



## COVERSHEET

<b>Minister</b>	Hon Dr Megan Woods	<b>Portfolio</b>	Energy and Resources
<b>Title of briefing</b>	Fuel Resilience Policy Package	<b>Date to be published</b>	10 November 2022

### List of documents that have been proactively released

<b>Date</b>	<b>Title</b>	<b>Author</b>
October 2022	Fuel Resilience Policy Package	Office of the Minister of Energy and Resources
October 2022	Regulatory Impact Statement: Fuel resilience policy package	MBIE
19 October 2022	Fuel Resilience Policy Package DEV-22-MIN-0243 Minute	Cabinet Office

### Information redacted

### YES / NO

Any information redacted in this document is redacted in accordance with MBIE's and MFAT's policy on Proactive Release and is labelled with the reason for redaction. This may include information that would be redacted if this information was requested under Official Information Act 1982. Where this is the case, the reasons for withholding information are listed below. Where information has been withheld, no public interest has been identified that would outweigh the reasons for withholding it.

Some information has been withheld for the reasons of national security or defence, commercial position, constitutional conventions, and negotiations.

# Regulatory Impact Statement: Fuel resilience policy package

## Coversheet

Purpose of Document	
Decision sought:	<i>Cabinet’s agreement to final high-level design of the fuel resilience policy package, following public consultation. Key decisions will be sought regarding the minimum onshore fuel stockholding obligation on fuel importers/wholesalers, and flexibility in the use of the Petroleum or Engine Fuel Monitoring Levy for onshore fuel resilience measures.</i>
Advising agencies:	<i>Ministry of Business, Innovation and Employment (MBIE)</i>
Proposing Ministers:	<i>Minister of Energy and Resources</i>
Date finalised:	<i>2 August 2022</i>
Problem Definition	
<p>It is timely to review New Zealand’s fuel resilience policy settings in light of the following developments:</p> <ul style="list-style-type: none"><li>• a lower level of onshore oil and fuel stocks after the closure of the Marsden Point oil refinery</li><li>• international supply chain issues highlighted by the COVID-19 pandemic and the Russia-Ukraine war.</li><li>• expected fall in demand for petrol and diesel in the period to 2040, thereby reducing incentives for fuel companies to invest in fuel infrastructure over time.</li></ul> <p>The probability of a significant fuel disruption is low and hard to predict, but it could have significant impacts. Fuel industry participants have limited incentives to hold reserve stocks above commercial fuel stockholding level and invest in back-up fuel storage and distribution facilities.</p> <p>In the absence of government intervention, the fuel sector may not keep sufficient onshore stocks or back-up arrangements to mitigate the impacts in plausible fuel disruption scenarios adequately. Also, the Government does not have clear visibility over fuel stocks and flows at a granular level.</p>	
Executive Summary	
<p>The Marsden Point oil refinery (the Refinery) shut down permanently on 1 April 2022, which means all refined fuel products are imported to New Zealand. The Refinery’s closure is not expected have a major impact on fuel security, even in scenarios where New Zealand’s import supply chains are heavily disrupted, as the Refinery was designed to refine imported heavier crude oil and could not run perpetually on Taranaki crude. In fact, the Refinery’s closure improves New Zealand’s fuel supply resilience in some respects. For example, the “single point of failure” risk associated with an outage at the Refinery is no longer so critical.</p>	

Nonetheless, it is estimated that, after the Refinery's closure, the average amount of petrol, diesel and jet fuel available onshore would be reduced by about 100,000 tonnes, which is equivalent to about five days of New Zealand's fuel consumption, taking into account the feedstock that used to be held and processed at the Refinery. Modelling commissioned by MBIE in late 2020 indicated that the average days' cover for petrol, jet fuel and diesel would be 28 days, 24 days and 21 days respectively after the Refinery's closure.

The onshore fuel stockholding level for some of the major fuel importers/wholesalers fluctuates over time, and can be below 15 days of cover on some days and well above 20 days of cover on other days. Hale and Twomey estimated that onshore stocks equivalent to 20 days of normal fuel demand would be adequate for managing the risk of a partial fuel import fuel disruption.<sup>1</sup>

The New Zealand Government purchases reserve oil stock 'tickets', which give the Government the right to purchase oil and fuel stocks at market prices in the event of an IEA-declared oil supply emergency. Most of these tickets relate to stocks held offshore. Those offshore stocks are not useful for quickly responding to local fuel disruptions.

Fuel disruptions could have significant impacts, but the probability of significant fuel disruptions is low and hard to predict. Having contingency arrangements in place or having fuel stocks available near the area affected by a disruption would mitigate the impacts of a disruption. However, the fuel industry participants have limited incentives to hold reserve stocks above commercial fuel stockholding level and invest in back-up fuel storage and distribution facilities, especially in the context of an expected fall in demand for petrol and diesel.

## Options

The options discussed in this Regulatory Impact Statement (RIS) focus on the level of fuel stocks to be held onshore in New Zealand, how to achieve the minimum stockholding level, and how the Petroleum or Engine Fuel Monitoring (PEFM) Levy could be used to improve fuel resilience.

### *Minimum level of onshore fuel stocks*

The objective of requiring a minimum level of onshore fuel stocks is to ensure there are sufficient fuel stocks to manage the impacts of plausible fuel supply disruption scenarios adequately, while the economic costs associated with meeting the minimum stock level are not disproportionate. The following options for the minimum onshore fuel stockholding level were examined:

- Option One – counterfactual (21 days' cover for diesel, 24 days' cover for jet fuel and 28 days' cover for petrol on average)
- Option Two – increasing onshore diesel stocks by seven days' cover [PREFERRED OPTION]
- Option Three – modest increase in stockholding of all fuels by five days' cover
- Option Four – significant increase in stockholding for all fuels to 60 days' cover (similar to EU countries).

### *Measure for achieving minimum onshore stockholding level*

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<sup>1</sup> Hale & Twomey. (2020). *Fuel Security and Fuel Stockholding Costs and Benefits*. MBIE. Page 17.

The following options for achieving the minimum onshore stockholding level were considered and assessed against the criteria of fuel resilience, economic cost and administrative efficiency:

- Option 1 – counterfactual (no minimum onshore stockholding obligation)
- Option 2a – minimum fuel stockholding obligation requiring fuel importers/wholesalers to keep onshore fuel stockholding at current or recent commercial stockholding level [PREFERRED OPTION in combination]
- Option 2b – minimum fuel stockholding obligation requiring fuel importers/wholesalers to increase onshore fuel stockholding significantly
- Option 3 – government procurement of storage and management of onshore reserve stocks (using PEFM Levy) [PREFERRED OPTION in combination]
- Option 4 – government purchasing onshore tickets from fuel companies without any investment in extra storage

#### *Petroleum or Engine Fuel Monitoring Levy to support onshore fuel resilience*

We considered the following options for the PEFM Levy, with a view to improve fuel resilience at an appropriate level of compliance cost:

- Option A – status quo, i.e. the PEFM Levy can be used to meet the “reasonable costs” associated with compliance with IEA obligations
- Option B – expressly allowing the PEFM Levy to be used for any measures for improving onshore fuel resilience [PREFERRED OPTION]
  - The measures that could be covered include the reserve diesel stock arrangement under Option 3, investment in onshore fuel infrastructure, fuel emergency planning activities, as well as fuel resilience monitoring.
- Option C – expressly allowing the PEFM Levy to be used for procurement of onshore reserve stocks and relevant infrastructure investments
  - fuel emergency planning activities, including implementation of the National Fuel Plan, would not be funded by the PEFM Levy.

The principles of equity, efficiency, justifiability, and transparency were considered in the assessment of these levy options in line with the relevant guidelines for fees and levies.

#### **Preferred option**

The preferred option, which is reflected in the Cabinet paper on the fuel resilience policy package, includes:

- minimum fuel stockholding obligation requiring fuel importers/wholesalers to keep onshore fuel stockholding at current or recent commercial stockholding level
- government procurement of storage and management at least 70 million litres of onshore reserve diesel stocks (equivalent to about seven days’ cover for diesel), using the PEFM Levy
- expressly allowing the PEFM Levy to be used to meet the cost of any measures for improving onshore fuel resilience.

The minimum stockholding obligation on fuel importers/wholesalers, which is based on the current or recent commercial stockholding levels for diesel, petrol, and jet fuel, would minimise the risk of commercial fuel stockholding declining materially over time, while avoiding disproportionate business compliance cost and adverse impacts on fuel market competition and fuel prices.

Government procurement of storage and management of reserve diesel stocks would ensure that stocks of diesel, the most important fuel for maintaining essential services, would be sufficient for managing the impacts of partial fuel import disruptions.

The indicative cost of the reserve diesel stock arrangement (70 million litres) is estimated to be about ██████████ Negotiations ██████████ depending on negotiations with the fuel sector. This represents around ██████████ Negotiations ██████████ of petrol and diesel if recovered through the PEFM Levy, although the forecast surplus in the PEFM levy means that the levy rate does not need to be increased to absorb the cost of the reserve stock arrangement.

In addition, there would also be a one-off cost of about \$1.5 million for negotiating and finalising the contracts for the reserve stock arrangement. The Government is expected to spend about \$1.4 million a year on implementing the minimum stockholding obligations and administering funding for various onshore fuel resilience initiatives.

The minimum onshore fuel stockholding obligation would require new legislation or amendments to the International Energy Agreement 1976 or the Fuel Industry Act 2020. The statutory purpose of the PEFM Levy under the Energy (Fuels, Levies, and References) Act 1989 would need to be amended. Further regulations would also be developed to prescribe detailed requirements of the minimum stockholding obligation, such as details of the relevant accounting, auditing and reporting requirements, and criteria and procedural matters relating to exemptions, suspensions and terminations of the obligation.

### **Feedback during public consultation**

The public consultation on onshore fuel stockholding took place between January and February 2022, and 21 submissions, mainly from the fuel and transport sectors, were received.

The consultation document covered a number of options for onshore fuel stockholding policies, and indicated that the following options were preferred:

- a minimum onshore fuel stockholding level higher than the status quo and similar to that proposed in Australia, namely 28 days of cover for diesel, and 24 days of cover for petrol and jet fuel
- the introduction of a minimum stockholding obligation for fuel wholesalers.

The preferred minimum onshore fuel stockholding level in the consultation document is higher than that in this RIS and the Cabinet paper on the fuel resilience policy package.

Seven out of 21 submitters consider that there is no need to raise the onshore stockholding level above the current commercial level or 20 days of cover. Six submitters consider that the minimum onshore stockholding level should be higher than current commercial levels. The remaining submitters do not have a clear view on how high the minimum onshore stockholding level should be.

Nine out of 21 submitters agreed that there should be a minimum onshore fuel stockholding obligation on fuel wholesalers. Two submitters agreed in part, five disagreed, and five did not have a clear view.

Fuel importers/wholesalers opposed the option of requiring them to hold fuel stocks above their normal commercial stockholding level. They submitted that:

- New Zealand fuel supplies will remain resilient under the new 100 per cent fuel import model.

- An increase in stockholding would likely require increased investment in infrastructure with flow-on costs through the supply chain. The fuel sector's comments on the relevant costs are discussed in this RIS.
- The costs of increased stockholding would exceed the benefits.
- If the Government wishes to have more onshore fuel stocks, it should fund the onshore storage of reserve fuel stocks and the fuel sector can manage the turnover of reserve fuel stocks.

Fuel industry participants, including independent fuel distributors, generally expressed concerns about the potential adverse impact of a stockholding obligation, which requires them to keep a higher stockholding level, on wholesale and retail competition. The necessary increase in operating costs and/or storage capacity could disproportionately affect small participants or new entrants operating from a single bulk storage facility.

Several submitters, mainly from the transport sector, consider that resilience to local fuel distribution disruptions (e.g. pipeline failure) is at least as important as resilience to fuel import disruption; there is a need for fuels to be distributed efficiently across New Zealand.

Many submissions noted the importance of fuel resilience and onshore stockholding. Some emphasised the particular importance of diesel for emergency and essential services, while airlines and airports emphasised the importance of jet fuel.

Submissions from airlines support any minimum onshore stockholding level for jet fuel to be set at current commercial levels and consider there is not a strong economic case for higher levels.

### Limitations and Constraints on Analysis

This Regulatory Impact Statement (RIS) focuses on options for maintaining or improving onshore fuel stockholding level to mitigate fuel disruption risks and increase supply chain resilience.

It does not discuss the option of subsidising and retaining the Marsden Point oil refinery (the Refinery), as the Refinery is now being decommissioned after Refining NZ (now Channel Infrastructure) decided to close it. Cabinet decided not to intervene, as there was not a strong case for keeping it operational on fuel security grounds.

This RIS also does not discuss options for building new production capacity for mineral-based fuels and alternative fuels. The Government has other policy measures in place or under development to reduce dependence on imported fuels, increase development and adoption of low-carbon energy options (hydrogen and electric vehicles), and reduce transport energy demand. Those policy measures do not avoid the need for adequate resilience to a sudden fuel supply chain disruption in the period to 2040 while mineral-based liquid fuels remain an important energy source for transportation.

The major constraint on MBIE's ability to assess the potential impacts of the options examined in this RIS is that MBIE is not privy to commercially sensitive information or detailed breakdowns of fuel companies' operational costs, how they optimise their stock management practices, and the underlying evidence base for their assessment of the implications of holding more stocks than the normal commercial stockholding level.

