

25 June 2021

Transport Emissions
Ministry of Transport
PO Box 3175
Wellington 6140

By email: transportemissions@transport.govt.nz

Dear Transport Emissions Team

DairyNZ Submission on the Ministry of Transport's "Hikina te Kohupara" Green Paper: Pathways to Net Zero Emissions by 2050

Thank you for the opportunity to provide feedback on the proposed "Hikina te Kohupara" Green Paper: Pathways to Net Zero Emissions by 2050. DairyNZ would welcome the opportunity to meet with Ministry officials to discuss the contents of this submission further.

About DairyNZ

DairyNZ is the industry good organisation representing all 11,000 of New Zealand's dairy farmers. Our purpose is to provide a better future for farmers by enhancing their profitability, sustainability, and competitiveness. The dairy sector employs 50,000 people, generates almost \$20b in export earning, and comprises one third of all goods revenue.

DairyNZ is committed to dairy farming playing its part in transitioning to a low-emissions economy alongside the rest of New Zealand and supporting the delivery of the Zero Carbon Act. We have active programmes to support farmers as they transition to lower greenhouse gas emissions.¹

Context to approach taken

Our dairy farmers must fund the cost of this transition, by and large themselves though the context of continuing to operate as a profitable business. The vast majority of our global competitors are making these shifts with support through subsidies, because they are food producers. As we assess the impacts and trade-offs of this effort for climate change, we cannot lose sight of that. We are also mindful that farmers are dealing with a multitude of challenging issues, including; greenhouse gas emissions, water policy, animal care, biosecurity, and labour issues.

We want this transition to be equitable, fair, and grounded by scientific, economic, social, and cultural considerations.

¹ [Step Change - DairyNZ](#)

We know there will be changes required, therefore we must be confident that the transition pathway is justified. We will also need to fully understand what it will take to enable and support this transition process.

Dairy sector greenhouse gas emissions comprise 85% on-farm, 10% processing and 5% transport. While it is crucial that the all-important long-lived gases reduce to zero we are concerned to ensure that the transition for the transportation needs of rural communities are fair, just and duly taken into consideration.

Key submission points

- We seek more information from the Ministry for Transport on the distributional impacts for rural communities and farmers on the proposed pathways for transport.
- The Ministry of Transport must ensure that its policies to decarbonise transport emissions are rural proofed². This includes adequate charging infrastructure, and electricity distribution services in rural areas.
- DairyNZ wishes to see policies affecting dairy farming better coordinated by Government. Our farmers want joined up, practical and implementable policies, where the goal posts stop being shifted.
- Rural communities have a high dependence on vehicles for transport due to their low population density. For many rural communities public transport is not practical.
- Innovative and creative solutions need to be explored so that rural communities do not feel left behind or face distributional impacts of the transition to a low-emissions future. For example, to create a testbed for e-utes in New Zealand – just as we did with EFTPOS or other technology. We are already leading the way with low-emissions, high quality farming, so we could do the same with e-mobility on farm too.
- We also recommend further research is done on transport needs and patterns for rural communities, so that options can be developed with an evidence-base. Pilots should be established.

Transport Emissions Pathways to Net Zero by 2050 – Consultation Questions

Question 1: Do you support the principles in Hīkina te Kohupara? Are there any other considerations that should be reflected in the Principles?

DairyNZ Comment:

While the transport sector is taking a leadership role in reducing our all-emissions. Transport is responsible for 47% of total domestic long-lived greenhouse gas emissions.

The consideration of the impact of rural communities in the principles of Hīkina te Kohupara, Principle 5 “Just Transition” is especially important for farmers and rural communities. Regions, sectors, and citizens all have different starting points in their journey to a low-emissions economy. It is important that this is acknowledged.

Options to decarbonise transport emissions are unlikely to be readily applicable in rural areas any time soon. Public transport and non-vehicle travel options are likely to be impractical options for farmers living in remote locations. Currently available EV options are not able to

² [Rural communities at heart of all decisions | Beehive.govt.nz](https://www.beehive.govt.nz/rural-communities-at-heart-of-all-decisions)



match the performance of internal combustion engine uses for on-farm needs. As yet there are no low emissions options for tractors and other specialised farm machinery.

Question 3: What more should Government do to encourage and support transport innovation that supports emissions reductions?

DairyNZ Comment:

Improving digital connectivity for our rural communities will help support rural communities to be able to make use of technology as it arises and will support transport emissions reductions. Our recent farmer survey³ revealed that 50% of farmers don't have the broadband internet they need on-farm and 52% don't have adequate mobile reception.

The Climate Change Commission recommended the rural Broadband Initiative is resourced and prioritised to achieve its 2023 target, so that farmers and rural communities have access to data and information to support decision making.

The decarbonised future will increasingly be electric, and therefore there must be reliable and adequate distribution networks and distributed energy resources in the regions. Coverage of charging infrastructure, including fast-charging services, needs to be planned to consider regions, as well as State Highway networks.

Question 4: Do you think we have listed the most important actions the government could take to better integrate transport, land use and urban development to reduce transport emissions? Which of these possible actions do you think should be prioritised?

DairyNZ Comment:

We support local authorities to be enabled to help decarbonise transport emissions, but the cost of implementing policies should not be passed on to landowners in rural communities if they are unable to access options to decarbonise.

DairyNZ wishes to see policies affecting dairy farming better coordinated by Government. Government must understand these linkages when designing policies to ensure that farmers are not overwhelmed with uncoordinated government regulation that impacts the same set of rural stakeholders. Our farmers want joined up, practical and implementable policies.

Question 5: Are there other travel options that should be considered to encourage people to use alternative modes of transport? If so, what?

DairyNZ Comment:

DairyNZ supports better travel options in our smaller cities, towns and regions but it is important that rural communities have a high dependence on vehicles for transport due to low population density. For many rural communities public transport is not a viable option. Improving the fuel efficiency of private vehicles may be the best options for rural areas.

Hīkina te Kohupara states that over half of the transport emissions come from Auckland, Christchurch and Wellington. We support measures to ensure that transport emissions reductions are prioritised in these areas, but rural communities also need to be supported so that distributional impacts are not unjust. Options such as public transport, walking and cycling options, are less relevant in smaller cities, towns and in the regions.

³ [The view from the cowshed - DairyNZ](#)



We encourage the Government to consider innovative and creative solutions. For example, to create a test-bed for e-utes in New Zealand – just as we did with EFTPOS or other technology. We are already leading the way with low-emissions, high quality farming, so we could do the same with e-mobility on farm too.

Question 7: Improving our fleet and moving towards electric vehicles and the use of sustainable alternative fuels will be important for our transition. Are there other possible actions that could help Aotearoa transition its light and heavy fleets more quickly, and which actions should be prioritised

DairyNZ Comment:

The impacts in Hīkina te Kohupara fails to acknowledge the distributional impacts on rural communities.

DairyNZ was pleased to see the Climate Change Commission acknowledged the specific transport needs of rural communities in the recent report “Ināia tonu nei: a low emissions future for Aotearoa”.

“Farmers, contractors and others in rural communities need vehicles that can carry heavy loads or access rugged or remote locations. Single- or double-cab Utes, farm bikes and quad bikes are an essential part of farming and rural landscapes. Cost-effective and low emissions solutions for these vehicles are available now or will be in the next few years.”

The Climate Change Commission did not identify which and low emissions solutions it has looked at that are available now, which will be cost effective and available in three years’ time. We would welcome the Ministry for Transport and the Government to give more detail on this aspect.

We also recommend further research is done on transport needs and patterns for rural communities, so that options can be developed with an evidence-base. Pilots should be established.

Question 10: The freight supply chain is important to our domestic and international trade. Do you have any views on the feasibility of the possible actions in Aotearoa and which should be prioritised?

DairyNZ Comment:

We are working with Dairy processors on managing the cost of the technological solutions. We expect that the Government will follow the path for this work.

Question 12: A Just Transition for all of Aotearoa will be important as we transition to net zero. Are there other impacts that we have not identified?

DairyNZ Comment:

DairyNZ supports more work to be done to look into the distributional impacts of transport sector decarbonisation. We support a strong evidence base for assessing the distributional impacts of climate policy decisions and developing localised transition plans for affected regions. Further evidence is needed on the combined effects of changes to transportation, heat and energy, on the agricultural sector and rural communities.

⁴ [Rural communities at heart of all decisions | Beehive.govt.nz](https://www.beehive.govt.nz/rural-communities-at-heart-of-all-decisions)

Hīkina te Kohupara stated that people living outside urban centres are less likely to benefit during the initial phases of the transitions and usually have fewer travel options. It is important that rural communities are supported. Regions, sectors, and citizens all have different starting points in their journey to a low-emissions economy. It is important that this is acknowledged and remedied.

Question 13: Given the four potential pathways identified in Hīkina te Kohupara, each of which require many levers and policies to be achieved, which pathway to you think Aotearoa should follow to reduce transport emissions?

DairyNZ Comment:

We want to understand how the four potential pathways have been 'rural-proofed'⁵? What is the impact of the four potential pathways identified in Hīkina te Kohupara on rural communities?

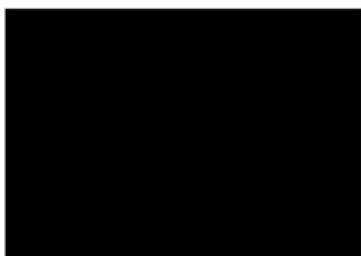
We seek more information on the distributional impacts of the proposed pathway, particularly for the agriculture sector. We support a strong evidence base for assessing the distributional impacts of climate policy decisions and developing localised transition plans for affected regions. Further evidence is needed on the combined effects of changes to transportation, and heat and energy, on the agricultural sector and rural communities.

There should be increased accountability for actions and expenditure by government departments commensurate with any increases in Appropriations in Budget. The assessed funding requirements for implementing each emissions reduction plan should estimate the costs and benefits. The cost per tonne of carbon should be calculated for each policy. All policies should be routinely evaluated for their effectiveness to reduce emissions - this information should be communicated publicly, regularly.

Contact

Thank you once again for the opportunity to comment on these proposals. Please do not hesitate to contact DairyNZ if you have any questions regarding this submission or require any additional information. Contact details for this submission are Roger Lincoln, Principal Policy Advisor, [REDACTED]

Yours sincerely



Jenny Cameron
General Manager, Responsible Dairy

⁵ [Rural communities at heart of all decisions | Beehive.govt.nz](https://www.beehive.govt.nz/rural-communities-at-heart-of-all-decisions)



Introduction

Living Streets Aotearoa is New Zealand's national walking and pedestrian advocacy organisation. As walking advocates, we are pleased that Hīkina te Kohupara – Kia mauri ora ai te iwi - Transport Emissions: Pathways to Net Zero by 2050 acknowledges the important role walking has to play as a low-emissions form of transport and an integral part of our transport system. However, the report does not fully capture the emissions reductions potential of walking as a form of transport, especially in urban areas and especially in conjunction with public transport.

Our submission covers our overall reaction to the Hīkina te Kohupara report, plus responses to selected discussion questions.

Contact for this submission:

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Overall reaction

Living Streets Aotearoa welcomes the overall approach outlined in Hīkina te Kohupara, including the Avoid, Shift, Improve framework; the emphasis on the reduction of private car use; and the acknowledgement that reallocating existing street space away from cars and towards active modes, public transport and mass transit is more cost-effective and faster than building additional capacity for these modes.

However, given the urgency of the climate crisis and the economic, moral and legal requirement for New Zealand to act accordingly, we are disappointed that only one of the four proposed pathways appears to meet the emissions reduction target. We think that a more ambitious pathway should be developed, which exceeds the target, to allow for potential future science-based increases in the urgency of action.

While the role of policy and funding mechanisms such as the GPS and NLTF is raised, not enough emphasis is given to the need to both reallocate funding away from legacy roading projects that will lead to increased rather than decreased emissions and find additional funding sources for the changes that need to be made – including direct funding of key mode shift projects outside the GPS and NLTF, and more financial and regulatory support for local government actions.

Walking is a low-cost, low-carbon form of transport that requires relatively inexpensive infrastructure and can flexibly respond to changing circumstances. The literature on walking, and barriers to walking, in Aotearoa continues to evolve (see, for example, Bozovic et al, [Clearing the path to transcend barriers to walking: Analysis of associations between perceptions and walking behaviour](#)), but makes it clear that walking is a key part of sustainable, low-carbon transport solutions. We acknowledge that some people with disabilities are not able to walk far, or at all, and that providing equitable access for them to transport and to the services provided by transport is crucial to a just transition to low-carbon transport.

Neves and Brand (2018) demonstrate that, in a UK context, “walking or cycling can realistically substitute for 41% of short car trips, saving nearly 5% of CO₂e emissions from car travel. This is on top of 5% of ‘avoided’ emissions from cars due to existing walking and cycling.” (source: [What is the carbon emission reduction potential of active travel?](#)) and Brand et al (2021), [in a study of seven European cities](#), show that active travel does substitute for motorised transport. While Aotearoa is not the UK, many lessons from European experience are applicable in New Zealand cities.

