

Appendix A – Actions to reduce transport emissions: additional details

Note: Further detail could be provided on investment-related activities once Budget 22 is confirmed.

This appendix provides more detail on the actions we are taking in the first emissions budget period to reduce transport emissions.

Our actions are divided into the four focus areas for transport:

1. Reducing reliance on cars and supporting people to walk, cycle and use public transport.
2. Rapidly adopting low-emission vehicles and fuels.
3. Beginning work now to decarbonise heavy transport and freight.
4. Cross cutting and enabling actions.

Table 1 provides an overview of the actions across each focus area. This is followed by further information on each action.

Table 1. Overview of actions to reduce transport emissions

Focus area	Transport targets	Actions (policies/activities)
1. Reducing reliance on cars and supporting people to walk, cycle and use public transport.	1: Reduce total Vehicle Kilometres Travelled (VKT) by the light fleet by 20 percent by 2035 through improved urban form and providing better travel options, particularly in our largest cities.	1.1. Integrating land use, urban development and transport planning and investment to reduce transport emissions. 1.2. Supporting people to walk, cycle and use public transport: <ol style="list-style-type: none"> A. Planning – Designing and implementing programmes to reduce light vehicle VKT for our largest cities and beginning planning for other urban areas. B. Public transport – Improving the reach, frequency, and quality of public transport. C. Walking and cycling – Providing national direction to deliver a step-change in cycling and walking rates. D. Reshaping streets – Supporting local government to accelerate widespread street/road changes to support public transport, active travel and placemaking. E. School travel – Making school travel greener and healthier. F. Equity – Improving access and travel choice for the transport disadvantaged. G. Rural areas – Investigating the potential for public transport, walking and cycling in rural and provincial areas.

		<p>1.3. Enabling congestion charging and investigating other pricing and demand management tools to reduce emissions from land transport.</p> <p>1.4. Requiring roadway expansion and investment in new highways to be consistent with climate change targets.</p> <p>1.5. Embedding nature-based solutions as part of the response to reducing transport emissions</p>
2: Rapidly adopting low-emission vehicles and fuels.	2: Increase zero-emissions vehicles to 30 percent of the light fleet by 2035.	<p>2.1. Accelerating the uptake of low-emission vehicles:</p> <ul style="list-style-type: none"> A. The Clean Vehicle Standard and Discount scheme. B. Low Emission Transport Fund. C. Light electric vehicle (EV) Road User Chargers (RUC) exemption. D. Avoid Aotearoa becoming a dumping ground for high emitting vehicles. E. Limiting imports of the highest emitting vehicles: Setting a maximum carbon dioxide (CO₂) limit or penalties for individual light ICE vehicle imports to tackle the highest emitting vehicles. F. Investigating how the tax system could support clean transport options. G. Partnering on solutions to address supply constraints for low-emissions vehicles. H. Determining whether there are legislative barriers to the use of some types of low-emission vehicles. I. Transitioning to a low-emissions Government fleet. <p>2.2. Making low-emission vehicles more accessible for low-income and transport disadvantaged New Zealanders.</p> <p>Policies to support the uptake of alternative fuels are included in focus area 3 because they apply to both light and heavy vehicles.</p>
3: Beginning work now to decarbonise heavy transport and freight.	<p>3: Reduce emissions from freight transport by 35 percent by 2035.</p> <p>4: Reduce the emissions intensity of transport fuel by 10 percent by 2035.</p>	<p>3.1. Decarbonising freight:</p> <ul style="list-style-type: none"> A. Developing a Freight and Supply Chain strategy. B. Implementing the New Zealand Rail Plan (the Rail Plan) and investigating options to encourage greater use of coastal shipping. C. Accelerating the decarbonisation of trucks. <p>3.2. Accelerating the decarbonisation of the public transport bus fleet.</p> <p>3.3. Decarbonising aviation.</p> <p>3.4. Decarbonising maritime transport.</p> <p>3.5. Biofuels Obligation – a greenhouse (GHG) gas reduction-based obligation to increase the use of sustainable biofuels.</p> <p>3.6 Producing a long-term national EV charging infrastructure plan.</p>
4. Cross cutting and enabling actions	Not applicable.	4.1. Ensuring the next Government Policy Statement (GPS -LT) on land transport guides transport investment that is consistent with the emissions reduction plan.

		<p>4.2. Developing a strong evidence base to inform transport decarbonisation and an Equitable Transition.</p> <p>4.3. Embedding long-term planning.</p> <p>4.4. Investing in education and information to support changes consistent with the emissions reduction plan.</p> <p>4.5. Developing the skills and capability required to transition to a low emissions transport system and support an Equitable Transition.</p>
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Measuring success: monitoring and reporting

It will require significant and sustained commitment by the Government to implement the transport actions outlined in this emissions reduction plan. Monitoring and reporting are critical to help us understand whether we are on track towards our 2035 targets and to ensure we have the right information for evaluating the outcomes and impacts.

Te Manatū Waka the Ministry of Transport (Te Manatū Waka) will need to develop a monitoring framework and identify the associated outcome and milestone indicators to track the transport actions outlined in this emissions reduction plan, and the corresponding transport emissions reduction. This will involve working with transport agencies to identify appropriate reporting and information collection mechanisms to fill data and research gaps related to the outcome indicators that are not currently monitored.

Te Manatū Waka will need to develop an emissions reduction Evaluation Plan to prioritise efforts to evaluate the effectiveness and value for money of key interventions and policies.

As we are yet to develop the Monitoring Framework and the Evaluation Plan, the progress indicators outlined in this Appendix are provided as examples only, based on what Te Manatū Waka currently captures/monitors and potential key milestones.

Focus area 1: Reducing reliance on cars and supporting people to walk, cycle and use public transport

We have set a target to reduce total VKT by the light fleet by 20 percent by 2035 through providing better travel options, particularly in our largest cities. Achieving this target requires a range of complementary actions, including:

- shaping urban form to reduce the number and distance of trips that people need to make, and encourage the use of public transport, walking, cycling and shared mobility
- supporting mode-shift by providing better travel options, such as public transport, walking, cycling and shared mobility
- managing transport demand, including through pricing mechanisms, to support more liveable cities, make better use of infrastructure, and encourage people to make more sustainable transport choices
- making road investments consistent with climate change targets.

The following tables provides more detail on the actions that support this focus area.

1.1. Integrating land use, urban development and transport planning and investment to reduce transport emissions

Detail	Description
<p>Action/s (policy/activity)</p>	<p>To reduce transport emissions and support well-functioning and vibrant towns and cities, we need to create places where people have a range of clean and healthy transport options to access jobs, education, shops, and other amenities. Intensification of urban areas, with mixed land uses, needs to occur in combination with improvements to public transport and active modes to avoid/reduce emissions and improve accessibility. Greenfield developments also need to be public and active transport oriented. To deliver this, urban planning needs to be integrated with transport planning and investments. These actions therefore need to be considered in combination with proposed actions in the Planning and Infrastructure Chapter of the emission reduction plan.</p> <p>Transport and planning system reform</p> <p>Strengthen the relationship between Regional Land Transport Plans (RLTP) and Regional Spatial Strategies (RSS), implementation agreements and Natural and Built Environment Act (NBA) plans.</p> <p>Impact assessments</p> <ul style="list-style-type: none"> • Assess joint spatial plans and associated implementation plans for all Urban Growth Partnerships to understand transport emission and funding impacts, and to identify key risks and opportunities for reducing transport emissions. • Develop the evidence base and tools to quantify and assess transport emissions from proposed transport and urban developments. This will form part of the evidence base for assessing the lifetime emissions impacts of proposed urban developments (addressed in the Planning Chapter). • Incorporate assessments of VKT by light vehicles, mode share, and transport emissions into RLTPs and amended Resource Management Act (RMA) plans, including how to manage/reduce emissions. These assessments will be required to meet eligibility for transport funding (see funding settings below). <p>Funding settings</p> <ul style="list-style-type: none"> • Identify transport sector and planning sector incentives and investment rules to incentivise low emissions urban form that avoids/reduces travel and encourages travel by public transport and active modes (e.g. use of targeted funding assistance rates for allocating the National Land Transport Fund (NLTF)). • Require bids for new transport investment to demonstrate how they contribute to emission reduction objectives when being considered for transport funding from central government. • Establish a high threshold for new transport investments that are not consistent with emission reduction objectives.
<p>Expected outcome</p>	<p>When combined with other actions, this urban form package will support urban development that reduces the need to travel, especially by car, and</p>