To assess the potential impact of introducing minimum onshore fuel stockholding requirements, MBIE made some indicative estimates of additional fuel storage costs at different levels of minimum onshore fuel stockholding levels, based on a consultant's

estimate of the annual fuel storage cost per cubic metre of fuel<sup>2</sup>. MBIE does not have a detailed breakdown of the estimated annual fuel storage cost, e.g. the upfront capital cost of constructing new tanks, and operational cost of maintaining fuel stocks and running a fuel storage facility.

During the public consultation, some submitters from the fuel sector provided some information on potential compliance costs associated with implementing minimum onshore fuel stockholding obligations on fuel importers/wholesalers. Their information is quoted in this RIS, but MBIE does not have sufficient data to verify the accuracy of the estimates provided by these submitters.

There are also challenges in estimating how the compliance costs associated with minimum onshore fuel stockholding requirements will be passed on to fuel consumers, as the extent of the pass-through will depend on how obligated parties will meet the requirements through stock and asset management practices, and the dynamics in the fuel wholesale and retail markets. For simplicity, the RIS provides some estimates of fuel price impacts based on the assumption that the compliance costs will be fully passed on by the fuel sector to consumers.

There is not an expected value assessment of the benefits of onshore fuel stockholding, given the difficulty in quantifying the probability of various fuel disruption scenarios, particularly the unlikely scenario where New Zealand's import supply chain is completely cut off for an extended period. The consequence of a sustained import disruption is also difficult to quantify. As a result, it is challenging to objectively assess what the optimal level of onshore fuel stockholding would be.

Regarding the proposed levy-funded reserve diesel stock arrangement that would complement implementing minimum onshore fuel stockholding obligations on fuel importers/wholesalers, the benefit of this arrangement is also not quantified due to the difficulty in quantifying the probability of fuel disruption scenarios. MBIE estimated the indicative cost of this arrangement, based on fuel storage cost information from a consultant and fuel companies. MBIE also made assumptions about a range of variables, such as interest rates affecting the capital cost, fuel import price and carbon price. There is uncertainty in these variables, and the actual cost of this arrangement will depend on the outcome of negotiations between the Government and the fuel sector.

Regarding the other onshore fuel resilience initiatives that could be funded by the PEFM Levy after its statutory purpose is amended, the benefits of these initiatives are not quantified, as it is unclear what initiatives would be funded (subject to assessments of funding proposals) and how much levy funding would be available for these initiatives. The amount of levy funding available for these initiatives would depend on the level of expenditure on other items funded by the levy, including the reserve diesel stock arrangement that is to be negotiated, and oil tickets which have price fluctuations over time.

**Responsible Manager(s) (completed by relevant manager)**

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<sup>2</sup> The consultant, Hale and Twomey, has expertise in fuel-related issues. Its estimate of the annual fuel storage cost took into account the expected capital cost of building bulk fuel tanks, the cost of maintaining these tanks and the cost of keeping fuel stocks in these tanks.



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Energy and Resource Markets

Ministry of Business, Innovation and Employment



15 August 2022

**Quality Assurance (completed by QA panel)**

Reviewing Agency:	Ministry of Business, Innovation and Employment
Panel Assessment & Comment:	MBIE's Regulatory Impact Analysis Review Panel has reviewed the attached Impact Statement prepared by MBIE. The panel considers that the information and analysis summarised in the Impact Statement meets the criteria necessary for Ministers to make informed decisions on the proposals in this paper.



## Section 1: Diagnosing the policy problem

### What is the context behind the policy problem and how is the status quo expected to develop?

The Marsden Point oil refinery (the Refinery) shut down permanently on 1 April 2022 and has become a fuel import terminal. As a result, New Zealand is now fully reliant on imports of refined fuel products. All refined fuel products are delivered by international tankers to ports across New Zealand, and there are no domestic coastal tankers for delivering fuel products between ports within New Zealand.

The Refinery used to supply about 65 to 70 per cent of New Zealand's total demand for refined fuels, and 100 per cent of its jet fuel. The fuels produced by the Refinery were supplied through pipelines and coastal tankers commissioned by COLL, a joint venture between Z Energy, BP and Mobil. The balance was imported mainly from refineries in Singapore and South Korea.

#### It is timely to review our fuel resilience

The closure of the Refinery and the subsequent change in fuel supply chains for New Zealand is not expected to have a major impact on fuel security. Indeed, industry and independent expert advice is that the shift to a 100 per cent fuel import model improves New Zealand's fuel resilience in some respects. For example, there is no longer a "single point of failure" risk associated with an outage of the Refinery. Fuel companies now deliver fuels to New Zealand in more frequent shipments from more diverse sources, with 15-18 international fuel tankers visiting New Zealand each month. The new supply model also provides more flexibility to respond to local disruptions, as international tankers can be redirected to ports where they will be most useful for fuel distribution by road.

Furthermore, as the Refinery was designed to refine heavier crude oil from overseas rather than domestic crude and would not be able to run normally in the absence of imported crude, keeping the Refinery would provide very little extra resilience in scenarios where New Zealand's import supply chains are heavily disrupted.

Nevertheless, it is timely to review New Zealand's fuel resilience in light of the change in our fuel supply chains, as well as other developments affecting international and domestic fuel supply and demand.

#### Expected drop in fuel stocks available onshore, taking into account feedstock that used to be held and produced at the Refinery

As crude oil stocks and intermediate products are no longer held at the Refinery following its closure, the overall level of oil and fuel stocks held by fuel companies in New Zealand is lower than before the Refinery's closure. Taking into account the feedstock that used to be held at the Refinery and how much refined fuel stocks can be produced from the feedstock, it is estimated that the average amount of petrol, diesel and jet fuel available onshore would be reduced by about 100,000 tonnes in total, which is equivalent to about five days of New Zealand's fuel consumption.

Modelling commissioned by MBIE in late 2020 (before the closure of the Refinery) indicated that, after the Refinery's closure, the average onshore stock level for petrol, jet fuel and diesel would be equivalent to 28 days, 24 days and 21 days respectively in terms of daily consumption. MBIE's data suggests that, at the end of April 2022 (the first month after the Refinery's closure), the days' cover for petrol and jet fuel are higher than the modelled average, while the days' cover for diesel is similar to the modelled average. However, it is important to note that MBIE collects data at the end of each month, rather than on a daily basis.

#### International supply chain issues related to COVID-19 and geopolitical conflicts

The COVID-19 pandemic and the Russia-Ukraine war highlight the risk of international supply chain issues, as some businesses have experienced significant delays in import shipments of various goods in the past two years.

Fuel supplies to New Zealand have remained secure to date, although fuel prices have increased markedly since the start of the Russia-Ukraine war due to sanctions on crude oil and fuel from Russia, and higher freight costs.

It remains unlikely that all shipping routes would be affected by geopolitical conflicts and natural disasters at the same time thereby preventing New Zealand from importing any fuel for an extended period. However, it is possible that some geopolitical conflicts could lead to partial fuel import disruptions. During a conflict, fuel companies and international fuel tankers can adjust their approach to sourcing and shipping fuels to avoid conflict zones.

### **Expected fall in demand for petrol and diesel, limiting incentives to invest in fuel infrastructure**

Climate change initiatives and technological developments (such as electric vehicles (EVs)) mean that demand for petrol has plateaued and will start to decline from mid-2020s. Demand for diesel is expected to decline slightly between now and the mid-2030's, as low-carbon alternatives for heavy transport are still relatively limited, and EVs and renewable liquid fuels are not yet commercially viable replacements. Jet fuel demand may continue to grow in the foreseeable future because of the lack of commercially viable low-carbon options for long-haul flights; sustainable aviation fuels are being increasingly used but are expected to remain much more expensive than mineral-based jet fuel. As the energy transition raises the risk of stranded assets and developing fuel infrastructure incurs high upfront capital costs, the fuel sector will likely have declining incentives to invest in infrastructure to maintain fuel resilience over time.

Nonetheless, fuel supply resilience remains critical to the national economy. Mineral-based liquid fuels will continue to be an important energy source for transportation in the period to 2040, despite the rise of EVs. In particular, diesel is the key fuel for heavy vehicles and therefore the operation of critical services, such as emergency services and deliveries of food and essential goods.

### **IEA 90-day obligation is currently met through a mix of commercial stockholding and oil tickets**

As a member of the International Energy Agency (IEA), New Zealand must hold oil or fuel stocks equivalent to at least 90 days of net oil and fuel imports (i.e. demand net of any oil production) of the previous calendar year. This IEA obligation is intended to promote fuel security in IEA member states and enable collective action to manage international oil emergencies. For countries that are net importers, such as New Zealand, this IEA obligation usually requires maintaining reserve stocks, i.e. stocks over and above those normally held by the fuel industry for normal commercial operations.

Reserve stocks among IEA member countries are typically maintained through direct government procurement, procurement by a dedicated stockholding agency, a minimum stockholding obligation on fuel companies, or a combination of these measures.

To meet the IEA 90-day requirement, the New Zealand Government currently makes up the difference between commercial stock levels and the IEA 90-day requirement by purchasing reserve oil stock 'tickets', which give the Government the right to purchase oil and fuel stocks at market prices in the event of an IEA-declared oil supply emergency.

Most of the oil tickets New Zealand purchases relate to crude oil and fuel stocks held offshore in Europe; only less than one per cent of the tickets relates to fuel stocks held onshore. Those offshore stocks are useful for New Zealand's contribution to IEA collective action to minimise international oil or fuel supply disruptions, but they are not useful for

quickly responding to local fuel disruptions in New Zealand because it takes several weeks to deliver stocks from Europe.

It was estimated that, as a result of no longer keeping crude oil and intermediate products for the Refinery's operation, the extra oil tickets the Government will need to buy for compliance with IEA requirements could cost in the range of \$6.5-12 million a year, assuming no policy change.

### **Petroleum or Engine Fuel Monitoring Levy is used to cover reasonable costs of compliance with the IEA obligation, including oil ticket costs**

Under s 14(2)(ba) of the Energy (Fuels, Levies, and References) Act 1989, the Petroleum or Engine Fuel Monitoring Levy (the PEFM Levy) may be used "for the purpose of meeting the reasonable costs and expenses of compliance by the Crown with New Zealand's obligation, under Article 2 of the International Energy Agreement, to maintain the emergency reserve commitment set out in that Article". This allows the cost of purchasing oil tickets to be recovered through the Petroleum or Engine Fuel Monitoring Levy, which is paid by importers of petrol, diesel, ethanol and biodiesel.

Purchasing offshore oil tickets is generally considered the most cost-effective way to meet the IEA 90-day reserve obligation. Whether the Government can use the PEFM Levy to fund other options for meeting the IEA obligation depends on whether the cost of such options, e.g. building more fuel storage facilities, is reasonable in the context of the IEA.

Besides meeting the reasonable costs of compliance with the IEA, the PEFM Levy is also used for other purposes, including fuel quality monitoring and some of the programmes run by the Energy Efficiency and Conservation Authority. The calculation method of the PEFM Levy is prescribed in Energy (Petrol, Engine Fuel, and Gas) Levy Regulations 2017. The PEFM Levy rate includes a fixed rate component (0.5 cents per litre of transport fuels except jet fuel) and the variable rate component, which covers the costs relating to EECA's programmes funded by the PEFM Levy.

Assuming the Government does not change the calculation method for the PEFM Levy, the accumulated surplus in the PEFM Levy account could grow to \$74.4 million by 30 June 2023 and \$110 million by 30 June 2025, depending on oil ticket price movements. The annual revenue from the PEFM Levy is expected to exceed the annual expenditure covered by the PEFM Levy by \$12-23 million in the forecast period between 2022/23 and 2025/26, again assuming no change to the levy calculation method. This surplus has accumulated in the PEFM Levy account as the COVID-19 pandemic resulted in lower oil ticket costs.

### **Ministerial directions can be issued under the International Energy Agreement Act to set minimum fuel stockholding requirements for compliance with IEA's reserve commitment**

Under the International Energy Agreement Act 1976, there are powers to issue fuel emergency regulations and Ministerial directions to control the production, acquisition, distribution, supply, or use of petroleum.

Under section 6 of the IEA Act, the Minister of Energy and Resources may issue directions to require fuel industry participants to hold fuel stocks above a certain level, where it appears to the Minister that the direction is necessary to maintain, or to assist towards maintaining, reserve supplies of petroleum in New Zealand at a level required by, or pursuant to, the International Energy Agreement. The maximum penalty for non-compliance with such directions is \$10,000.

Under section 7 of the IEA Act, the Minister of Energy and Resources may also direct fuel industry participants to provide fuels-related information for the purpose of compliance with

New Zealand's IEA obligations. The maximum penalty for non-compliance with such directions is \$2,000.

However, as the maximum penalties under the International Energy Agreement Act are very low, Ministerial directions issued under this Act (if any) may not be very effective instruments for requiring fuel industry participants to meet minimum stockholding requirements and provide accurate and timely information on their fuel stocks.

There are also other limitations on how the Ministerial powers under the International Energy Agreement Act can be used to prescribe minimum fuel stockholding rules. For example, while these Ministerial powers can be used to require fuel suppliers to meet minimum stockholding levels, these powers are specific to IEA compliance and cannot be used to specify rules regarding the locations of fuel storage.

### **Other legislation for managing fuel emergencies**

The Petroleum Demand Restraint Act 1981 authorises regulation-making for the purpose of restraining demand, reducing consumption, or ensuring the equitable distribution of processed petroleum products in New Zealand. Under this Act, the Government may make these regulations if petroleum products are in short supply in New Zealand or are likely to be so.

The Civil Defence Emergency Management Act 2002 provides a range of specific powers to authorised officers in a civil defence emergency. Some of these powers, such as the power to conserve essential supplies and regulate traffic, could assist in dealing with certain types of oil supply disruptions.