The Government’s first Emissions Reduction Plan, which is due in December this year, should contain measures including:

1. A commitment to allocate transport funding only to projects that reduce emissions and end investments in urban state highways and roads that simply encourage urban sprawl and increase car use.
2. Cancel the remainder of the \$5.3 billion in roading projects announced January 2020, and invest the money in road safety upgrades and mode shift instead, freeing significant money for additional public transport, walking and cycling infrastructure.
3. Remove the state highway and road tunnel aspects of Let’s Get Wellington Moving which will cost close to \$1 billion and direct the funds into walking, cycling, public transport and mass transit infrastructure.
4. Launch an ambitious plan to take advantage of New Zealand’s low Crown debt position and the low costs of borrowing to invest an unprecedented amount in public transport, walking and cycling infrastructure and incentives.

5. With regards to walking and cycling, follow Ireland's lead and allocate 10% of the total transport capital budget for pedestrian infrastructure, and a further separate 10% for cycling projects. This recommendation follows the approach of the Republic of Ireland, a nation of similar population to Aotearoa, as outlined in Department of the Taoiseach, [Programme for Government: Our Shared Future](#) (2020).
6. Expand inter-city rail services and invest more in the port and rail network.
7. Remove tax incentives that encourage transport emissions and use tax and pricing tools to encourage public and active transport modes. In particular, the current Fringe Benefit Tax (FBT) regime creates perverse incentives. An employee subsidy for annual public transport use or purchase of an electric bicycle is subject to FBT, but the provision of a carpark to staff is not. This undercuts the Government Policy Statement transport targets of increasing use of low carbon modes such as walking, cycling and using public transport. These perverse incentives should be removed. Changes to the ETS, Road User Charges, and congestion charges are other tools available - provided revenue is directly or indirectly recycled to ensure that transport and access needs are met in a just, equitable way.
8. Encourage Councils to implement first and last kilometre travel solutions in their transport networks, such as increased on-demand and shared vehicle and bike services, encouraging walking, improved footpaths, better walking routes and connections to public transport stops, secure park and ride solutions at public transport, and encouraging micro-mobility options. Encouragement of other active modes and micromobility should not discourage walking.

Walking is especially important in providing connections to public transport services. By:

- making walking routes wider, safer, and more sheltered
- decreasing severance between public transport stops and walking routes, and
- meeting the walking and footpath use requirements of diverse users, while keeping walking separate from bicycles and micromobility devices,

access to public transport can be made easier, improving the equity of the transport system.

Responses to specific consultation questions

Question 1: Do you support the principles in Hīkina te Kohupara? Are there any other considerations that should be reflected in the principles?

We support these principles but believe upholding Te Tiriti o Waitangi should be added as a principle. The Government must uphold Te Tiriti o Waitangi and ensure Māori are enabled by the changing transport system. This means ensuring decision-making power for Māori and that policies to decarbonise transport benefit tangata whenua.

Dr Rhys Jones and other Māori researchers have addressed the role active transport (walking and cycling) plays and could play in the future of urban transport for Māori. Dr Jones' [December 2020 presentation](#) to the Ministry's [Te Ao Māori Knowledge Hub](#) refers to several papers on this topic. We urge the Ministry to pay careful attention to the findings of Dr Jones and his colleagues.

Question 2: Is the government's role in reducing transport emissions clear? Are there other levers the government could use to reduce transport emissions?

Yes, it is clear. We also note the importance of government as a major segment of the economy and driver through its procurement policies. We welcome the Carbon Neutral Government Programme (CNGP) to measure and reduce the state sector's emissions, and suggest that commuting emissions of public sector employees (including aviation and shipping emissions) be measured and reduced as part of the CNGP.

We encourage increasing the State Sector Decarbonisation Fund and establishing targets to reduce transport emissions through remote work policies, encouraging inter-city rail use, policies limiting air travel and incentives for public sector employees to walk and use other active modes.

This section of Hīkina te Kohupara highlights collaboration with local government. While this is important, the Government should be more ambitious in its support of local government. In many respects achieving emission reduction targets will succeed or fail due to the ability of councils to deliver and fund infrastructure and services. New Zealand's local government is smaller, with lower revenue compared to most developed countries.

Living Streets Aotearoa urges the Government to provide greater immediate financial support to councils for low carbon transport projects while on-going reviews into local government and funding occur. Central government has an important role to play in ensuring that local government can act to improve walkability and move towards low-carbon transport systems at the necessary pace. Right now, the rules surrounding local government decision-making make it slow and cumbersome to reallocate street space to make walking better and easier.

Aotearoa's response to COVID-19 has clearly shown that, with clear, consistent messaging and explanation of the benefits of change, New Zealanders can and will change their behaviour. However, the Government has been extremely reluctant to apply the same approach to messaging about the need for climate action, or the health and wellbeing benefits of walking and other low-carbon forms of transport. Living Streets Aotearoa agrees with groups such as Parents for Climate Aotearoa that the Government should put thought and money into climate change education and promoting behaviour change, rather than expecting this work to be done by small community groups which are poorly resourced in comparison to vested interests in the transport sector.

Question 3: What more should Government do to encourage and support transport innovation that supports emissions reductions?

Living Streets Aotearoa supports innovation in transport. However, there is a risk that ‘innovation’ becomes equated with ‘new technology’. In our view, this section of Hīkina te Kohupara has fallen into this trap. The focus of the ‘innovation’ examples is on technological change rather than on new street design principles; drones are regarded as major contributors to decarbonising transport while bikes are listed in the “may make a contribution” category.

In other words, the Ministry has paid attention to the “Improve” category at the expense of “Avoid” and “Shift”. Innovation is not only about technology. It is also about behaviour change. Recent New Zealand research by Bozovic et al, [Clearing the path to transcend barriers to walking: Analysis of associations between perceptions and walking behaviour](#), shows that people choose whether or not to walk for a complex mix of reasons, of which journey distance does not appear to be the most important.

Improving infrastructure, removing physical and social barriers, improving safety and modelling and promoting behaviour change can play an active role in encouraging more people to walk for all or part of their journeys - thereby reducing emissions and improving public health. The UK Department of Transport research review [Impact of interventions encouraging a switch from cars to more sustainable modes of transport: a rapid evidence assessment \(REA\)](#) also offers useful guidance.

The technology, practices, infrastructure, and potential incentives exist today to significantly reduce emissions. The Government needs to provide leadership, funding and support.

Question 4: Do you think we have listed the most important actions the government could take to better integrate transport, land use and urban development to reduce transport emissions? Which of these possible actions do you think should be prioritised?

Living Streets Aotearoa supports and advocates for footpaths and walkways that are safe, clear of obstructions, not shared with other modes that move at higher speeds, encourage more people to walk more often, and connect well with public transport. We support lower speeds in urban areas, low-traffic neighbourhoods, and safe, separated cycle and e-scooter ways.

Therefore, we support in particular the proposed placemaking and inclusive street design measures. Setting higher Funding Assistance Rates for walking and cycling investments, and removing regulatory barriers to placemaking and inclusive street design, will be crucial.

Investment in high-quality, well-lit, safe footpaths is also important - especially as at least 1 in 4 New Zealanders have disabilities, and this ratio is expected to grow with time. Investment in walking is also investment in health, well-being, and equity, if done well. Living Streets Aotearoa also supports investment in safe, separated cycleways or ‘third lanes’ for cyclists and micromobility users, as we want footpaths to be safe and clear for walkers and wheelchair users.

Walking is especially important in providing connections to public transport services. By:

- making walking routes wider, safer, and more sheltered
- decreasing severance between public transport stops and walking routes, and
- meeting the walking and footpath use requirements of diverse users, while keeping walking separate from bicycles and micromobility devices,

access to public transport can be made easier, thereby improving the equity of the transport systems.

Living Streets Aotearoa welcomes the news that walking is becoming more popular with New Zealanders. The Waka Kotahi report [Understanding attitudes and perceptions of cycling & walking](#) shows that 68% are walking on a regular basis which has increased from 60% in 2019. Further policy, behavioural and regulatory changes are needed to lock in, and build on, this increase.

As well as setting higher Funding Assistance Rates for walking and cycling investments and dedicated/priority bus lanes to strongly incentivise Road Controlling Authorities to prioritise and accelerate street changes, greater direct funding could be provided. Conversely, it makes sense to lower funding assistance rates for local transport projects (including renewals) that have no dedicated active travel or public transport provision.

While parking reform is mentioned elsewhere in the report, it is crucial that smarter, more modern approaches can assist quality, compact urban design, placemaking and inclusive street design.

The Ministry of Transport and Waka Kotahi can define regulatory pathways and technical blueprints to allow Road Controlling Authorities to roll out innovative road layouts at scale, including bus rapid transit lanes on motorways and state highways, Low Traffic Neighbourhoods, and tactical urbanism treatments. Such blueprints can include approved treatment types, fast-track consultation processes, and designs.

Improving the walking environment has benefits beyond an obvious relationship with more people choosing to walk more often. Street trees, green space and green walls and roofs can encourage walking, make denser living more acceptable and directly sequester carbon. For example, 7.8% of Singapore's CO₂ emissions are sequestered by above-ground vegetation in that city-state.

Recent research shows that the perception of a public transport trip is approximately 70% derived from memories of the walking component, despite this being a far smaller part (average 44%) of the average journey. Improving walking also reduces social severance and its consequences.

Four streetscape comparisons show the value of good design principles in Cabanek et al (2020), [Biophilic streets: a design framework for creating multiple urban benefits](#) - see in particular Table 1.

Question 5: Are there other travel options that should be considered to encourage people to use alternative modes of transport? If so, what?

We agree with these options but urge greater ambition. To achieve emission reduction goals, massive, sustained investment is needed in all areas from infrastructure, operations, services and amenities as well as incentives to encourage greater public transport and walking and cycling. With Emissions Trading Scheme revenue ringfenced to assist funding the ERP as well as other sources, an unprecedented amount is required to redress decades of under-investment. In particular, investment must be prioritised to delivering transport infrastructure to urban areas that have been historically under-served.

Public transport concession rates vary across territorial authorities and a strong case can be made for universalising this across Aotearoa as an issue of equity as well as effectiveness. We note that

local authorities are currently trialling a range of approaches to cheaper public transport, which will help provide evidence towards an effective national-level approach.

Consistent with MOT's ASI framework, removing road space prioritised for vehicular traffic and re-orienting towards footpaths and walkways, cycleways and 'third lanes', bus priority, mass rapid transit and other public and active transport amenities would speed up delivery and magnify impact. This should be encouraged and barriers removed. For example, we support allocating two lanes of the Auckland Harbour Bridge for walking and cycling paths as an urgent interim step while consideration is given for longer-term provision.

A good transport system should be usable by anyone regardless of their access needs. Councils must work with groups that represent disabled people to ensure efforts to decarbonise transport accommodate them.

We recommend creating a regulatory framework for a "third lane" or "slow mobility lane" to fast track reallocation of general traffic lanes to cycling and micromobility at lower cost than building new cycle infrastructure, and ensure that footpaths are kept clear for pedestrians and users of low-speed mobility devices such as wheelchairs. This could rest on top of the existing framework for special vehicle lanes.

Question 6: Pricing is sometimes viewed as being controversial. However, international literature and experiences demonstrate it can play a role in changing behaviour. Do you have any views on the role demand management, and more specifically pricing, could play to help Aotearoa reach net zero by 2050?

Through good design and communication, pricing can apportion costs more accurately and fairly and deliver direct benefits (for example better public and active transport services). Additional fuel or carbon charges on transport emissions should be levied and the revenue recycled into ASI initiatives. The UK example of Nottingham's Workplace Parking Levy shows that the public can accept pricing when use of the funds is clearly linked to providing alternatives. On the other hand, the absence of pricing locks in the status quo.

We submit that all cities in Aotearoa should be required to issue congestion charges and spend the revenue on making low-carbon modes better. However, traditional congestion pricing is not sufficient in its objectives, equity, and scope to maximise emissions reduction so Territorial Authorities should be allowed to introduce differentiated pricing by vehicle weight, size, and tailpipe emissions. SUVs and utes which now represent the majority of new car sales should incur significantly higher charges to reflect their disproportionate impact and signal to the automotive industry that vehicles have to become smaller and more efficient.

Additionally, land value capture taxes could be a useful contribution to assist in bridging the funding challenges identified by MOT whilst building low-carbon infrastructure.

We urge the Government to work with Territorial Authorities in all urban areas to introduce parking levies, i.e. a tax on each privately owned parking space, plus Council and Central Government spaces. The revenue should be used to fund road safety and amenity improvements. This has been in place in Sydney since 1992. Where applied in city centres such policy can have low equity impacts as it generally impacts people who live or work in close proximity to viable alternative forms of transport. The availability of free or cheap parking is known to be a strong incentive to drive.

The current Fringe Benefit Tax (FBT) regime creates perverse incentives. An employee subsidy for

annual public transport use or purchase of an electric bicycle is subject to FBT, but the provision of a carpark to staff is not. This undercuts the Government Policy Statement transport targets of increasing use of low carbon modes such as walking, cycling and using public transport. These perverse incentives should be removed.