	<p>reduces the distances people need to travel in Aotearoa’s urban areas to reach jobs, schools, shops, amenities, and other important destinations. It will also influence how people travel - making it easier for people to choose low carbon modes, such as public transport, walking, and cycling, as their first choice for more daily journeys. This reduction in the need to travel, distance travelled, and mode-shift will reduce transport emissions, especially over the medium to longer term.</p> <p>By reducing the need for private vehicle travel (and by extension the size of the fleet), changes to urban form will also avoid emissions and other environmental impacts associated with infrastructure construction, including road and state highway construction and maintenance, and vehicle manufacturing, use and disposal/recycling at end of life.</p>
<p>Co-benefits</p>	<p>Improving access and equity</p> <p>Maintaining and improving access as cities develop. For example, increasing the range and numbers of opportunities and amenities people can access within a short distance or timeframe through low-emissions modes and reducing the need to own or operate a vehicle, will improve access and reduce household travel costs.</p> <p>Supporting economic prosperity</p> <p>Supporting economic prosperity by supporting people and freight to move more efficiently, and by reducing the need for major infrastructure improvements for unmanaged urban dispersal/sprawl. This package will also improve liveability and increase access to opportunities for more people.</p> <p>Improving public health and safety</p> <p>Improving health and safety in communities. For example, by supporting mode-shift to public and active modes, which increase physical activity and improves air quality.</p> <p>Environmental sustainability</p> <p>Improving environmental sustainability (e.g. by reducing run-off from vehicles into waterways, protecting urban ecosystems and habitats, supporting future food security by reducing the development of highly productive land, and improving amenity by protecting natural areas on the urban periphery).</p>
<p>Interconnections with other policies/activities</p>	<ul style="list-style-type: none"> • The Planning section. • National Policy Statement on Urban Development (NPSUD): this requires councils to allow for higher levels of density around rapid transit stops and in urban/town centres. It also requires councils to remove minimum car parking requirements. Land use and transport planning/investments need to be integrated to shape urban development in a way that reduces emissions and improves access. To create well-functioning urban environments, we need to prioritise travel by public transport and active modes [supported by mode-shift actions 1.2 A-G]. • Proposed Resource Management (Enabling Housing Supply and Other Matters) Amendment Bill: this will enable/drive intensification in existing urban areas. To support intensification, we need to prioritise travel by public transport and active modes [supported by mode-shift actions 1.2 A-G]. Otherwise, we risk facing increasing traffic congestion, more

	<p>competition for on-street car parking/storage, slower journey times for people and freight, reduced access, and lower productivity.</p> <ul style="list-style-type: none"> • Reform of the resource management system: proposed reforms will influence urban planning through the proposed NBA, Spatial Planning Act, and National Planning Framework. These reforms need to be aligned with emissions reduction targets. • As part of resource management reforms and GPS-LT 2024 development, there will be a review into how the role of RLTPs could be clarified and strengthened further. This will be an important tool in giving effect to mode-shift plans and other strategies developed by local government to deliver on mode-shift targets [mode-shift actions A: Planning]. • This package needs to be supported by cross-cutting packages [4.2. evidence building, 4.3. long-term planning, 4.5. skills and capability].
<p>Partnerships</p>	<p>Local government</p> <p>Local government has a significant role in planning and funding transport and urban development at a regional and local level. Different parts of local government have responsibility for different activities. For example, Regional Councils manage public transport services, while Road Controlling Authorities such as City Councils manage the roads that these services operate on. Transport and planning reforms need to address these challenges to integrated partnering and decision-making.</p> <p>Development sector</p> <p>There needs to be close collaboration between transport delivery entities, the Ministry of Housing and Urban Development (MHUD), Kāinga Ora, mana whenua and the development sector.</p>
<p>Timeframe for the policy/activity</p>	<p>To be determined.</p>
<p>Progress indicators (examples – to be determined)</p>	<p>Outcome indicators</p> <ul style="list-style-type: none"> • Light vehicle fleet VKT • Mode share (including for short trips) • Population with access to frequent public transport services • Access to jobs by mode • Access to the natural environment • People unable to make a beneficial transport journey • Unmet need for GP services due to lack of transport • Urban residential dwelling consents with access to frequent public transport <p>Milestone indicators</p> <ul style="list-style-type: none"> • Assessment of spatial plans and implementation agreements for alignment with transport targets complete. • Following the reform of the resource management system, key milestones will include:

	<ul style="list-style-type: none"> ○ Regional Spatial Strategies, which prioritise emission reduction through land use and urban development in urban environments over the long term, are complete. ○ NBA Plans and the National Planning Framework, which provide an outcomes focus to enable greater intensification and the public transport infrastructure to support it, are complete.
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1.2. Supporting people to walk, cycle and use public transport

A: Planning – Designing and implementing programmes to reduce light vehicle VKT in our largest cities, and beginning planning for other urban areas

Detail	Description
Action/s (policy/activity)	<p>In urban areas, transport planning and investments need to strongly prioritise travel by public transport, walking and cycling to reduce transport emissions. This will also accommodate more people and businesses in our cities, without causing ever-increasing congestion and emissions.</p> <p>Continue to implement existing mode-shift plans</p> <ul style="list-style-type: none"> • Continue to implement activities approved for funding that are in the six existing mode-shift plans for Auckland, Tauranga, Hamilton, Wellington, Christchurch and Queenstown, in partnership with local government. • Implement ‘no regrets’ activities that are planned but not yet funded in the NLTP or existing mode shift plans. <p>Review and revise mode-shift plans and begin planning for other urban areas</p> <ul style="list-style-type: none"> • Set sub-national (e.g. Tier 1 and 2¹) light vehicle VKT and mode shift targets for achieving the national target of reducing total VKT by the light fleet by 20 percent by 2035. This will be completed by the end of 2022, following consultation with local government, iwi/Māori, and community representatives. • Revise Waka Kotahi National Transport Agency’s (Waka Kotahi) national mode shift plan (Keeping Cities Moving) to ensure nationally-led activities align with the pace and scale of mode shift required in urban areas. • Leverage from the six existing urban mode-shift plans to develop urban VKT reduction programmes in partnership with local government, iwi/Māori, and community representatives. Revised programmes will need to clearly demonstrate how they will contribute to VKT targets for major urban centres, other urban areas, towns and rural areas. • Partner with local government, iwi/Māori, and community representatives, in Tier 2 urban areas to develop new VKT reduction programmes (in a phased and prioritised way), aligned with sub-national VKT reduction target.

¹ Tier 1: Auckland, Hamilton, Tauranga, Wellington, Christchurch. Tier 2: Whangārei, Rotorua, New Plymouth, Napier Hastings, Palmerston North, Nelson Tasman, Queenstown, Dunedin.

	<p>VKT reduction programmes</p> <ul style="list-style-type: none"> • VKT reduction programmes for each urban area will identify the combination of activities required to meet sub-national VKT reduction targets by 2035; the funding required to deliver them at the scale and pace required; and the critical dependencies required to achieve targets. • VKT reduction programmes for each urban area will include an appropriate mix of measures for that place, such as: <ul style="list-style-type: none"> ○ encouraging urban development in areas with frequent public transport routes ○ using pricing tools, parking management, travel planning, network management and other transport demand management approaches, alongside changes to the way we plan and manage urban form ○ improving the reach, frequency, and quality of public transport services [supported by mode shift actions 1.2. B and D] ○ expanding and upgrading rapid transit networks in Aotearoa’s largest urban areas [supported by mode-shift actions 1.2 B] ○ completing and connecting safe and attractive cycling networks (well-connected to urban centres, activity centres, and public transport hubs) and improved facilities for people biking [supported by mode-shift actions 1.2 C and D] ○ improving streets for people walking (including footpaths, crossings and intersections), and improving walkability to public transport stops/hubs [supported by mode-shift actions 1.2. C and D] ○ reallocating space on many streets/roads to rapidly deliver more dedicated bus lanes and safe separated bike/scooter lanes [supported by mode-shift actions 1.2 D] ○ co-development and delivery of more traffic-calming and low-traffic neighbourhoods [supported by mode-shift actions 1.2. C and D] ○ use of information, technology and other tools to support real time travel information, network management, and different travel choices. • VKT reduction programmes will be aligned with 1.2. D: Reshaping Streets to prioritise street/road space allocation over corridor expansion to deliver cost-effective bus lanes, bike/scooter networks, and walking improvements at pace. • VKT reduction programmes will also set time-bound targets (contingent on funding) for the delivery of strategic transport infrastructure and changes essential for mode shifts, including: <ul style="list-style-type: none"> ○ complete urban bike/scooter networks ○ dedicated bus lanes and other bus priority measures on core public transport routes. • Investigate the development of Sustainable Urban Mobility Plans as a strategic planning component of RLTPs, connected to RSSs, implementation agreements and NBA Plans.
<p>Expected outcome</p>	<p>This package sets the near to medium term direction, scale and pace of mode shift plans and packages for public transport, walking and cycling, reshaping streets and school travel, to ensure they achieve the targets set.</p>