## What is the policy problem or opportunity?

### **There are risks of fuel supply disruptions and such disruptions can have significant impacts**

Security of supply of mineral-based liquid fuels, particularly diesel, which is the most important fuel for critical services, will remain important to the New Zealand economy in the foreseeable future.

There are risks of international and domestic fuel disruptions. The probability of significant fuel disruptions is low and hard to predict, but they could have significant impacts. Households and industries have some capacity to cope with minor fuel shortages through behavioural change and adaptation. However, when shortages become severe and last for a long period, the socio-economic impacts would be significant. Significant fuel supply disruptions would impact all industries, particularly those heavily reliant on freight or petroleum products, such as food manufacturing, construction, logging and transport.

### **“Closed border” event is unlikely but would have severe impact**

Despite the international supply chain issues highlighted by the COVID-19 pandemic and the Russia-Ukraine war, it is unlikely that New Zealand would be completely cut off from the rest of the world and unable to import any fuels for an extended period. However, should it happen, it would have a severe impact on fuel supplies, regardless of whether New Zealand has a domestic refinery or not. During such an event, most fuel use would be severely constrained, and any fuel stocks would likely be prioritised for the maintenance of critical functions, such as food distribution and emergency services.

Recent experience with COVID-19 pandemic response measures in 2020 demonstrated that fuel demand can be reduced significantly through working from home and limiting many normal activities. During the early weeks of COVID-19 Alert Level 4 in April 2020, retail sales of petrol and diesel dropped below 25 per cent of normal levels. Jet fuel demand dropped to a similar level. Diesel sold at truck stops, however, dropped to a little below 50 per cent of normal demand. Some of that residual diesel fuelled the production and distribution of food and other essentials, as well primary industries and other export sectors that continued to operate.

The Australian Government estimated that the maintenance of critical services<sup>3</sup> constitutes 16 per cent of normal demand for diesel, four per cent of petrol demand, and six per cent of jet fuel demand in Australia.<sup>4</sup> It is likely to be similar in New Zealand. If fuels are carefully rationed to critical services only during an extended closed border event and New Zealand has onshore fuel stocks equivalent to about 20 days of normal demand (which is roughly the average commercial stockholding level), diesel stocks would be substantially depleted in about four months, petrol stocks in less than one and a half years, and jet fuel stocks in less than a year.

### **Partial disruption to import supply chain for a short period is more plausible but manageable at current commercial stockholding level (about 20 days of cover)**

A less severe fuel import disruption (e.g. loss of 50 per cent of fuel imports for one month) is more credible than a very long disruption to all fuel imports. Modelling by Hale and Twomey indicates that if 50 per cent of fuel imports come from North Asia in normal circumstances

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<sup>3</sup> Critical services includes: Emergency services, public health care, pharmaceutical and medical; telecommunication, distribution of water and sewerage; food and essential goods; gas, electricity and fuels; domestic agricultural production etc.

<sup>4</sup> Parliament of Australia. (2022, June 8). *Fuel Security Bill 2021: Explanatory Memoranda*. Parliament of Australia [https://parlinfo.aph.gov.au/parlInfo/download/legislation/ems/r6716\\_ems\\_e2da35cc-16b8-4c15-8463-a24810555796/upload\\_pdf/JC002307.pdf;fileType=application%2Fpdf](https://parlinfo.aph.gov.au/parlInfo/download/legislation/ems/r6716_ems_e2da35cc-16b8-4c15-8463-a24810555796/upload_pdf/JC002307.pdf;fileType=application%2Fpdf)

and supply from that region was entirely disrupted, fuel prices would be expected to peak sharply for a few days and there could be localised service station out-of-stock events.<sup>5</sup> These initial impacts would fade away, as fuel companies realign their fuel import supply chain. This estimated impact is contingent on fuel companies holding stocks at a level of about 20 days of consumption (which is broadly similar to the current commercial stock level). Longer or more severe fuel import disruptions would have a more severe impact on fuel users.

### **Risk of domestic events affecting fuel distribution around New Zealand**

Domestically, there are risks of disruption to the distribution of fuels around New Zealand from hazards or events including natural disasters (e.g. flood, earthquake), infrastructure failure (e.g. pipeline or terminal failure) or industrial action. Many of these distribution risks remain after the Refinery's closure.

Different regions around the country have different risk profiles. Disaster modelling, such as the Alpine Fault Magnitude 8 study undertaken by the Ministry of Civil Defence and Emergency (now the National Emergency Management Agency), predicts that certain areas of the country would be isolated following certain large disasters.

After the Refinery's closure, the Marsden Point site is used as a fuel import terminal and continues to be the key gateway for fuel supplies to the Auckland and Northland regions. The Marsden Point to Auckland Pipeline remains a critical pipeline for jet fuel supply to the Auckland Airport, and the Wiri Storage Terminal at the end of the pipeline continues to be critical to transporting fuels, particularly jet fuel, to Auckland.

The probability of a short-term disruption to the pipeline and the Wiri fuel terminal near Auckland Airport was previously estimated to be 0.5-1 per cent (one in 100-200 years).<sup>6</sup> Such a disruption would have a significant impact on Auckland Airport's jet fuel supply for about two weeks, and mitigation measures, such as flight rationalisation and tankering in jet fuel from other airports in New Zealand and Australia, would need to be implemented during the disruption.<sup>7</sup> For a long-term disruption to the pipeline and the Wiri terminal, which causes a reduction in normal petroleum/diesel supply for 60 days and a four-month disruption to jet fuel supply, Gross National Disposable Income would be \$1 billion or 0.4 per cent lower over the entire year of analysis.<sup>8</sup>

The Wellington fuel terminal remains exposed to rare but major tsunami risks. The probability of a long-term disruption to the Wellington terminal was estimated to be 0.2-0.3 per cent (one in 333-500 years).<sup>9</sup> During such a disruption, petrol and diesel supplies are expected drop to 80 per cent of normal levels in the first two weeks. Petrol and diesel would need to be trucked in from other ports, such as Napier and New Plymouth, while jet fuel would need to be tankered in from other airports. Petrol and diesel supplies are expected to recover gradually to normal levels in two months in this scenario.

For local fuel disruptions, their severity would depend on the nature and duration of the event and how easy it is to distribute the fuel stocks to the affected area. Having contingency arrangements in place or having fuel stocks available near the affected area would mitigate the impacts of a disruption. During a local fuel disruption, fuel companies usually rely on trucks and tankers to deliver fuels from the closest fuel terminals to the affected areas. There

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<sup>5</sup> Hale & Twomey. (2020). Fuel Security and Fuel Stockholding Costs and Benefits. MBIE. Page 17.

<sup>6</sup> Hale & Twomey. (2017). *New Zealand Petroleum Supply Security 2017 Update*. MBIE. Page 21.

<sup>7</sup> Ibid.

<sup>8</sup> Market Economics Ltd. (2019). Economics of Fuel Supply Disruptions and Mitigations. MBIE. Page 69.

<sup>9</sup> Hale & Twomey. (2017). *New Zealand Petroleum Supply Security 2017 Update*. MBIE. Page 19.



are some constraints on the use of trucks during a fuel disruption. For example, there may not be enough truck drivers and roads may be damaged by a natural disaster.

Planes can also refuel or tanker in fuels from other airports during a local fuel disruption, as shown in the 2017 outage of the Marsden Point to Auckland pipeline. However, these contingency arrangements would only mitigate the shortfall in jet fuel, rather than ensuring that jet fuel supply would remain at normal level during a disruption. For example, during a long-term disruption to the Wiri fuel terminal or the pipeline from Marsden Point to Auckland Airport, jet fuel supply would only be able to meet less than 50 per cent of normal jet fuel demand at Auckland Airport, even when flights are rationalised and jet fuel is tankered from Australia.<sup>10</sup>

### **Fuel companies' infrastructure investments and stockholding level are driven by their own commercial interest, and there is little commercial incentive to hold reserve stocks**

New Zealand is reliant on fuel industry participants to maintain fuel security and resilience. However, the amount of fuel stocks they hold and the investments they make in fuel infrastructure and contingency arrangements are driven by commercial motivations of individual companies. They manage fuel stocks and invest in fuel infrastructure, based on each company's own interest and profit, rather than the interest of the country as a whole.

To maximise profits and efficiency, fuel industry participants have little incentive to hold reserve stocks, i.e. stocks over and above those normally held by the fuel industry for normal commercial operations.

To hold reserve stocks above the commercial stockholding level, the fuel industry would need to build more storage or order more fuel import shipments, which would significantly raise the capital and operational costs of the fuel companies. More discussion on the relevant costs is outlined in the options assessment part of Section 2.

There is little commercial incentive for entities to hold fuel stocks beyond the current onshore fuel stockholding level to cover for low likelihood, high impact events, such as an international geopolitical conflict or a major natural disaster affecting New Zealand's fuel supplies for a relatively long period. Individual businesses do not generally mitigate against whole of market risks or take steps to hold stocks that would offer contingency against a significant disruption to a competitor's supply position.

### **Onshore fuel stockholding level changes over time depending on commercial decisions and better visibility of commercial fuel stockholding level is needed**

The commercial stockholding level of key fuels vary over time in response to delivery/production schedules and demand trends. Fuel industry participants make commercial decisions on what level of contingency they maintain in their supply chains.

As discussed earlier, the Refinery's closure has made us less exposed to some fuel supply risks, particularly the risk of a single point of failure associated with an unplanned refinery outage. On the other hand, the Refinery's closure means that crude oil and intermediate products are no longer held at the Refinery. These refining feedstocks, if available, could cushion the impacts of disruptions to fuel import supplies to some extent.

Now, only refined fuel stocks are held in New Zealand. The level of refined fuel stocks onshore could be slightly higher now than before the Refinery's closure, and this would only partly offset the loss of the refining feedstocks. As discussed, modelling indicated that, after

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<sup>10</sup> Hale & Twomey. (2017). *New Zealand Petroleum Supply Security 2017 Update*. MBIE. Page 18.



the Refinery's closure, the average onshore stock level for petrol, jet fuel and diesel would be equivalent to 28 days, 24 days and 21 days respectively in terms of daily consumption.

However, the stock level fluctuates over time, depending on when fuel cargoes arrive in the country. The stockholding level for some of the major fuel importers/wholesalers can be below 15 days of cover on some days and well above 20 days of cover on some days. The fluctuations in the daily stockholding level for the smaller fuel importers/wholesalers can be even bigger, and the fluctuations in the diesel stock level tend to be bigger than those in the petrol stock level.

Hale and Twomey estimated that onshore stocks equivalent to 20 days of normal fuel demand would be adequate for managing the risk of a partial fuel import fuel disruption.<sup>11</sup> However, the 20 days of cover is not guaranteed, as the Government does not require the fuel industry to meet any minimum fuel stockholding requirement.

Currently, while MBIE collects onshore fuel stock and sales information from fuel companies at the end of each month, the information collected is at a national level and MBIE does not have clear visibility over fuel stocks and flows at a granular level, such as:

- a breakdown of fuel stocks and storage capacity by region or bulk storage facility;
- the quantity of stock on water in transit to New Zealand;
- movements of international fuel tankers delivering fuels to New Zealand and their implications for the peaks and troughs of onshore fuel stockholding level at both national and regional levels;
- diversity of fuel supply sources, particularly which refineries we import fuels from; and
- backup options available to fuel importers during international and domestic fuel disruptions.

There is therefore an insufficient evidence base to establish whether different fuel importers/wholesalers have peaks and troughs in their inventory cycle at similar times, whether the absolute minimum level of onshore stockholding is significantly lower than MBIE's monthly data indicates, how much fuels stock is held in a particular region, and how quickly stocks can be diverted and distributed to that region in adequate amounts during a disruption. It is therefore challenging to ascertain whether fuel supply would remain resilient at all times, and whether further investments are needed to improve resilience in particular regions.

To improve New Zealand's ability to manage the impacts of plausible domestic and international fuel disruption scenarios, it would be desirable to improve the system for monitoring and collecting information on fuel stocks and more broadly fuel resilience across the country. Government intervention would also be needed if 20 days' cover of fuels onshore was to be achieved at all times to minimise the impacts of partial fuel import disruptions.

### **Commercial interest in fuel infrastructure development is influenced by market size and market uncertainty, and fuel storage and distribution network may be less developed in some areas**

Fuel industry participants tend to maximise the return derived from their assets, avoid overcapitalising too early and have limited interest in coordinating with each other in their investments. There are limited commercial incentives for the fuel industry to invest in some categories of 'back-up' distribution infrastructure, such as mobile ship-to-shore tanker loading equipment, iso-containers for transporting fuel by rail or container truck, or reserve storage in more remote areas. The expected gradual fall in demand for petrol and diesel from mid-late

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<sup>11</sup> Hale & Twomey. (2020). *Fuel Security and Fuel Stockholding Costs and Benefits*. MBIE. Page 17.

2020s, as well as other fuel market uncertainties (such as COVID-19), are also weighing on commercial incentives for fuel infrastructure investments.

As the Refinery used to supply about 65-75 per cent of New Zealand's fuel supplies before 2020 and its Marsden Point site is relatively close to our biggest city Auckland, major fuel companies (Z, BP and Mobil) have invested significantly in the fuel infrastructure there. Marsden Point has the biggest fuel storage capacity in the country and has a key fuel pipeline connected to the Auckland region.