Changes to the ETS, Road User Charges, and congestion charges are other tools available - provided revenue is directly or indirectly recycled to ensure that transport and access needs are met in a just, equitable way.

Introducing congestion charges must be coupled with using that revenue to reduce public transport fares to be acceptable. Similarly increases in parking charges should be ear-marked for street improvements - street trees, seats and lighting are critical walking infrastructure, not unnecessary frills. When car parks are removed, make the spaces nearest crossings into bike parks instead of the precious pavement. Otherwise charges are seen as revenue-gathering only.

However, without adequate public transport, footpaths, crossings and cycle infrastructure, price alone cannot create alternatives to driving. Investment in better modal choices must happen before or at the same time pricing signals are sent or life just becomes more expensive.

Equity of access should include much reduced public transport fares and a wider understanding that walking is the most democratic and inclusive form of transport. Furthermore, bikes and e-bikes are far cheaper than cars to own and run. It is sometimes claimed that any increase in motoring costs will affect low-income people and any walking or cycling improvements will only benefit the middle class. This is not supported by the evidence.

Question 12: A Just Transition for all of Aotearoa will be important as we transition to net zero. Are there other impacts that we have not identified?

As we have noted elsewhere, walking is a very low-cost and low-carbon means of transport that is widely available in urban and rural communities. Footpaths are used both by those who walk, and those using wheelchairs and other low-speed mobility devices.

Therefore, removing barriers to walking, and ensuring that pedestrians have level, well-lit, clearly signposted footpaths and walkways that are free of both stationary obstructions and of devices travelling at high speeds relative to walkers (e.g. cyclists and users of micromobility devices) – while also providing safe, separated lanes for users of those devices – is a key contribution to a just, low-carbon, equitable transition.

Positive social outcomes must be maximised as we decarbonise the transport sector. The transformation of our transport system to meet climate goals offers a huge opportunity to undo the existing injustices currently baked into the system, particularly for persons with disabilities, low-income people and people of colour. This opportunity must not be squandered.

Question 13: Given the four potential pathways identified in Hīkina te Kohupara, each of which require many levers and policies to be achieved, which pathway do you think Aotearoa should follow to reduce transport emissions?

The pathways should be more ambitious. The primary goal of the Emissions Reduction Plan must be to reduce emissions in line with the target. Pathway 4 is the only one that clearly achieves this, so we support it. However, we urge MOT to recommend and advise emission reductions further and

faster than outlined in any of the four pathways, in order to make up for the lack of reductions in other sectors such as agriculture.

In the final report, all pathways should be consistent with achieving the goal of staying below 1.5 degrees, as outlined in the Zero Carbon Act. There is no excuse to include pathways that miss this goal. Indeed, including pathways that do not achieve the law only serves to confuse the public and decision-makers alike.

Investment in safe, separated walking and cycling infrastructure, and the removal of barriers to active transport, can produce big emissions reductions quickly, as demonstrated for Auckland by MR Cagney's [Transport2030](#) tool - and we need those reductions to help meet both national and regional emissions reductions targets, including those presently being incorporated in Councils' long-term plans.

Furthermore, public transport infrastructure takes time and investment - if the Government prioritises investments in EV infrastructure as more time-critical than investments in walking, cycling and public transport, then this may lead to investments in walking, cycling and public transport being made too late. Investment in decarbonisation investments such as walking that are low-cost, highly effective and can be made quickly should be given high priority.



Introduction

Living Streets Aotearoa is New Zealand's national walking and pedestrian advocacy organisation. As walking advocates, we are pleased that Hīkina te Kohupara – Kia mauri ora ai te iwi - Transport Emissions: Pathways to Net Zero by 2050 acknowledges the important role walking has to play as a low-emissions form of transport and an integral part of our transport system. However, the report does not fully capture the emissions reductions potential of walking as a form of transport, especially in urban areas and especially in conjunction with public transport.

Our submission covers our overall reaction to the Hīkina te Kohupara report, plus responses to selected discussion questions.

Contact for this submission:

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027 359 0293

Overall reaction

Living Streets Aotearoa welcomes the overall approach outlined in Hīkina te Kohupara, including the Avoid, Shift, Improve framework; the emphasis on the reduction of private car use; and the acknowledgement that reallocating existing street space away from cars and towards active modes, public transport and mass transit is more cost-effective and faster than building additional capacity for these modes.

However, given the urgency of the climate crisis and the economic, moral and legal requirement for New Zealand to act accordingly, we are disappointed that only one of the four proposed pathways appears to meet the emissions reduction target. We think that a more ambitious pathway should be developed, which exceeds the target, to allow for potential future science-based increases in the urgency of action.

While the role of policy and funding mechanisms such as the GPS and NLTF is raised, not enough emphasis is given to the need to both reallocate funding away from legacy roading projects that will lead to increased rather than decreased emissions and find additional funding sources for the changes that need to be made – including direct funding of key mode shift projects outside the GPS and NLTF, and more financial and regulatory support for local government actions.

Walking is a low-cost, low-carbon form of transport that requires relatively inexpensive infrastructure and can flexibly respond to changing circumstances. The literature on walking, and barriers to walking, in Aotearoa continues to evolve (see, for example, Bozovic et al, [Clearing the path to transcend barriers to walking: Analysis of associations between perceptions and walking behaviour](#)), but makes it clear that walking is a key part of sustainable, low-carbon transport solutions. We acknowledge that some people with disabilities are not able to walk far, or at all, and that providing equitable access for them to transport and to the services provided by transport is crucial to a just transition to low-carbon transport.

Neves and Brand (2018) demonstrate that, in a UK context, “walking or cycling can realistically substitute for 41% of short car trips, saving nearly 5% of CO₂e emissions from car travel. This is on top of 5% of ‘avoided’ emissions from cars due to existing walking and cycling.” (source: [What is the carbon emission reduction potential of active travel?](#)) and Brand et al (2021), [in a study of seven European cities](#), show that active travel does substitute for motorised transport. While Aotearoa is not the UK, many lessons from European experience are applicable in New Zealand cities.

The Government’s first Emissions Reduction Plan, which is due in December this year, should contain measures including:

1. A commitment to allocate transport funding only to projects that reduce emissions and end investments in urban state highways and roads that simply encourage urban sprawl and increase car use.
2. Cancel the remainder of the \$5.3 billion in roading projects announced January 2020, and invest the money in road safety upgrades and mode shift instead, freeing significant money for additional public transport, walking and cycling infrastructure.
3. Remove the state highway and road tunnel aspects of Let’s Get Wellington Moving which will cost close to \$1 billion and direct the funds into walking, cycling, public transport and mass transit infrastructure.
4. Launch an ambitious plan to take advantage of New Zealand’s low Crown debt position and the low costs of borrowing to invest an unprecedented amount in public transport, walking and cycling infrastructure and incentives.

5. With regards to walking and cycling, follow Ireland's lead and allocate 10% of the total transport capital budget for pedestrian infrastructure, and a further separate 10% for cycling projects. This recommendation follows the approach of the Republic of Ireland, a nation of similar population to Aotearoa, as outlined in Department of the Taoiseach, [Programme for Government: Our Shared Future](#) (2020).
6. Expand inter-city rail services and invest more in the port and rail network.
7. Remove tax incentives that encourage transport emissions and use tax and pricing tools to encourage public and active transport modes. In particular, the current Fringe Benefit Tax (FBT) regime creates perverse incentives. An employee subsidy for annual public transport use or purchase of an electric bicycle is subject to FBT, but the provision of a carpark to staff is not. This undercuts the Government Policy Statement transport targets of increasing use of low carbon modes such as walking, cycling and using public transport. These perverse incentives should be removed. Changes to the ETS, Road User Charges, and congestion charges are other tools available - provided revenue is directly or indirectly recycled to ensure that transport and access needs are met in a just, equitable way.
8. Encourage Councils to implement first and last kilometre travel solutions in their transport networks, such as increased on-demand and shared vehicle and bike services, encouraging walking, improved footpaths, better walking routes and connections to public transport stops, secure park and ride solutions at public transport, and encouraging micro-mobility options. Encouragement of other active modes and micromobility should not discourage walking.

Walking is especially important in providing connections to public transport services. By:

- making walking routes wider, safer, and more sheltered
- decreasing severance between public transport stops and walking routes, and
- meeting the walking and footpath use requirements of diverse users, while keeping walking separate from bicycles and micromobility devices,

access to public transport can be made easier, improving the equity of the transport system.

Responses to specific consultation questions

Question 1: Do you support the principles in Hīkina te Kohupara? Are there any other considerations that should be reflected in the principles?

We support these principles but believe upholding Te Tiriti o Waitangi should be added as a principle. The Government must uphold Te Tiriti o Waitangi and ensure Māori are enabled by the changing transport system. This means ensuring decision-making power for Māori and that policies to decarbonise transport benefit tangata whenua.

Dr Rhys Jones and other Māori researchers have addressed the role active transport (walking and cycling) plays and could play in the future of urban transport for Māori. Dr Jones' [December 2020 presentation](#) to the Ministry's [Te Ao Māori Knowledge Hub](#) refers to several papers on this topic. We urge the Ministry to pay careful attention to the findings of Dr Jones and his colleagues.

Question 2: Is the government's role in reducing transport emissions clear? Are there other levers the government could use to reduce transport emissions?

Yes, it is clear. We also note the importance of government as a major segment of the economy and driver through its procurement policies. We welcome the Carbon Neutral Government Programme (CNGP) to measure and reduce the state sector's emissions, and suggest that commuting emissions of public sector employees (including aviation and shipping emissions) be measured and reduced as part of the CNGP.

We encourage increasing the State Sector Decarbonisation Fund and establishing targets to reduce transport emissions through remote work policies, encouraging inter-city rail use, policies limiting air travel and incentives for public sector employees to walk and use other active modes.

This section of Hīkina te Kohupara highlights collaboration with local government. While this is important, the Government should be more ambitious in its support of local government. In many respects achieving emission reduction targets will succeed or fail due to the ability of councils to deliver and fund infrastructure and services. New Zealand's local government is smaller, with lower revenue compared to most developed countries.

Living Streets Aotearoa urges the Government to provide greater immediate financial support to councils for low carbon transport projects while on-going reviews into local government and funding occur. Central government has an important role to play in ensuring that local government can act to improve walkability and move towards low-carbon transport systems at the necessary pace. Right now, the rules surrounding local government decision-making make it slow and cumbersome to reallocate street space to make walking better and easier.

Aotearoa's response to COVID-19 has clearly shown that, with clear, consistent messaging and explanation of the benefits of change, New Zealanders can and will change their behaviour. However, the Government has been extremely reluctant to apply the same approach to messaging about the need for climate action, or the health and wellbeing benefits of walking and other low-carbon forms of transport. Living Streets Aotearoa agrees with groups such as Parents for Climate Aotearoa that the Government should put thought and money into climate change education and promoting behaviour change, rather than expecting this work to be done by small community groups which are poorly resourced in comparison to vested interests in the transport sector.

Question 3: What more should Government do to encourage and support transport innovation that supports emissions reductions?

Living Streets Aotearoa supports innovation in transport. However, there is a risk that ‘innovation’ becomes equated with ‘new technology’. In our view, this section of Hīkina te Kohupara has fallen into this trap. The focus of the ‘innovation’ examples is on technological change rather than on new street design principles; drones are regarded as major contributors to decarbonising transport while bikes are listed in the “may make a contribution” category.

In other words, the Ministry has paid attention to the “Improve” category at the expense of “Avoid” and “Shift”. Innovation is not only about technology. It is also about behaviour change. Recent New Zealand research by Bozovic et al, [Clearing the path to transcend barriers to walking: Analysis of associations between perceptions and walking behaviour](#), shows that people choose whether or not to walk for a complex mix of reasons, of which journey distance does not appear to be the most important.

Improving infrastructure, removing physical and social barriers, improving safety and modelling and promoting behaviour change can play an active role in encouraging more people to walk for all or part of their journeys - thereby reducing emissions and improving public health. The UK Department of Transport research review [Impact of interventions encouraging a switch from cars to more sustainable modes of transport: a rapid evidence assessment \(REA\)](#) also offers useful guidance.

The technology, practices, infrastructure, and potential incentives exist today to significantly reduce emissions. The Government needs to provide leadership, funding and support.

Question 4: Do you think we have listed the most important actions the government could take to better integrate transport, land use and urban development to reduce transport emissions? Which of these possible actions do you think should be prioritised?

Living Streets Aotearoa supports and advocates for footpaths and walkways that are safe, clear of obstructions, not shared with other modes that move at higher speeds, encourage more people to walk more often, and connect well with public transport. We support lower speeds in urban areas, low-traffic neighbourhoods, and safe, separated cycle and e-scooter ways.

Therefore, we support in particular the proposed placemaking and inclusive street design measures. Setting higher Funding Assistance Rates for walking and cycling investments, and removing regulatory barriers to placemaking and inclusive street design, will be crucial.