	<p>When combined with other actions (e.g. land use changes and demand management), this mode shift package will reduce transport carbon emissions by supporting a significant shift from travel by car to travel by public transport, walking and cycling.</p>
<p>Timeframe for the policy/activity</p>	<p>Sub-national VKT targets for Tier 1 and 2 urban areas will be confirmed by end of 2022, following consultation with local government, iwi/Māori, and community representatives.</p> <p>Remaining timeframes to be determined.</p>
<p>Progress indicators (examples – to be determined)</p>	<p>Outcome indicators</p> <ul style="list-style-type: none"> • Light VKT in major urban areas • Mode share • Mode share of short trips • Time spent travelling by active modes • Reduction in death and serious injury due to road trauma, particularly in urban areas • Public transport patronage • Regional connectivity (by mode) • Increased public transport mode share in major urban areas • Increased access/proximity to frequent public transport in major urban areas • People unable to make a beneficial transport journey • Perception and actual safety of public transport • Unmet need to GP services dues to lack of transport • Household spending on transport (percentage of income) • Utilisation of key movement corridors for people and freight • Perceived personal safety while using the transport system • Access to jobs by mode • Access to essential services by mode • Walkability of urban centres. <p>Milestone indicators</p> <ul style="list-style-type: none"> • Existing Mode Shift Plans, including the national plan (Keeping Cities Moving): <ul style="list-style-type: none"> ○ reviewed and updated; targets set; funding secured; being delivered ○ critical dependencies identified and mechanisms in place to monitor and support their alignment with mode shift plans (e.g. funding, pricing tools, supporting land use). • Tier 2 urban areas: <ul style="list-style-type: none"> ○ development of VKT reduction programmes prioritised and phased for development ○ prioritised VKT reduction programmes developed; targets set; funding secured; delivery commenced. • Delivery targets identified in regional VKT reduction programmes (e.g. for public transport and active travel networks) are met.

B: Public transport – Improving the reach, frequency, and quality of public transport

Detail	Description
<p>Action/s (policy/activity)</p>	<p>We need to provide New Zealanders with better public transport to reduce VKT. Well-integrated networks of public transport services can significantly increase levels of access between communities, and are vital for connecting employers to labour markets, and individuals to social and economic opportunities. Public transport is also essential for our cities to grow in a way that avoids emissions from new development.</p> <p>National strategy, policy and enabling activities</p> <ul style="list-style-type: none"> • Establish a national strategy that provides a set of principles for planning and funding diverse kinds of public transport, within and between towns and cities, to enable the development of a national public transport network. • Develop a business case toolkit, which will provide guidance on the specific viability of interregional passenger rail, coach, and bus services, and improve the planning, funding, and delivery of these projects. • Complete a review of the Public Transport Operating Model (PTOM) to consider whether it needs to change to support the Government’s objectives for public transport and wider objectives, including public ownership options. Following the review, consider making any reforms to the policy and legislative framework for the planning and procurement of public transport. • Identify and consider addressing barriers to integrating public transport with active and micro-mobility modes and networks. <hr/> <p>Delivery</p> <ul style="list-style-type: none"> • Deliver major public transport service and infrastructure improvements aligned to mode-shift plans: <ul style="list-style-type: none"> ○ Auckland: <ul style="list-style-type: none"> ▪ progress delivery of the rapid transit, bus and ferry improvements outlined in the Auckland Transport Alignment Project (ATAP), including City Rail Link, light rail along the City Centre to Māngere Corridor, busway extensions to the north and east, rail network upgrades, bus lane programmes and service improvements ▪ work with Auckland Council to agree a plan for development of Auckland’s rapid transit network for the next 30 years ▪ investigate what further public transport infrastructure and service improvements are required to significantly increase Auckland’s public transport mode share by 2035. ○ Wellington: <ul style="list-style-type: none"> ▪ Provide the Government’s funding share to progress Let’s Get Wellington Moving initiatives, including: <ul style="list-style-type: none"> - delivering bus priority measures to make travelling by bus faster and more reliable, especially at peak times, on the eight busiest routes into the central city, including providing more bus lanes and traffic signal changes, and improving,

	<p>consolidating and relocating bus stops to improve bus travel time and reliability on the Golden Mile and Thorndon Quay/Hutt Road</p> <ul style="list-style-type: none"> - progressing work to deliver a mass transit system between the railway station, hospital, and eastern and/or southern suburbs - improving placemaking, walking and cycling facilities (e.g. on Thorndon Quay and the Golden Mile) - Improving access to the Interislander ferries. <ul style="list-style-type: none"> ▪ Plan and invest in Wellington’s commuter rail and bus network. <ul style="list-style-type: none"> ○ Christchurch: <ul style="list-style-type: none"> ▪ increase public transport capacity ▪ work with Greater Christchurch Partnerships on a rapid transit network. • Deliver national integrated ticketing for public transport. • Significantly improve urban public transport services nationwide to support a major uplift in all urban bus networks. • Consider improvements to, and new opportunities for, inter-regional rail services that encourage reduced need to travel by car.
<p>Expected outcome</p>	<p>When combined with other actions, this public transport package will contribute to mode shift targets and will reduce transport emissions through improved national and major urban access to and significant uptake of public transport options.</p>
<p>Timeframe for the policy/activity</p>	<p>The PTOM review will be completed mid-2022. Other initiatives - To be determined.</p>
<p>Progress indicators (examples – to be determined)</p>	<p>Outcome indicators</p> <ul style="list-style-type: none"> • Same indicators as 1.2. A - Planning <p>Milestone indicators</p> <ul style="list-style-type: none"> • National business case toolkit complete • National strategy for planning and funding public transport complete • PTOM Review complete – any reforms made and implemented through procurement of new contracts • Rapid transit network plans for Auckland, Wellington and Christchurch complete • National Integrated Ticketing in place • Delivery targets identified in regional Mode Shift plans for public transport are met

C: Walking and cycling – Providing national direction to deliver a step-change in cycling and walking rates

Detail	Description
<p>Action/s (policy/activity)</p>	<p>There are major opportunities to reduce emissions while also improving public health and making our streets more inclusive for people. This includes by making it safer and easier to travel by active modes and improving access to e-bikes by making them more affordable.</p> <p>Policy and enabling activities</p> <ul style="list-style-type: none"> • Deliver a co-ordinated national programme of funding, capability-building, change leadership, and regulatory initiatives to deliver a step-change in cycling and walking rates in Aotearoa. This includes: <ul style="list-style-type: none"> ○ substantially increasing funding for cycling and walking improvements ○ implementing Accessible Streets proposals nationwide to support safe walking, cycling/scooter and other active modes. Accessible Streets is a collection of rule changes designed to increase the safety and accessibility of our footpaths, shared paths, cycle paths and cycle lanes. The package recognises the increasing number of different vehicles on our paths and streets and creates a regulatory framework to ensure they are used safely. ○ building sector capability in engagement and communications, supported by national and regional leadership in communicating why change is required and the benefits it brings. <p>Delivery</p> <ul style="list-style-type: none"> • Deliver a national plan to significantly increase the safety and attractiveness of cycling and micro-mobility, establishing clear principles for planning and investment. • Support local authorities to develop network plans and delivery strategies targeting emission reduction for short to medium length trips. • Provide support for local authorities and the sector to boost capabilities in designing and delivering cycling/scooter and walking improvements at speed. • Deliver a national plan to significantly increase the safety and attractiveness of walking. • Develop and implement an e-bike incentive scheme and support for employer-led initiatives to make e-bikes more affordable.
<p>Expected outcome</p>	<p>When combined with other actions, this walking and cycling package will contribute to mode shift targets and reduce transport emissions through improved access to and significant uptake of walking and cycling in urban areas.</p> <p>Accessible Streets aims to support a mode shift for trips in our urban centres from private vehicles to low-emission and healthier modes, such as walking, cycling and e-scooter. The proposals aim to make these modes safer and more attractive by improving their visibility and priority on the roadway and paths.</p>

<p>Timeframe for the policy/activity</p>	<p>The Accessible Streets rule package will be implemented in the first half of 2023, following an education campaign.</p> <p>Other initiatives - to be determined</p>
<p>Progress indicators (examples – to be determined)</p>	<p>Outcome indicators</p> <ul style="list-style-type: none"> • Same indicators as 1.2. A - Planning <p>Milestone indicators</p> <ul style="list-style-type: none"> • Network kilometres of walking and cycling facilities delivered • Implementation of Accessible Streets Package • Cycling and Walking plans complete • Capability Programme developed • Delivery targets identified in regional Mode Shift plans for active travel networks are met

D: Reshaping Streets – Supporting local government to accelerate widespread street/road changes to support public transport, active travel and placemaking

