Wharf, Mt Maunganui, New Plymouth, Napier, Wellington, Nelson, Lyttelton, Timaru, Dunedin, Bluff.

Barge – Z Energy charters the refuelling barge Awanuia (Owned by ports of Auckland and Seafuels) which draws its fuel from the refinery at Marsden Point and bunkers vessels in the port of Auckland.

Trucking Fleet – Z Energy distributes fuel to its customers using a variety of different trucking fleet models. Z energy contracts Hookers and North / South Fuels mainly for their bulk delivery operations. Z Energy also owns the Mini Fuels operation that operates a fleet of pump trucks New Zealand wide. During a

civil defence emergency pump trucks can be used to provide fuel to emergency services and mobile tanks.

Aviation Sites: Z Energy operates a number of aviation refuelling sites around the country. In the North Island, Jet A-1 is supplied from the WOSL terminal in Auckland and the Seaview terminal in Wellington. AVGAS is supplied from the BST terminal in Mount Maunganui. In the South Island, Jet A-1 is supplied from the Lyttelton terminal.

Service Stations 221 branded services stations, operating under Shell and Z brands.

Gull

Head Office 507 Lake Road
Takapuna
Auckland

Key Facilities 74 million litre storage facility and truck loading gantry at Mount Maunganui.

Distribution Networks Distribution Networks Fuel delivered to service stations and end users via gravity drop semi-trailer fleet operated by a separate haulage contractor.

Service Stations 37 branded service stations.

ASSOCIATED COMPANIES

The transport and refinery companies of interest are:

- Refining NZ;
- Wiri Oil Services Ltd (WOSL);
- New Zealand Oil Services Ltd (NZOSL); and
- Coastal Oil Logistics Ltd (COLL).

Refining NZ

Refining NZ operates New Zealand's only oil refinery at Marsden Point, Whangarei.

The Refinery processes a variety of crude oil types. The refinery runs several parallel systems allowing continued function in the event of a loss of one unit. In 2011 it provided approximately 55% of the domestic market's petrol, 75% of the diesel, 99% of the jet fuel, 100% of the fuel oil and 75% of the bitumen used on roads.

Refining NZ has about 2500 shareholders. BP, Caltex, Mobil and Z Energy are significant shareholders and are customers of Refining NZ. All crude oil and feedstocks refined at Marsden Point are owned by customers and Refining NZ charges them a processing fee.²

2 New Zealand Refining Company Ltd (2007), <http://www.nzrc.co.nz/index2.htm>

Wiri Oil Services Limited (WOSL)

Wiri Oil Services Limited operates as an independent company; however four of the oil companies are shareholders: BP (28%), Caltex (16%), Mobil (28%), and Z Energy (28%).

Wiri oil services terminal is the primary petroleum depot and distribution centre which is connected by pipeline to Marsden Point. WOSL also manage the truck loading facility at Marsden Point.

WOSL also control the Wiri-Airport Pipeline (WAP) which supplies Jet-A1 fuel to the Joint User Hydrant Interplane terminal (JUHI).³

New Zealand Oil Services Ltd (NOZL)

NZ Oil Services Ltd is a joint venture between BP and Z Energy. NZOSL operates oil terminals at:

- Napier;
- New Plymouth;
- Wellington;
- Nelson; and
- Lyttleton.

Coastal Oil Logistics Ltd (COLL) and Silver Fern Shipping

COLL schedule all the shipping from the refinery to the various ports around the country via ships chartered from Silver Fern Shipping, who are New Zealand's only tanker operation. Its four shareholders are BP, Caltex, Mobil and Z Energy.

Silver Fern Shipping operates two vessels which carry products (approximately 40-45 million litres) from the oil refinery to 10 ports around New Zealand.⁴

OIL DISTRIBUTION NETWORK

Petroleum products are transported around New Zealand via ships, road transport and pipelines. This section gives a brief overview of the network of distribution.

Supply into New Zealand

Crude oil is shipped into Refining NZ on large vessels carrying between approximately 105 and 145 million litres. Refining NZ requires one of these vessels about every seven to ten days. Crude oil delivered into the country comes mainly from the Middle East and Asia with a small portion of local crude also being processed.

