

The Chair
Cabinet Economic Growth and Infrastructure Committee

Measures to improve domestic oil security

Proposal

- 1 To seek agreement to progress a range of measures to improve domestic oil security. This Cabinet paper serves as a response to an Economic Growth and Infrastructure Cabinet Committee request [EGI Min (12) 24/4 refers] for a report on options for improving domestic oil security.

Executive Summary

- 2 The Ministry of Business, Innovation and Employment (MBIE) has undertaken a review of New Zealand's oil security, which has identified and assessed a number of proposals to optimise New Zealand's oil security, both international and domestic.
- 3 Cabinet has already made decisions on proposals related to international oil security [EGI Min (12) 29/9 refers], and the implementation of those decisions is progressing.
- 4 On domestic oil security, the review determined that:
 - a. The fuel supply network in New Zealand is already reasonably robust
 - b. The oil supply industry is adept at responding to most supply disruptions
 - c. Government already has processes in place to manage severe disruption events
 - d. There is no requirement for significant capital expenditure by government in the oil supply network.
- 5 Nevertheless, the review noted that there are still a number of steps government can take to help industry re-establish supply more quickly during an emergency oil supply disruption. With this in mind, EGI invited me to report back to EGI on options for improving New Zealand's domestic oil security [EGI Min (12) 24/4 refers].
- 6 This Cabinet paper proposes a number of low-cost actions for government, in conjunction with industry, to improve domestic oil security. The proposed steps will not result in immediate regulatory amendments and will be met within existing baselines. Any future regulatory changes, if required, will be brought to this Committee.
- 7 The measures proposed are:
 - a. under the existing High Productivity Motor Vehicle permit regime, define routes that may be suitable for fuel trucks exceeding normally-permitted mass limits to operate on in an oil supply emergency
 - b. develop an oil contingency handbook to outline responsibilities and procedures to be followed in the event of an oil supply disruption

- c. perform further technical analysis of a proposal to undertake pre-emptive planning work for an emergency Refinery-to-Auckland Pipeline (RAP) and Wiri-to-Airport Pipeline (WAP) bypass
- d. establish a working group comprising all relevant departments and industry participants to share information on oil security issues and assist in developing measures to improve oil security
- e. review the information government currently collects on fuel stocks and storage capacity. Assess whether it is fit-for-purpose and, in consultation with industry, identify what information should be collected and, potentially, published
- f. promote awareness by service stations of the benefits of back-up electricity generating capacity
- g. develop a better understanding of existing hazard prevention and response procedures in the downstream oil sector.

Background

- 8 The Ministry of Business, Innovation and Employment (MBIE) has reviewed New Zealand's oil security in order to identify measures that can be implemented to improve New Zealand's responsiveness to emergency oil supply disruptions.
- 9 The two main drivers for reviewing New Zealand's oil security were:
 - a. a request from the Department of the Prime Minister and Cabinet for departments to review New Zealand's resilience to unexpected shocks such as earthquakes and external events
 - b. the projected increase in the cost of meeting New Zealand's International Energy Agency (IEA) oil stockholding obligations.
- 10 Optimising New Zealand's oil security also aligns with key government objectives to:
 - a. build a more competitive and productive economy
 - b. ensure secure and affordable energy, in particular security of oil supply (New Zealand Energy Strategy 2011-2021)
 - c. ensure resilient infrastructure (one of the six guiding principles for infrastructure development in the National Infrastructure Plan).
- 11 Furthermore, reviewing oil security in New Zealand is one of the actions in the Business Growth Agenda - Building Infrastructure progress report.
- 12 As part of the review, Cabinet approved the release of a discussion paper in October 2012 that set out a number of proposals to optimise New Zealand's oil security [EGI Min (12) 24/4 refers]. Fifteen submissions were received in response to this paper, from a range of parties including fuel suppliers, owners of key fuel distribution infrastructure, end-users, civil defence groups and others.
- 13 The discussion paper, which was informed by three independent reports, identified a range of proposals to help mitigate risks of two types of oil supply disruption:
 - a. international – supply disruptions arising outside of New Zealand can result in a spike in the global oil price, which affects the domestic economy
 - b. domestic – disruptions to the domestic supply chain infrastructure can result in supply shortfalls and distribution challenges.