Detail	Description
<p>Action/s (policy/activity)</p>	<p>Reallocating street space to provide dedicated bus lanes, bike/scooter networks, and walking improvements can be a quick and cost-effective way to make it safer and more attractive for people to travel by clean and healthy transport modes. We need to support and encourage local government to make these changes, and set clear expectations that it should happen.</p> <p>Policy and enabling activities</p> <p>Deliver a co-ordinated programme of regulatory and funding initiatives to support and encourage changes to existing streets/roads (e.g. through street space reallocation, and traffic calming measures), along with clear community engagement on why these changes are important. This includes:</p> <ul style="list-style-type: none"> • Changing funding levels, settings, and requirements to strongly incentivise street changes, including: <ul style="list-style-type: none"> ○ increasing funding available to accelerate the delivery of bus lanes, cycling networks, traffic calming measures, low traffic neighbourhoods and other street changes that make places better for walking ○ set expectations for Waka Kotahi to develop an accelerated funding pathway to support rapid delivery of street/road changes that encourage travel by public transport, walking, and cycling. • Reviewing policy and funding settings to ensure that delivery agencies maximise opportunities to ‘build back better’ when doing street renewals, make streets safer and better places for people travelling by foot, bike, other wheeled mobility and public transport, and to improve the urban environment

	<ul style="list-style-type: none"> • Considering regulatory changes to make it simpler and quicker for road controlling authorities to change streets to support travel by public transport, walking and cycling/scooting. This includes: <ul style="list-style-type: none"> ○ improving the consultation process for reallocating street space and managing/restricting vehicle movements ○ removing any unnecessary regulatory barriers that limit the ability of road controlling authorities to make street changes. • Building sector capability in engagement and communications, supported by national and regional leadership in communicating why change is required and the benefits it brings. <p>Delivery</p> <ul style="list-style-type: none"> • Scaling up Waka Kotahi’s existing Innovating Streets for People programme, to deliver experimental street changes rapidly. • Use Network Operating Frameworks, Network Operating Plans and the One Network Framework to support mode shift objectives and enable delivery of activities reshaping streets and corridors. • Provide support for local authorities and the sector to boost capabilities in designing and delivering cycling/scooting networks and walking improvements at speed. Links to 1.2. C - Walking and cycling.
<p>Expected outcome</p>	<p>When combined with other actions, this reshaping streets package will support mode shift and reduce transport emissions through supporting local government to reallocate street space to support connected cycling/scooting networks in urban areas, more dedicated/priority bus lanes, and better urban environments for walking and cycling. This will increase the mode share of public transport, walking and cycling/scooting in Aotearoa, particularly in major urban areas.</p> <p>Given that many street changes can be relatively low cost and potentially implemented quickly, this package will help to reduce emissions in the short term, as well as medium to longer term, provided alternative options are available and accessible by people, and they are incentivised to use them.</p>
<p>Timeframe for the policy/activity</p>	<p>To be determined.</p>
<p>Progress indicators (examples – to be determined)</p>	<p>Outcome indicators</p> <ul style="list-style-type: none"> • Same indicators as 1.2. A - Planning. <p>Milestone indicators</p> <ul style="list-style-type: none"> • Regulatory change programme complete. • Local Government Capability programme complete. • Community engagement and co-development programme. • Innovating Streets programme scaled up and incorporated into Reshaping Streets Programme.

E: School travel – Making school travel greener and healthier

Detail	Description
<p>Policy/activity</p>	<p>Making walking and cycling/scooting to and from schools safer for children can improve access, reduce road and parking congestion around schools and reduce emissions. This package of initiatives aims to change school travel behaviour, specifically by making active and low-emission transport modes safer and more attractive for students and their parents. The package is comprised of infrastructure improvements, education programmes, and improvements to school bus services. In doing so the initiative will also explore active and shared low-emission school travel options for Māori (kura kaupapa, kura) and Pasifika neighbourhoods. This is important because Māori and Pasifika communities have historically not benefited from active travel interventions, and have higher rates of walking-related road deaths and serious injuries.</p> <p>Policy and enabling activities</p> <ul style="list-style-type: none"> • Explore dedicated active transport funding and/or education programmes to schools, including funding for school bike-leasing schemes or biking education classes. This initiative will consider: <ul style="list-style-type: none"> ○ what gaps and/or barriers to uptake exist in current cycling education in schools, such as BikeReady ○ whether additional funding is required for in-school infrastructure such as safe/secure cycle and scooter parking and/or cycling skills areas ○ opportunities to leverage off or align with existing schemes such as the Aotearoa Bike Challenge. • Set targets for active travel to/from schools. • Consider opportunities to improve school bus services, including those provided by the Ministry of Education (MoE) and regional councils, such as: <ul style="list-style-type: none"> ○ improving school bus vehicle standards ○ improving supporting infrastructure such as bus stops and other locations for drop-off and pick-up. • There may be further opportunities to reduce reliance on private motor vehicles by: <ul style="list-style-type: none"> ○ taking a more integrated approach to school bus services provided by different agencies – with a greater focus on mode-shift outcomes in the planning and provision of these services ○ exploring whether it would be feasible to allow wider community access to school bus services, or whether school buses could be further utilised to provide transport services to wider community ○ considering the differing needs of bus/shared travel in urban and rural/remote areas. <p>Delivery</p> <ul style="list-style-type: none"> • Prioritise improving walking and cycling infrastructure to/along school routes, in schools, and in surrounding neighbourhoods. This initiative will target infrastructure improvements such as: <ul style="list-style-type: none"> ○ improvements to key crossing points ○ traffic calming measures

	<ul style="list-style-type: none"> ○ footpath widening and protected cycle ways where possible ○ using infrastructure and operation of school grounds to prioritise travel to school by active modes. • These measures will complement reduced speed limits around schools (see below) and other network wide infrastructure improvements for active travel being progressed as part of other initiatives. • Implement the Tackling Unsafe Speeds programme to reduce speed limits around schools. The Government is undertaking various safety-related activities as part of the initial action plan under the current road safety strategy, Road to Zero. This includes a package of reforms called Tackling Unsafe Speeds, which introduces a new approach to speed management. Under a proposed new Land Transport Rule: Setting of Speed Limits, by 2030, road controlling authorities would be required to reduce all speed limits for roads around schools. Reducing speeds around schools would make it safer for children to walk and cycle to school.
Expected outcome	Improved access and safety, as well as improved health outcomes.
Timeframe for the policy/activity	<ul style="list-style-type: none"> • New Land Transport Rule: Setting of Speed Limits, in place by the end of March 2022. • Reduced speed limits around schools required by 2030. • Other initiatives – to be determined.
Progress indicators	To be determined.

F: Equity – Improving access and travel choice for the transport disadvantaged

Detail	Description
Action/s (policy/activity)	<p>Low-income households spend a larger share of their budget on transport – particularly on their cars. They also tend to live in areas with poorer transport choices. In addition to poor environmental outcomes, the status quo is not providing safe, healthy or affordable access to transport for many. We must provide equitable access to clean and healthy transport options as part of the transition to a zero-emissions transport system.</p> <p>Policy and enabling activities</p> <ul style="list-style-type: none"> • Deliver a co-ordinated programme of funding, support and monitoring to improve clean and healthy transport options for transport disadvantaged² communities. This includes: <ul style="list-style-type: none"> ○ providing dedicated funding to improve public, active, and shared transport options in low socio-economic areas, including areas with high levels of social housing

² ‘Transport disadvantage’ includes people who have limited options to participate in everyday activities because of a lack of transport choices, and people who overcome lack of transport choice by paying more than they can reasonably afford for mobility. This includes disabled people, who have specific needs for accessibility of transport.

	<ul style="list-style-type: none"> ○ engagement with social service organisations to inform public, active, and shared transport investments that will address transport inequity ○ monitoring and responding to the impacts of transport policy actions on the accessibility and affordability of transport, particularly for lower income households and communities. <p>Delivery</p> <ul style="list-style-type: none"> • Work with local authorities to: <ul style="list-style-type: none"> ○ deliver public transport improvements in low socio-economic areas (where appropriate, based on population size and distribution). This includes: <ul style="list-style-type: none"> ▪ improving the reach and frequency of public transport services in low-income areas not well served by public transport, particularly in urban areas with sufficient levels of density to enable good patronage ▪ trialling demand responsive public transport services in low-income areas which are lower density and where traditional public transport services are less viable due to lower patronage ▪ improving personal security at public transport stops and stations. ○ deliver cycling improvements in low-income areas, including improving the quantity, quality and connectivity of cycleways and providing secure cycling storage (including in social housing developments) ○ improve walkability in low socio economic areas, including improving the safety, security, and connectivity of footpaths and crossings. • Investigate opportunities to improve access for people living in social housing through shared mobility schemes, such as car share, carpool, and bike/scooter schemes • Implement a three-year Community Connect pilot of a 50 percent concession to Community Services cardholders in Auckland. • Work with local authorities to ensure that public transport fares are affordable, with a particular focus on low-income users. This could include: <ul style="list-style-type: none"> ○ extending the Community Connect pilot to other areas ○ supporting other forms of targeted public transport fare concessions ○ investigating how public transport fare pricing structures could be adapted to improve equity and encourage mode-shift.
<p>Expected outcome</p>	<p>When combined with other actions, this equity package will contribute to mode shift targets and reduce transport emissions through improving access to public transport, walking, cycling and shared mobility. By targeting the transport disadvantaged and those living in low socio-economic areas and social housing, this package can improve equity and support an Equitable Transition.</p>
<p>Timeframe for the policy/activity</p>	<ul style="list-style-type: none"> • The Community Connect pilot in Auckland starts July 2022. • Evaluation of the pilot will start in 2023, which will inform considerations for a nationwide rollout. • Other initiatives – timeframes to be determined.