In addition, all companies import refined product directly to port terminals. Most imports come from Asia and take at least 16 days shipping time.

3 WOSL (2007), Wiri oil services fuel supply issues presentation to the WeLG breakfast seminar 2007, <http://www.waikatolifelines.org.nz/Documents.htm>

4 Silver Fern Shipping Limited (2007), <http://www1.sfsl.co.nz/Article.aspx?ID=119>

Distribution network

The map below show the distribution of petroleum throughout New Zealand:



Distribution from Marsden Point

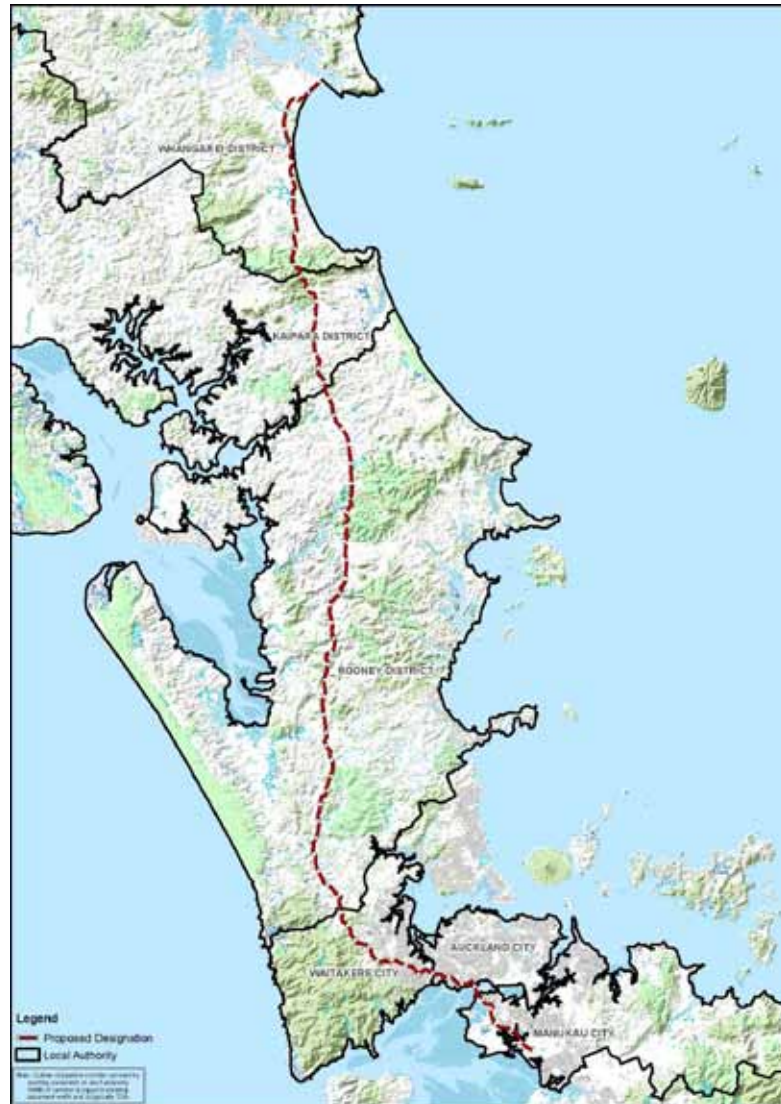
Products leave the Marsden Point terminal via one of three modes of distribution:

Pipeline

Approximately half of the refinery's product is transported to WOSL terminal by the Refinery to Auckland Pipeline (RAP). This constitutes the majority of Auckland's petroleum supply (approximately 95%) which equates to 36% of the countries petroleum supply. The pipeline is used for Regular, Premium, Diesel and Jet-A1. Once at Wiri, the products are distributed throughout Auckland and beyond by road tankers.

The pipeline is 250mm in diameter and is 169.46 kilometres long and has a volume of 9 million litres. It is buried along the entire route with two Intermediate Pumping Stations (IPS1 and IPS2) situated at Kumeu and Wellsford.