Investment in high-quality, well-lit, safe footpaths is also important - especially as at least 1 in 4 New Zealanders have disabilities, and this ratio is expected to grow with time. Investment in walking is also investment in health, well-being, and equity, if done well. Living Streets Aotearoa also supports investment in safe, separated cycleways or ‘third lanes’ for cyclists and micromobility users, as we want footpaths to be safe and clear for walkers and wheelchair users.

Walking is especially important in providing connections to public transport services. By:

- making walking routes wider, safer, and more sheltered
- decreasing severance between public transport stops and walking routes, and
- meeting the walking and footpath use requirements of diverse users, while keeping walking separate from bicycles and micromobility devices,

access to public transport can be made easier, thereby improving the equity of the transport systems.

Living Streets Aotearoa welcomes the news that walking is becoming more popular with New Zealanders. The Waka Kotahi report [Understanding attitudes and perceptions of cycling & walking](#) shows that 68% are walking on a regular basis which has increased from 60% in 2019. Further policy, behavioural and regulatory changes are needed to lock in, and build on, this increase.

As well as setting higher Funding Assistance Rates for walking and cycling investments and dedicated/priority bus lanes to strongly incentivise Road Controlling Authorities to prioritise and accelerate street changes, greater direct funding could be provided. Conversely, it makes sense to lower funding assistance rates for local transport projects (including renewals) that have no dedicated active travel or public transport provision.

While parking reform is mentioned elsewhere in the report, it is crucial that smarter, more modern approaches can assist quality, compact urban design, placemaking and inclusive street design.

The Ministry of Transport and Waka Kotahi can define regulatory pathways and technical blueprints to allow Road Controlling Authorities to roll out innovative road layouts at scale, including bus rapid transit lanes on motorways and state highways, Low Traffic Neighbourhoods, and tactical urbanism treatments. Such blueprints can include approved treatment types, fast-track consultation processes, and designs.

Improving the walking environment has benefits beyond an obvious relationship with more people choosing to walk more often. Street trees, green space and green walls and roofs can encourage walking, make denser living more acceptable and directly sequester carbon. For example, 7.8% of Singapore's CO₂ emissions are sequestered by above-ground vegetation in that city-state.

Recent research shows that the perception of a public transport trip is approximately 70% derived from memories of the walking component, despite this being a far smaller part (average 44%) of the average journey. Improving walking also reduces social severance and its consequences.

Four streetscape comparisons show the value of good design principles in Cabanek et al (2020), [Biophilic streets: a design framework for creating multiple urban benefits](#) - see in particular Table 1.

Question 5: Are there other travel options that should be considered to encourage people to use alternative modes of transport? If so, what?

We agree with these options but urge greater ambition. To achieve emission reduction goals, massive, sustained investment is needed in all areas from infrastructure, operations, services and amenities as well as incentives to encourage greater public transport and walking and cycling. With Emissions Trading Scheme revenue ringfenced to assist funding the ERP as well as other sources, an unprecedented amount is required to redress decades of under-investment. In particular, investment must be prioritised to delivering transport infrastructure to urban areas that have been historically under-served.

Public transport concession rates vary across territorial authorities and a strong case can be made for universalising this across Aotearoa as an issue of equity as well as effectiveness. We note that

local authorities are currently trialling a range of approaches to cheaper public transport, which will help provide evidence towards an effective national-level approach.

Consistent with MOT's ASI framework, removing road space prioritised for vehicular traffic and re-orienting towards footpaths and walkways, cycleways and 'third lanes', bus priority, mass rapid transit and other public and active transport amenities would speed up delivery and magnify impact. This should be encouraged and barriers removed. For example, we support allocating two lanes of the Auckland Harbour Bridge for walking and cycling paths as an urgent interim step while consideration is given for longer-term provision.

A good transport system should be usable by anyone regardless of their access needs. Councils must work with groups that represent disabled people to ensure efforts to decarbonise transport accommodate them.

We recommend creating a regulatory framework for a "third lane" or "slow mobility lane" to fast track reallocation of general traffic lanes to cycling and micromobility at lower cost than building new cycle infrastructure, and ensure that footpaths are kept clear for pedestrians and users of low-speed mobility devices such as wheelchairs. This could rest on top of the existing framework for special vehicle lanes.

Question 6: Pricing is sometimes viewed as being controversial. However, international literature and experiences demonstrate it can play a role in changing behaviour. Do you have any views on the role demand management, and more specifically pricing, could play to help Aotearoa reach net zero by 2050?

Through good design and communication, pricing can apportion costs more accurately and fairly and deliver direct benefits (for example better public and active transport services). Additional fuel or carbon charges on transport emissions should be levied and the revenue recycled into ASI initiatives. The UK example of Nottingham's Workplace Parking Levy shows that the public can accept pricing when use of the funds is clearly linked to providing alternatives. On the other hand, the absence of pricing locks in the status quo.

We submit that all cities in Aotearoa should be required to issue congestion charges and spend the revenue on making low-carbon modes better. However, traditional congestion pricing is not sufficient in its objectives, equity, and scope to maximise emissions reduction so Territorial Authorities should be allowed to introduce differentiated pricing by vehicle weight, size, and tailpipe emissions. SUVs and utes which now represent the majority of new car sales should incur significantly higher charges to reflect their disproportionate impact and signal to the automotive industry that vehicles have to become smaller and more efficient.

Additionally, land value capture taxes could be a useful contribution to assist in bridging the funding challenges identified by MOT whilst building low-carbon infrastructure.

We urge the Government to work with Territorial Authorities in all urban areas to introduce parking levies, i.e. a tax on each privately owned parking space, plus Council and Central Government spaces. The revenue should be used to fund road safety and amenity improvements. This has been in place in Sydney since 1992. Where applied in city centres such policy can have low equity impacts as it generally impacts people who live or work in close proximity to viable alternative forms of transport. The availability of free or cheap parking is known to be a strong incentive to drive.

The current Fringe Benefit Tax (FBT) regime creates perverse incentives. An employee subsidy for

annual public transport use or purchase of an electric bicycle is subject to FBT, but the provision of a carpark to staff is not. This undercuts the Government Policy Statement transport targets of increasing use of low carbon modes such as walking, cycling and using public transport. These perverse incentives should be removed.

Changes to the ETS, Road User Charges, and congestion charges are other tools available - provided revenue is directly or indirectly recycled to ensure that transport and access needs are met in a just, equitable way.

Introducing congestion charges must be coupled with using that revenue to reduce public transport fares to be acceptable. Similarly increases in parking charges should be ear-marked for street improvements - street trees, seats and lighting are critical walking infrastructure, not unnecessary frills. When car parks are removed, make the spaces nearest crossings into bike parks instead of the precious pavement. Otherwise charges are seen as revenue-gathering only.

However, without adequate public transport, footpaths, crossings and cycle infrastructure, price alone cannot create alternatives to driving. Investment in better modal choices must happen before or at the same time pricing signals are sent or life just becomes more expensive.

Equity of access should include much reduced public transport fares and a wider understanding that walking is the most democratic and inclusive form of transport. Furthermore, bikes and e-bikes are far cheaper than cars to own and run. It is sometimes claimed that any increase in motoring costs will affect low-income people and any walking or cycling improvements will only benefit the middle class. This is not supported by the evidence.

Question 12: A Just Transition for all of Aotearoa will be important as we transition to net zero. Are there other impacts that we have not identified?

As we have noted elsewhere, walking is a very low-cost and low-carbon means of transport that is widely available in urban and rural communities. Footpaths are used both by those who walk, and those using wheelchairs and other low-speed mobility devices.

Therefore, removing barriers to walking, and ensuring that pedestrians have level, well-lit, clearly signposted footpaths and walkways that are free of both stationary obstructions and of devices travelling at high speeds relative to walkers (e.g. cyclists and users of micromobility devices) – while also providing safe, separated lanes for users of those devices – is a key contribution to a just, low-carbon, equitable transition.

Positive social outcomes must be maximised as we decarbonise the transport sector. The transformation of our transport system to meet climate goals offers a huge opportunity to undo the existing injustices currently baked into the system, particularly for persons with disabilities, low-income people and people of colour. This opportunity must not be squandered.

Question 13: Given the four potential pathways identified in Hīkina te Kohupara, each of which require many levers and policies to be achieved, which pathway do you think Aotearoa should follow to reduce transport emissions?

The pathways should be more ambitious. The primary goal of the Emissions Reduction Plan must be to reduce emissions in line with the target. Pathway 4 is the only one that clearly achieves this, so we support it. However, we urge MOT to recommend and advise emission reductions further and

faster than outlined in any of the four pathways, in order to make up for the lack of reductions in other sectors such as agriculture.

In the final report, all pathways should be consistent with achieving the goal of staying below 1.5 degrees, as outlined in the Zero Carbon Act. There is no excuse to include pathways that miss this goal. Indeed, including pathways that do not achieve the law only serves to confuse the public and decision-makers alike.

Investment in safe, separated walking and cycling infrastructure, and the removal of barriers to active transport, can produce big emissions reductions quickly, as demonstrated for Auckland by MR Cagney's [Transport2030](#) tool - and we need those reductions to help meet both national and regional emissions reductions targets, including those presently being incorporated in Councils' long-term plans.

Furthermore, public transport infrastructure takes time and investment - if the Government prioritises investments in EV infrastructure as more time-critical than investments in walking, cycling and public transport, then this may lead to investments in walking, cycling and public transport being made too late. Investment in decarbonisation investments such as walking that are low-cost, highly effective and can be made quickly should be given high priority.

From: [REDACTED]
To: [Transport Emissions](#)
Subject: Renquist submission on emissions work
Date: Thursday, 24 June 2021 12:09:18 pm
Attachments: [Ministry Transport submission June 2021.docx](#)

Hello Staff with the Hikina te Kohupara project.

Here is my submission your call for feedback on your draft chapter on transport emissions. It is also attached as a Word file. My expertise from a career with the CRI Plant & Food Research relates mostly to your Theme 3 on Freight, but I see that Theme 2 also relates to using low-emissions fuels in general transport.

-

Theme 2

I strongly support increased fuelling infrastructure for low-emissions fuels, in particular synthetic diesel made from whole biomass crops (not seeds or oil as in first generation biofuels). My submission to the CCC had its focus on off-road fuel use (agriculture, forestry and coastal shipping). This volume of synthetic diesel could be produced from biomass crops grown on just 5% of a major category of 'marginal' arable crop land. This which would a double benefit in reducing greenhouse gases, replacing fossil diesel while also lowering methane emissions by diverting some land from pastoral use. I have quantified this opportunity under questions Q15 (Energy/Power) and Q14 (Transport) in my CCC Draft Advice Report submission.

While these fuel sectors may not be viewed as core business for Te Manatu Waka, they are a very good starting point for early synthetic biofuel introduction since fuel supply is parallel to and independent from mainstream petrol/diesel stations. If successful, the next sector to bring these new green liquid fuels to is within-region trucking (see Theme 3 below).

I also strongly support your interest in schemes for banning/scraping the oldest and highest emitting vehicles. The feebate concept is great but needs a supplemental programme along these lines for existing vehicles. My suggestion is to investigate how feasible it would be to involve owners ready to sell their fuel efficient small cars at an incentivised low price to drivers of high emission vehicles (perhaps just lower income buyers?). Does the online licencing system have potential be used or linked to such a system? Sellers might be incentivised to lower their price by tax credits, while buyers would need to document that their old car (which they have had licenced for an appropriate number of years) is scrapped. While there could be potential for fraud, it could still be effective.

I don't think too much emphasis should be put on biofuel mandates for the light fleet. The current fuels being considered (biodiesel or bioethanol) should not be scaled up in direct competition with EVs, but kept at the supply volumes made from waste streams like tallow and whey. A good future use for these fuels might be for special vehicle classes such as antique cars and trucks (with tight usage limits on travel).

Theme 3

The development of syn-diesel fuel use by off-road sectors, as discussed in Theme 2, is likely to prove successful during the current decade, well ahead of the proposed fuel switch timing advised in the CCC Report. The obvious next sector to bring these new green liquid fuels to is 'within-region' trucking where mode shift to rail will be slow. A plan for this could already be under development within the next 2-3 years. One company eager to build a plant producing syn-diesel from Miscanthus biomass (the best species, as found in my decade of research on bioenergy crops). Such a plant would also use forest waste. They say they would start to build a plant in NZ within 6-12 months of funding at this end.

My CCC Draft Advice Report submission goes into some detail regarding Q14 on Transport, as noted under Theme 2. Details in the syn-fuel itself are in Q15 and are also to be found in the CCC Advice Report submission by Peter Brown of Miscanthus NZ.

Please give these suggestions your consideration for inclusion in your Hikina te Kohupara report for government use in the ERP.

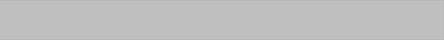
Thank you.

A R Renquist, PhD

Bioenergy Cropping Solutions

14 Springdale Grove, Palmerston North 4410

021 066 1512



Renquist Submission to Ministry of Transport on June 2021 call

Theme 2

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Thank you.