<p>Progress indicators (examples – to be determined)</p>	<p>Outcome indicators</p> <ul style="list-style-type: none"> • Same indicators as 1.2. A - Planning <p>Milestone indicators</p> <ul style="list-style-type: none"> • Delivery targets for public transport in low-income areas are met. • Network kilometres of walking and cycling facilities delivered in low-income areas. • Community Connect pilot is implemented. • Approach to making public transport fares affordable nationally is agreed with local government and implemented.
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G: Rural areas – investigating the potential for public transport, walking and cycling in rural and provincial areas

Detail	Description
<p>Action/s (policy/activity)</p>	<p>Low- and zero-emission vehicles are likely to play a greater role in reducing transport emissions in rural and provincial areas than public transport, walking and cycling. However, there are still opportunities to uplift and build low-emission transport choices for these communities.</p> <p>Policy and enabling activities</p> <ul style="list-style-type: none"> • Investigate the potential for public transport, shared services, walking and cycling in rural and provincial areas, particularly for the transport disadvantaged. This includes investigating: <ul style="list-style-type: none"> ○ the potential for better public transport to and between rural and provincial areas ○ support for community transport services (e.g. not-for-profit local transport solutions) ○ street improvements that make it safer to walk and cycle ○ active and shared low-emission school travel options. • Investigate further opportunities to provide on-demand public transport in provincial towns, noting positive signs from the MyWay trial in Timaru.
<p>Expected outcome</p>	<p>This package will contribute to future planning and investment in public transport, walking and cycling in rural and provincial areas, which is appropriately scaled and takes advantage of innovative approaches.</p> <p>Improving public transport, walking, and cycling in rural and provincial areas will reduce emissions, improve mobility for non-drivers, provide affordable transport choices for lower-income households, and support local economic development. Although walking, cycling and public transport will serve only a small portion of total travel in rural areas, many of these trips are important. For example, they allow seniors and disabled people to access healthcare and shops, young people to reach schools and jobs, and supports car-free tourism.</p>
<p>Timeframe for the policy/activity</p>	<p>To be determined.</p>

<p>Progress indicators (examples – to be determined)</p>	<p>Outcome indicators Same indicators as 1.2. A - Planning</p> <p>Milestone indicators To be determined.</p>
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Co-benefits, interconnections, and partnerships (1.2 A-G)

The co-benefits, interconnections and partnerships have been combined for all mode-shift actions due to significant overlaps.

Detail	Description
<p>Co-benefits</p>	<p>Improved access</p> <ul style="list-style-type: none"> • Increased access to frequent public transport, walking and cycling networks, particularly in major urban areas, including for lower socio-economic areas. • Increased access to on-demand/flexible public transport in smaller urban areas. • Improved low emission access and mobility for inter and intraregional travel. <p>Improved safety Reduced deaths and serious injuries (through mode shift from private vehicles to public transport, safer streets for walking and cycling, safer public transport facilities, and safer connections between modes).</p> <p>Improved public health</p> <ul style="list-style-type: none"> • Improved public health through increased physical activity. • Improved public health through reduced air and noise pollution. (There is less travel by private vehicles, and more travel by active modes.) <p>Reduced household travel costs Reduced household travel costs through reduced need to own or operate one or more vehicles, and through more affordable public transport fares.</p> <p>Supporting urban intensification The NPSUD will drive much more intensification in Aotearoa. Long-term spatial plans are prioritising future development around frequent/rapid public transport networks (integrating with walking and cycling networks). Many streets need changing to enable the efficient movement of people, and placemaking/open space to improve liveability.</p> <p>Maximising the use of existing infrastructure Reallocating space on streets and roads from light vehicles to public transport, walking and cycling reduces the number of light vehicles on roads and makes better use of existing roads for more efficient and safer people and freight movement. This is particularly important for supporting access and liveability of brownfield development.</p> <p>Creating a more inclusive and equitable society Most streets are designed to prioritise people travelling by car/private vehicles. Making streets more inclusive for people travelling by foot,</p>

	<p>wheelchairs, bikes, scooters and with prams will improve equity. Many footpaths and crossings need improving to make transport more inclusive for people with disabilities, which will be even more important with an ageing population.</p>
<p>Interconnections with other policies/activities</p>	<ul style="list-style-type: none"> • All the mode-shift packages need to support and integrate with each other (e.g. the mode-shift plans sets direction, and the other packages identify the policy or delivery work required to give effect to the planning). • Mode-shift is critical for supporting land use/intensification. [Urban Form Package and Planning section] • Mode-shift needs to complement demand management activities. [Pricing and demand Management Package] • All mode-shift packages will need to be supported by cross-cutting packages for Evidence Building (modelling and analysis), Skills and Capability (local government and partners need support to engage), Education and Information (the work requires sophisticated partnering and community engagement). • The new proposed speed management framework, including speed management plans, once implemented by Road Controlling Authorities, will facilitate more coordinated planning to support initiatives around mode-shift.
<p>Partnerships</p>	<p>Local government Co-development and planning; co-investment, procurement and contracting; community engagement</p> <p>Iwi/Māori Co-development and planning; community engagement</p> <p>Community representatives Co-development and planning; community engagement</p> <p>Advocacy Groups Co-development and planning; community engagement</p> <p>Public transport operators and innovators Service provision; asset provision/maintenance; workplace relations</p> <p>Bus Manufacturers Provide zero emission buses to operators</p> <p>Energy sector Provides low/zero emission fuel sources; establishes power supply/charging facilities</p>

1.3. Enabling congestion charging and investigating other pricing and other demand management tools to reduce t emissions from land transport

Detail	Description
<p>Action/s (policy/activity)</p>	<p>Pricing mechanisms are integral to reducing transport emissions, alongside other demand management levers such as: changes to land use and investment in public and active transport modes. Aotearoa’s main pricing tool for reducing emissions is the New Zealand Emissions Trading Scheme (NZ ETS). Overseas evidence shows that congestion charging can encourage better use of current transport systems and avoid the need for expensive and carbon-intensive infrastructure investments. A broader range of pricing tools could be used to reduce emissions by encouraging the use of low carbon fuels, discouraging the use of high CO₂ emitting vehicles, and supporting shifts to public transport and active modes.</p> <p>Extensive research in Auckland found that congestion charging would likely have a positive impact on levels of congestion and carbon emissions by encouraging people to change to lower-carbon modes of travel (for example, public transport).</p> <p>Congestion charging will have a disproportionate impact on low-income households and individuals. These equity impacts are a central consideration as legislation and congestion charging schemes are designed. Impact on freight will depend on the type of congestion charge. A flat-rate charge (as proposed in Auckland to date) would likely be a net benefit for businesses moving freight around the network (including from the outer areas).</p> <p>Enable congestion charging</p> <ul style="list-style-type: none"> • In the second half of 2022, Cabinet will decide whether to progress legislative changes to enable congestion charging in Aotearoa, taking into account how best to align network efficiency objectives with emission reduction plan targets and objectives. • Work with Auckland Council on a detailed design of congestion charging for Auckland. • Investigate ways to mitigate the adverse impacts of congestion charging on low-income individuals and households. • Engage with Wellington City Council and Wellington Regional Council in response to their request for congestion charging. • Monitor interest in congestion charging from other councils and engage as necessary. <p>Investigate pricing tools to reduce transport emissions</p> <ul style="list-style-type: none"> • Determine the most effective combination of additional pricing tools to reduce emissions from land transport, including parking pricing, VKT pricing and low emissions zones. • Consider changes to legislative settings to enable their use. • Investigate the equity impacts of different tools. <p>Progress work on Te Manatū Waka’s Future of the Revenue System project</p> <ul style="list-style-type: none"> • Reconsider the revenue system in response to longer-term changes in the way New Zealanders will travel and in response to the shifting

	<p>expectations about the purpose and function of the transport system. Decarbonisation will likely tilt the land transport investment profile away from roads, and the reliance on fuel taxes (FED) and RUC will become less sustainable and less equitable.</p> <ul style="list-style-type: none"> • Take a first principles approach to land transport revenue and the question of who should pay for what. • Design future options for the revenue system that will include tools for raising revenue and consider how revenue, funding and pricing options may be used together. <p>Investigate the potential of Mobility as a Service (MaaS)</p> <ul style="list-style-type: none"> • Explore, and potentially deliver a pilot MaaS project in Aotearoa, to determine the effectiveness of the platform to shape transport outcomes and to encourage mode-shift. MaaS is a term describing the application of the “as a Service” concept to mobility and transport options.³ • This pilot could include: <ul style="list-style-type: none"> ○ subscription services and packages, allowing open access to a range of services via a single monthly payment ○ incentives to encourage the use of low-emissions or active modes, especially during peak travel times ○ new types of public transport services, such as on-demand public transport ○ integration with smart-city infrastructure ○ shaping behaviour and choices through greater transparency of the environmental impacts of users’ transport choices ○ creating a mobility marketplace, reducing barriers to entry and allowing small local operators to compete against incumbent international operators.
<p>Expected outcome</p>	<p>Congestion charging Congestion charging is expected to enable better flow of traffic, creating time benefits for network users and a small reduction in carbon emissions. It should also facilitate mode shift towards less carbon intensive forms of transport.</p> <p>Future of the revenue system Sustainable land transport revenue will be important for supporting increased investment in public transport services and active modes. This project will design a revenue system able to deliver a transport system that is used differently to the one we have today. This work will also consider the role of pricing in the future revenue system to reduce emissions.</p> <p>MaaS MaaS platforms are already being trialled in urban centres around the world. Early indications from these trials shows that a well planned and fully</p>

³ Currently, there is no international consensus on the exact functionality and technical features which must make up a MaaS platform. However, there is a general agreement that MaaS is a digital platform which allows a user to see a range of local transport and mobility options, to plan a journey, and to make a single payment to cover that multi-mode journey. In most cases, MaaS platforms integrate a range of private commercial mobility and transport options alongside public transport options.