Now that the Refinery is closed, Channel Infrastructure has announced investments in new storage facilities for finished fuel products at Marsden Point, but fuel companies have not made any new announcement on significant investments in fuel storage at other ports. This suggests that major fuel importers may still focus their fuel infrastructure investments on Marsden Point. This is likely due to the fact that the cost of converting existing crude tanks is relatively low compared to the cost of building new fuel tanks elsewhere, and Marsden Point has a relatively mature existing fuel distribution network for serving the Auckland market.

There is some anecdotal evidence that the fuel industry has less interest in investing in fuel infrastructure in more remote areas where the market size is relatively small. The impact of limited investment in storage on capacity constraints is evidenced by port coordination events, which are used to ration out available fuel supplies between the major fuel importers and their downstream partners. Such events appear to be more frequent in South Island ports, such as Bluff, Dunedin, Timaru and Nelson.<sup>12</sup> Some more remote areas, such as the West Coast of the South Island, rely on trucking for fuel supplies, and do not have the facilities to import fuel by ship.

Even in Auckland, fuel companies' investments in fuel infrastructure are limited by market uncertainty and high upfront capital costs. During the Government Inquiry into the Auckland Fuel Supply Disruption, which concluded in 2019, major fuel companies indicated that they were not interested in investing in a second fuel pipeline for Auckland Airport. The Inquiry subsequently found that the jet fuel infrastructure for Auckland Airport would need to be improved to cope with future demand. In response, fuel companies indicated that they are committed to improving jet fuel resilience at Auckland Airport, but they have paused jet fuel infrastructure projects since the start of the COVID-19 pandemic, which has weakened jet fuel demand significantly.

The three major fuel companies (Z, BP and Mobil) have some infrastructure-sharing arrangements in New Zealand but have started to withdraw from those in some regions, such as Nelson, in recent years. Such infrastructure-sharing arrangements were desirable when the majority of their New Zealand fuel supplies were sourced from the Refinery and delivered by coastal tankers to regional ports across the country. With the Refinery's closure, the three major fuel companies have moved towards ordering their own fuel import shipments and terminating their shared inventory arrangement, so some of these infrastructure-sharing arrangements no longer make commercial sense. As a result, in some areas, only one major company will have fuel storage facility, and the ability to coordinate a response to fuel outage in these areas could be more limited.

### **Risk of stranded assets in light of clean energy transition limits incentives to invest in fuel infrastructure**

As discussed, demand for petrol has plateaued and will start to decline from mid- 2020s, as the uptake of EVs continues to grow. Demand for diesel is expected to decline slightly between now and mid-2030's while jet fuel demand may continue to grow in the foreseeable future because of the lack of commercially viable low-carbon options for long-haul flights. As the energy transition raises the risk of stranded assets and developing fuel infrastructure incurs high upfront capital costs (e.g. about \$2.50 per litre of fuel tankage), the fuel sector

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<sup>12</sup> Commerce Commission. (2019). *Market study into the retail fuel sector: Final report*. Commerce Commission, Page 204.

has little commercial incentive to invest in liquid fuels infrastructure, particularly reserve bulk storage capacity and back-up pipelines that are not seen as critical in business-as-usual scenarios.

**Drop-in biofuels are compatible with the existing infrastructure for mineral-based liquid fuels, while conventional biofuels require development of separate infrastructure which would compete for capital**

The proposed sustainable biofuels obligation, which is expected to come into effect from April 2023, will increase the uptake of biofuels in New Zealand. Fuel importers/wholesalers generally consider that the sustainable biofuels obligation alone does not provide sufficient incentives for developing sizeable domestic biofuels production capacity. They are planning to import biofuels at least initially when the sustainable biofuels obligation comes into force.

Some fuel importers/wholesalers indicate that they are planning to import a mix of conventional biofuels (e.g. ethanol and Fatty Acid Methyl Ester (FAME) biodiesel) and drop-in biofuels (e.g. drop-in Hydrotreated Vegetable Oil (HVO) renewable diesel) to meet the sustainable biofuels obligation.

Drop-in biofuels are compatible with existing infrastructure for liquid fossil fuels, while conventional biofuels are not due to their high oxygen and moisture content. Conventional biofuels need new storage, blending and distribution infrastructure that would have to be separate from the existing infrastructure for mineral-based liquid fuels. Nevertheless, fuel companies are still interested in importing conventional biofuels, as conventional biofuels, particularly ethanol, have more mature international supply chains and are generally more competitively priced than drop-in biofuels at present.

As the legislation and regulations for the proposed sustainable biofuels obligation are still being developed, the fuel sector has yet to make clear plans for their biofuels infrastructure investments. Should the fuel sector decide to invest in infrastructure for conventional biofuels, this would further limit the fuel sector's capital and incentives to invest in infrastructure for mineral-based fuel infrastructure.

**There are limitations on the use of Petroleum or Engine Fuel Monitoring Levy and it could potentially be put to better use for the purpose of improving onshore fuel supply resilience**

As discussed earlier, the accumulated surplus in the PEFM Levy account could grow to \$51.5 million by 30 June 2022 and \$110 million by 30 June 2025, depending on oil tickets price movements. There is therefore an opportunity to review the calculation method for the PEFM Levy, as well as directing some of the PEFM Levy to initiatives that aim to improve onshore fuel supply resilience, e.g. funding an arrangement to hold more onshore fuel stocks, and contingency facilities for delivering fuels in the event of a failure of a key fuel distribution infrastructure.

These initiatives are likely to be more useful for mitigating the impacts of local fuel disruptions than purchasing offshore oil tickets. However, the existing wording of the statutory purpose of the PEFM Levy under s 14(2)(ba) of the Energy (Fuels, Levies, and References) Act 1989 means that whether or not the PEFM Levy can be used for an onshore fuel resilience initiative depends on whether and how much it contributes to meeting New Zealand's IEA reserve commitment, and whether the cost of the initiative is reasonable.

Generally speaking, options for holding onshore reserve stocks, which may involve building or leasing more onshore fuel storage facilities, would be more expensive than purchasing

tickets for oil stocks held offshore. Therefore, there is a risk that the cost of such options may not be deemed reasonable for the purposes of meeting the IEA reserve commitment.

### **What objectives are sought in relation to the policy problem?**

The key objectives are as follows:

- Maintaining or improving fuel security/resilience — New Zealand's ability to mitigate the impacts of plausible domestic and international fuel supply disruption scenarios will be maintained or improved.
- Avoiding disproportionate economic cost — the measures for maintaining or improving New Zealand's fuel supply resilience should not result in unduly high compliance costs for businesses and should not significantly affect fuel affordability for consumers. To encourage economic efficiency, the risk of stranded assets in view of the clean energy transition and adverse effects on fuel market competition should be minimised.

## Section 2: Deciding upon an option to address the policy problem

### What scope will options be considered within?

The options discussed in this RIS focus on the level of fuel stocks to be held onshore in New Zealand, how to achieve the target stockholding level, and how the PEFM Levy could be used to improve fuel resilience.

Section 2 is therefore divided into three parts of options analysis:

- Part 2.1 — options for onshore fuel stockholding level.
- Part 2.2 — options on how to achieve the minimum onshore fuel stockholding level.
- Part 2.3 — options for the use of the PEFM Levy to support onshore fuel resilience.

This RIS does not discuss the options for detailed settings of onshore fuel stockholding policy, such as minimum fuel stockholding levels for individual fuel companies in volumetric terms for different types of fuels, and details of accounting and reporting rules for onshore fuel stockholding.

This RIS also does not discuss options for delivering fuels to or storing fuels at specific locations. Nevertheless, the options for the use of the PEFM Levy could help address fuel distribution risks.

For reasons discussed in the cover sheet under the heading, *Limitations and Constraints on Analysis*, this RIS does not cover options that aim to retain or build domestic fuel production capacity, including to restart the oil refinery at Marsden point, and it does not consider options to accelerate transport electrification for the purposes of reducing fuel import dependence.

### Part 2.1 — onshore fuel stockholding level

#### What criteria will be used to compare options to the status quo?

The criteria for comparing the options for the minimum onshore fuel stock holding level include:

- Maintaining or improving fuel security/resilience — New Zealand's ability to mitigate the impacts of plausible fuel supply disruption scenarios will be maintained or improved.
- Avoiding disproportionate economic cost — onshore fuel storage costs, the risk of stranded assets and flow-on fuel price impacts are taken into consideration.

There is some trade-off between “maintaining or improving fuel security/resilience” and “avoiding disproportionate economic cost”, as minimising fuel security/resilience risks could mean that more investment in fuel infrastructure may need to be built and more fuel storage costs may need to be incurred.

#### What options are being considered?

*Option One – counterfactual (commercial stockholding only, i.e. 21 days' cover for diesel, 24 days' cover for jet fuel and 28 days' cover for petrol on average)*

- The average onshore stockholding levels for diesel, jet fuel and petrol (including their biofuels equivalent) are equivalent to 21 days, 24 days and 28 days of consumption respectively, i.e. the expected commercial stockholding level after the Refinery's closure. The stock level can fall below 15 days of cover on some days. Some fuel importers/wholesalers have lower days of cover than others.

- Maximum fuel storage capacity in New Zealand is equivalent to around 40 days of normal fuel demand. During the public consultation, some fuel importers/wholesalers informed us that keeping the tanks half-full is a practice deemed to achieve a good balance between fuel resilience and operational efficiency in terms of arranging fuel shipments.
- Closure of the Refinery in April 2022 means that crude oil and intermediate products are no longer held and processed at the Refinery.

*Option Two – increasing onshore diesel stocks by seven days’ cover [PREFERRED OPTION]*

- The days’ cover for diesel, the most important fuel for critical services, would be increased by seven days. This would allow New Zealand’s onshore fuel stocks level to ensure that we have sufficient onshore diesel stocks to respond to partial fuel import disruptions and broadly match the minimum fuel stockholding level proposed in Australia.<sup>13</sup>
- The minimum onshore stockholding levels for diesel, jet fuel and petrol (including their biofuels equivalent) would be equivalent to 28 days, 24 days and 28 days of consumption on average respectively.

*Option Three – modest increase in stockholding of all fuels by five days’ cover*

- The days’ cover for diesel, jet fuel and petrol (including their biofuels equivalent) would all be increased by five days. This would allow the onshore fuel stocks level to roughly match the level before the Refinery’s closure, taking into account the feedstock that used to be held at the Refinery and how much refined fuel stocks can be produced from the feedstock.
- The average onshore stockholding levels for diesel, jet fuel and petrol (including their biofuels equivalent) would be equivalent to 26 days, 29 days and 33 days of consumption on average respectively.

*Option Four – significant increase in stockholding for all fuels to 60 days’ cover (similar to EU countries)*

- The minimum onshore stockholding levels for diesel, jet fuel and petrol (including their biofuels equivalent) would be equivalent to 60 days of consumption on average respectively. This is similar to the level the fuel industry is required to meet in many European Union countries.

Note: More work will be undertaken as part of the regulations development process to determine how the average onshore stockholding level is to be calculated and reported, e.g. whether it is an average over a month, or whether there are specific days each month when a minimum stockholding level must be met.

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<sup>13</sup> Details of the minimum stockholding obligation proposed in Australia can be found on the web page, <https://consult.industry.gov.au/minimum-stockholding-obligation-draft-rules>. Under the Australian proposal, the minimum stockholding level to be met on a fortnightly “obligation day” initially, and the obligation applies to not only onshore stocks but also stocks on water within Australia’s exclusive economic zone (EEZ). Excluding stocks on water within the EEZ, the proposed days’ cover for diesel, jet fuel and petrol in Australia would be equivalent to about 28 days, 24 days and 24 days respectively from 1 July 2024.



## How do the options compare to the status quo/counterfactual?

### Key for qualitative judgements in the following options comparison tables:

- ++ much better than doing nothing/the status quo/counterfactual
- + better than doing nothing/the status quo/counterfactual
- 0 about the same as doing nothing/the status quo/counterfactual
- worse than doing nothing/the status quo/counterfactual
- much worse than doing nothing/the status quo/counterfactual
- worst