A R Renquist, PhD

Bioenergy Cropping Solutions

14 Springdale Grove, Palmerston North 4410

Transport Emissions
Ministry of Transport
PO Box 3175, Wellington 6140

Tēnā koe,

Hikina te Kohupara – Kia mauri ora ai te iwi – Transport Emissions: Pathways to Net Zero by 2050

Thank you for the opportunity to provide feedback on the *Hikina te Kohupara* discussion paper which identifies ways Aotearoa can shift our transport system onto a zero emissions pathway.

Refining NZ agrees our transport system needs to shift to a low/zero carbon pathway as soon as possible to meet our emissions reductions commitments and targets by 2050, as set out in the Climate Change Response (Zero Carbon) Amendment Act 2019.

With that in mind, we have outlined our thoughts on four key topics below which we believe require in-depth consideration. We trust that our input will assist the Ministry of Transport, and ultimately the Government, to decide how best to facilitate this change within the transport sector in the decades to come, and we look forward to continued engagement with the department on the issues outlined below.

Refining NZ – Current Operation

By way of background, Refining NZ is based at Marsden Point in Northland, where we operate our country's only oil refinery.

We are strongly committed to our people, our community, our environment and our economy, and are regarded as one of the safest and most reliable refineries in the region.

Refining NZ supplies transport fuel directly to the Auckland area through the Refinery to Auckland Pipeline (RAP) and refines fuel for distribution around the country. As a critical part of our country's energy infrastructure, we provide:

- most of New Zealand's jet fuel
- more than half the country's diesel and petrol
- fuel oil for ships
- sulphur for farm fertiliser, and
- CO₂ for the food and beverage industry.

Much of the fuel that we produce today is delivered via the RAP, which is the most efficient and lowest carbon supply route for fuel to the Auckland market.

Refining NZ – Future Operation

Refining NZ is challenged by the high costs of doing business in New Zealand, including energy, shipping and other costs, as well as low-margins resulting from structural oversupply in Asian refining markets. Our customers (Z Energy, Mobil, and bp) have expressed a preference to shift to an import model, which would involve closure of the Marsden Point refinery and the conversion of Marsden Point facilities to an import terminal. In essence, we would no longer refine crude oil into jet fuel, diesel and petrol, and instead receive imports, store and distribute already refined product.

Refining NZ

Port Marsden Highway, Ruakaka, Northland 0171, Private Bag 9024, Whangarei 0148, New Zealand

Telephone: +64 9 432 5100 Email: corporate@refiningnz.com www.refiningnz.com

Negotiations are currently ongoing to determine whether this change will happen but it could occur as soon as 2022. This transition is subject to reaching agreement with our customers on commercial terms, and shareholder and lender approvals.

Closure of the refinery would make a significant contribution to New Zealand's five-year carbon budgets. These reductions are currently at zero cost to Government but would come at a significant economic and employment cost to the Northland region.

1. Strong Economic Plan Required based On Rigorous Economic Analysis

We broadly agree with the three themes identified in *Hikina te Kohupara* to reduce emissions:

- (i) *changing the way we travel*
- (ii) *improving our passenger vehicles*
- (iii) *supporting a more efficient freight system.*

We believe that to make this vision a reality, we need to take a strategic, considered approach and develop a strong economic plan. As we move away from fossil fuels, we need to find economically feasible alternatives. Taking an 'at any cost' approach to reaching zero emissions is potentially dangerous, with unintended consequences that could stop us delivering on our aspiration.

Government decisions must be informed by robust economic analysis – particularly when it comes to New Zealand jobs and economic activity. We urge the Government to make long-term decisions on infrastructure and energy investments that are based on the highest-quality data.

A rigorous abatement cost-curve covering the full carbon economy is crucial. This would encourage greater competition between sectors, identifying the lowest-cost carbon abatement opportunities economy-wide and allowing them to be appropriately incentivised. It would also allow Aotearoa to benchmark ourselves globally, so we can ensure our costs stay in line with the rest of the world, keeping our economy competitive.

2. Local Manufacturing Capability Should Be Prioritised For New Zealand's Future

We believe any policy developed by the Government should incentivise local production of our own fuel requirements including biofuels and hydrogen.

It's vitally important for the resilience of fuel supply that we maintain local manufacturing capabilities here in New Zealand so we are not solely reliant on imports. If Aotearoa imports all its future fuel requirements, it will likely be at a higher cost than today's fuels – with little or no local economic benefit or jobs for New Zealanders.

Biofuels and hydrogen are significantly costlier than fossil fuels and not economically feasible to produce without government support and incentives. Countries around the world are already competing to develop their capability to source or produce low-carbon energy and fuels and this global competition will continue to evolve.

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For Aotearoa to have the option to produce these future fuels locally, we will need:

- Affordable, globally competitive renewable electricity
- A skilled workforce
- Access to low-cost feedstock at scale
- Globally competitive Government incentives, for local value-adding supply.

Government investment is crucial. Refining NZ encourages the Government to collaborate with business to consider options for economically feasible future fuels and the support needed to produce them locally at scale.

It's important that any incentives or disincentives required to transition to a zero-emission transport system should not drive manufacturing offshore as this does not benefit New Zealand's economy.

3. Renewable Fuel Incentives

Current modelling to shift our transport system onto a zero emissions pathway is based on a significant amount of sustainable fuel being available. These renewable fuels will need to be either imported or manufactured in New Zealand to meet the proposed renewable fuels mandate.

If biofuels can be produced in New Zealand, it could both contribute to our decarbonisation and bring an economic benefit to New Zealand through local manufacture and supply. Due to the significant capital investment required, the renewable fuels industry is not yet commercially viable under normal business investment criteria, and local production capability is yet to be established in New Zealand.

Government policy support, as well as funding structures, will be required in the short- to medium-term to establish a local biofuels industry and production capability. A combination of these incentives and support structures should be included in the Government's annual budget until 2035. New Zealand will be competing with other countries around the world for supply of biofuels and access to biofuel feedstock. New Zealand tallow is today being exported to Singapore for production into biodiesel and sale into California, as a result of the significant State and Federal Government incentives in place¹

Possible incentives and support structures could include:

- A renewable fuels production incentive per litre
- NZETS exemptions for renewable fuels use
- A levy on individual passenger carbon emissions (for example, through the International Visitor Levy), or another funding mechanism
- Capital grants to help establish production capacity and supply chain infrastructure
- Ring-fenced funds for use for CAPEX relating to establishing renewable fuels production, and/or financial incentives for feedstocks sold for mandated production
- OPEX support mechanisms.

¹ State and Federal incentives include the 'Low Carbon Fuel Subsidy' (LCFS), 'Renewable Identification Number' (RIN) and a Federal Tax credit of US\$1/gal.

Sustainable Aviation Fuel (SAF) and renewable ground fuels' mandates need to be considered and approached holistically (not in isolation) as the production of these compete for the same feedstock (we note that SAF is currently excluded from the modelling).

Renewable fuel production facilities could take up to eight years to design and build and there is a complex link between feedstocks, conversion technologies and the supply chain. In addition, appropriate policies and investment structures are critical to establishing a SAF market and capability. For this reason, a coordinated approach between industry and Government is necessary.

In addition, there is more work required to understand the infrastructure requirements to support the decarbonization of transport in New Zealand. For example, the Refinery to Auckland pipeline is unable to transport ethanol-based fuels as it would contaminate the jet fuel travelling along this pipeline; concerns around contamination of jet fuel may also rule out delivery of first-generation biodiesel (FAME) down the Refinery to Auckland pipeline. The production of second-generation biofuels ("drop-in" fuels, which could be transported down the RAP) requires extensive work to determine feasibility as well as to determine if economically viable.

Current zero emissions pathway modelling is premised on a significant amount of sustainable fuels as part of the ground fleet. Given the implementation timeline required to meet these volumes (6 to 8 years for local production), immediate action is required in the form of detailed technology and feedstock studies in order to map a technically and economically viable pathway. Government budgets should make available study funding for this purpose.

The proposed conversion of the Marsden Point refinery to an import terminal will reduce the number and type of roles required at Marsden Point, including the highly skilled roles required for operating a renewable fuels refinery in New Zealand. If these are lost, it is likely to impact the country's ability to locally produce alternate fuels in the future. Government budgets should include a transitional funding plan, required to retain key refinery skills, in order to bridge the gap between refinery closure and the start of renewable fuels production in New Zealand.

4. Affordable Electricity

Affordable electricity is the foundation for decarbonisation as electricity will be required for manufacturing activities such as renewable fuels production as well as electrification of the vehicle fleet. All pathways modelled in *Hikina te Kohupara* assume a significant share of the transport fleet will have transitioned to electric by 2050, but electricity costs in Aotearoa today are globally uncompetitive and unaffordable.

Our electricity and gas markets are functioning ineffectively. Current regulation and industry structure does not incentivise market participants to deliver the affordable, reliable and lower carbon energy that Aotearoa needs.

Refining NZ

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Transmission and distribution costs are increasing significantly, and the model of socialising these costs does not incentivise providers to drive the costs down. The total cost of delivered electricity means large users face an unaffordable cost burden and over time this is likely to force their exit. Such business closures or large users becoming self-reliant and exiting the grid, will only spread the increased costs across a smaller base of remaining users.

We believe more work is required to model electricity demand growth and develop a clear plan and pathway to meet electricity demand growth, matching the timing and investment horizons for new capacity. Significant increases in the cost of supply, transmission and distribution of electricity in New Zealand will further discourage New Zealanders from shifting from Internal Combustion Engine vehicles to Electric Vehicles.

Thank You For The Chance To Contribute

Refining NZ welcomes all future opportunities to assist the Ministry of Transport, and the New Zealand Government, with its significant task of reforming our transport system to dramatically reduce carbon emissions by 2050. We can do this, together, and we look forward to seeing relevant policies be developed and implemented in the years ahead.

Nāku noa, nā



Naomi James
Chief Executive Officer

24 June 2021

ESM0300/01/01
2021 TMB

Transport Emissions
Ministry of Transport
transportemissions@transport.govt.nz

HĪKINA TE KOHUPARA: HORIZONS REGIONAL TRANSPORT COMMITTEE SUBMISSION

Thank you for the opportunity to comment on Hikina te Kohupara.

This submission is made on behalf of the Horizons Regional Transport Committee (the Committee) which consists of representatives from:

- Horizons Regional Council;
- Horowhenua District Council;
- Manawatu District Council;
- Palmerston North City Council;
- Rangitikei District Council;
- Ruapehu District Council;
- Tararua District Council;
- Whanganui District Council; and
- Waka Kotahi New Zealand Transport Agency

The Committee also includes advisory members:

- Road Users representative
- NZ Police representative
- Road Transport Association representative
- Kiwi Rail representative
- Active / Public Transport representative

The Manawatū-Whanganui Region encompasses a broad area extending from south of Levin to north of Taumarunui and from Whanganui across to the east coast, approximately 22,000km² in total. It is a predominantly rural region with a few main centres of population. Because of its central location, the region has important land and air transport connections to the rest of New Zealand. Improving the environmental impact from land transport in our regional transport network is a key priority of our draft Regional Land Transport Plan (approved by the Committee on 1 June 2021) and a key focus for our region.

SUPPORT FOR THE APPROACH; CONCERNS ABOUT SOME PRACTICALITIES

We commend the Ministry on a robust and thoughtful piece of analysis. The paper highlights the opportunities and difficulties of decarbonising transport – including the need for system-level change. We are pleased to see linkages outside the transport system considered.

On the whole, the Committee **supports** the principles and approach outlined in Hikina te Kohupara. In particular, we support the avoid-shift-reduce strategy. As the paper notes, system-wide changes, with a focus on avoided travel and mode shift, have the potential not only to reduce greenhouse gas emissions but also to deliver substantial cobenefits in terms of

public health, safety, resilience, and social vibrancy. As local authorities, we are responsible for environmental, economic, social and cultural wellbeing: these are not separable. We see alignment of effort to deliver improvement on multiple fronts as being central to the success of our low-carbon transition – and to the future wellbeing of our communities.

There are inevitably some areas in which we have concerns and some aspects of the paper that we believe warrant greater weight. Long-term sustainability underpins the Ministry's approach: we would like to see this made explicit in Hīkina te Kohupara. Other comments largely relate to how Hīkina te Kohupara will work in practice. We draw your attention to our key submission points as follows:

Orchestrating change: system-wide transformation at the necessary pace will be hugely resource intensive; we may not have the right tools to deliver it.

Social mandate: a suite of tools will need to be employed to ensure the transition maintains public support and to avoid policy retrenchment in the future.

Influencing industry: industry is a key partner in achieving change, but also needs to be provided with the right signals to change; resource management reform may help, but may be too slow and will only work if consumer preferences also shift.

Rural communities and regional infrastructure: the paper has an urban focus; attention will need to be paid to equity and access issues outside the main centres.

Public transport: funding, and the priority of decarbonisation relative to mode shift, are issues that require further attention.

Energy supply: we are uncertain that assumptions about new generation capacity are realistic.

Tangata whenua involvement: further consideration may be required of how government, central and local, can make it easy for tangata whenua to engage with us.

We expand on each of these themes below.