	<p>featured platform has significant potential to improve transport outcomes for users, leading to a shift towards greater use of public transport and active modes, along with a lower reliance on personal vehicles. Advanced trials have even shown that MaaS has a credible potential to begin shaping transport users’ transport choices to align with wider social goals, such as emissions reductions, lowering congestion, and addressing inequality.</p>
Co-benefits	<p>Improved public health Pricing mechanisms can improve public health through reduced air and noise pollution by reducing traffic congestion and supporting mode-shift to public and active travel modes.</p> <p>Optimise the use of current infrastructure Pricing mechanisms can help optimise the use of current infrastructure by encouraging people to travel at different times or by public and active transport modes.</p> <p>Economic benefits Congestion pricing is anticipated to optimise the use of the land transport network and thereby increase productivity. Optimising the use of the existing network may decrease the need for further investment in providing additional roadway capacity. Reducing congestion makes it easier to transport goods and or people around the network.</p>
Interconnections with other policies/activities	<p>Pricing activities complement [mode-shift actions]</p>
Partnerships	<p>Local Government</p> <ul style="list-style-type: none"> Local government will be a key partner in the implementation of pricing schemes, including congestion charging in Auckland. Local government will also be a key partner as we consider options for the future of the revenue system.
Timeframe for the policy/activity	<p>Enable congestion pricing Legislation will be developed over the next two years. The timetable for implementing congestion pricing is yet to be agreed.</p> <p>Investigation into other pricing tools To be determined.</p> <p>Future of the revenue system project Te Manatū Waka plans to develop revenue system options over the next 2-3 years, for public and political engagement over the following 3 years starting 2024. The plan allows another 3 years for implementing changes before the end of the decade, which is approximately when Te Manatū Waka anticipates that FED and RUC revenue will start to decline.</p> <p>MaaS investigation To be determined.</p>
Progress indicators	<ul style="list-style-type: none"> Reduction in congestion will be the key progress indicator. Work done in Auckland estimates that introducing congestion pricing across the strategic road network would result in a sustained reduction in congestion

(examples – to be determined)	<p>by 8-12 percent. We need to establish clear baseline data – the original modelling was carried out in 2019.</p> <ul style="list-style-type: none"> • Other indicators – to be determined.
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1.4. Requiring roadway expansion and investment in new highways to be consistent with climate change targets

Detail	Description
Action/s (policy/activity)	<p>New highways and road expansion projects are sometimes needed to support urban and housing development and efficient movement of freight but can induce more private vehicle travel and as a result increase emissions. We will ensure further investments that expand roads and highways are consistent with climate change targets, and avoid inducing further travel by private vehicles. This includes establishing a high threshold for receiving funding to expand roads, including new highway projects (beyond investments already confirmed), so new investments avoid inducing further travel by private vehicles.</p>
Expected outcome	<p>In the medium term, fewer new roads will be built that induce further travel by private vehicles.</p>
Co-benefits	<ul style="list-style-type: none"> • Minimise potential increasing deaths and serious injuries through potential mode-shift (compared to status quo of letting private car use increase from induced demand). • Diminish possible traffic-induced public health impacts through reduced air and noise pollution (compared to status quo of letting private car use increase from induced demand). • Reinforces focus on better urban spatial planning.
Interconnections with other policies/activities	<p>Complementary investment in activities that can offset emissions (EV infrastructure, active travel, and public transport options).</p>
Partnerships	<ul style="list-style-type: none"> • Local Government • Waka Kotahi
Timeframe for the policy/activity	<p>To be determined.</p>
Progress indicators (examples – to be determined)	<p>Outcome indicators</p> <ul style="list-style-type: none"> • Increased mode share – major urban areas • Reduction in accepted budget bids in roadway expansion (where it opposes climate change goals and is not warranted) <p>Milestone indicators</p> <ul style="list-style-type: none"> • If policy adopted, review of spatial plans, implementation agreements, and NLTF investment to make sure they do not include roads that will unnecessarily induce demand

1.5. Embedding nature-based solutions as part of response to reducing transport emissions and improving climate adaptation and biodiversity outcomes

Detail	Description
<p>Action/s (policy/activity)</p>	<p>Nature-based solutions ⁴ refers to the sustainable management and use of natural features and processes to tackle socio-environmental challenges, such as climate change.</p> <p>For transport, there are opportunities to apply nature-based solutions at a local, regional and national scale to reduce transport emissions, and to improve climate adaptation as well as biodiversity outcomes. This includes:</p> <ul style="list-style-type: none"> • Spatial planning for sustainable land use, development and infrastructure provision, which identifies appropriate areas for production, development, and conservation/regeneration. • Urban design that integrates functional green spaces into multi-modal transport infrastructure developments to make places more attractive for urban living, walking and cycling (which supports mode shift and emissions reductions), and to create shading to make streets and buildings cooler in summer. • Incorporating the use of functional ‘green infrastructure’ (e.g. trees, vegetation, and parks) and ‘blue infrastructure’ (e.g. wetlands and floodplains) to reduce the impacts of stormwater runoff, protect transport infrastructure from natural hazards and the impacts of climate change, and to improve biodiversity. • Protecting valuable ecological habitats and species from damage and disruption when transport infrastructure is being constructed and maintained, and from ongoing impacts when infrastructure is used (e.g., air pollution, noise pollution, stormwater run-off, light pollution etc). <p>Actions</p> <ul style="list-style-type: none"> • Investigate the role that nature-based solutions could play in reducing transport emissions and contributing to other benefits. This will require analysing the transport system’s potential to contribute to carbon sequestration, and whether there are any barriers to funding, delivering, and maintaining nature-based solutions in the transport system. • Ensure transport policy and investment settings encourage the use of nature-based solutions, including protecting existing carbon sinks and support for new long-term carbon sequestration opportunities where appropriate. This includes through the GPS -LT.
<p>Expected outcome</p>	<p>Nature based solutions in the long term are expected to sequester carbon while improving climate adaptation and biodiversity outcomes.</p>

⁴ Nature-based solutions are being covered throughout the ERP, so we have not elaborated on this concept here. For reference, the IUCN defines nature-based solutions as “actions to protect, sustainably manage, and restore natural or modified ecosystems, that address societal challenges effectively and adaptively, simultaneously providing human wellbeing and biodiversity benefits”
<https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

Co-benefits	<ul style="list-style-type: none"> • Supporting environmental and biodiversity outcomes such as improved air quality and protecting habitat loss. • Building resilience to climate change impacts such as reducing flooding and providing cooling. • Encouraging increased travel by public and active transport. • Supporting the wellbeing of communities and people.
Interconnections with other policies/activities	<ul style="list-style-type: none"> • Links to the Nature Based Solutions section. • Links to key government initiatives such as: <ul style="list-style-type: none"> ○ Jobs for Nature ○ The development of the National Policy Statement for Indigenous Biodiversity ○ Te Mana o te Taiao - Aotearoa New Zealand Biodiversity Strategy 2020.
Partnerships	To be determined.
Timeframe for the policy/activity	To be determined.
Progress indicators (examples – to be determined)	To be determined.

Focus area 2: Rapidly adopting low-emission vehicles and fuels

We have set a new target to increase zero-emissions vehicles to 30 percent of the light vehicle fleet by 2035. Achieving this target requires a range of complementary actions, including:

- Increasing the supply of clean vehicles
- Supporting New Zealanders to buy low-emission vehicles.

The Government has already made significant progress on the Clean Vehicle Programme. However, further action is required to ensure more New Zealanders can access cleaner vehicles.

The following tables provide more detail on actions that support this focus area.