**Table 1: Assessment of options for minimum onshore fuel stockholding level**

	<b>Option One – counterfactual</b> (commercial stockholding only, i.e. 21 days' cover for diesel, 24 days' cover for jet fuel and 28 days' cover for petrol on average)	<b>Option Two</b> (increasing onshore diesel stocks by seven days' cover) [PREFERRED OPTION]	<b>Option Three</b> (modest increase in stockholding of all fuels by five days' cover)	<b>Option Four</b> (significant increase in stockholding for all fuels to 60 days' cover, similar to EU countries)
<b>Fuel security/resilience</b>	<p>0</p> <p><u>Submissions during public consultation</u></p> <p>Seven out of 21 submitters consider that there is no need to raise the onshore stockholding level above the current commercial level. Six submitters consider that the minimum onshore stockholding level should be higher than the current commercial levels. The remaining submitters do not have a clear view on how high the minimum onshore stockholding level should be.</p>	<p style="text-align: center;">+</p> <p>This option focuses on ensuring that the stockholding level for diesel, the most important fuel for maintaining critical services, would be sufficient for managing the impacts of partial fuel import disruptions.</p> <p>Twenty days of cover is deemed to be adequate for managing the impacts of partial fuel import disruptions. Having 28 days' cover for diesel on average would minimise the risk of diesel stocks falling significantly below 20 days' cover.</p> <p>As discussed before, the Australian Government estimated that the maintenance of critical services constitutes 16 per cent of diesel demand, 4 per cent of petrol demand, and 6 per cent of jet fuel. Also, when COVID-19 Alert Level 4 lockdown was in place in 2020, diesel sales at truck stops dropped to just below 50 per cent of pre-lockdown level, while retail diesel sales, retail petrol sales and jet fuel sales dropped to around 25 per cent of pre-lockdown level. This means that diesel is much more important to the maintenance of critical services than jet fuel and petrol.</p> <p>Assuming that diesel is rationed at 16 per cent, petrol at 4 per cent and jet fuel at 6 per cent for the purpose of meeting the fuel demand for critical services only during a closed border event, diesel stocks would be substantially depleted in about six months, petrol stocks in about 20 months, and jet fuel stocks in about 13 months.</p> <p>Assuming that diesel is rationed at 40 per cent, petrol at 25 per cent and jet fuel at 25 per cent to keep essential services (as defined at COVID-19 Alert Level 4 previously) running while a national lockdown is implemented during a closed border event, diesel stocks would be substantially depleted in about 70 days, petrol stocks in about 112 days, and jet fuel stocks in about 96 days.</p> <p>It is unlikely that all shipping routes would be cut off at the same time. In the event of a partial fuel import disruption, fuel companies can order fuel import shipments from alternative refineries. It typically takes about 43 days, 25 days and 17 days for fuel import shipments to arrive from Europe, Singapore and North Asia respectively after an order is made.<sup>14</sup></p> <p><u>Submissions during public consultation</u></p> <p>Many submissions noted the importance of fuel resilience and onshore stockholding. Some emphasised the particular importance of diesel for</p>	<p style="text-align: center;">+</p> <p>Five more days' cover for diesel, jet fuel and petrol than option one. Less days' cover for diesel than option two.</p> <p>There is a risk that the onshore diesel stockholding level could fall below 20 days' cover (the level deemed adequate for managing the impacts of partial fuel import disruptions) on some days every month, given the troughs in the inventory cycle. In the absence of government intervention, commercial stockholding level can fall below 15 days' cover on some days.</p> <p>Assuming that diesel is rationed at 16 per cent, petrol at 4 per cent and jet fuel at 6 per cent for the purpose of meeting the fuel demand for critical services only during a closed border event, diesel stocks would be substantially depleted in less than 5.5 months, petrol stocks in about 24 months, and jet fuel stocks in about 18 months.</p> <p>Assuming that diesel is rationed at 40 per cent, petrol at 25 per cent and jet fuel at 25 per cent to keep essential services (as defined at COVID-19 Alert Level 4 previously) running while a national lockdown is implemented during a closed border event, diesel stocks would be substantially depleted in about 65 days, petrol stocks in about 116 days, and jet fuel stocks in about 132 days.</p>	<p style="text-align: center;">++</p> <p>Significantly more fuel stocks would be held onshore.</p> <p>Assuming that diesel is rationed at 16 per cent, petrol at 4 per cent and jet fuel at 6 per cent for the purpose of meeting the fuel demand for critical services only during a closed border event, diesel stocks would be substantially depleted in about one year, petrol stocks in about four years, and jet fuel stocks in about three years.</p> <p>Assuming that diesel is rationed at 40 per cent, petrol at 25 per cent and jet fuel at 25 per cent to keep essential services (as defined at COVID-19 Alert Level 4 previously) running while a national lockdown is implemented during a closed border event, diesel stocks would be substantially depleted in about 150 days, petrol stocks in about 240 days, and jet fuel stocks in about 240 days.</p> <p>A scenario where New Zealand cannot import any fuel at all for an extended period is very unlikely though. This means that much of the stock would not add much to New Zealand's fuel resilience.</p>

<sup>14</sup> Hale & Twomey. (2020). Fuel Security and Fuel Stockholding Costs and Benefits. MBIE. Page 17.



	<b>Option One – counterfactual</b> (commercial stockholding only, i.e. 21 days' cover for diesel, 24 days' cover for jet fuel and 28 days' cover for petrol on average)	<b>Option Two</b> (increasing onshore diesel stocks by seven days' cover) [PREFERRED OPTION]	<b>Option Three</b> (modest increase in stockholding of all fuels by five days' cover)	<b>Option Four</b> (significant increase in stockholding for all fuels to 60 days' cover, similar to EU countries)
		<p>emergency and essential services, while airlines and airports emphasised the importance of jet fuel.</p> <p>Submissions from airlines support that minimum onshore stockholding level for jet fuel be set at current commercial levels, and consider there is not a strong economic case for higher levels. They also emphasise the importance of fuel distribution resilience, noting the experience in 2017 when jet fuel was rationed at Auckland Airport for nine days due to the rupture of the Refinery-to-Auckland pipeline.</p>		
<b>Avoiding disproportionate economic cost</b>	0	<p>-</p> <p>There would be additional costs associated with additional onshore fuel storage.</p> <p>Officials estimated that the additional onshore fuel storage costs could be at least <b>Negotiations</b><sup>15</sup> a year, based on current fuel prices. This includes both the annual cost of leasing storage capacity and the opportunity cost of capital bound up in the fuel inventory. The latter component can be approximated by the 'interest cost' on the capital required to purchase the stored fuel. Also, this fuel storage cost does not include the cost associated with shipping fuel cargoes.</p> <p>The increase in onshore fuel storage costs will be offset slightly by savings in oil ticket costs of less than \$1 million a year.</p> <p>Assuming the changes in onshore fuel storage costs and oil ticket costs are fully passed through to consumers, this would translate to price increases of <b>Negotiations</b> for diesel.</p> <p><u>Submissions from fuel sector during public consultation</u></p> <p>The fuel sector suggests that if fuel importers/wholesalers are to meet the stockholding level proposed in Australia, the compliance costs would be significant and could be higher than officials' estimate. However, officials are not privy to the fuel sector's modelling assumptions.</p> <p>Fuel importers/wholesalers' submissions suggest that they may need to build more fuel tanks, and the upfront capital costs for building the extra tankage could be in the order of <b>Commercial Information</b>. Alternatively, if the fuel industry does not build extra tanks to meet the target stockholding level, it would face an additional operational cost (potentially more than <b>Commercial Information</b> a year per major fuel importer) due to additional port calls and demurrage costs.</p> <p>Based on the compliance costs indicated in submissions from fuel companies, officials estimate that these costs could translate to a fuel price increase of <b>Commercial Information</b> per litre.</p> <p>The fuel sector also expressed concern that if fuel companies are required to increase their stockholding level, there will be adverse impacts on competition in the fuel markets. These competition impacts are discussed in the next table that compares the options for achieving the minimum onshore fuel stockholding level.</p>	<p>-</p> <p>Officials estimated that the additional onshore fuel storage costs (including both capital and operational costs) could be at least <b>Negotiations</b> a year, based on current fuel prices.</p> <p>The increase in onshore fuel storage costs will be offset slightly by savings in oil ticket costs of \$1 million a year.</p> <p>Assuming the changes in onshore fuel storage costs and oil ticket costs are fully passed through to consumers, this would translate to price increases of <b>Negotiations</b>.</p>	<p>--</p> <p>Heaviest cost burden, among all options considered.</p> <p>Officials estimate that the additional onshore fuel storage costs (including both capital and operational costs) could be at least <b>Negotiations</b> a year. There are diminishing returns on onshore fuel storage investments, based on current fuel prices.</p> <p>The increase in onshore fuel storage costs will be offset partly by savings in oil ticket costs of approximately \$12 million a year.</p> <p>Assuming the changes in onshore fuel storage costs and oil ticket costs are fully passed through to consumers, this would translate to price increases of roughly two cents per litre for petrol, diesel and jet fuel.</p> <p>This option presents the highest risk of stranded assets. Even if all the crude tanks at Marsden Point were converted for storing refined fuel products, there would not be sufficient tanks storing this level of fuels. A large number of new tanks would have to be built elsewhere and take up valuable land near ports.</p> <p>Fuel sector's feedback suggests that the compliance costs could be higher than officials' estimate.</p>
<b>Overall assessment</b>	0	<p>+ if more weight is placed on fuel resilience.</p> <p>This is the best option if we aim to mitigate the risk of onshore diesel stocks falling much below 20 days' cover (the level deemed adequate for managing the impacts of partial international fuel disruptions) while minimising the cost to fuel consumers.</p>	0	-

## Part 2.2 —measure for achieving the minimum onshore fuel stockholding level

### What criteria will be used to compare options to the status quo?

The criteria for comparing the options for achieving the target level of onshore fuel stocks is met at all times include:

- Maintaining or improving fuel security/resilience — maintaining or improving New Zealand's regional and national fuel supply resilience, including the capacity to respond to fuel emergencies in a timely and effective manner
- Avoiding disproportionate economic cost — the cost of managing fuel stocks and infrastructure for meeting the target stockholding level is the key determinant of business compliance cost. The risk of stranded assets in view of the clean energy transition and adverse effects on fuel market competition should be minimised.
- Administrative efficiency — the cost and complexity of government administration are minimised without compromising the ability to achieve the desired fuel resilience outcome.

### What options are being considered?

#### Measure for achieving minimum onshore stockholding level

##### *Option 1 – counterfactual (No minimum onshore stockholding obligation)*

- The Government does not impose minimum onshore fuel stockholding obligation on the fuel industry. The level of onshore fuel stockholding is driven by the fuel industry's commercial needs.
- The Government purchases some oil tickets for the purpose of meeting the IEA 90-day reserve commitment. Most of the oil tickets relate to crude oil and fuel stocks held offshore in Europe.
- The Government will need to purchase more oil tickets for compliance with the IEA requirement than before the Refinery's closure, with the additional ticket cost estimated to be in the range of \$6.5-12 million a year.

##### *Option 2a – minimum fuel stockholding obligation requiring fuel importers/wholesalers to keep onshore fuel stockholding at current or recent commercial stockholding level [PREFERRED OPTION in combination]*

- The Government would introduce minimum onshore fuel stockholding obligation on fuel importers/wholesalers through primary legislation and regulations.
- Fuel importers/wholesalers must hold onshore stocks at current or recent commercial stockholding level, which is expected to be about 21 days' cover for diesel, 24 days' cover for jet fuel and 28 days' cover for petrol on average.
- More work will be undertaken as part of the regulations development process to determine how the "current or recent commercial stockholding level" is to be met, e.g. whether it is an average over a month, or whether there are specific days each month when a minimum stockholding level must be met.
- Details of the accounting and information disclosure requirements for obligated parties would be developed in the regulations-making process.

- The Government would continue to purchase some offshore oil tickets for the purpose of meeting the IEA 90-day reserve commitment.

*Option 2b – minimum fuel stockholding obligation requiring fuel importers/wholesalers to increase onshore fuel stockholding significantly*

- Like option 2a, the Government would introduce minimum onshore fuel stockholding obligation on fuel importers/wholesalers through primary legislation and regulations. However, the minimum stockholding level that fuel importers/wholesalers must meet would be significantly higher than their current or recent commercial stockholding level.

*Option 3 – government procurement of storage and management of onshore reserve stocks (using PEFM Levy) [PREFERRED OPTION in combination]*

- To ensure that the Government's target onshore stock level is achieved, the Government would enter into an arrangement with the fuel industry to procure the storage and management of reserve fuel stocks. This kind of arrangement has been suggested by some fuel importers/wholesalers. during the public consultation.
- The Government would procure the storage and management of reserve diesel stocks. This could involve:
  - entering into a long-term lease agreement for new diesel storage capacity; and
  - tendering periodically for reserve diesel stock to be held in the leased storage tank(s), by way of an onshore reserve stock contract similar to the existing oil/fuel stock ticket contracts with oil companies, which give the Government the option to purchase and release the stocks during an emergency; or
  - procuring and owning reserve fuel stock, held in leased or Government-owned tanks.
- The Government would continue to purchase some offshore oil tickets for the purpose of meeting the IEA 90-day reserve commitment.

*Option 4 – government purchasing onshore tickets from fuel companies without any investment in extra storage*

- There would be no minimum onshore fuel stockholding obligation on the fuel industry.
- The Government would actively invite ticket tenders from fuel industry participants in New Zealand to hold onshore reserve fuel stocks. However, the number of onshore tickets that the Government would be able to procure from the fuel industry would depend on the prices offered by the industry and the industry's available storage capacity.
- The Government would continue to purchase some offshore oil tickets for the purpose of meeting the IEA 90-day reserve commitment.