The map below shows the path of the Refinery to Auckland Pipeline (RAP):



Wiri-Airport Pipeline (WAP)

A small pipeline is used to supply Jet-A1 to Auckland International Airport from the Wiri terminal. This pipeline is 6.9 kilometres in length.

Ship

The two COLL chartered tankers (45,000 tonne capacity each), operated by Silver Fern Shipping Ltd's (SFSL), ship petroleum products to ten distribution points around the country. These ports are:

- Auckland (Wynyard Wharf);
- Mt Maunganui;
- Napier;
- New Plymouth;
- Wellington;

- Nelson;
- Lyttelton;
- Timaru;
- Dunedin; and
- Bluff.

From these points, product is distributed by road tanker.

Road

A small truck loading facility containing six tanks of diesel and both grades of petrol is used to load trucks which supply BP, Chevron, Mobil and Z Energy's customers in the Northland region.

Gull

All of Gull's (refined) products are direct imports from overseas and arrive at Mt Maunganui. From Mt Maunganui, products are distributed around the North Island via road tankers to Gull's service stations. Gull is not a customer of Refining NZ.

Coordination

When company product demand outweighs owned stock at terminals, COLL facilitates stock 'coordination'. In this process, the four oil companies using COLL, loan and borrow stock between each other to compensate for shortfalls.

Distribution from port terminals

Most fuel is delivered to service stations and bulk customers via trucking networks. The trucks used by some oil companies are dedicated fleet and others contract out their transport to dedicated third party haulage companies.

Retail operations

Service (petrol) stations are the point-of-sale for the public, and for many organisational fleet vehicles. Service stations can be considered to be either: corporately owned and operated; corporately owned and independently operated; or independently owned and operated (even though independent service stations may be corporately branded).

Corporate head offices have control over business actions of their corporately owned and operated service stations, but have little direct influence over those independents that carry their branding.

Commercial operations

Unmanned truck stops (also referred as diesel or fuel stops) dispense fuel to commercial customers with fuel cards and some facilities accept credit cards as well. Truck stops are either corporately owned and operated or independently owned and operated.

Appendix 2: Glossary

The source of the definition is shown if it is other than the National CDEM Fuel Plan.

Agencies: means

- a) government agencies, including public service departments, non-public service departments, Crown entities, and Offices of Parliament; and
- b) non-governmental organisations; and
- c) lifeline utilities.

[National CDEM Plan]

CDEM Critical Fuel Customers: A list of named organisations that are generally critical to response activities and have a reliance on fuel re-supply to carry out response activities. 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: or Civil Defence Emergency Management Group means a group established under section 12 of the CDEM Act. CDEM Groups are formed from local authorities that work together and with other organisations to provide co-ordinated CDEM planning for reduction, readiness, response, and recovery.
[CDEM Act; National CDEM Plan]

Civil defence emergency: is any emergency managed under the CDEM Act. The CDEM Act defines “emergency” as 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 the Act.*

[CDEM Act]

Civil defence emergency management: has the same meaning as in section 4 of the CDEM Act [follows]

- 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
b) *includes, without limitation, the planning, organisation, co-ordination, and implementation of those measures, knowledge and practices.*
[CDEM Act]

Domestic and External Security Co-ordination (DESC): is the system of domestic and external security co-ordination used by the Government to manage all national crises.
[Guide to the National CDEM Plan 2006]

Duty Officer, MCDEM: is an immediate 24/7 response position, as part of the MCDEM Duty Team.
[Guide to the National CDEM Plan 2006]

Emergency: has the same meaning as in section 4 of the CDEM Act (refer to “Civil defence emergency” above).
[CDEM Act]

Emergency services: has the same meaning as in section 4 of the CDEM Act [follows] *means the New Zealand Police, New Zealand Fire Service, National Rural Fire Authority, rural fire authorities, and hospital and health services.*
[CDEM Act]

Guide: The Guide to the National CDEM Plan 2006 that is referred to in the National CDEM Plan and approved by government.
[National CDEM Plan]