We also need to put the infrastructure in place to support low-emission vehicle use – this is addressed in focus area 3 [[3.6 A long term national EV charging plan](#)]. Policies to support the uptake of alternative fuels are included in focus area 3 because they apply to both light and heavy vehicles.

2.1. Accelerating the uptake of low-emission vehicles

A: The Clean Vehicle Standard and Discount scheme

Detail	Description
<p>Action/s (policy/activity)</p>	<p>The Government has already committed to the Clean Vehicle Standard and Discount scheme, with the Clean Vehicle Discount already underway. This is a significant step towards decarbonising light vehicles, especially those entering the fleet.</p> <p>The ‘Clean Vehicle Standard’ will increase the quantity and variety of zero- and low-emissions vehicles supplied to Aotearoa. From 2023, vehicle importers will be given CO₂ targets to meet that strengthen on an annual basis. In future, importers could be required to sell a minimum percentage of zero-emission vehicles. These policies are employed internationally and considered best-practice.</p> <p>The ‘Clean Vehicle Discount Scheme’ will place a charge on high-emitting vehicles at the point of first registration in Aotearoa to disincentivise their purchase. Revenue from those charges will be used to fund significant rebates on zero- and low-emission vehicles to encourage their uptake. Charges and rebates will be regularly calibrated to ensure the policy is financially self-sustaining.</p> <p>Updates to vehicle labelling requirements will be added to inform New Zealanders about the CO₂ emissions of individual vehicles prior to their purchase.</p> <p>This policy is initially focussed on light passenger and commercial vehicles. Other vehicle segments – including motorbikes and e-bikes – will be investigated and may be added into the policy over the first emission reduction plan budget period, subject to the outcome of the initial review.</p>
<p>Expected outcome</p>	<p>Government modelling shows the Clean Vehicle and Discount Scheme is likely to reduce emissions by between 3.8 and 15.3 million tonnes between 2022 and 2050, and that CO₂ emissions from light vehicles entering the fleet over 2022-2035 could reduce by up to 39 percent. This represents about a 1.5 percent reduction to total CO₂ emissions from all sectors between 2022-2035.</p> <p>Over the long term, these policies will influence the vehicle market such that almost all imported vehicles will have zero tailpipe emissions.</p>
<p>Co-benefits</p>	<p>Reduced household and business travel costs Reduced fuel bills and vehicle maintenance costs for families and businesses.</p> <p>Increased economic resilience Lower cost and risk to Aotearoa’s economy by transitioning from foreign-sourced fuel to lower cost, domestically produced alternatives.</p> <p>Improved public health Reduced toxic vehicle exhaust emissions, which will positively impact on the incidence of respiratory disease in Aotearoa.</p>

Interconnections with other policies/activities	<ul style="list-style-type: none"> • Links to the Government’s target to increase renewable electricity generation, to provide EVs even greater CO₂ reductions. • Prepares market for low-emission vehicle policy D – Avoid Aotearoa becoming a dumping ground for high emitting vehicles. • Reliant on accelerating the build out of our national public EV charging infrastructure [3.6 A long term national EV charging plan].
Partnerships	<p>Waka Kotahi administers the key elements of this policy.</p> <p>The Energy Efficiency and Conservation Authority (EECA) administers vehicle labelling and co-funds the build out of some of our national public EV charging infrastructure.</p>
Timeframe for the policy/activity	<p>2021 - Cabinet approved the policy package, for rebates on EVs, (these commenced in July 2021), and for necessary legalisation to be drafted.</p> <p>2022 – Charges on high emitting vehicles, and rebates on a wider selection of low emitting vehicles will commence on 1 April 2022.</p> <p>1 January 2023 onwards – importers must achieve annual CO₂ targets.</p>
Progress indicators (examples – to be determined)	<ul style="list-style-type: none"> • Zero- and low-emission vehicles are more widely available, at lower prices, and rapidly gain a larger market-share in Aotearoa. • Imported vehicles achieve CO₂ annual targets from 1 January 2023.

B: The Low Emission Transport Fund

Detail	Description
Action/s (policy/activity)	<p>The Low Emission Transport Fund (LETf) is delivered by the EECA. The LETf provides co-funding to support the demonstration and adoption of low emission transport technology, innovation and infrastructure to accelerate the decarbonisation of Aotearoa’s transport sector – including vehicle charging infrastructure.</p> <p>The LETf commenced in September 2021. The LETf expands the scope and size of the previous Low Emission Vehicle Contestable Fund, which EECA delivered from 2017 to 2021.</p>
Expected outcome	<p>The co-funding provided by the LETf stimulates the uptake of low-emission solutions while providing additional knowledge and learnings for further replication to tackle the challenge of decarbonisation in the transport sector.</p>

Co-benefits	<p>There are a range of co-benefits from this policy, including:</p> <ul style="list-style-type: none"> • Supports the uptake of EVs through expanding and optimising the public electric vehicle charging network. • Enables increased low-emission technology and fuels uptake through addressing barriers in the market. • Enables emission reductions in the transport sector. • Contributes to the creation of new knowledge and learnings to encourage wider adoption of low emission technologies with the sector. • Reduces the financial risk by demonstration and early adopter projects for innovative technologies and business models. • Reduces costs and barriers for businesses by using more efficient and cost-effective technologies and fuels, such as EVs.
Interconnections with other policies/activities	<p>The LETF is informed by and aligned with EECA’s transport strategy and cross-government work on a national EV charging infrastructure plan and EECA’s short-term public EV charging roadmap.</p>
Partnerships	<p>The projects co-funded through the LETF are sought through contestable funding rounds and delivered by the project applicants. The LETF is open to all Aotearoa-based and Aotearoa-registered legal entities except Public Service Departments, Non-Public Service Departments (such as the New Zealand Defence Force), and Statutory Crown Entities such as District Health Boards.</p>
Timeframe for the policy/activity	<p>In Budget 2021, the Government provided ongoing funding for the LETF to 2024/25 and outyears.</p>
Progress indicators (examples – to be determined)	<p>High-level progress indicators for the LETF will relate to the amount of funding allocated, the number of low-emissions technologies supported, the new knowledge and learnings generated, and the balance of projects funded across focus areas and their potential for replicability and emission reduction. Due to the broad scope of projects that can be funded, there will also be more specific progress indicators associated with the different LETF funding focus areas.</p> <p>Monitoring of the LETF will be undertaken to enable evaluation of:</p> <ul style="list-style-type: none"> • effectiveness of the LETF in achieving its objectives and outcomes • ongoing relevance of the LETF in the market • recommendations about current and future role of the LETF and suitability of the delivery model.

C: Light EV RUC Exemption

Detail	Description
Action/s (policy/activity)	<p>The RUC exemption for light EVs has been extended to 31 March 2024, continuing its contribution to supporting the uptake of EVs.</p>

Expected outcome	The RUC exemption signals the Government’s support for the uptake of light EVs. Continuing the exemption is intended to avoid decreases in EV uptake, which has been evidenced overseas.
Co-benefits	Increasing the use of EVs will have additional benefits due to reduced air pollution and reduced noise pollution.
Interconnections with other policies/activities	The extension will complement the Clean Vehicle Discount, which will provide a more direct and substantial incentive for light EV purchase.
Partnerships	Not applicable.
Timeframe for the policy/activity	In July 2021, Cabinet agreed to extend the light EV RUC exemption to 31 March 2024. The legal changes to give effect to this decision were made by an Order In Council in October 2021.
Progress indicators (examples – to be determined)	The best metric will be total EV sales. The exemption is not expected to have a significant impact on EV uptake in isolation. It is difficult to disaggregate the effects of the exemption from other policies under the Clean Vehicles Programme. However, modelling assumes that the exemption leads to the registration of an additional 1,200 light EVs each year.