## How do the options compare to the status quo/counterfactual?

### Key for qualitative judgements in the following options comparison tables:

- ++ much better than doing nothing/the status quo/counterfactual
- + better than doing nothing/the status quo/counterfactual
- 0 about the same as doing nothing/the status quo/counterfactual
- worse than doing nothing/the status quo/counterfactual
- much worse than doing nothing/the status quo/counterfactual

**Table 2: Assessment of options for achieving minimum onshore fuel stockholding level**

	Option 1 – Counterfactual (No minimum onshore stockholding obligation)	Option 2a – minimum fuel stockholding obligation requiring fuel importers/wholesalers to keep onshore fuel stockholding at current or recent commercial stockholding level [PREFERRED OPTION in combination]	Option 2b – minimum fuel stockholding obligation requiring fuel importers/wholesalers to increase onshore fuel stockholding significantly	Option 3 – government procurement of storage and management of onshore reserve fuel stocks (using the PEFM Levy) [PREFERRED OPTION in combination]	Option 4 – Government purchasing onshore tickets from fuel companies without any investment in extra storage
<b>Fuel security/resilience</b>	0	<p style="text-align: center;">+</p> <p>Fuel importers/wholesalers would be obliged to keep sufficient fuel stocks onshore to meet the minimum stockholding level based on current or recent commercial stockholding level. This would safeguard any deterioration in fuel security over time, which could otherwise take place in light of the diminishing market for liquid fuels due to electrification of vehicles in the decades ahead.</p> <p>Through the implementation of the minimum stockholding obligation, the Government would also better oversight of New Zealand's fuel resilience, e.g. better data on fuel stocks level at regional and national levels.</p> <p><u>Submissions during public consultation</u></p> <p>Nine out of 21 submitters agreed that there should be a minimum onshore fuel stockholding obligation on fuel wholesalers. Two agreed in part, five disagreed, and five did not have a clear view.</p> <p>The fuel importers/wholesalers consider that fuel supply will remain resilient in the absence of a minimum stockholding obligation.</p>	<p style="text-align: center;">++</p> <p>Fuel importers/wholesalers would be obliged to keep sufficient fuel stocks onshore to meet a minimum stockholding level significantly higher than current commercial stockholding level. This would improve fuel resilience, as fuel importers/wholesalers would increase their onshore stocks.</p> <p>Through the implementation of the minimum stockholding obligation, the Government would also better oversight of New Zealand's fuel resilience, e.g. better data on fuel stocks level at regional and national levels.</p>	<p>0 if no complementary measure to prevent commercial stockholding level from deteriorating.</p> <p>++ if accompanied by minimum stockholding obligation on the fuel sector.</p> <p>If the Government procures reserve fuel stocks without implementing a minimum stockholding obligation on fuel importers/wholesalers, this could create a moral hazard leading to a deterioration in the commercial stockholding level over time. The fall in commercial stocks would offset the extra fuel resilience gained from the reserve stocks procured by the Government.</p> <p>If the Government procures reserve stocks in combination with implementing a minimum stockholding obligation on fuel importers/wholesalers, the overall level of onshore fuel stocks will increase.</p> <p>The Government would have some influence over fuel infrastructure investments. In particular, it could promote investments in storage facilities for diesel, which is deemed to be the most important fuel type for critical services. Such facilities can be used for storing drop-in HVO renewable diesel.</p>	<p style="text-align: center;">0</p> <p>This may not be an effective option, as it will contribute to building onshore stocks only if the Government manages to procure tickets from New Zealand fuel industry participants.</p> <p>Furthermore, it is unclear whether fuel industry participants here have sufficient incentive to build enough storage capacity so that they are able to offer tickets for onshore fuel stocks.</p>
<b>Avoiding disproportionate economic cost</b>	0	<p style="text-align: center;">0</p> <p>Fuel importers/wholesalers would not be required to significantly increase their onshore fuel stockholding level, so their compliance cost would be minimal.</p>	<p style="text-align: center;">- or -- (depending on the minimum stockholding level for fuel importers/wholesalers)</p> <p>The extent of the costs associated with onshore fuel storage would depend on the minimum onshore stockholding level set by the Government. The higher the minimum stockholding level, the higher the compliance costs. The relevant indicative compliance costs were discussed in the previous table that compares the options for minimum onshore fuel stockholding level.</p> <p>A minimum stockholding obligation requiring the fuel importers/wholesalers to hold significantly more fuel stocks onshore could also have potential adverse impacts on competition in the fuel markets. Fuel importer/wholesalers that own more bulk storage facilities could have a market advantage because small importer/wholesalers operating from a single bulk storage facility could respond to such a minimum stockholding obligation in the following ways:</p> <ul style="list-style-type: none"> <li>• reducing its wholesale market share to match its storage capacity, which is likely to reduce downstream competition and limit choice for independent retailers</li> <li>• incurring higher operational costs (e.g. demurrage), invest in additional storage capacity, or seek to lease spare capacity from a</li> </ul>	<p style="text-align: center;">0 (assuming no change to the PEFM levy)</p> <p>This option would avoid the adverse impacts that option 2b would have on compliance costs and competition in the fuel markets.</p> <p>The Government has a materially lower cost of capital than the fuel supply industry. The additional cost of holding reserve stocks and the consequential increase in fuel prices would therefore be lower if the additional stockholding cost is incurred by the Government (and recovered by levy) rather than incurred at the commercial rate of return sought by fuel companies in a market with declining volumes.</p> <p>For example, if the Government enters into an arrangement with the fuel sector for the storage and management of 70 million litres of onshore reserve diesel stocks (equivalent to about seven days' cover for diesel) in order to reach the minimum stockholding level under option two, the indicative cost of this proposed arrangement to the Government would be <small>Negotiations</small></p>	<p style="text-align: center;">0</p> <p>Fuel sector participants would sell tickets to the Government in return for a fee and would not do so at a loss.</p> <p>This forecast surplus in the PEFM Levy account can absorb the cost of purchasing more onshore tickets without any change to the PEFM Levy rate. No fuel price impact is expected.</p>

	Option 1 – Counterfactual (No minimum onshore stockholding obligation)	Option 2a – minimum fuel stockholding obligation requiring fuel importers/wholesalers to keep onshore fuel stockholding at current or recent commercial stockholding level [PREFERRED OPTION in combination]	Option 2b – minimum fuel stockholding obligation requiring fuel importers/wholesalers to increase onshore fuel stockholding significantly	Option 3 – government procurement of storage and management of onshore reserve fuel stocks (using the PEFM Levy) [PREFERRED OPTION in combination]	Option 4 – Government purchasing onshore tickets from fuel companies without any investment in extra storage
			<p>competitor, all of which would raise costs relative to competitors and thereby reduce competition.</p> <p>How fuel importers/wholesalers meet the requisite stockholding level through stock management and tankage investment could also affect the quantities and prices of fuels that independent fuel retailers can access from the wholesale market, particularly in areas where fuel storage capacity and competition between fuel importers and/or wholesalers are limited.</p> <p>These impacts on compliance costs and the dynamics in the fuel wholesale and retail markets would likely translate to higher fuel prices for consumers.</p> <p><u>Submissions from the fuel sector during public consultation</u></p> <p>During public consultation, the fuel sector raised concern about the impacts of a minimum stockholding obligation on compliance costs and competition in the fuel markets, as discussed above.</p>	<p><sup>16</sup> per year at current fuel prices. The forecast surplus in the PEFM Levy account can absorb this cost without any change to the PEFM Levy rate. The final cost of the arrangement would depend on the outcomes of negotiations between the Government and the fuel sector.</p> <p>If the Government wishes to procure a much higher level of reserve stocks, the PEFM Levy rate will need to be increased, and the standard regulation-making processes for a levy review will apply before the levy rate can be changed.</p> <p><u>Submissions from the fuel sector during public consultation</u></p> <p>Fuel importers/wholesalers submitted that if the Government wishes to have more onshore fuel stocks, it should fund the onshore storage of reserve fuel stocks and the fuel sector can manage the turnover of reserve fuel stocks.</p>	
<b>Administrative efficiency</b>	0	<p>0</p> <p>There would be some extra administrative costs of \$0.2-0.5 million a year for the Government's activities for monitoring and enforcing compliance with the minimum stockholding obligation. The extra administrative costs mainly come from setting up and maintaining systems for keeping information on compliance with obligations (including data on trade between wholesale suppliers for meeting the obligations), and enforcement actions.</p> <p>Fuel importers/wholesalers would also face some administrative costs associated with reporting requirements associated with the minimum stockholding obligation, in the order of less than one million dollars per obligated party.</p> <p>On the other hand, the stronger monitoring and enforcement regime for implementing the minimum stockholding obligation could potentially strengthen fuel importers' incentives to provide quality fuel stock data.</p>	0 Same as option 2a.	-	0 Similar to option 1 (counterfactual), as MBIE is already procuring onshore fuel tickets.
<b>Overall assessment</b>	0	+	0 or + (depending on the minimum stockholding level for fuel importers/wholesalers)	+ if accompanied by a minimum stockholding obligation on the fuel sector.  - if no complementary measure to prevent commercial stockholding level from deteriorating.  Better than option 2a alone if more weight is placed on the criterion of fuel resilience/security.	0

## Part 2.3 — Petroleum or Engine Fuel Monitoring Levy to support onshore fuel resilience

### What criteria will be used to compare options to the status quo?

#### Criteria for comparing options for the use of the PEFM Levy

The criteria for comparing the options for the use of the PEFM Levy include:

- Maintaining or improving fuel security resilience
- Appropriate compliance cost — how much levy the fuel importers would have to pay, and the implications for fuel prices for consumers
- Equity between current and future levy payers
- Efficiency, i.e. value for money
- Justifiability, i.e. the costs recovered through the PEFM Levy should relate to the outcomes achieved through the PEFM Levy, and cross-subsidisation should be avoided
- Transparency, i.e. the processes for setting and managing fees and levies are transparent.<sup>17</sup>

### What options are being considered?

*Option A – Status quo (Levy can be used to meet the “reasonable costs” associated with compliance with IEA obligations)*

- The fixed rate component of the PEFM Levy (currently set at 0.5 c/L), which applies to petrol, diesel and their biofuels equivalent, can be used to meet the “reasonable costs” associated with compliance with the IEA oil/fuel reserve commitment.
- The existing wording of the statutory purpose of the PEFM Levy under s 14(2)(ba) of the Energy (Fuels, Levies, and References) Act 1989 means that whether or not the PEFM Levy can be used for an onshore fuel resilience initiative depends on whether and how much it contributes to meeting New Zealand’s IEA reserve commitment, and whether the cost of the initiative is reasonable.
- Generally speaking, options for holding onshore reserve stocks, which may involve building or leasing more onshore fuel storage facilities, would be more expensive than purchasing tickets for oil stocks held offshore for meeting the IEA reserve commitment, and therefore there is a risk that the cost of such options may not be deemed reasonable.

*Option B – Expressly allowing the PEFM Levy to be used to meet the cost of any measures for improving onshore fuel resilience [PREFERRED OPTION]*

- The purpose of the PEFM Levy, as set out in the Energy (Fuels, Levies, and References) Act would be amended to enable the levy to be used to meet the cost of promoting fuel resilience generally.
- This would allow the levy to be used for measures that are more useful to New Zealand’s onshore fuel resilience than purchasing offshore oil tickets, which are not useful for mitigating the risk of local fuel disruptions. For example:

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<sup>17</sup> Equity, efficiency, justifiability and transparency are criteria that reflect the principles identified in the Controller and Auditor-General’s *Setting and administering fees and levies for cost recovery: Good practice guide*, August 2021, and Treasury’s *Guidelines for Setting Charges in the Public Sector*, April 2017.



- government procurement of services relating to storage and management of reserve fuel stocks (option 3 as discussed above);
  - facilities that would be useful for mitigating the impacts of local fuel disruptions or distributing fuels in an emergency, such as mobile fuel distribution facilities;
  - fuel emergency planning activities, including tasks associated with the implementation of the National Fuel Plan, regular emergency response exercises and regional studies of fuel resilience gaps and options to address them; and
  - tools and programmes for improving monitoring and collecting information on fuel resilience.
- There would be no change to the calculation method for the PEFM Levy under the Energy (Petrol, Engine Fuel, and Gas) Levy Regulations 2017. In other words, the fixed rate component of the PEFM Levy would remain at 0.5 c/L of petrol, diesel, ethanol and biodiesel, and the PEFM Levy would continue to be paid by fuel importers.
  - The beneficiaries of the onshore fuel resilience measures that would be funded by the PEFM Levy would be fuel importers/wholesalers, the levy payers, and fuel consumers, to whom fuel importers pass through at least some of the levy costs. These measures would help mitigate the impact of local fuel disruptions through strengthening the fuel importers' ability to supply fuel stocks to fuel consumers affected by such disruptions. In this sense, the onshore fuel resilience measures are club goods for businesses and persons that would be most affected during a fuel supply disruption.

*Option C – Expressly allowing the PEFM Levy to be used to meet the cost of procuring services for managing and storing onshore reserve stocks, and the cost of investments in onshore fuel storage infrastructure*

- Option C is similar to option B, except that fuel emergency planning activities would not be funded by the PEFM Levy.
- The purpose of the PEFM Levy would be amended so that it could be used for procurement of onshore fuel stocks or tickets, and investment in onshore fuel infrastructure.