ORCHESTRATING CHANGE

Hīkina te Kohupara notes the importance of levers outside the transport system (such as urban development and land use decisions) in delivering transformational change. It notes that there will be a need for greater investment from other sources, including the Crown and local government, and acknowledges that behaviour change will be crucial.

For the Ministry's strategy to be successful, we suggest that considerable resource will need to be devoted to orchestrating change. Changing urban form, or achieving mode shift, for example require coordination of effort across multiple areas of policy, multiple funding streams, and multiple agencies. This challenge should not be underestimated.

The first emissions budget period coincides with massive change in the local government / resource management sector, on which measures to avoid transport emissions rely. The Resource Management Act is to be replaced; new spatial planning and climate adaptation laws are proposed. The three waters sector is being reformed. There are deadlines for freshwater and urban development planning processes to be completed. Local Government itself is under review. At the same time, there is pressure to deal with a housing crisis. A near-perfect storm, this presents both an opportunity and a risk. The opportunity, with so much of the institutional and policy framework up for review, is to make a genuine step change in our ability to deliver better outcomes. The risk is that the number of priorities and sheer volume of work overwhelms capacity. The policy and implementation effort – to realise the opportunity of system-level alignment while avoiding the risk of dropped balls and unintended consequences – is daunting.

There is no easy solution to this challenge. We would, however, note that streamlining of bureaucratic process would help. Local government is often required to consult on action mandated by central government. Public involvement in decision making is important where there are genuine choices; where the impact of consultation on decisions is small, cost, time, and potential for relitigation may outweigh the benefits. If central government wishes to see extensive cycle networks as a matter of policy, for example, it should provide a mechanism for councils to establish them with a minimum of fuss. If local government is to contribute to a rapid transformation of urban landscapes and transport infrastructure, we will require genuine partnership with central government and more flexible, outcome-oriented tools with less (repeated) contestation.

SOCIAL MANDATE

The paper acknowledges that public support is an important part of this transformation, but largely as an aside. It would benefit from a clearer focus on how such support (a 'social mandate') is to be built and maintained. Denser urban environments, and multiple disincentives to the use of private motor vehicles, will directly affect people's day-to-day lives and challenge assumptions about home and lifestyle. We need to encourage multi-modal street design and to tip the balance away from the automobile – but there need to be attractive alternatives, not just efficiency losses to individuals and businesses. To be successful, Hīkina te Kohupara requires behaviour change and a shift in values. If all sectors (or at least a strong majority) of society are not won over, and the change isn't made as easy as possible, there is a risk of political backlash and of measures being rolled back by future governments.

We agree with the Ministry that clear communication and consistency of direction are essential. This will apply across government departments and over time – though, of course, we also need to acknowledge that details are untested and adjustments in course may be necessary.

It will also be important for Government to be seen to 'walk the talk'. The Government's commitment to a carbon-neutral public sector by 2025 is an important step in this direction. Initiatives to achieve carbon neutrality in the public sector should be integrated with society-wide transformation flowing from Hīkina te Kohupara. Efficiency of service delivery should not, for example, impose additional travel or cost (or emissions) on communities engaging with those services.

Just as incentives should complement disincentives, public 'education' must go hand in hand with efforts to understand barriers to change. Sequencing will be crucial to ensure that there are attractive and practical options available to individuals, especially if disincentives are to form part of the policy mix.

If pricing is used, we **recommend** that consideration be given to how revenue is collected and distributed: money taken from local road users, for example, could be reinvested in local transport infrastructure.

INFLUENCING INDUSTRY

Private industry is also an important part of the system. While councils are responsible for zoning land, setting consent conditions, and providing infrastructure, where development occurs and the quality of the resulting urban environment depends largely on private investment decisions. Developers, understandably, will be reluctant to invest in higher-density housing if they do not see a market for it; they may resist devoting land to public reserves or green space unless there is a clear requirement for them to do so (and if they don't, we risk creating ghettos instead of the attractive mixed-use areas envisaged by Hīkina te Kohupara).

New Zealand's resource management system has, since 1991, focused on managing effects at the margin with a minimum of government interference in private decisions. RM reform – through the proposed Strategic Planning Act and Natural and Built Environments Act – presents an opportunity to refocus attention on outcomes. Regulation under this new framework may be too slow to support Hīkina te Kohupara and will only work if supported by consumer preferences.

In relation to freight, we **support** Hīkina te Kohupara's supply-chain perspective. We share the Ministry's concern that allowing larger trucks on the road (a within-mode efficiency gain) may work against broader efforts to improve integration across modes. This could see larger reductions in emissions go unrealised. We agree that close consultation with industry will be necessary and accept that the characteristics of that industry will be a constraint. Nonetheless, just as individuals will be expected to change their behaviours and investment decisions, we **suggest** that Government should be clear about the ways in which the freight industry may need to change.

RURAL COMMUNITIES; REGIONAL INFRASTRUCTURE

Checking that planned infrastructure investment is consistent with urban form and emissions reduction goals is appropriate –but a reliable, resilient transport network is not optional. The key point (made on p38) is that investment be reconsidered *if it would induce more vehicle travel*. While some roading projects in urban areas may fail this test, care should be taken not to lapse into the same assumptions for regional and rural roading networks.

We accept that the emphasis in Hīkina te Kohupara is on urban transport and freight, given that this is where bulk of emissions occur and the greatest gains are to be made. While the paper acknowledges the challenges of mode shift in rural areas, we note that it has little to say about solutions. Given the dearth of ready alternatives, roading networks will remain crucial for rural communities for the foreseeable future. Disincentivising private motor vehicle use – or reducing investment in road networks (perhaps by reducing speed limits instead) – is likely to have significant side effects in rural areas, risking inequities. We would also note that rural roads are important lifelines which may become increasingly vulnerable as we suffer more severe and more frequent adverse weather events over time. Given a large portion of the Horizons region is rural in nature, we are **particularly concerned** about the implications this could have on our rural communities and their ability to access health, social and economic opportunities.

Similarly, while work needs to start on improving inter-regional public transport connections, state highways and major local roads will remain the key connections between cities and smaller townships for the foreseeable future. There will be opportunities to shift intercity travel away from private motor vehicles as New Zealand's population grows; it is therefore essential that investment in infrastructure keeps pace.

PUBLIC TRANSPORT

Decarbonising public transport has merit and we support it in principle. Like other parts of regional New Zealand, patronage in our region is low compared to the metro centres. We suggest that there is more to be gained by moving people onto public transport. We need bus patronage to increase for the cost of decarbonisation of the public transport fleet to be a viable investment in our region.

Achieving mode shift requires public transport services that present an attractive option to users. That means providing more frequent services, shorter routes, longer hours of operation, better information (on-street and online), etc. That all requires a significant increase in

investment. At present, we are struggling to meet the required current local share, and Waka Kotahi has very little available to support public transport services and infrastructure.

In parallel with improvements to public transport, we also need to address New Zealand's car culture: buses and trains will struggle to compete while it is so easy and affordable to travel by private vehicle, particularly in the regions. Increasing patronage outside the metro areas will be challenging – the more so if council budgets are diverted to decarbonising the fleet.

Central government support and funding will be critical for the regions if a mandate to decarbonise by a certain date is passed. Nationally, electrification of the passenger transport fleet (as recommended by the Climate Change Commission) is likely to greatly exceed the \$50 million previously set aside by Government for this purpose. We understand that, with Budget 2021, this funding has been subsumed into the \$300 million Green Investment Fund. While this is a large increase in quantum, we are aware that the Green Investment Fund runs across the whole of the economy. Prioritisation will be important if step changes in transport emissions are to be made. We hope that this scheme may help to provide public transport operators with enough scale and confidence to invest in costly new technologies and supporting infrastructure. We remain concerned that the sort of catalyst funding the Green Investment Fund is intended to provide may not align well with what is required to increase patronage and put public transport on a more competitive footing.

Realistically, we **recommend** that Government consider a staged approach to implementation and funding decarbonisation in the regions. A one-size-fits-all approach will present logistical challenges – not least of all, alignment of targets with tendering and contractual arrangements under the existing framework.

Beyond road transport, we note that interregional passenger rail appears to have been largely discounted as a viable option. A large proportion of New Zealand's population lives along the North Island Main Trunk line; we believe there is potential to make better use of this, as illustrated by the successful launch of Te Huia between Hamilton and Auckland. Our councils have long supported the Capital Connection, and are supporting an initiative to investigate the feasibility of a 'Northern Connector' service through the central North Island.

The paper notes that New Zealand's geography and low population density present challenges for an efficient transport system. We accept this. We also note that none of the reasons listed on pp13-14 for high per capita transport emissions are inherently about population or geography. New Zealand is not alone in having mountainous terrain and small towns: passenger rail links small populations across challenging terrain in other countries (Norway or Austria, for example). Terrain and population can make an easy excuse a failure to invest in infrastructure. Economic viability is important – but this depends somewhat on the frame of analysis. If low historic investment and potential cobenefits are not adequately reflected in the analysis, infrastructure upgrades will seldom appear economically viable. Interregional passenger rail may not be in the plan for Emissions Period One – but we believe it should be part of the range of possibilities considered for transport transformation in the longer term.

Conversely, we note that Hīkina te Kohupara appears to take short-haul air travel for granted. Again, alternatives may be challenging, especially in the short term. Looking overseas, there are compelling reasons that land transport (rail, in particular) can be more attractive than flying for short trips. Train stations are usually more conveniently located to town centres than airports; flying is fast, but travelling to the airport and waiting to board or collect your luggage makes the total journey considerably longer. Scandinavians increasingly shun unnecessary air travel due to *flyskram* (shame associated with flying). Reducing air travel might be difficult in New Zealand, but it's not impossible.

ENERGY SUPPLY

Hikina te Kohupara points to a need for significant increases in renewable energy generation. While New Zealand has considerable untapped potential in biomass, wind, solar, and other forms of energy, development is not without its complications.

If we understand correctly, the area of new plantation forest envisaged by the Ministry to produce biofuels is considerably larger than the Climate Change Commission proposes. We do not take a position on whether this is feasible or not. We would, however, note that significantly increasing the area of plantation forestry carries with it environmental and social risks for rural communities. We also note that transporting slash to processing facilities is likely to lead to increased road wear (and carbon emissions).

The paper suggests a 14-fold increase in wind production. Again, we do not take a position on the feasibility or appropriateness of this development. In our region, wind turbines flanking Te Āpiti / the Manawatū Gorge have become iconic – but we note that, in other places, wind farms may collide with other community values. Under the current resource management regime, consenting of new wind projects (or, for that matter, hydroelectric projects) is difficult. As Hikina te Kohupara observes, consents that have been granted for several large projects have, until very recently, not been exercised. We understand that this is often related to commercial viability. Micro-generation may avoid some of the consenting difficulties associated with larger projects; economic viability, however, remains a constraint.

TANGATA WHENUA INVOLVEMENT

Hikina te Kohupara proposes to establish a network of marae-based technical advisory groups, working with regional iwi to progress transport policy. From our own experience, we anticipate that meaningful engagement with tangata whenua will not only benefit the Treaty partnership but also provide insights into issues like inequitable access that affect the wider community, as well as potential solutions.

We would be interested to understand how the Ministry sees such an arrangement working in practice. Several different agencies already seek iwi engagement on a variety of subjects – regional and territorial authorities among them. Tangata whenua are not always well resourced to cater to these various demands; time engaging with government is often time away from paid employment and whanau.

The Committee **suggests** the Ministry may wish to discuss with local iwi and hapū whether there is merit in aligning conversations on climate-related topics, to support a more holistic response and avoid adding to the burden of consultation.

Thank you again for the opportunity to comment on Hikina te Kohupara. Should you have any questions relating to our submission, feel free to contact Tom Bowen at Horizons Regional Council (tom.bowen@horizons.govt.nz).

Ngā mihi,



Rachel Keedwell
CHAIR

From: [Janet Wright](#)
To: [Transport Emissions](#)
Subject: ANZCO Foods | Hikina te Kohupara submission
Date: Thursday, 24 June 2021 3:20:25 pm
Attachments: [Hikina te Kohupara Submission.pdf](#)

Please find attached ANZCO's submission.

Kind regards – Janet



Janet Wright | Head of Communications

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Please consider the environment before printing this e-mail.