- 14 In relation to international oil security, the review's key finding was that New Zealand's best protection against an international supply disruption continues to be our membership of the IEA and contribution to the IEA global strategic oil stockholding¹. In order to fund New Zealand's IEA oil stockholding obligations, Cabinet has agreed [EGI Min (12) 29/9 refers] to increase the Petroleum or Engine Fuel Monitoring Levy (Levy), under the Energy (Fuels, Levies, and References) Act 1989. An amendment Bill is being prepared and is expected to be introduced into the House in 2013.
- 15 When approving the above measure to improve New Zealand's international oil security, EGI invited me to report back separately on options for improving New Zealand's domestic oil security [EGI Min (12) 24/4 refers].

Review of domestic oil security

- 16 The focus of the review of domestic oil security was primarily on supply-side measures to optimise oil security by minimising supply shortfalls in the case of domestic infrastructure disruptions².
- 17 The review did not necessarily envisage removing all risk of oil supply disruption, but rather considered oil security as a balance between cost and resilience (since it can become prohibitively expensive to boundlessly improve the resilience of fuel infrastructure). This is consistent with an economic definition of oil security as that level of oil security that minimises the combined cost of disruption and precautionary actions over time. The costs of major oil supply disruptions can be large and escalate rapidly, but such disruptions do not happen often. Analysing the potential impact costs in terms of probability-weighted expected values provides a means of assessing how much it is worth spending to reduce or avoid those potential impact costs.
- 18 The discussion paper analysed seven low-probability, high-impact scenarios in which major pieces of domestic oil infrastructure are disrupted (such as the Marsden Point oil refinery, and the Refinery to Auckland pipeline) and options to increase the speed of industry's response to these disruptions. The discussion paper identified constraints to industry re-establishing supply, and provided cost-benefit analysis of significant proposals to remove or reduce those constraints.
- 19 A key finding was that the majority of domestic disruption scenarios analysed result in fuel distribution issues rather than fuel shortages in New Zealand as a whole. For example, in the event of a disruption at the Wiri Terminal³ in Auckland, rather than Auckland service stations being supplied with petrol and diesel from Wiri, they must be supplied over long distances by truck from terminals in neighbouring regions, and, in-turn, these neighbouring terminals must be supplied with more fuel than usual via coastal shipping tankers.

¹ As a member of the IEA, New Zealand has a treaty obligation to contribute to global oil security by holding 90 days of net imports of oil stocks. New Zealand presently meets this obligation through commercial inventories held by companies in New Zealand, and by entering 'ticket' contracts with offshore companies. Tickets are an option, in return for an annual fee, to purchase specified quantities of stock at market prices in the event of an IEA-declared oil emergency.

² Demand-side measures, including mandatory demand restraint measures and a voluntary demand restraint campaign, are detailed in the Oil Emergency Response Strategy, which MBIE published on its website in 2008.

³ The Wiri Terminal supplies the Auckland region's finished petroleum products.

- 20 On domestic oil security, the review determined that:
 - a. The fuel supply network in New Zealand is already reasonably robust
 - b. The oil supply industry is adept at responding to most supply disruptions
 - c. Government already has processes in place to manage severe disruption events
 - d. There is no requirement for significant capital expenditure by government in the oil supply network.
- 21 Nevertheless, the review noted that there are still a number of steps government can take to help industry re-establish supply more quickly during an emergency oil supply disruption.
- 22 While there was some variation in submitters' responses to specific questions in the discussion paper, the majority of submissions reinforced the high-level conclusions above.
- 23 Government's overarching view is that oil companies can and should manage the majority of domestic supply disruptions without its involvement. Beyond commercial drivers for companies to manage disruptions, there is also a regulatory obligation under section 60 of the Civil Defence and Emergency Management Act 2002.
- 24 Government responsibilities, and powers to manage a disruption, increase with the severity of the disruption. Government will likely only become involved in the management of the most severe supply disruptions. In the case of a severe disruption, the National Emergency Sharing Organisation (NESO)⁴ would be convened to determine the best response by industry, with the support of government.
- 25 While it is expected that industry will in most cases lead the response to oil supply disruptions, the government plays an important role in ensuring that industry can re-establish supply as quickly as possible following a major disruption (e.g. by relaxing normal regulations and/or expediting official processes, as appropriate).
- 26 In this context, the following section sets out a number of measures that can help ensure industry and government are able to most effectively and efficiently respond to domestic oil supply disruptions.

