MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

AIDE MEMOIRE

Further advice on the closure of the Refinery

Date:	31 March 2022	**Priority:**	High
Security classification:	In Confidence	**Tracking number:**	2122-3319

Information for Minister(s)
Hon Dr Megan Woods **Minister of Energy and Resources**

Contact for telephone discussion (if required)				
Name	**Position**	**Telephone**		**1st contact**
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The following departments/agencies have been consulted

Minister's office to complete:

☐ Approved
☐ Declined
☐ Noted
☐ Needs change
☐ Seen
☐ Overtaken by Events
☐ See Minister's Notes
☐ Withdrawn

Comments

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Purpose

To provide further advice on the closure of Marsden Point Oil Refinery following recent commentary that retaining a refinery would be the least cost way to improve fuel reserves.

SCorbett

Sharon Corbett
Policy Director
Building, Resources and Markets, MBIE

31 / 03 / 2022

Background

We have previously provided advice on the Refinery closure and implications for fuel security

1. Refining NZ is currently undertaking the process to shut down its Marsden Point Oil Refinery (the Refinery). After the shutdown, only a small number of refinery assets will be preserved, and it will not be possible to restart the refinery again. Refining NZ will be renamed Channel Infrastructure, as it becomes a fuel import terminal focusing on receiving, storing, testing and distributing transport fuels to the Northland and Auckland markets.

2. In September and December 2021, you briefed Cabinet on the implications of the Refinery's closure for New Zealand's fuel security. Cabinet noted that closure of the refinery is expected to have little impact on fuel supply resilience under most disruption scenarios but agreed to investigate the option of increasing minimum levels of fuel stock held in New Zealand. MBIE recently completed consultation on options to increase onshore fuel stockholding.

3. In light of the current conflict between Russia and Ukraine, with impacts on international supply chains, we provided updated advice in February on the closure of the Refinery and any implications for fuel security. That advice concluded that the Refinery's closure will not make a significant difference to fuel security in New Zealand during the Russia-Ukraine conflict or in other scenarios where New Zealand's import supply chains are heavily disrupted. Crucially, the Refinery is designed to refine heavier crude oil from overseas rather than domestic crude, so would be forced to shut down once imported crude is no longer available.

Recent commentary claims that retaining a refinery would be the least cost way to improve fuel reserves

4. Simon Terry, Executive Director for the Sustainability Council of New Zealand, published an opinion article in Newsroom on 30 March which, amongst other things, claimed that retaining a functional oil refinery would be the least cost option for improving fuel reserves and asked that the Government prevent Refining NZ from shutting down the Refinery.

5. Mr Terry also wrote to you on 16 March regarding his suggestion that keeping the refinery in operation would be cheaper than requiring a high level of onshore fuel stockholding. This follows his submission on MBIE's consultation on onshore fuel stockholding, which closed on 28 February.

6. This note provides further information in response to these claims.

Response to claims

The cost of keeping the Refinery open depends on a range of factors and uncertainties

7. As noted above, Mr Terry has argued that retaining a functional oil refinery would be the least cost option for improving fuel reserves.

8. The main factor underpinning this case is improving global refining margins. Refining NZ's gross refining margin was negative in mid-2020, recovered slightly to below US$4/bbl in 2021, and it could now be above US$10/bbl, which would be at the high end of Refining NZ's historical margins.

9. However, we note that refining margins fluctuate over time and could deteriorate again once the Russian-Ukraine conflict is over.

10. Another key factor is the level of onshore stockholding New Zealand is looking to achieve. In his submission on the minimum onshore fuel stockholding proposal, Mr Terry compared the cost of keeping the refinery with building storage capacity equal to 65 days of normal fuel demand. He estimated this amount of extra storage would cost $600 million (not including connecting pipelines and land and operational costs).

11. The 65 days of cover is significantly higher than the proposed minimum fuel stockholding level that we consulted on (28 days for diesel, and 24 days for petrol and jet fuel). We estimated that the annual fuel storage cost of the proposed level (including capital cost and operating cost) would be around Negotiations per annum.

Refining NZ has been clear that the Refinery could not perpetually produce fuel during a closed border event

12. Mr Terry also claims the refinery would be able to produce fuels perpetually during a closed border event. In his Newsroom article he notes:

"*[the Refinery] can provide another form of capability – 'perpetual storage' – an amount that can be produced continuously from domestic crude. Perpetual storage is more valuable because the volume reserved does not run out. It is particularly suited to the highest value uses – emergency services and the maintenance of utilities and food distribution.*

Government's analysis of information provided by Refining New Zealand concluded that the refinery in its existing form could produce 3-5% of annual fuel demand from Taranaki crude on an ongoing basis – an amount broadly similar to that required to keep those highest value services in operation. Further, MBIE's analysis is that this could be done without having to mix Taranaki crude with heavier imported crudes."

13. Should the refinery be forced to use Taranaki crude oil only to produce refined fuels, the refinery would need to start up and run for very short periods before shutting down again. Based on our discussions with Refining NZ, we understand that there are significant safety risks and cost implications if the Refinery cannot import heavier crude for the refining process. As refineries are designed to be continuous operations, the stop-start mode of operation would be highly risky from a process safety perspective, and could damage the refinery equipment, and eventually prevent the refinery from operating. There would also likely be staffing and fuel quality issues in that scenario. Some other inputs essential to the refining process could also be in short supply during a closed border event. Therefore, it is questionable whether the refinery can produce fuels at 3-5% of normal fuel demand perpetually in the absence of imported heavier crude.

14. Mr Terry has also suggested that *"the same dollop of heavy crude can be recycled many times, according to an engineer formerly working at the refinery".* We followed up with Refining NZ regarding this idea. They questioned the feasibility of recycling heavy crude multiple times.

The strongest case for Government intervention is linked to security of supply

15. Having a refinery in operation is a viable alternative to increasing fuel stocks. Indeed, our work on fuel stockholding is in part in response to the fact that the closure of the Refinery is expected to reduce the commercial stocks held in New Zealand. This is because stocks of crude oil and intermediate products will no longer be held in New Zealand (though the loss of these stocks will be partly offset by a small increase in stocks of finished fuel products).

16. However, the Refinery is a privately owned company. Refining NZ's shutdown process has just been completed and the decommissioning work is commencing, so it will likely be very challenging for the process to be altered at this late stage.

17. The case for Government intervention would be clearer if there were strong security of supply benefits from having a domestic refinery (and fundamentally Mr Terry is of the opinion that a domestic refinery provides significant security of supply benefits (comparable to a very significant increase in onshore stockholding)). However:

    a. As above, the Refinery could likely not be used to perpetually produce refined fuels using Taranaki crude

    b. As discussed in the February advice [2122-2872 refers] if the Refinery supplemented imported crude with domestic crude for refining, it would only add an extra 2.6 days of cover to meet New Zealand's normal fuel demand, assuming that we had 15 days of imported crude stocks on the water

    c. As previously advised the fuel industry and independent expert advice is that a 100 per cent fuel import model will be more resilient to domestic disruption scenarios than retaining a domestic refinery, as there will no longer be a 'single point of failure risk' associated with refining.

18. The decision by Cabinet in September was based on an assessment that there was not a clear case for maintaining refinery operations for fuel resilience reasons.

Next steps

19. We are available to discuss this advice with you.

20. We will provide you with advice on the final proposal for the onshore fuel stockholding policies in the first week of May, with a view for you to lodge a Cabinet paper on the proposal by the end of May.

21. We will also draft a Ministerial letter for you to respond to Mr Terry's latest email of 16 March.