[REDACTED]
[REDACTED]
24 June 2021
[REDACTED]

Transport Emissions
Ministry of Transport
Email: transportemissions@transport.govt.nz
[REDACTED]

Dear Sir/Madam
[REDACTED]

ANZCO Foods' Submission Hīkina te Kohupara
[REDACTED]

Thank you for the opportunity to provide feedback on the Ministry of Transport's proposal for pathways to net zero 2050.
[REDACTED]

ANZCO Foods is one of New Zealand's largest red meat processors, with an annual turnover of \$1.53b and around 3,000 employees throughout New Zealand. We have seven processing sites, two manufacturing sites, a rendering facility, a fellmongery and commercial farming operations. Most of these assets are in rural New Zealand and require a large and complex network of freight transport to move livestock and product across the country.
[REDACTED]

ANZCO has a genuine commitment to improving its environmental footprint. We are members of the Climate Leaders Coalition and Sustainable Business Council. ANZCO acknowledges that it is early on in its sustainability journey.
[REDACTED]

ANZCO is generally supportive of the Ministry of Transport's proposal to decarbonise transport where it is feasible however we have some feedback on the proposal as it stands and would like increased clarity in some areas – specifically theme 3: supporting a more efficient freight system:
[REDACTED]

- ANZCO Foods supports the development of a more efficient freight system and logistics improvements that address and plan for long-term infrastructure to support decarbonising transport.
- A concerted, coordinated approach at Central Government level is required to achieve this rather than piece-meal local or regional plan and all developments must be considered from an integrated supply chain approach.
- There must be adequate funding to ensure that at least during the short term, product remains competitive in the global market. If processors/manufacturers face increased costs these will either need to be absorbed or passed on. As an extremely low margin business either option will have an impact on costings and the ability to compete globally.
- There needs to be more information required to understand and support the four pathways in the report, specifically the definitions of 'low', 'medium', 'high' and 'very high' and the criteria required to move between these categories.
- ANZCO supports data sharing as long as this can be done so that privacy obligations can be met and commercially sensitive information can remain confidential.

[REDACTED]
Please get in touch with Sophie Gualter (sophie.gualter@anzcofoods.com) if you have any questions about our brief submission or require any further information.
[REDACTED]

Yours faithfully


Peter Conley
Chief Executive | ANZCO Foods

From: 
To: [Transport Emissions](#)
Subject: Green Paper: Transport Emissions: Pathway to Net Zero by 2050
Date: Sunday, 23 May 2021 9:41:18 am
Attachments: [PastedGraphic-2.tiff](#)

Something is missing from the Hīkina te Kohupara discussion document. I intend to make a conventional submission later, but this particular problem seems urgent, given the requirements of the Climate Change Commission.

Whaka Kotahi is clear that Auckland needs light rail, but seems unaware that Wellington faces a very similar problem. Given the reasons for Wellington's problem, it seems plausible that other main centres will also need light rail.

The discussion document plans a rapid rise in New Zealand bus numbers, roughly four-fold by 2050, but Wellington has no space for more buses. LGWM has commissioned a light rail proposal from MRCagney.

Wellington's golden mile carries about 120 bus/hr, each way, at peak hours. This creates substantial delays, and bus queues 200 m long are commonplace. A standard approach is a maximum of about 60 bus/hr. The reason is that stop delays of up to about a minute are commonplace, but unimportant if the next bus is one minute behind. More frequent services become practical if there are overtaking lanes at all bus stops, but not in Wellington. Substantial sections the golden mile are too narrow for this approach, including Willis St, Manners St and parts of Lambton Quay. Various proposals for a second route have been made but none adopted.

Wellington's problem is surprisingly difficult, not least because improved routes will still be at capacity. Significant increases in Wellington bus numbers will need a four lane route for existing buses and at least two more four-lane routes for projected growth. That is at least 12 lanes for buses in central Wellington. In practice, the inner city has a total of only 16 lanes at the Hunter St pinch-point, including parking and turning lanes, and provision for deliveries. Another four lanes on The Terrace seem unlikely to help much.

Light rail in Wellington, as in Auckland, could solve the bus problem by introducing high capacity on another route. The chosen route is the Wellington waterfront, from the Railway Station to Taranaki St and on to the Hospital and Airport. Bus numbers could be reduced, and light rail provide extra capacity. The necessary route width would be about 6.6 m between stops, with a range of options available at stops. One interchange hub would be at the intersection of Taranaki St and Courtenay Place, another at the Railway Station.

The recommended approach is to make light rail available for use where needed in main centres, as quickly as possible. However, assembling a suitable design and build team will need care. A good move would be including MRCagney in the team.

Light rail is too often seen as too costly, which can happen if the project management is mismanaged. Edinburgh was a very bad example, but is now running satisfactorily. In contrast, Montpellier, in southern France, opened four

lines in six years, 2000 to 2012. Eight years after opening the first line was analysed, in comparison with bus and bus rapid transit (inferred using data from Nantes).

Light rail BRT Bus

(15 km) (15 km) (12 lines)

Capital costs €, millions 407 139 105

Capital cost per passenger € 0.93 € 0.84 € 0.49

Operating cost per passenger € 0.53 € 1.27 € 1.61

Total € 1.46 € 2.11 € 2.12

The source of this data is a paper by Marc le Tourner, presented at the Sinotropher Conference in London, 11 May 2011.

Another way to manage runaway costs would be engaging French consultants.

It is clear from the Montpellier data that light rail ridership must be managed, to ensure sufficient passenger numbers to cover costs. Wellington already has a preliminary study, commissioned by LGWM from MRCagney.

The map below shows existing bus routes in the Miramar Peninsular, taking passengers to a light rail hub at Miramar Shops, where most passengers transfer to light rail. The pattern is similar at Kilbirnie, Newtown and through to the CBD. Other bus routes, such as 1 and 2 on the map, continue to the CBD but will necessarily carry fewer passengers than today, to maintain a free-flowing golden mile. Passengers will choose between a faster light rail trip or a more convenient destination, which can be adequately modelled.

Bus route 21 runs from Miramar Shops to Kelburn, so that light rail passengers have opportunities to change at multiple light rail stops, giving them direct access to Massey and Victoria Universities, or on to Karori. The principle here is that passengers can be expected to change once, but having to change twice is limited wherever reasonably practical.



From: [REDACTED]
To: [Transport Emissions](#)
Cc: [REDACTED]
Subject: Hikina te Kohupara – TRANSPORT EMISSIONS REDUCTIONS
Date: Tuesday, 18 May 2021 4:56:47 pm

Greetings

Thankyou for this interesting and challenging document which in our view provides significant direction and enthusiasm to meet the proposed objectives.

The NZ Institute of Driver Educators feel our members can play a significant role in modifying road user behaviour towards meeting the emissions objectives and to this end, we have already allocated time in our forthcoming conference to address this issue. We approached the Climate Change Commission to provide a speaker to address the conference of which we were declined due to unavailability.

Recognizing the Minister's comments on this document, perhaps MOT would be able to provide a suitable speaker to address our conference particularly highlighting those areas relevant to driver involvement as they apply to meeting our climate change objectives.

Of note, this year's conference contains use of EVs and other fuel efficiency topics.

I look forward to your response

Kind regards

Peter Sheppard

Hon CEO

NZIDE

From: [REDACTED]
To: [Transport Emissions](#)
Subject: HtK Q& A
Date: Tuesday, 18 May 2021 10:29:04 am

Hello good people at MoT. I have enjoyed scanning your HtK report - good work!

A couple of comments on page 10 of the Q&A

- 1) The email address provided (transportemissions@transopr.govt.nz) has a mis-spelling
- 2) There's a couple of dates missing

And while I'm at it: 'New Zealander's' doesn't need the apostrophe

Regards

[REDACTED]

--

[REDACTED]

[REDACTED]

[REDACTED]

From: [REDACTED]
To: [Transport Emissions](#)
Subject: re. better modes of emission-reducing transport
Date: Thursday, 24 June 2021 4:09:09 pm

Dear Madam/Sir,

I am writing as a concerned individual making a submission on the above subject.

Basically, I agree with the submission from Greenpeace NZ. However, I want to express some views about the projected use of electric vehicles (EVs).

EVs are currently being presented by various groups as some kind of clean "silver bullet" tech-fix to replace fossil fuel vehicles. But in many ways EVs are far from a clean solution. If used to replace fossil fuel vehicles, this use should only be sparing and carefully targeted for the best outcomes in the situations we face.

There is a gathering research literature on the problems with so-called "green technologies". A most important study is that by Guillaume Pitron, titled "The Rare Metals War: the dark side of clean energy and digital technologies", Scribe, 2018/20. Mining and exploitation of rare metals and earths are set to escalate. Yet extraction and use of minerals like lithium are already causing enormous environmental damage and human suffering.

In brief, we need a far more genuinely sustainable approach - coordinated internationally - to address a host of urgent issues requiring concerted, cooperative attention.

In the meantime, my own approach follows that of a former Professor of Mechanical Engineering at the University of Canterbury, Susan Krumdieck (see: 'Sustainability is wishful thinking': get ready for the energy [downshift] . . . : <https://www.stuff.co.nz> > environment > climate-news > s . . . , 14/11/2020).

Following her lead, we need to reinvent everyday life with "walking, e-bikes, locally-built delivery 'golf-carts', and public transport" via electric trains and trams. At the same time, we must - as indicated - address the problems of "green technologies" at the international level.

Yours sincerely,

[REDACTED]

From: [REDACTED]
To: [Transport Emissions](#)
Subject: Submission on Hikina te Kohupara – Kia mauri ora ai te iwi - Transport Emissions: Pathways to Net Zero by 2050
Date: Monday, 21 June 2021 9:12:39 am

To whom it may concern at Ministry of Transport,

Please consider this my personal submission on the ‘Hikina te Kohupara – Kia mauri ora ai te iwi - Transport Emissions: Pathways to Net Zero by 2050’ discussion document.

I call on the Government and Ministry of Transport to act increasing roading projects that increase efficiencies and invest a historic amount in projects that help us move around New Zealand.

I support investment in clean and accessible public transport; walking, horse riding and cycling projects; better urban compact design and liveable streets; efficient vehicles and bikes and moving freight onto rail and coastal shipping.

Reducing emissions from our car and truck dependent society will not only save New Zealanders money and carbon, it will also make our cities safer, healthier, more vibrant and liveable.

I don't support the zero-carbon policies outlined in Hikina te Kohupara – Kia mauri ora ai te iwi.

Electric vehicles increase our carbon footprint as they effectively run on imported coal. (any increase in electricity generation comes from coal fired power stations)

Cars are rapidly becoming more efficient and there are other clean sources of energy we can use to power them, such as hydrogen and ethanol

The current vehicle fleet is getting more efficient, increasing our roading infrastructure so that vehicles can move freely will reduce emissions and improve the general work efficiency of people as they will waste less time travelling to, during and from work.

We also need good transport (private and public) from new and growing suburbs.

Current vehicles on renewable fuels seems to be a good idea and use NZ made fuel, including biodiesel, ethanol as much as possible.

Battery electric will be good when we have 100% renewable electricity sources

Thank you.

[REDACTED]

[REDACTED]

From: [REDACTED]
To: [Transport Emissions](#)
Subject: Submission on Hikina te Kohupara – Kia mauri ora ai te iwi - Transport Emissions: Pathways to Net Zero by 2050
Date: Thursday, 24 June 2021 12:45:53 pm

Drop the urban speed limit to 30km/hr and give cyclists a meter wide riding lane going each direction with a narrow low concrete "brick" between cars and cyclists for safety. DO SOMETHING!!!!

Thank you.

[REDACTED]

[REDACTED]

From: [REDACTED]
To: [Transport Emissions](#)
Subject: Submission on Hikina te Kohupara – Kia mauri ora ai te iwi - Transport Emissions: Pathways to Net Zero by 2050
Date: Thursday, 24 June 2021 12:55:43 pm

To: Ministry of Transport,

This is my submission on the 'Hikina te Kohupara – Kia mauri ora ai te iwi - Transport Emissions: Pathways to Net Zero by 2050' discussion document.

Science is revealing to us that we are in a climate emergency, so it behoves us that we must treat it like one.

In response, I appeal to the Government and Ministry of Transport to act urgently to halt roading projects that increase emissions and to instead invest in projects that help us move around New Zealand without increasing emissions.

I support investment in clean and accessible public transport (I've personally now got an electric lawn mower & electric bike); walking and cycling projects (I walk & go for runs); better urban compact design (I'm a retired architect noting the real INCREASED NEED for BETTER DESIGN and liveable streets; electric vehicles and bikes and moving freight onto rail and coastal shipping).

By reducing emissions from our car and truck dependent society we will not only (1) save New Zealanders money and carbon, it will also (2) make our cities safer, the air we breathe healthier, & places more vibrant and liveable.

It is unacceptable that New Zealand's still-rising transport emissions remain a major reason why we have continually failed our climate targets since the 1990s. With the fifth highest per-person transport emissions in the developed world we need to urgently transform our transport networks. This takes YOUR (Government & Ministry of Transport) leadership. We voted for that positive enactment & here encourage you to be bold.

Like others I know who are also writing to you on this issue, I too support the zero-carbon policies outlined in Hikina te Kohupara – Kia mauri ora ai te iwi, but note only one pathway is modelled to achieve the 2035 target. I also note that Greenpeace advocates for New Zealand's first Emissions Reduction Plan to go further and faster than outlined here, & I endorse that thrust.

The Government needs to pull all the levers it has from carbon pricing, regulation, standards, incentives and supporting local government to urgently bring in policies to match the scale of the climate emergency, SO OUR EFFORTS ARE MEANINGFUL and DO ACHIEVE OUR GOAL OF NET ZERO by the targeted dates.