Proposed measures and next steps to improve domestic oil security

- 27 The oil security review included extensive consultation with industry, and across government, on various possible measures to improve domestic oil security. Based on the outcomes of these discussions, I propose that the government implement the following measures:
 - a. under the existing High Productivity Motor Vehicle permit regime, define routes that may be suitable for fuel trucks exceeding normally-permitted mass limits to operate on in an oil supply emergency
 - b. develop an oil contingency handbook to outline responsibilities and procedures to be followed in the event of an oil supply disruption. For example:

⁴ NESO is a government/industry body, chaired by MBIE, which is convened when there is a severe disruption to the oil supply network, or when the IEA requires New Zealand, as an IEA member, to release oil stocks and reduce demand. NESO ensures that there is a well-coordinated response between government and industry to severe disruptions.

- i. the respective roles of different parties and the procedures involved in accessing offshore trucks and alternative domestic trucking and shipping capacity (which could help make up petroleum products transportation shortfalls in an oil supply disruption).
- ii. the legal framework around companies coordinating their operations in an emergency⁵.
- c. perform further technical analysis of a proposal to undertake pre-emptive planning work for an emergency Refinery-to-Auckland Pipeline (RAP) and Wiri-to-Airport Pipeline (WAP) bypass⁶
- d. establish a working group comprising relevant departments and industry participants to share information on oil security issues and assist in developing measures to improve oil security
- e. review the information government currently collects on fuel stocks and storage capacity. Assess whether it is fit-for-purpose and, in consultation with industry, identify what information should be collected and, potentially, published
- f. promote awareness by service stations of the benefits of back-up electricity generating capacity
- g. develop a better understanding of existing hazard prevention and response procedures in the downstream oil sector.

28 These are non-regulatory measures that will be progressed by departments in partnership with industry. MBIE, in conjunction with other relevant departments, will develop an implementation plan and discuss this with me and other relevant Ministers.

29 The table below provides further detail on the measures that will be progressed.

	Measure	Issue it addresses	Comments
a.	Under the existing High Productivity Motor Vehicle permit regime, define routes that may be suitable for fuel trucks exceeding normally-permitted mass limits to operate on in an oil supply emergency.	Allowing trucks to operate at a higher weight (within their existing technical capacity) could help to make up trucking capacity shortfalls during a fuel supply disruption.	Industry considers this the largest improvement that could be made to New Zealand's ability to manage an oil supply disruption. This work can be undertaken as part of the New Zealand Transport Agency's existing High Productivity Motor Vehicle permit regime ⁷ .

⁵ The review found that more efficient distribution of petroleum products in an emergency could be achieved if companies could coordinate their operations, but fuel suppliers expressed concern that such activity could be considered anti-competitive under the existing legislation. The enactment of the Commerce (Cartels and Other Matters) Amendment Bill, which is presently before the House, will better allow for companies to collaborate in an emergency. The handbook will discuss the implications of this new legislation.

⁶ A proposal to connect the RAP and the WAP to allow jet fuel to bypass the Wiri Terminal and flow directly to Auckland Airport.

⁷ This regime enables heavier, and longer, vehicles to be permitted to operate on New Zealand roads, but only with a permit and only on roads approved as suitable for such vehicles.