Hazard: has the same meaning as in section 4 of the CDEM Act [follows] *means something that may cause, or contribute substantially to the cause of, an emergency.*
[CDEM Act]

Lifeline utility: has the same meaning as in section 4 of the Act [follows] *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]

Local authority: means a regional council or territorial authority.
[Local Government Act 2002]

National Controller: has the same meaning as in section 4 of the CDEM Act [follows] *means the person who is the National Controller in accordance with section 10.*
[CDEM Act]

National Emergency Sharing Organisation (NESO): The National Emergency Sharing Organisation (NESO) is a committee of oil industry representatives chaired by the Ministry of Business, Innovation & 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.⁵

National significance: has the same meaning as in section 4 of the CDEM Act [follows]. See also section 2 Hazards & risks (clause 9(4) of the National CDEM Plan).

includes, without limitation, any case where the Minister or the Director considers that—

- a) there is widespread public concern or interest; or*
- b) there is likely to be significant use of resources; or*
- c) it is likely that the area of more than 1 Civil defence Emergency Management Group will be affected; or*
- d) it affects or is likely to affect or is relevant to New Zealand's international obligations; or*
- e) it involves or is likely to involve technology, processes, or methods that are new to New Zealand; or*
- f) it results or is likely to result in or contribute to significant or irreversible changes to the environment (including the global environment).*

[CDEM Act]

Non-operational: reference to the period of time outside of a civil defence emergency during which reduction and readiness planning activities are undertaken

Oil Emergency Response Strategy (OERS): sets out the broad policy and operational aspects that underpin the government's response to a disruption of oil supplies, either to fulfil New Zealand's obligations as a member of the International Energy Agency (IEA) or to ensure that the effects of an oil supply disruption on New Zealand in a non-IEA declared oil emergency are minimised. The OERS is administered by the Ministry of Business, Innovation & Employment.

Operational: reference to emergency response and recovery activities during or immediately following the impact of a hazardous event.

Priority Allocation: refers to the prioritisation of fuel to agencies listed as CDEM critical fuel customers over corporate commercial customers and the general public.

⁵ Ministry of Economic Development (2006), Oil Emergency Response Strategy, 4. Roles and Responsibilities to Respond to an Oil Supply Disruption, http://www.med.govt.nz/templates/MultipageDocumentPage___22563.aspx

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. Any formal rationing measure must be approved by the Minister of Energy and Resources.

[OERS]

Risk: has the same meaning as in section 4 of the CDEM Act [follows] *means the likelihood and consequences of a hazard.*

[CDEM Act]

Sector co-ordinating entities: 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 NCMC and which will undertake a range of sector co-ordinating functions during an emergency.

[Guide to the National CDEM Plan 2006]

State of emergency: has the same meaning as in section 4 of the CDEM Act [follows] *means a state of national emergency or a state of local emergency.*

[CDEM Act]

State of local emergency: has the same meaning as in section 4 of the CDEM Act [follows] *means a state of local emergency declared under section 68 or section 69.*

[CDEM Act]

State of national emergency: has the same meaning as in section 4 of the CDEM Act [follows] *means a state of national emergency declared under section 66.*

[CDEM Act]

Appendix 3: Acronyms and Abbreviations

CDEM	Civil Defence Emergency Management
COLL	Coastal Oil Logistics Limited
DESC	Domestic and External Security Co-ordination
DPMC	Department of the Prime Minister and Cabinet
ECC	Emergency Co-ordination Centre
EOC	Emergency Operations Centre and encompasses ECC
GECC	Group Emergency Coordination Centre
IEA	International Energy Agreement
LUC	Lifeline Utility Coordinator
MBIE	Ministry of Business, Innovation & Employment
MCDEM	Ministry of Civil Defence and Emergency Management
NCMC	National Crisis Management Centre
NEP	National Exercise Programme
NESO	National Emergency Sharing Organisation
NZOSL	New Zealand Oil Services Limited
NWS	National Warning System
OERS	Oil Emergency Response Strategy
PIM	Public Information Management
SCE	Sector Coordinating Entity
SITREP	Situation report
SOP	Standard Operating Procedure
WOSL	Wiri Oil Services Limited