

It's time for a New Zealand energy security strategy - why the recent global petroleum supply concerns matter

Bassam Maghzal

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The carless sticker days of the 1979 Muldoon Government may seem like a relic of New Zealand's past - but the recent shortage in the global petroleum supply caused by a combination of supply disruptions because of Russia's invasion of Ukraine and an economic rebound after the pandemic-induced slowdown may have us closer to carless days than we wish to recognise.

These days, one would assume a 'carless day' is part of New Zealand's efforts to decarbonise the economy - but this risks missing the point about New Zealand's energy security and how quickly our economy could unravel if New Zealand was deprived of sufficient fuel supplies for as little as 24 days.

In New Zealand, we remain heavily reliant on imported refined fuel - which makes up 40% of our energy consumption, largely for the transport sector. As part of our plan to transition away from fossil fuels to renewable energy, we need to have a clear strategy about how we maintain short- and long-term energy security based on our current and our projected energy mix and demands.

The Ministry of Business, Innovation and Employment (MBIE) has been considering New Zealand's energy security where the refined fuel import supply chain is disrupted for an extended period. Even before Russia invaded Ukraine, MBIE sought submissions on what the minimum onshore fuel stockholding level should be for New Zealand. The catalyst for discussion is the imminent closure of New Zealand's sole refining operations at Marsden Point (scheduled for close by April 2022) to become a fuel import terminal only. As of April 2022, New Zealand will be completely dependent on international supply of refined oil. This is not entirely bad. Analysis suggests that 100% fuel import model is more resilient to *domestic* disruption than having a domestic refinery, because there will no longer be a *single point of failure risk* associated with refining.

However, if New Zealand was unable to physically import refined fuels, we won't be able to refine the oil we produce locally, which could meet approximately 15% of New Zealand's demands. As we currently don't hold nor mandate the holding of onshore reserve fuel stocks, this may result in a prolonged national fuel shortage warranting the rationing of available fuel to high priority uses (such as emergency services and food distribution). Looking at other International Energy Agency (IEA) members, *New Zealand is something of an outlier among comparable countries in not holding onshore reserve fuel stocks.*

MBIE proposes imposing a minimum stockholding obligation on fuel wholesalers of 28 days of fuel cover for diesel, and 24 days for petrol and jet fuel to deal with a prolonged and severe fuel import disruption (say, because of extreme weather, a global pandemic, or geopolitical conflicts). This is the same as that proposed in Australia.

MBIE is attracted to this option because:

- Assuming 50% rationing, it would take 56 days before diesel stocks are depleted, if there are no imports
- It would require modest investments in fuel storage, and additional onshore fuel storage costs would be approximately NZ\$22m a year which would translate to price increases of roughly 0.2 cents per litre (c/L) for petrol, 0.4 c/L for diesel and 0.2c/L for jet fuel.

While the level of stockholding might be the same with Australia, the important difference is that the Australian government last year agreed to subsidise two of its domestic oil refinery operators to keep them from closing. The New Zealand Government, on expert advice, opted not to take a similar route because it did not consider the fuel import risk to be large enough to take up that option but was rather more attracted to having fuel stocks in-country to offset any fuel import risk. As noted above, there is some attraction to this. However, some have argued that it would take just one cent a litre to maintain this onshore refining capability in New Zealand. That capacity to refine the crude oil we produce (which could meet approximately 15% of our demand) could keep essential services in operation in case of severe shock to the system.

Given this key difference between New Zealand and Australia, there is a case for New Zealand to hold multiple times as many reserves as Australia. At the most rudimentary level, we have a longer supply line than Australia for our fuel which historically has mainly been imported from Singapore and South Korea. Also, we need to consider exactly where we sit in the global supply pecking order. If the COVID-19 vaccine procurement taught us one thing, the big nations will take what they need first (particularly if they produce it) before supply trickles down the global waiting list.

Also, realistically, the proposed holding level is only a slight improvement on the status quo: eight days of reserve cover for diesel and four days of reserve cover for other transport fuels because fuel wholesale suppliers currently already hold onshore commercial stocks of approximately 20 days of cover for their commercial purposes.

If the Government settled on just doubling the current minimum stockholding level (ie 40 days of cover for transport fuels in total - being twice what the wholesale suppliers currently hold), the additional onshore fuel storage costs would be about NZ\$80m a year (versus NZ\$22m a year for the stockholding level the Government is proposing). To put this difference in cost in context, *a major disruption resulting in some fuel shortage for up to six weeks (before supply can be restored by new imports) could have a cost in the order of more than \$2b or 0.8% of GDP.*

The Government is currently considering submissions on MBIE's proposal for a minimum onshore fuel stockholding. It needs to implement the adopted proposal quickly if it wants to avoid having to use regulatory measures that reduce consumption of oil should fuel imports be disrupted for a prolonged period. If the Government proposes for wholesalers to hold stock, there would need to be a transitional period which is a luxury we may not have. The Government should consider starting to build the necessary fuel storage facilities now and perhaps building up as much stock on-shore as available facilities are able to handle at this point. While this might go against New Zealand's pledge to move away from fossil fuels, any disruption to our oil supply during the transition to renewables will have significant social and economic impacts that cannot be ignored. In this age of heightened geopolitical tensions, New Zealand needs to maintain energy security while it decarbonises its economy. These two objectives are not mutually exclusive.

Auckland

**188 Quay Street
Auckland 1010**

**PO Box 1433
Auckland 1140
New Zealand**

**P: +64 9 358 2555
F: +64 9 358 2055**

Wellington

**Aon Centre
1 Willis Street
Wellington 6011**

**PO Box 2694
Wellington 6140
New Zealand**

**P: +64 4 499 4242
F: +64 4 499 4141**

Christchurch

**83 Victoria Street
Christchurch 8013**

**PO Box 322
Christchurch 8140
New Zealand**

**P: +64 3 379 1747
F: +64 3 379 5659**