	Measure	Issue it addresses	Comments
	Lead agency: NZTA		
b.	<p>Develop an oil contingency handbook to outline responsibilities and procedures to be followed in the event of an oil supply disruption.</p> <p>Lead agency: MBIE</p>	<p>Greater clarity around the procedures to be followed and the responsibilities of different parties could expedite industry's and government's response to a disruption.</p>	<p>This handbook will be coordinated by MBIE and developed in conjunction with other relevant government departments and with industry. It will be reviewed regularly by the working group.</p>
c.	<p>Perform further technical analysis of a proposal to undertake pre-emptive planning work for an emergency Refinery-to-Auckland Pipeline (RAP) and Wiri-to-Airport Pipeline (WAP) bypass.</p> <p>Lead agency: MBIE</p>	<p>A connection between the RAP and WAP, bypassing the Wiri terminal, could provide an alternative supply of jet fuel to Auckland Airport in the event of a Wiri outage.</p>	<p>The cost-benefit analysis suggests that constructing the bypass in advance of an oil supply disruption is not justified. However, some advance planning work may be justified to speed up the construction phase in the event of a disruption.</p> <p>As a next step, MBIE and the working group will develop an understanding of what planning work could be done and the costs of such work.</p>
d.	<p>Establish a working group comprising relevant departments and industry participants to share information on oil security issues and assist in developing measures to improve oil security.</p> <p>Lead agency: MBIE</p>	<p>Since market conditions can change rapidly, oil security requires constant monitoring and discussion.</p>	<p>This group would not have executive powers. It would be convened by MBIE and meet at least once a year. Any recommendations would be reported to me in the first instance.</p> <p>In the short-term, the working group will be tasked with developing:</p> <ul style="list-style-type: none"> • Oil contingency handbook • Understanding of planning work required for RAP-WAP bypass. <p>In the future, the group will serve as a forum for discussing oil security, identifying issues that need to be addressed and/or recommending measures that could be implemented to further improve oil security.</p>
e.	<p>Review the information government currently collects on fuel stocks and storage capacity. Assess whether it is fit-for-purpose and</p>	<p>There is a lack of public information on the level of fuel stocks and storage capacity. Better information could improve transparency and</p>	<p>There appears to be a role for government (MBIE) in monitoring and, potentially, publishing fuel stocks and storage capacity information.</p> <p>Some end-users have explicitly requested this, although oil suppliers</p>

	Measure	Issue it addresses	Comments
	<p>identify what information should be collected and, potentially, published.</p> <p>Lead agency: MBIE</p>	<p>assist in planning.</p>	<p>have some reservations.</p> <p>This work stream will therefore need to be developed in consultation with industry.</p>
f.	<p>Promote awareness by service stations of the benefits of back-up electricity generating capacity.</p> <p>Lead agency: MCDEM</p>	<p>Back-up electricity generating capacity at retail service stations would help avoid local oil supply disruption in the event of widespread and on-going power outages.</p>	<p>While decisions on installing back-up generating capacity are for service stations/companies to make, government can promote awareness of the issue. This can be done through the Ministry of Civil Defence and Emergency Management's existing communication channels.</p>
g.	<p>Develop a better understanding of existing hazard prevention and response procedures in the downstream oil sector.</p> <p>Lead agency: MBIE</p>	<p>Deficiencies in downstream oil sector assets' hazard prevention and response measures, should they exist, present a risk to oil security, persons at or in the vicinity of the facility, and the environment.</p>	<p>Some submitters alleged that some downstream oil sector assets do not have adequate hazard prevention and response procedures in place.</p> <p>These allegations have not been proven. It is prudent to investigate them fully, however, given the potentially serious implications.</p> <p>MBIE's Health and Safety Group is in the process of mapping the risk landscape in relation to New Zealand's existing stock of facilities with the potential to cause a major accident – including downstream oil sector assets. This work, which is due to be completed by December 2013, will inform the development of new safety regulations for major hazard facilities and the resourcing required to provide effective regulatory oversight of these facilities.</p>

Measures that will not be progressed at this time

- 30 Annex A provides a summary of the measures mentioned in the discussion document or identified in submissions that will not be progressed at this time. While these measures were not deemed appropriate for further consideration at the current time, they require continual monitoring as dynamics in the oil sector change. These measures can be revisited in the future, if and when appropriate, through the proposed working group.

