

New Zealand Freight & Supply Chain Issues Paper

Submission by Aa Ake - 3rd June 2022

1. Who is Ara Ake?

Ara Ake is New Zealand's new energy development centre. Ara Ake was launched by the Government in September 2020 and is an independent limited liability company with its own board, funded and reporting to MBIE.

Ara Ake is tasked with accelerating New Zealand's transition to a low-emissions energy future through advancing the development and commercialisation of low-emissions energy innovation. Through Ara Ake's network of local and global connections, we identify technologies with change-making potential and collaborate with the right expertise, infrastructure, and capital to develop, test and commercialise low-emissions energy solutions.

2. Ara Ake wishes to comment on the following section in the Te Manatū Waka | New Zealand Freight & Supply Chain Issues Paper

Decarbonising our road fleet presents the biggest opportunity for reducing emissions in the freight sector (Page 23)

"The Government pledged that these vehicles would make up 30% of new vehicle sales by 2030 and 100% by 2040. This target is ambitious, and combined with our other targets, tells manufacturers and suppliers that New Zealand is ready to take these vehicles. Through the COP26 commitment we are working with a forum of international governments and manufacturers to share information and learn from other fast-moving countries on the best way to meet these targets. To prepare for this, we need to understand what low emissions heavy vehicle infrastructure will be required and build that into our long-term planning. These kinds of infrastructure have significant costs and the government, and the private sector will need to consider how they will be funded. We will also need to reduce emissions from our current fleet. The Sustainable Business Council's Low Emissions Freight Pathway shows significant reductions can be achieved through vehicle efficiency measures, such as:

- reducing weight of vehicles.
- making better use of carrying capacity.
- adopting telematics to optimise routes.
- collaboration to maximise utilisation of transportation assets.
- making use of multi-company hubs.

3. Comments

- 3.1 Ara Ake believes that efficient and affordable freight movement is critical for NZ's economy. Every product that we buy, or sell is freighted from suppliers to customers. Ara Ake also understands that NZ's freight task is projected to increase from 277 million tonnes a year to 340 million tonnes a year (+23%) within the next 20 years, with the largest proportion of freight being carried by road transport (92.8%). This is currently mostly dependent on diesel fuel, compounding the issue of road freight emissions.
- 3.2 Transitioning the road fleet to low or zero emissions fuels is a challenging task, with significant cost of low emission vehicles. This can disadvantage early adopters, as their vehicles can be 2-3 times more expensive than incumbent diesel models. It is unlikely the ETS will create a level playing field for them, therefore early adopters will be vulnerable to competitive pricing from lower cost transport options.
- 3.3 The Ministry of Transport's Freight and Supply Chain Issues paper identifies the cost challenge of replacing diesel freight vehicles, as seen in the section on page 23 of the issues paper; but does not present a pathway forward for the transition of the fleet, except to say that "We will also need to reduce emissions from our current fleet" and "by 2040 all new freight vehicles will be zero emissions."
- 3.4 Ara Ake notes the 'Aotearoa New Zealand's first emissions reduction plan – Table of actions' states that it will "provide funding to support the freight sector to purchase zero- and low-emissions trucks" but does not specify the size or terms of such funding.
- 3.5 Ara Ake notes that the Climate Emergency Response Fund investments report states there will be "\$20 million funding to support innovations in the decarbonisation of freight through co-funding for projects demonstrating low emission freight technologies, fuels, services, infrastructure, innovations and business models," but does not refer to any mechanism to assist fleet owners or owner/operators to transition their vehicles to low or zero emissions.
- 3.6 Ara Ake has developed a 'Total cost of ownership' tool, which can give fleet owners or owner/operators visibility of the comparative costs for a range of alternative vehicles and fuel-types in the different weight categories, so long-term planning can begin.
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| <p>3.7 Truck Categories are:</p> <ul style="list-style-type: none"> • 50 Max B-train • 26 tonne 6x2 • 16 tonne 4x2 | <p>3.8 Fuel categories are:</p> <ul style="list-style-type: none"> • Diesel • Battery electric • Fuel Cell vehicle (Green hydrogen) • Conventional biodiesel • Drop-in biodiesel • Hydrogen/Diesel blended fuel |
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- 3.9 The Ara Ake 'Total Cost of Ownership' tool has been used by companies in transition planning and is currently being utilised in a field-test by a large freight company in Auckland.
- 3.10 The Ara Ake 'Total Cost of Ownership' tool is downloadable free of charge from Ara Ake's website. <https://www.araake.co.nz/insights/ldhf-phase-two/>

4. Recommendation

- 4.1 Ara Ake recommends that the Ministry of Transport familiarise themselves with the "Total Cost of Ownership" tool; endorse and promote the tool through their network of road freight companies. Secondly, to have a link on their website to Ara Ake's website (as in 3.10 above), enabling freight companies to download the tool and guidelines to assist them in their planning processes for procuring low or zero emission vehicles.



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