## How do the options compare to the status quo/counterfactual?

### Key for qualitative judgements in the following options comparison tables:

- ++ much better than doing nothing/the status quo/counterfactual
- + better than doing nothing/the status quo/counterfactual
- 0 about the same as doing nothing/the status quo/counterfactual
- worse than doing nothing/the status quo/counterfactual
- much worse than doing nothing/the status quo/counterfactual

**Table 3: Assessment of options for the use of Petroleum or Engine Fuel Monitoring Levy to support onshore fuel resilience**

	Option A – Status Quo (Levy can be used to meet the “reasonable costs” associated with compliance with IEA obligations)	Option B – Expressly allowing the PEFM Levy to be used to meet the cost of any measures for improving onshore fuel resilience [PREFERRED OPTION]	Option C – Expressly allowing the PEFM Levy to be used to meet the cost of procuring services for managing and storing onshore reserve stocks, and the cost of investments in onshore fuel storage infrastructure
<b>Fuel security/resilience</b>	0	<p style="text-align: center;">++</p> <p>There would be more flexibility to use the PEFM Levy for funding measures that aim to improve onshore fuel resilience. These measures include:</p> <ul style="list-style-type: none"> <li>• government procurement of services relating to storage and management of reserve fuel stocks;</li> <li>• facilities that would be useful for mitigating the impacts of local fuel disruptions or distributing fuels in an emergency, such as mobile fuel distribution facilities;</li> <li>• fuel emergency planning activities, including tasks associated with the implementation of the National Fuel Plan, regular emergency response exercises and regional studies of fuel resilience gaps and options to address them; and</li> <li>• tools and programmes for improving monitoring and collecting information on fuel resilience.</li> </ul> <p style="text-align: center;"><u>Submissions from public consultation</u></p> <p>Some submitters from the air transport sector commented that there might be some merit for the Government to invest in fuel storage, as fuel companies face the risk of stranded assets and it is difficult for the three major fuel companies to come to an agreement on investment plans. However, they did not comment on whether the PEFM Levy is the appropriate government funding mechanism for such investments.</p> <p>Fuel importers/wholesalers submitted that if the Government wishes to have more onshore fuel stocks to improve fuel resilience, it should fund the onshore storage of reserve fuel stocks and the fuel sector can manage the turnover of reserve fuel stocks. They did not comment on whether PEFM Levy would be the appropriate government funding mechanism for procuring the storage of reserve fuel stocks, although two of them commented that the Government should scrutinise the impact of any potential increase in the PEFM Levy on fuel prices faced by consumers.</p> <p>On the other hand, a submitter from the shipping sector considered that fuel wholesalers should continue to be responsible for maintaining sufficient fuel storage and distribution facilities.</p>	+
<b>Business compliance cost</b>	0	<p>0 (assuming that the cost of the onshore fuel resilience initiatives to be funded by the PEFM levy can be absorbed by the forecast surplus in the levy account.)</p> <p>Assuming no change to the calculation method for the PEFM Levy, the forecast surplus in the PEFM Levy account would be sufficient to meet the cost of the proposed arrangement for the storage and management of 70 million litres of onshore reserve diesel stocks (equivalent to seven days’ cover for diesel). As discussed, subject to negotiations with the fuel sector, the indicative cost of the arrangement is <span style="background-color: #cccccc;">Negotiations</span> annually based on current fuel prices, representing around 0.2 cents/litre of petrol and diesel if recovered through the PEFM Levy.</p> <p>Should the Government wish to use the PEFM Levy to procure significantly more reserve fuel stocks, the PEFM levy rate would need to be increased, and this would increase business compliance costs and fuel prices. The Energy (Petrol, Engine Fuel, and Gas) Levy Regulations 2017 would need to be amended to adjust the levy rate.</p>	<p>0 (assuming that the cost of government procurement associated with fuel storage can be absorbed by the forecast surplus in the levy account.)</p> <p>Like Option B, assuming no change to the calculation method for the PEFM Levy, the forecast surplus in the PEFM Levy account would be sufficient to meet the cost of the proposed arrangement for the storage and management of 70 million litres of onshore reserve diesel stocks.</p> <p>Should the Government wish to use the PEFM Levy to procure significantly more reserve fuel stocks, the PEFM levy rate would need to be increased, and this would increase business compliance costs and fuel prices.</p>

		Depending on the final cost of the reserve stock arrangement, the PEFM Levy surplus could be used to fund other onshore fuel resilience measures, subject to MBIE's assessment of the funding applications.	Depending on the final cost of the reserve stock arrangement, the PEFM Levy surplus could be used to fund other fuel infrastructure projects, subject to MBIE's assessment of the funding applications.
<b>Administrative efficiency, i.e. value for money</b>	0	+	+
		There could potentially be more administrative cost associated with managing funding arrangements for onshore fuel resilience measures, but this could be outweighed by the potential benefit of better onshore fuel resilience.	There could potentially be more administrative cost associated with managing funding arrangements for onshore fuel resilience measures, but this could be outweighed by the potential benefit of better onshore fuel resilience.
<b>Equity between current and future levy payers</b>	0	0 (assuming that the cost of the onshore fuel resilience initiatives to be funded by the PEFM levy can be absorbed by the forecast surplus in the levy account.) No change to the PEFM Levy rate is being proposed.	0 (assuming that the cost of government procurement associated with fuel storage can be absorbed by the forecast surplus in the levy account.) No change to the PEFM Levy rate is being proposed.
<b>Justifiability, i.e. the costs recovered through the PEFM Levy should relate to the outcomes achieved through the PEFM Levy, and cross-subsidisation should be avoided</b>	0	++	+
	<p>The use of the PEFM Levy is limited by its statutory purpose. The existing wording of the statutory purpose of the PEFM Levy under s 14(2)(ba) of the Energy (Fuels, Levies, and References) Act 1989 means that whether or not the PEFM Levy can be used for an onshore fuel resilience initiative depends on whether and how much it contributes to meeting New Zealand's IEA reserve commitment, and whether the cost of the initiative is reasonable.</p> <p>Generally speaking, options for holding onshore reserve stocks, which may involve building or leasing more onshore fuel storage facilities, would be more expensive than purchasing tickets for oil stocks held offshore for meeting the IEA reserve commitment. Therefore, there is a risk that the cost of such options may not be deemed reasonable and the PEFM Levy may not be used to fund such a measure.</p> <p>Purchasing offshore oil tickets is deemed to be the most cost-effective way to meet the IEA obligations. Those tickets are suitable for managing international oil/fuel disruptions that require IEA collective action, but not for providing immediate relief to domestic fuel disruptions. A key IEA objective is "developing an emergency self-sufficiency in oil supplies".</p>	<p>Option B would be the best option for achieving the desired outcome of improving onshore fuel resilience, as there would be more flexibility to use the PEFM Levy for funding options that aim to improve onshore fuel stockholding level and infrastructure, as well as fuel emergency management and contingency planning. It would provide certainty that measures for improving onshore fuel resilience, including the proposed reserve diesel stock arrangement with the fuel sector, can be funded by the PEFM Levy if there is sufficient funding in the levy account.</p> <p>The "reasonable cost" criterion under option A limits the Government's ability to fund initiatives that would be more useful for improving New Zealand's onshore fuel resilience than purchasing offshore oil tickets. Under option B, this limit would be removed, and would improve New Zealand's ability to achieve a key IEA objective of "developing an emergency self-sufficiency in oil supplies". In that sense, option B is consistent with the intent of the levy to enable compliance with New Zealand's IEA obligations.</p>	<p>Better than option A in the sense that there is more flexibility to use the PEFM Levy for funding options that aim to improve onshore fuel stockholding level and infrastructure.</p> <p>Not as good as option B, as the PEFM Levy cannot be used for initiatives relating to fuel emergency management and contingency planning.</p>
<b>Transparency, i.e. the processes for setting and managing fees and levies are transparent.</b>	0	0	0
		There would be no change to the calculation method for the PEFM Levy.	There would be no change to the calculation method for the PEFM Levy.
<b>Overall assessment</b>	0	++ (assuming that the cost of the onshore fuel resilience initiatives to be funded by the PEFM levy can be absorbed by the forecast surplus in the levy account.)	+ (assuming that the cost of government procurement associated with fuel storage can be absorbed by the forecast surplus in the levy account.)

Note: The criteria of equity, efficiency, justifiability and transparency reflect the principles identified in the Controller and Auditor-General's Setting and *administering fees and levies for cost recovery: Good practice guide*, August 2021, and Treasury's *Guidelines for Setting Charges in the Public Sector*, April 2017.

## What option is likely to best address the problem, meet the policy objectives, and deliver the highest net benefits?

The preferred option is to implement a combination of the following measures:

- minimum fuel stockholding obligation requiring fuel importers/wholesalers to keep onshore fuel stockholding at current or recent commercial stockholding level
- government procurement of storage and management of seven days' cover of onshore reserve diesel stocks (using the PEFM Levy)
- expressly allowing the PEFM Levy to be used to meet the cost of any measures for improving onshore fuel resilience.

The minimum stockholding obligation on fuel importers/wholesalers, which is based on the current or recent commercial stockholding levels for diesel, petrol, and jet fuel, would minimise the risk of commercial fuel stockholding declining materially over time. As fuel importers/wholesalers would not be required to significantly increase their stocks, the impact of this minimum stockholding obligation on business compliance cost and fuel prices would be minimal, and importer/wholesalers operating from a single bulk storage facility would not face disproportionately high compliance costs relative to those with more bulk storage facilities. The information disclosure requirements associated with the minimum stockholding obligation would allow the Government to have better oversight of New Zealand's fuel resilience.

Complementary to the minimum stockholding obligation, the Government would procure the storage of at least 70 million litres of reserve diesel stocks onshore (equivalent to seven days of diesel consumption at normal level), and the cost of this reserve stock arrangement would be recovered by the PEFM Levy. This would ensure that stocks of diesel, the most important fuel for maintaining essential services, would be sufficient for managing the impacts of partial fuel import disruptions. This could involve:

- entering into a long-term lease agreement with the fuel sector for new diesel storage capacity; and
- tendering periodically for reserve diesel stock to be held in the leased storage tanks by way of an onshore reserve stock contract, which would allow reserve stocks to be turned over periodically and released during fuel emergencies; or
- procuring and owning reserve fuel stock, held in leased or government-owned tanks.

Government procurement of reserve stocks arrangement would likely provide increased stockholding at a lower cost than requiring fuel importers/wholesalers to increase their stock level significantly and would avoid distorting competition.

The statutory purpose of the PEFM Levy would be amended to expressly allow the PEFM Levy to be used to meet the cost of any measures that aim to improve onshore fuel resilience. This would enable the Government to support investment in measures such as mobile fuel storage capacity or facilities in vulnerable regions, where a 'fuel resilience case' can be made. This amendment would also allow the PEFM Levy to be used to fund emergency planning activities, including the implementation of the National Fuel Plan, regular emergency response exercises and regional studies of fuel resilience gaps and options to address them.

What are the marginal costs and benefits of the option?

Affected groups (identify)	Comment <i>nature of cost or benefit (e.g., ongoing, one-off), evidence and assumption (e.g., compliance rates), risks.</i>	Impact <i>\$m present value where appropriate, for monetised impacts; high, medium or low for non-monetised impacts.</i>	Evidence Certainty <i>High, medium, or low, and explain reasoning in comment column.</i>
<b>Additional costs of the preferred option compared to taking no action</b>			
Regulated groups	<p>The minimum onshore fuel stockholding obligation on fuel importers/wholesalers is expected to result in some administrative costs for these companies.</p> <p>Fuel importers/wholesalers would provide more detailed fuel stockholding information, and this may involve developing more sophisticated accounting and verification systems.</p> <p>Since the proposed minimum stockholding level is based on the current or recent commercial stockholding level, fuel importers/wholesalers are not expected to face a material increase in business compliance costs.</p> <p>There would be some administrative costs associated with managing the reserve diesel stock for the Government, although the fuel sector could recover these costs through a fee to the Government.</p> <p>While additional fuel storage facilities would need to be built, the relevant capital cost to the fuel industry is expected to be recovered from the proposed lease arrangement with the Government for storage at the additional facility.</p> <p>The major fuel importers/wholesalers could face potentially increased operational cost for working with the Government to turn over the onshore reserve fuel stocks stored, but this would be offset by a charge to the Government.</p>	Low (Less than \$1 million per year of administrative costs per obligated party)	<p>Medium</p> <p>This depends on the fuel importers/wholesalers' existing fuel stock accounting system.</p>
Regulators	<p>The Government would need to set up and administer monitoring, compliance and enforcement systems for minimum onshore fuel stockholding obligations on fuel importers/wholesalers, as well as investing in various onshore fuel resilience initiatives.</p> <p>The Government would need to enter into arrangements with the fuel sector to procure services for storage and turnover of onshore reserve fuel stock. In the first year of implementation, there will be a one-off legal cost of setting up these contractual arrangements</p>	<p>Up to \$1.4 million a year for the Government's monitoring, compliance and enforcement activities</p> <p>Indicative cost of about <span style="background-color: #cccccc;">Negotiations</span> for procuring services relating to storage and turnover of reserve stocks.</p> <p>There would also be a one-off set-up cost of \$1.5 million, which will be required for negotiating and finalising the contracts for the reserve stock arrangement with the fuel sector.</p>	<p>Medium</p> <p>This depends on negotiations with the fuel industry regarding the arrangements for storage and turnover of reserve stocks.</p>
Others (e.g., wider govt, consumers, etc.)	Fuel and transport costs	Low (Fuel prices could be about <span style="background-color: #cccccc;">Negotiations</span> lower, as the PEFM Levy rate could be lower if the PEFM Levy was not used to fund the proposed onshore fuel resilience initiatives.)	<p>Medium</p> <p>This depends on how the fuel sector passes through the compliance costs to consumers.</p>
<b>Total monetised costs</b>		About <span style="background-color: #cccccc;">Negotiations</span> a year.	Medium
<b>Non-monetised costs</b>		Low	High

**Additional benefits of the preferred option compared to taking no action**

Regulated groups	There would be an extra revenue stream for the fuel industry for arrangements with Government for storage and turnover of onshore reserve fuel stock.	Low	Medium  The fuel sector's potential financial gains from these arrangements depends on negotiations between the fuel industry and the Government.
Regulators	MBIE the regulator would have better visibility of fuel stock availability across the country, providing assurance that the target level of onshore fuel stocks is maintained.  There could potentially be better industry-government coordination in managing fuel supply emergencies.	Medium	High
Others (e.g., wider govt, consumers, etc.)	Increased confidence in fuel supply resilience, particularly availability of diesel stocks for managing local fuel disruptions	Low	Medium The general public may be unconcerned about fuel supply resilience until a fuel emergency takes place or fuel price increases significantly.
<b>Total monetised benefits</b>		Not quantified, as it is difficult to quantify the risk of fuel disruptions and the expected value of the benefit of mitigation measures, and the economic impacts of fuel disruptions depend on the circumstances.	Medium
<b>Non-monetised benefits</b>		Medium	Medium

## Section 3: Delivering an option

### How will the new arrangements be implemented?

#### Who would have to comply?

It is proposed that fuel importers/wholesalers would have to comply with the minimum onshore fuel stockholding obligations, including:

- holding onshore fuel stocks at or above the minimum level set by the Government, based on the market share of the fuel wholesale supplier concerned and the desired number of days of cover for meeting New Zealand's fuel demand;
- fulfilling information disclosure requirements, such as filing monthly returns on fuel stocks.