Consultation

- 31 There has been extensive consultation on these proposals with government departments and industry, including:
- a. one-on-one discussions with industry stakeholders
 - b. the release of a public discussion paper on the MBIE website, with 15 submissions received
 - c. workshops with government departments and industry on MBIE's analysis of submissions and the proposals in this paper.
- 32 The Ministry of Business, Innovation and Employment, the Treasury, the Ministry of Civil Defence and Emergency Management, the Ministry of Transport, the New Zealand Transport Agency, the Environmental Protection Authority, the Ministry for the Environment, Maritime New Zealand, and the Energy Efficiency and Conservation Authority have been consulted on this paper and support the recommendations. The Department of Prime Minister and Cabinet was informed.
- 33 Key industry stakeholders, including Z Energy, Chevron, Mobil, BP, Gull, Refining NZ, Air New Zealand, the Automobile Association, the Motor Trade Association, the Motor Industry Association and the Road Transport Forum, have been consulted on this paper and generally support the recommendations. During implementation, officials will continue to consult closely with industry and other relevant stakeholders to ensure that their perspectives are considered.
- 34 This paper does not attempt to address every comment made in submissions. For example, a number of submitters commented on long-term structural changes that would improve New Zealand's energy security, such as promoting the indigenous production of biofuels. While these are valid considerations, the scope of this review was limited to measures to respond to *short-term* oil supply disruptions. Other government work streams, such as research grants for second generation biofuels and the Petroleum Action Plan, aim to address long-term reliance on imported oil.

Financial Implications

- 35 There are no immediate financial implications. If any financial implications do arise, I expect that these will be minor and able to be met from existing baselines.

Human Rights

- 36 There are no human rights issues associated with the proposals in the discussion paper.

Legislative Implications

- 37 There are no legislative implications at this time.

Regulatory Impact Analysis

- 38 The Regulatory Impact Analysis requirements do not apply to this paper as it contains no proposals or recommendations for change to the current legislative position. A full Regulatory Impact Analysis will be completed for any future proposals which may have regulatory implications.

Publicity

- 39 If this Committee agrees, I will issue a media release advising on the progression of both the international and domestic oil security measures.
- 40 In line with the recommendation for international oil security, I recommend that this Cabinet Paper be posted on the MBIE website [EGI Min (12) 29/9 refers, recommendation 16]. In accordance with Cabinet minute EGI Min (12) 24/4, the oil security discussion paper and the submissions received have already been published on MBIE's website.

Recommendations

The Minister of Energy and Resources recommends that the Committee:

- 1 **Note** that the Cabinet Economic Growth and Infrastructure Committee invited the Minister of Energy and Resources to report back on options for improving New Zealand's domestic oil security [EGI Min (12) 24/4 refers].
- 2 **Note** that the Ministry of Business, Innovation and Employment (MBIE) has undertaken a review of oil security in New Zealand which proposed measures to optimise New Zealand's oil security.
- 3 **Note** that the review of domestic oil security has determined that:
 - 3.1 The fuel supply network in New Zealand is already reasonably robust
 - 3.2 The oil supply industry is adept at responding to most supply disruptions
 - 3.3 Government already has processes in place to manage severe disruption events
 - 3.4 There is no requirement for significant capital expenditure by government in the oil supply network
 - 3.5 Nevertheless, there are still a number of steps government can take to help industry re-establish supply more quickly during an emergency supply disruption.
- 4 **Agree** that the following measures should be progressed by relevant government departments, in conjunction with industry:
 - 4.1 under the existing High Productivity Motor Vehicle permit regime, define routes that may be suitable for fuel trucks exceeding normally-permitted mass limits to operate on in an oil supply emergency
 - 4.2 develop an oil contingency handbook to outline responsibilities and procedures to be followed in the event of an oil supply disruption
 - 4.3 perform further analysis of a proposal to undertake pre-emptive planning work for an emergency Refinery-to-Auckland Pipeline (RAP) and Wiri-to-Airport Pipeline (WAP) bypass
 - 4.4 establish a working group comprising all relevant departments and industry participants, to share information on oil security issues and assist in developing measures to improve oil security

