

From: Andrew Hume
Sent: Thursday, 21 May 2020 2:39 pm
To: Gareth Wilson; Bertrand Ngai; Justine Cannon
Subject: FW: Addition questions [IN-

FYI – more for the advice

From: Ellie Martel <Ellie.Martel@refiningnz.com>
Sent: Thursday, 21 May 2020 1:21 PM
To: Andrew Hume <Andrew.Hume@mbie.govt.nz>
Subject: Addition questions

Hi Andy, please see below answers to most of your questions.

We're searching for what we can offer on the questions of greener fuels so that will have to come later. Hopefully today or tomorrow. We've had staff turnover in that area.

Additional questions:

- 1. If Refining NZ were to decide to cease refining at Marsden Point, would it consider mothballing some or all of the refining facilities? What costs are involved and what other matters would inform a decision to mothball? Might there be a time in the future when refining margins recover enough to make refining operations viable again?**
 - a. If Refining NZ converted to import terminal operations, the refinery would be mothballed and equipment preserved and kept in a safe condition. Demolition of equipment would not occur for up to a decade depending on the planned re-use of the site and equipment.
 - b. The refinery could only be restarted after some years in a mothballed state, with substantial investment costs associated with a total overhaul. In addition, it would be necessary to re-build a competent workforce to run and maintain the refinery which would likely involve material cost and challenge. Therefore, we do not see a full restart of the refinery as a realistic scenario.
- 2. Given the economics of capacity utilisation, how could reducing refinery output (in the right-sizing option) lead to increased competitiveness? Does this option rely on the RAP being used exclusively for the transport of fuels refined at Marsden Point (i.e. is the refinery's competitiveness dependent on bundling that operation with fuel distribution via the RAP)? If importing refined fuels to regional ports is more competitive than refining at Marsden Point plus coastal distribution, why have the refinery's customers not already selected that option?**
 - a. Around 60 per cent of Marsden Point refined fuel is currently sent around Northland and through the RAP to Auckland. Under the current Processing Agreements with customers, this supply is strongly competitive compared with refined product imports to these markets through the Port of Tauranga. The remaining Marsden point refined product is shipped around to smaller ports in New Zealand, through the Coastal Oil Logistics joint venture (operated by the 3 oil companies), with associated costs making this supply less competitive. Continuing to supply Northland and Auckland would retain the more competitive part of the business, while stopping supplying other ports would remove less competitive volumes. This option will likely increase the cost of RNZ refined product on a unit basis, as it is not possible to reduce the fixed cost base of the refinery to the same extent as the volume you are removing, but does avoid the need to overhaul a number of tanks due for maintenance, making it a lower cost option through periods of low refining margins when we are operating at the Fee Floor under the current Processing Agreements. NB this option would mean a slight decrease in New Zealand's overall fuel-holding capacity.

- b. The use of the RAP under the right-sized refinery option does not involve any change in use of the RAP. It would continue to supply RNZ refined fuel to the three oil companies into the Auckland market.
- c. Some fuel is already imported directly into smaller ports and we have seen an increasing trend towards this by some of our customers over the past 18 months. The fixed costs of the Coastal Oil Logistics joint venture do give customers an incentive to maximise utilisation of these ships with fuel refined at Marsden Point.
- 3. If Refining NZ moves to an import terminal model, what would be the implications for infrastructure development at Marsden Point? Any views on the infrastructure development needs at other regional ports in NZ in that scenario?**
- a. There would be little impact on infrastructure development needs. A simple conversion would mainly focus on changing tank requirements. To the extent that additional tankage capacity is required to make the import fuel supply chain lower cost and more efficient (eg by use of larger LR vessels), this would likely occur at a later date.
- b. Customers would make any decisions on infrastructure needed at other ports.
- 4. Would you be able to share any result of Refining NZ's recent investigations into biofuel and hydrogen developments? For example, any report on the business case for production of various types of biofuels and hydrogen?**
- a. We'll get back to you on this one.
- 5. What is Refining NZ's market share in the carbon dioxide, sulphur and bitumen markets in New Zealand? How do the costs of the imports compare to Refining NZ's products?**
- a. CO₂: The best answer to this question will come from BOC and AL. We are not aware that CO₂ is imported, unless the refinery is shut for maintenance (e.g. 2018 upgrade, upcoming refinery standby). Both BOC and AL supplement our production with supply from Kapuni. We have the impression we supply around 80 per cent of the market but have no firm figures on this.
- b. Bitumen: RNZ is the only manufacturer in NZ. We supply ~70% of the market – the balance is imported. It would appear from market behaviour that our bitumen is competitive with imports, and often of superior quality.
- c. Sulphur: RNZ production appears to be ~20% of NZ market demand. The remainder is imported. Our sulphur is priced on a (netback) import-parity pricing mechanism.
- 6. How many Refining NZ's staff members are technical staff who have skills and expertise transferrable to biofuels or green hydrogen production?**
- a. RNZ employs ~50 engineers across chemical, mechanical, civil, process control, electrical, metallurgical engineering, maintenance management and process safety disciplines and another 172 (132 Refining NZ and 40 contractors) skilled operators and tradespeople who operate and maintain the refinery. All of these skills and expertise are transferable to biofuels and green hydrogen production. Running a simple biofuels production plant and producing green hydrogen for external consumption without the current refinery would require about one in ten of these people. Many of these skills do not have alternate sources of employment in New Zealand, making it likely many may leave New Zealand in search of new employment opportunities resulting a permanent loss of capability from the NZ economy.

Ellie Martel

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Refining NZ



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