This proposed point of obligation is similar to the point of obligation for the fuel sector under other policies, such as the Emissions Trading Scheme and the proposed Sustainable Biofuels Mandate. By setting the point of obligation as close to the top of the supply chain as possible, the number of obligated parties would be kept at the minimum, while most if not all of the fuel stocks that feed through the New Zealand fuel markets would be captured. The burden of business compliance and government administration costs can therefore be minimised as a result.

During public consultation, nine out of 21 submitters agreed that there should be a minimum onshore fuel stockholding obligation on fuel wholesalers. Two agreed in part, five did not have a clear view. Five disagreed on the basis that there should not be any minimum onshore fuel stockholding obligation on the fuel sector at all.

#### Monthly reporting

To assess compliance with the minimum fuel stockholding obligations, fuel wholesalers would be required to submit monthly returns to the agency for administering these obligations (MBIE or the stockholding agency). This return would include, at a minimum:

- stock information for each fuel at each bulk storage facility;
- information about stock on water, including expected time to discharge in NZ;
- information about product import sources (refineries) and any back-up or contingency supply arrangements; and
- notice of any entitlement agreement between fuel suppliers who traded fuel stocks for meeting the minimum fuel stockholding level.

The details of the information to be provided by fuel importers/wholesalers in their monthly returns are expected to be prescribed in regulations. There will be further consultation with targeted stakeholders on the detailed information disclosure requirements during the regulations development process.

The monthly returns would have to be submitted within ten business days of the end of each month. The regulator would be empowered to obtain any further information that is necessary to administer and assess compliance with the minimum onshore fuel stockholding obligation, and would have the power to require audits of the data provided by fuel wholesale suppliers.

The alternative of requiring less frequent returns on stockholding level (such as quarterly or annual returns) might reduce administrative efficiency, as fuel suppliers might only have the incentive to boost the stock level to meet the minimum required level just before the end of the reporting period — the longer the reporting period, the higher the risk that the



stockholding level would fall below the minimum required level for an extended period, with limited opportunity to intervene or take appropriate compliance and enforcement action.

During public consultation, major fuel importers/wholesalers submitted that the reporting requirements should be kept as simple as possible, with some preferring less frequent reporting. On the other hand, submitters from the transport sector generally consider that the obligated parties should provide sufficient information on the quantities and locations of the fuel stocks to facilitate emergency response and contingency planning. Some of these submitters suggest real-time reporting or weekly returns.

### **Trading of obligations**

Fuel importers/wholesalers would be able to trade with others to meet the minimum fuel stockholding obligations through entitlement agreements between them. These agreements would record the transfer of the right to count an agreed amount of fuel stocks for compliance with the minimum stockholding obligation and would be signed by both parties.

Fuel suppliers would document the details of their trades in their monthly returns to the regulator. To ensure the integrity of the trades, it would be an offence to sign a false or misleading agreement. This includes entering into more than one agreement for a particular amount of fuel stocks.

The proposed mechanism of trading through entitlement agreements can help minimise compliance costs of fuel importers/wholesalers. If the fuel importer/wholesaler concerned considers it less costly to enter into entitlement agreements to meet its minimum onshore fuel stockholding obligations than to hold the actual stocks or pay the penalty for non-compliance, it can choose to enter into these agreements. This flexibility would better enable fuel suppliers to respond to short-term supply disruptions, such as from unforeseen disruptions to import sources. During public consultation, there was broad support for this trading mechanism in light of the flexibility it offers.

### **Penalties for non-compliance with stockholding obligation**

To motivate fuel suppliers to comply with the minimum fuel stockholding obligations, penalties would apply where fuel wholesale suppliers fail to achieve the minimum stockholding level. The maximum penalty would be up to \$5 million or three times the financial gain of the breach.

This maximum penalty is similar to that in the Fuel Industry 2020. Penalties in other legislation, such as the Commerce Amendment Act 2022, were also referenced. The maximum penalty for non-compliance with the minimum fuel stockholding obligation is higher than the one proposed during the public consultation, as a number of submitters, particularly those from the transport sector, suggested that the penalty needs to be higher to provide sufficient incentive for compliance.

### **Penalty for providing false or incomplete information**

Anyone knowingly providing information that is false or incomplete to satisfy compliance with the minimum fuel stockholding obligation could be fined as follows:

- for an individual, a fine not exceeding \$100,000 for a person; or
- for an organisation, a fine not exceeding \$500,000.

The proposed maximum penalty levels are the same as those for the recently proposed sustainable biofuels mandate, and not dissimilar to the penalties for offences of a similar nature in other legislation, such as the Financial Markets Conduct Act 2013.

## **Government procurement of reserve stocks and investments in other onshore fuel resilience initiatives**

The Government would negotiate with the fuel sector with a view to procure at least 60 million litres of reserve diesel stocks through:

- entering into long-term lease agreement(s) with the fuel sector for new diesel storage capacity; and
- tendering periodically for reserve diesel stock to be held in the leased storage tanks by way of an onshore reserve stock contract; or
- procuring and owning reserve fuel stock, held in leased or Government-owned tanks.

The costs associated with the reserve diesel stock arrangement would be covered by the PEFM Levy, subject to the recommended amendment to the statutory purpose of the PEFM Levy. Negotiations for the reserve diesel stock arrangement would commence before the statutory purpose is amended, and the Minister of Energy and Resources will report back to Cabinet on the draft agreements for the arrangement before they are finalised and signed.

Subject to the recommended amendment to the statutory purpose of the PEFM Levy, MBIE would also invite fuel industry participants to submit funding applications for onshore fuel resilience measures. A fuel industry participant may choose to submit a funding application individually or in partnership with other key stakeholders, such as local government bodies or key infrastructure providers. The criteria that MBIE would use for assessing the applications include:

- improving regional fuel supply resilience;
- encouraging competition in fuel wholesale and retail markets;
- durability and usefulness of investment in the long term (with a view to minimise the risk of stranded assets); and
- value for money.

Whether an onshore fuel resilience measure would be part-funded or fully funded would be considered on a case-by-case basis.

### **Legislation framework**

The minimum stockholding obligation would require creation of both primary legislation and regulations. The primary legislation would specify:

- the main elements of the minimum fuel stockholding obligation, including the regulations-making power to set the minimum stockholding level, and the point of obligation;
- the obligation to submit monthly returns on fuel stockholding;
- the penalty regime; and
- provision for fuel importers/wholesalers to trade fuel stocks between each other for compliance with the minimum stockholding obligation.

This could involve amendments to the Fuel Industry Act 2020 or International Energy Agreement Act 1976, depending on advice from the Parliamentary Counsel Office.

Alternatively, a separate, new piece of legislation could be created to prescribe the statutory requirements for the minimum stockholding obligation so that it is fit for purpose.

Further regulations would be developed regarding the more detailed design of onshore fuel stockholding obligations, including:

- the minimum stockholding for diesel, petrol, jet fuel and their biofuel equivalents for obligated parties;
- definitions of obligated parties and fuels covered by the obligations;
- details of the relevant accounting, auditing and reporting requirements;
- criteria for exemptions from, and suspensions and terminations of minimum stockholding obligations; and
- processes for seeking and granting exemptions, suspensions and terminations of the obligations.

As mentioned before, the statutory purpose of the PEFM Levy under the Energy (Fuels, Levies, and References) Act 1989 would need to be amended to ensure that the PEFM Levy can be used for a broader range of initiatives for improving onshore fuel supply resilience.

### Regulatory agency

MBIE would be responsible for:

- implementing the minimum onshore fuel stockholding obligation on fuel importers/wholesalers;
- negotiating and managing reserve diesel stock arrangements with the fuel sector;
- assessing and administering funding arrangements for projects that aim to improve onshore fuel resilience, such as mobile skid facilities for responding to fuel emergencies; and
- implementing the National Fuel Plan, which aims to facilitate government-industry coordination in planning for and managing fuel emergencies.

This builds on MBIE's existing responsibilities in monitoring the fuel industry, enforcing the relevant legislation for the fuel industry, and coordinating with the fuel industry in relation to managing and planning for fuel emergencies.

During public consultation, most submitters indicated a preference for MBIE to take on the responsibilities for administering minimum onshore fuel stockholding requirements, and did not support the creation of a standalone stockholding agency for managing reserve fuel stocks.

### Implementation risks

The implementation risks and how they can be mitigated are as follows:

- **Risk of non-compliance:** there is a risk that regulated parties do not comply with the minimum onshore fuel stockholding obligation. This risk can be mitigated by setting penalties at a level which creates an incentive for compliance, and engaging further with the fuel importers/wholesalers to help them understand the obligation. The fact that the minimum onshore fuel stockholding level would be based on the current or recent commercial stockholding level means that it should not be too challenging for fuel importers/wholesalers to comply with the obligation.

- **Risk of higher than anticipated compliance costs:** There is a risk that the cost of complying with minimum onshore fuel stockholding obligations could be higher than anticipated, as it depends on what baseline would be used to determine the minimum stockholding level for each regulated party based on the “current or recent commercial stockholding level”. This can be mitigated by consulting with fuel importers/wholesalers when developing detailed regulations on minimum onshore fuel stockholding obligations.
- **Risk of lack of fuel storage facilities:** If the minimum onshore fuel stockholding level was too high and there was insufficient fuel storage capacity, fuel importers/wholesalers would need to build more tanks, reduce throughput or arrange additional import shipments. This would increase the fuel importers/wholesalers’ business costs. Alternatively, they could fail to comply with the minimum onshore fuel stockholding obligation, thereby undermining the effectiveness of the obligation in maintaining or improving fuel resilience. To mitigate the risk associated with constraints on fuel storage facilities, the minimum stockholding level for obligated party would be based on “the current or recent commercial stockholding level”, and MBIE will engage with fuel importers/wholesalers during the regulations-making process.
- **Risk of insufficient time for obligated parties to set up systems for compliance with the minimum onshore fuel stockholding obligations:** it takes time for obligated parties to set up systems for compliance with the obligations, including accounting and reporting systems. Should there be insufficient time for parties to put the systems in place, there would a risk that the obligated parties might not be able to meet the obligations and would subsequently incur penalties for non-compliance. To mitigate this risk, MBIE will continue to engage with the fuel sector during the regulations-making process and give them as much notice as possible before the legislation for minimum onshore fuel stockholding obligations comes into effect. The Minister of Energy and Resources would also have the discretion to grant a temporary exemption from the obligations in certain circumstances.
- **Risk of not reaching agreements with fuel sector on reserve stock management arrangements:** there is a risk that the Government may not be able to reach agreements with the fuel sector on arrangements for storing and managing onshore reserve stocks. This risk is relatively low though, as during the public consultation, some submitters indicate that there are opportunities to convert existing tanks for storing reserve fuel stocks at Marsden Point and in Taranaki. The Government will negotiate arrangements with the relevant parties in good faith.

## How will the new arrangements be monitored, evaluated, and reviewed?

The minimum onshore fuel stockholding obligation would be reviewed within five years after it comes into effect. The Minister of Energy and Resources would have the discretion to bring forward the review if there were substantial changes in the international context that would justify an earlier review, or if deemed necessary in light of continuing inter-agency work to identify options to strengthen the resilience of New Zealand's supply chains for access to essential goods and services.

The review would assess the effectiveness of the minimum onshore fuel stockholding obligations at achieving the intended objective of maintaining or improving fuel resilience, based on information collected from monthly returns from fuel importers/wholesalers. The fuel stocks data collected from the monthly returns would allow officials to evaluate the compliance rate, diversity of fuel supply sources, distribution of fuel stocks across New Zealand and contingency supply arrangements.

The review would also involve evaluating the effectiveness of the administrative arrangements. During the review and through MBIE's usual engagements with the fuel sector, MBIE would gather information from the fuel importers/wholesalers about issues relating to the administration of the minimum onshore fuel stockholding obligation, such as integrity of record-keeping and administrative complexity. To ensure that the minimum onshore fuel stockholding obligation, particularly the minimum stockholding level, remains fit for purpose, the review would take into account the following factors:

- the Government's emissions budget and Emissions Reduction Plan;
- fuel demand in New Zealand;
- fuel mix for transport fleet;
- any relevant data and findings on the resilience of New Zealand's supply chains, such as national and regional fuel stocks data and reports on resilience of international and domestic fuel supply chains; and
- any relevant results from ongoing work on the resilience of New Zealand's supply chains for access to essential goods and services; and
- domestic fuel production capacity—if it is developed to a significant scale, fuel storage capacity may not need to be as high as otherwise required.

Regarding the proposal to amend the statutory purpose of the PEFM Levy to support onshore fuel resilience, the monitoring, evaluation and review plans will depend on what onshore fuel resilience initiatives are funded after the amendment. For the reserve diesel stock arrangement, which the Government will negotiate with the fuel sector, targets will be set for the arrangement, e.g. when the extra fuel storage facilities are to come into service, the level of reserve diesel stock to be held, and how often the reserve diesel stocks are to be turned over. Information on the performance of the fuel companies managing the storage of the reserve diesel stocks against these targets is expected to be collected on an annual basis, depending on the agreements negotiated between the Government and the fuel sector. This will help inform the Government of the reserve diesel stock arrangement's contribution to New Zealand's fuel resilience.