- 4.5 review the information government currently collects on fuel stocks and storage capacity. Assess whether it is fit-for-purpose and, in consultation with industry, identify what information should be collected and, potentially, published
- 4.6 promote awareness by service stations of the benefits of back-up electricity generating capacity.
- 5 **Note** that MBIE, in conjunction with other relevant departments, will develop a plan for implementing these measures and discuss this with the Minister of Energy and Resources and other relevant Ministers.
- 6 **Note** that MBIE's Health and Safety Group is in the process of mapping the risk landscape in relation to New Zealand's existing stock of facilities with the potential to cause a major accident – including downstream oil sector assets.
- 7 **Note** that there are a number of possible measures identified by the review that will not be implemented at this time as they do not appear to improve oil security and/or they do not meet cost-benefit analysis tests.
- 8 **Agree** to the Minister of Energy and Resources issuing a press release on the government's proposed measures to improve domestic oil security and to publishing a copy of this Cabinet paper, with appropriate redactions, on the MBIE website.

Hon Simon Bridges
Minister of Energy and Resources

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Annex A: Measures to improve domestic oil security that will not be progressed

The following proposed measures will not be progressed at this time.

	Measure	Reason(s) for not progressing
a.	Increase domestic fuel stockholding through government construction of stockholding capacity or a mandate on industry.	Cost-benefit analysis suggests this is not an economic solution to a range of domestic disruption scenarios. There appear to be more cost-effective and appropriate measures.
b.	Ex ante agreements between the New Zealand Government and foreign companies and/or governments that may allow New Zealand companies to access fuel quickly in an emergency.	It is unlikely that such agreements would improve the speed of securing and receiving imports above the status quo. Fuel companies already access prompt imports during supply disruptions, and such agreements might simply displace these well-functioning market arrangements, transfer the cost of those arrangements to the taxpayer, and be more costly than the status quo.
c.	Protect future expansion at Wiri fuel terminal ⁸ .	The Minister for the Environment has recently approved Wiri Oil Services Limited (WOSL)'s application to become a "Requiring Authority" under section 167 of the Resource Management Act 1991. WOSL now has the ability to lodge a notice of requirement with the council and begin the process of designating the site of its facility in Wiri, should it choose to do so.
d.	Pre-emptively approve Australian fuel specifications for New Zealand use in an emergency.	During the development of the Oil Emergency Response Strategy, MBIE determined that establishing a compressed process for implementing emergency fuel specifications was more appropriate. This approach allows more flexibility to deal with a wide range of fuels and circumstances, compared to the pre-approval of Australian specifications.
e.	Require industry to hold additional trucking capacity in New Zealand, to help during the 1-2 month lag before trucks arrive from Australia.	Cost-benefit analysis does not justify this.
f.	Improve understanding of the risk of a refinery outage.	The consultants' reports covered the most likely major disruption risks to the refinery and took sufficient account of the individual components of the refinery's operations in their analysis of a refinery outage.

⁸ Some submissions noted that encroaching land use around Wiri Terminal and subsequent issues for obtaining resource consent for Wiri expansion could jeopardise Auckland's fuel security.

	Measure	Reason(s) for not progressing
g.	Expedite handling certification and driver hours relaxations	<p>There is already some flexibility in the approved handler system, so that an approved handler certificate can be issued with conditions that reflect the competency of the individual. Such certification would be assessed by the Environmental Protection Agency on a case-by-case basis.</p> <p>The driver time restriction regime does not need to be relaxed further beyond the flexibility that it already allows.</p> <p>Given the potential adverse impacts on health and safety, I do not believe such regulatory waivers should be implemented unless absolutely necessary. Decisions around handling certification and relaxation of driver hours will be made by the Minister for the Environment and the Minister of Labour, respectively (on a case-by-case basis).</p>
h.	Construct a new fuel terminal in West Auckland.	<p>Stakeholders' views on this proposal vary, with end-users generally more in favour than fuel suppliers.</p> <p>Such a terminal would improve the resilience of Auckland's fuel supply chain, but would involve large capital investment – our consultants estimated an upfront cost of \$57m.</p> <p>Given that a petrol/diesel shortfall from a Wiri outage can be addressed by trucking fuel into Auckland from neighbouring terminals, and a jet shortfall through a bypass (at an estimated cost of \$5-15m), it is not clear that such a substantial capital investment is justified to address a Wiri outage event.</p>