As having spent a life in design, I know that awareness/recognition of a problem comes first. This is followed by a desire to resolve the issue. (With climate change & our responsibility to our Grand-children & the planet's health, upon which we rely so utterly, it is not an option to do nothing.) Next comes the questions of how, why, & when. We have all the resources to achieve the necessary change. The rest is about devising a Plan, & setting a program in action. It's called volition, and we Mankind, are renowned for making improvements that enhance our well-being. Let's make THIS pivotal choice one we look back on with equal measures of gratitude & deserved pride. Ordinary citizens rely on our agencies to further the aspirations of recognised urgencies, so I appeal to you to also support real enactment.

Thank you.

[REDACTED]

[REDACTED]

From: [REDACTED]
To: [Transport Emissions](#)
Subject: submission on Hikina te Kohupara discussion document
Date: Thursday, 24 June 2021 8:47:05 pm

Kia ora

I'm writing to thank the MoT for undertaking this discussion phase prior to consultation with the wider community. While I support testing each of the four pathways with the wider community, in my capacity as a City Councillor and as lead of our Council's Transport Portfolio I'm of the considered view that Pathway 4 is the best of the options presented in terms of driving down emissions at sufficient pace while delivering good transport and wider community benefits.

Ngā mihi,

Brent

Brent Barrett | City Councillor

Chair: Environmental Sustainability

Portfolio Lead: Transport

Portfolio Lead: Science, Technology & Innovation

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From: [REDACTED]
To: [Transport Emissions](#)
Subject: Submission on Hikina te Kohupara
Date: Thursday, 24 June 2021 8:56:16 pm

Thank you for the opportunity to submit on this.

I submit that the focus should be on addressing emissions by focussing on improvements to public transport and walking, given their low emissions profile and their significant co-benefits, while encouraging higher-emissions modes to lower their profile and their users to change to low-emissions modes, through the initiatives mentioned in the discussion document, including smart road pricing, street design, better land use and parking reform. An aim should be for all users to bear the full costs of their transport choices, taking into account externalities and co- and dis-benefits.

I have seen the submission from Living Streets Aotearoa, and I fully supported it.

[REDACTED]

From: [REDACTED]
To: [Transport Emissions](#)
Subject: Submission on Hikina te Kohupara
Date: Thursday, 24 June 2021 7:26:15 pm

Good evening,

I am writing to provide feedback on the 'Hikina te Kohupara – Kia mauri ora ai te iwi Transport Emissions: Pathways to Net Zero by 2050' discussion document. While I do not represent one of the group types indicated on the submission [webpage](#), as an individual seeking to make better transport choices and as a citizen invested in the future of our country and our planet I do have a strong interest in the transition to zero-carbon transport. I hope, therefore, that if you are also considering submissions from individuals at this stage my comments can play a part in supporting and strengthening this transition.

I am pleased to read that consideration is being given to avoiding emissions and shifting travel modes as well as to improvement of existing vehicles and infrastructure. In context of both the significant environmental impacts of New Zealand's transport system, and the many potential co-benefits of investment in urban planning and mode-shift initiatives, I strongly support the proposed actions under Theme 1 in particular. From personal experience living in a household without a car, I know that travelling by bus, train, bicycle and on foot can be enjoyable and healthy, but also that the existing infrastructure to support such choices is limited and not always fit for purpose.

I would also like to highlight the importance of ensuring public transport provision is decarbonised, as identified under Theme 2. In combination with mode shift, investing in clean and efficient public transport infrastructure would play a key part in moving to a low emissions, healthy, accessible transport future for New Zealand.

Regarding the proposed pathways, I agree with the initiatives included in all pathways, but would like to see more ambitious targets for low-emissions public transportation included in the baseline scenario. I particularly support Pathway 4, as the only pathway explicitly aligned with the Climate Change Commission's recommendations and the one which most strongly prioritises Theme 1 initiatives with their associated health, wellbeing and community benefits and reductions in private car reliance

In summary, I agree with many of the considerations and approaches informing Hikina te Kohupara. I strongly support the aspiration for zero absolute (rather than net) emissions across pathways. I also strongly support substantial and urgent action to reduce the need for travel, encourage active and low-emissions public transport choices for individuals, and shift freight to low-emissions modes. I support complementary action to transition from fossil fuels to alternative low- or no-carbon technologies across the transport sector, and I urge that these measures be used to enhance avoid and shift measures, not to replace them.

Sincerely,

[REDACTED]

From: [REDACTED]
To: [Transport Emissions](#)
Cc: [REDACTED]
Subject: Submission to MOT on Hīkina te Kohupara from the New Zealand Council of Cargo Owners - NZCCO
Executive Officer Joanna Murray
Date: Friday, 25 June 2021 1:35:53 pm

Submission to MOT on Hīkina te Kohupara from the New Zealand Council of Cargo Owners
- NZCCO

- We are grateful for the opportunity to comment on this report and for an invitation to our Chair Simon Beale join others from the sector in a virtual meeting to discuss it on 22 June. He spoke at length about our interests in this matter along with some wider concerns. We are also grateful for the briefing provided to our members by MOT staff on this report a few weeks ago.
- The NZCCO is the principal association representing the shipping supply chain interests of New Zealand's major cargo owners including many of the country's largest exporters and importers. NZCCO's focus revolves around efficient, reliable, cost-effective movement of cargo; domestically and internationally. Our interests span matters relating to cargo handling and transportation, border processes, workforce, safety, infrastructure, environment, commerce, trade and legislative impacts on the supply chain.
- We were surprised that this report was issued prior to the Climate Change Commission finalising its report to Government. We understand that the early release of this report was due to Ministerial instruction. The release would have benefitted from a delay to allow revisions consistent with those made in the Climate Change recommendations, e.g. less emphasis on electric for heavy freight.
- We are concerned that there are several reports impacting the transport sector being processed at the same time – Climate Change Commission, Infrastructure Commission, and Hīkina te Kohupara. And at the same time significant policy announcements are being made that impact the sector – eg the recent announcement of incentives to buy electric vehicles. It is essential that all these processes are coordinated.
- We are also mindful that we have an Emissions Trading Scheme which is working to reduce emissions across the economy. We need to be careful that a focus on one sector through new policy choices does not disrupt this process and lead to an increase in emissions in other areas of the economy.
- We support a focus on improving the efficiency of the supply chain.
- We also support a shift to modes such as rail and coastal shipping that might be more carbon efficient.
- In principle we support the use of more electrification in the transport sector. However, there are currently very significant constraints on the use of electricity for heavy haulage or shipping. Lower-carbon fuels and hydrogen offer more potential

but technology is still being developed in this space.

- We need to be mindful that some jurisdictions might try and use climate change as an opportunity for new ways to protect their economies. We need to be very careful about policies such as slow steaming that could have a disproportionately negative impact on economies that are distant from their markets to those that are located close to their major customers.
- We would like to work closely with the MOT to develop the response and to ensure that the best possible policies are adopted for New Zealand circumstances. This response needs to be a whole of Government one.
- We support the submission that has been made by the BusinessNZ Energy Council and the Meat Industry Association. A number of our members may well have submitted in their own right.

Many thanks

Joanna Murray
Executive Officer, NZ Council Cargo Owners

From: [REDACTED]
To: [Transport Emissions](#)
Subject: Support of zero emissions transport plans
Date: Thursday, 24 June 2021 5:13:27 pm

To whom it may concern,

In line with the IEA's flagship report of the transition to a carbon neutral 2050 (<https://www.iea.org/news/pathway-to-critical-and-formidable-goal-of-net-zero-emissions-by-2050-is-narrow-but-brings-huge-benefits>) I'd like to support the initiatives within the planning proposal that maximise this. We need to prioritize investment into carbon neutral solutions, perhaps altering how our freight supply works, providing easily accessible alternatives to petrol car ownership for commuting, and striving to become the environmental leaders we imagine ourselves to be.

Yours,

[REDACTED]

From: [REDACTED]
To: [Transport Emissions](#)
Subject: Transport Emissions: Pathways to Net Zero by 2050 - Submission
Date: Friday, 25 June 2021 12:06:14 pm

Hello - Please confirm receipt of this submission.

Nextbike is pleased to read this Discussion paper, and would be supportive of measures to achieve the more aggressive 4th Pathway to net Carbon zero emissions by 2050. We would encourage the Ministry to pursue the 4th Pathway with urgency, because in reality our world needs to be Carbon negative to start to start absorbing the 100 years of behaviours that have released vast quantities of Carbon from fossil fuels.

We have a particular interest in bringing bikes to life in our cities. We started operating a share bike scheme in New Zealand, with German made bikes and rental platform in 2008 and expanded into cycle skills instruction and events to inspire the use of bikes as a means to get around our cities. In 2020 we introduced the latest iteration of share bike technology to Auckland, from our German technology and bike suppliers.

We would like to suggest the following idea be included in the “Changing the way we travel section” and note that it sits across 3 areas of focus - Improving public transport; Increase travel by walking cycling and other active modes; Improving Shared MicroMobility:

Shared micro mobility needs to be run like public transport to get the social and environmental returns the city needs. This might mean limited numbers, standardised pricing, usage hours, rent return locations and clearly identified target user/trip types. It could also mean the service is bought by the government, and that rental fare recovery rates are provided back to government.

Adopting a public transport metaphor for managing shared micro mobility would be extremely helpful in overcoming 3 significant issues that Nextbike is aware of in this space, that are outside of its ability to control, but have significant effects on its ability to provide the service:

1. No helmet requirements for e.scooters and the ability to ride them on the footpath have created an operating environment that is uneven:

This can be seen in the much greater rate of use of shared e.scooters than shared bikes or e.bikes and by implication the revenues that can be earned by shared scooter providers. Nextbike is aware of one operator of both shared e.scooters and e.bikes that says the e.scooters are used at 5 times the rate of the e.bikes

Mandatory helmet requirement on shared bikes means the operating costs are higher for shared bike providers than for shared scooters.

In short, smaller revenues and higher operating costs make shared bikes and e.bikes

impossible to run as a self funded business. **How can this be fixed in both the short and longer term?**

2. Auckland needs to dramatically and quickly reshape the way it's residents get around, but the way shared micro mobility is currently being managed is hindering this:

Transport makes up 38% of Auckland's carbon emissions, and it is estimated transport carbon levels need to fall by 64% to achieve an overall emission reduction of 50% by 2030. [Stuff](#). Shared micromobility needs to be part of the solution, but the current arrangement has problems.

Chang et al. (2019b) suggested that shared e-scooters in two US cities are largely replacing walking and cycling. In Denver, Colorado, 57% of respondents to the online survey stated that e-scooter trips replaced walking (43%) and biking (14%) trips. In Portland, Oregon, 46% of respondents stated that they would have either walked (37%) or cycled (9%) if a shared e-scooter had not been available for their last trip. This is a negative outcome for carbon levels in city. As recently as April 2021 the project managers in charge of the upgrades to Queen Street, K'Road and Ponsonby Road all noted that footpath clutter and footpath riding of shared e.scooters was a significant issue that they wanted to see solved. [NZTAs Feb 2021 paper - "Modeshift to micro mobility"](#) Notes a recent New Zealand survey by Kantar TNS (2019) reported that 52% of residents felt unsafe when sharing footpaths with e-scooters, mainly because of the speed they are ridden at. This is a negative social outcome for our cities.

NZTAs Feb 2021 paper - "Modeshift to micro mobility" also notes that Transport Outcomes Framework (Ministry of Transport, 2018, p. 3) should be used as an enduring set of outcomes to guide decision making across the transport sector. This is a derivative of the Triple Bottom Line, or People, Planet and Profit framework for assessing the costs and returns associated with a business or project. **How can this sort of approach be used in the both the short and longer term to manage shared micromobility in our city?**

3. Their are reasonable operational procedures a provider can use to to meet Council requirements for safe operations, however they reduce the attractiveness to ride shared micro mobility:

Nextbike operates a model called mixt-share bike. Rather than stationed OR station-less. Mixt-share bike gives the best of both operating models. In practice this means we use a rental pricing model that encourages riders to return bikes to specific places (bike racks) and if they do this they only pay for time on the bike; riders can return bikes between bike racks in certain geo fenced areas BUT the rider will pay a \$2 fee for the privilege and we make sure we get to those bikes quickly and move them to a nearby rack; riders are actively discouraged from returning bikes to undesirable geo fenced areas because they will be charged an additional \$20 fee

The mixt-share bike operation has produced only 4 notices of non compliant devices from Auckland Council officers in 9 months of operation. A compliance level that has been noted as exceptional.

This is less convenient for riders, but when the bike rack locations are only 1-200m apart the remaining walk is not likely to be very far. Ironically this makes the Nextbike system less attractive to riders than a station less system BUT more attractive to city administrators.

The mixt approach stops:

Riders being unsure where exactly a “safe” place might be, next to the bike rack is easy. In a similar way it makes it easier for the next riders to be sure they are standing in the correct location, next to a bike rack, and that is where the device should be.

Bikes causing trip hazards by being in a random spot with in sufficient space or uneven footpath and easy to topple over.

And it can allow Councils to designate certain blocks of streets with particularly high foot traffic as only suitable for returns to designated locations

Only works if all providers are required to do it.

These are reasonable and proven measures to ensure safe operations of shared micro mobility. **How can they be applied in both the short and longer term to all providers of shared micromobility in our cities?**