D: Avoid Aotearoa becoming a dumping ground for high-emitting vehicles

Detail	Description
Action/s (policy/activity)	<p>The Climate Change Commission (the Commission) recommends a phase-out date of no later than 2035, and if possible 2030, on light vehicles with ICE being imported, manufactured, or assembled in Aotearoa.</p> <p>Almost all vehicles driven on our roads need to be zero-emission before 2050 to reach our national net zero carbon target. Given vehicles are scrapped at 19 years of age on average domestically, only vehicles that support our net-zero target should be added to our fleet from the early 2030s.</p> <p>Consider what further measures are required from 2027 to increase the fuel efficiency of the imported fleet <i>Active consideration</i></p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>

Active consideration

	<p>[Redacted content]</p>
<p>Expected outcome</p>	<p>Our national light vehicle fleet has near zero emissions in 2050, contributing significantly to Aotearoa’s net zero target.</p>
<p>Co-benefits</p>	<p>Same co-benefits as 2.1. A – The Clean Vehicle Standard and Discount Scheme.</p>
<p>Interconnections with other policies/activities</p>	<ul style="list-style-type: none"> • Links to the Government’s target to increase renewable electricity generation, to provide electric vehicles even greater CO₂ reductions. • Reliant on well-developed national public EV charging network next decade.
<p>Partnerships</p>	<p>Not applicable. Active consideration</p>
<p>Timeframe for the policy/activity</p>	<ul style="list-style-type: none"> • [Redacted content]
<p>Progress indicators (examples – to be determined)</p>	<p>Significant increases in quantity of zero- and very low-emission vehicles to our fleet in the later 2020s.</p>

E: Limiting imports of the highest emitting vehicles: Setting a maximum CO₂ limit or penalties for individual light ICE vehicle imports to tackle the highest emitting vehicles

Detail	Description
<p>Action/s (policy/activity)</p>	<p>This policy will complement the Clean Vehicle Standard (the Standard) and the Clean Vehicle Discount (the Discount) in accelerating the move to a low-emissions vehicle fleet. Its specific role is to address the gaps that the Standard and Discount cannot respond to.</p> <p>Specifically:</p> <ul style="list-style-type: none"> • The Standard cannot prevent vehicles that do egregious climate harm from entering the fleet as it does not apply to individual vehicles. The Standard works by lowering the average vehicle emissions of the fleet of vehicles coming in. It allows the emissions of very high emitting vehicles to be offset by low-emission vehicles. • The highest emitting vehicles tend to be luxury vehicles and large utes and vans that cost more than the average vehicle. Compared to most vehicle buyers, purchasers of luxury vehicles are less price sensitive. This reduced sensitivity will mute the impact of the Discount’s fees and any penalties passed on from the Standard. <p>Adopting this policy is important because the highest emitting vehicles tend to be driven more. Generally, these vehicles have large engines. People drive large engine vehicles more than vehicles with smaller engines. In 2019, cars and SUVs greater than 3,000 cc were, on average, driven 11,506 kilometres. Vehicles between 1,600–1,999 cc were, on average, driven 8,826 kilometres. As well, the elevated level of climate harm from every new high emitting vehicle entering our fleet will be locked-in for around two decades.⁵ Having more of these vehicles in our fleet will limit our ability to meet our 2030 and 2050 emissions targets.</p> <p>This action would be achieved by setting a maximum vehicle CO₂ limit that would operate as a grams CO₂ per kilometre threshold above which vehicles could not be imported or by setting very high penalties for these types of vehicles as part of the Discount. Further work will be done to identify the appropriate mechanism, and any necessary exemptions regime, drawing on international experience.</p> <p>This measure would come into effect as soon as practicable.</p>
<p>Expected outcome</p>	<p>Restrictions on registration and/or significantly high penalties will prevent vehicles with very high emissions from entering the fleet.</p>
<p>Co-benefits</p>	<p>Improved health and air quality. Vehicles that burn more fuel also produce a higher level of air pollutants that are harmful to human health.</p>
<p>Interconnections with other policies/activities</p>	<p>Complements the other Clean Vehicle initiatives.</p>

⁵ This is because vehicles in our fleet are driven until they are on average over 19 years.

Partnerships	The regulator would be Waka Kotahi. Customs and EECA would have a supporting role.
Timeframe for the policy/activity	<ul style="list-style-type: none"> • Cabinet approval – 2022 • Maximum CO₂ limit and/or penalties in place – from 2023
Progress indicators	To be determined.

F: Investigating how the tax system could support clean transport options

Detail	Description
Action/s (policy/activity)	<p>Aspects of the current tax system may be creating incentives that could be working against reducing transport emissions. We will:</p> <ul style="list-style-type: none"> • Review aspects of the tax system to ensure low-emissions transport options are not disadvantaged, in particular: • Consider whether employer-provided public transport should be exempt from fringe benefit tax (FBT) given that the current FBT exemption of on-premise car parking may drive employees towards a less environmentally friendly outcome. • The FBT treatment of work-related vehicles.
Expected outcome	The review will clarify if these aspects of the current tax system should be revised and how that change might be achieved, for example if legislative change is required, to remove barriers that may not be aligned with achieving a net zero transport system by 2050.
Co-benefits	The tax system should at least be neutral in its impact on transport options. This review will consider how the tax system can be used to complement and support the pathway to net zero by 2050 in that context.
Interconnections with other policies/activities	Complements the other Clean Vehicle initiatives.
Partnerships	This review will be completed by Inland Revenue with input from Te Manatū Waka. Waka Kotahi will also be consulted.
Timeframe for the policy/activity	This review will be completed by the end of 2022.
Progress indicators	To be confirmed.

G: Partnering on solutions to address supply constraints for low-emissions vehicles

Detail	Description
Action/s (policy/activity)	<p>Low-emissions vehicle supply certainty will be important to enable continually increasing the percentage of EVs in our national fleet. The supply of new and used low- and zero-emissions vehicles (light and heavy) is likely to remain tight in the 2020s.</p> <p>A Clean Vehicle Sector Leadership Group was established in August 2021 to advise the Minister of Transport on measures to accelerate the uptake of clean vehicles, including those to address future supply constraints.</p> <p>Officials are engaging with the Ministry for Business, Innovation and Employment (MBIE) and the Ministry of Foreign Affairs and Trade (MFAT) to progress and/or establish direct engagement with manufacturers and other countries to secure greater supply volumes and a wider range of EVs to Aotearoa.</p>
Expected outcome	Increased EV supply volumes and options will provide greater choices for consumers and the likelihood of lower-cost EVs.
Co-benefits	Could enhance trade relationships.
Interconnections with other policies/activities	Improves the success of clean vehicle actions 2.1. A and D .
Partnerships	Te Manatū Waka will work with MBIE, MFAT and private businesses to progress discussions and commitments to a wider range of EVs for supply to Aotearoa.
Timeframe for the policy/activity	Ongoing until such time that supply constraints are no longer a barrier.
Progress indicators (examples – to be determined)	Aotearoa has greater certainty and commitment from manufacturers to supply EVs to meet our domestic demand. This would be seen through the range of EVs available on our domestic market.

H: Determining whether there are legislative barriers to the use of some types of low-emission vehicles

Detail	Description
Action/s (policy/activity)	<p>Globally, there are different types of light low-emission vehicles that might be suitable for short-distance, low-speed use. However, our existing regulations do not permit their current domestic use.</p> <p>This work will determine if there are inappropriate legislative barriers to the use of some types of low-emission vehicles in Aotearoa. It will consider if allowing these vehicles into the national fleet can be achieved without unduly compromising our safety or other objectives. This work could include making amendments to the Land Transport Act 1998 and land transport rules.</p>

Expected outcome	If such change is permitted, it will potentially enable wider vehicle choices under certain conditions.
Co-benefits	Accelerates transport decarbonisation by providing more alternatives to ICE vehicles.
Interconnections with other policies/activities	Vehicles agreed under this policy may qualify for the Clean Vehicle Discount scheme.
Partnerships	Waka Kotahi will be a key partner in this work. Additionally, discussions will be needed with importers/manufacturers of these types of vehicles.
Timeframe for the policy/activity	The review is to be completed by 2024 and will include the progression of decisions on legislation change if such a change is required. Commencement date to be determined after project is scoped.
Progress indicators (examples – to be determined)	To be established once this work is fully scoped.

1: Transitioning to a low-emissions government fleet

Detail	Description
Action/s (policy/activity)	<p>Optimising the government fleet and transitioning to a low-emissions vehicle fleet is part of the Carbon Neutral Government Programme (CNGP) and will demonstrate leadership in reducing fleet emissions.</p> <p>Where practicable, agencies are now required to:</p> <ul style="list-style-type: none"> • optimise their fleets with the aim of reducing the number of vehicles in the government fleet • choose a battery electric vehicle (BEV), or PHEV if a BEV is not appropriate for the proposed use, unless there are operational requirements or other circumstances that prevent them from doing so.
Expected outcome	This commitment to EVs will drive a faster and more extensive transition of the fleet.
Co-benefits	Reduction of emissions, demonstrates leadership, and stimulates the supply of EVs in Aotearoa. Is included under the CNGP [CAB-20-MIN-0491 refers].
Interconnections with other policies/activities	Complements other clean vehicle actions in 2.1 .
Partnerships	MBIE and EECA will continue to report to CNGP Ministers on optimisation and transition of the government vehicle fleet.

<p>Timeframe for the policy/activity</p>	<p>MBIE directed all procurement mandated agencies to put in place a fleet optimisation and transition plan by 1 December 2021 and report on the implementation of this direction.</p> <p>Agencies have been advised to update their Transition Plans annually to take into account changes to requirements and advances in technology and cost reductions over time.</p> <p>The government light vehicle fleet optimisation and transition is ongoing and agencies’ progress is being monitored with a view to significant progress being made by the end of 2025/2026.</p>
<p>Progress indicators (examples – to be determined)</p>	<p>Monitoring of progress towards transitioning the government fleet to low-emissions vehicles is being revised to reflect the ‘electric vehicles first’ policy and provide more transparency. A revised Government fleet emissions dashboard on the New Zealand Government Procurement website will deliver greater transparency on progress.</p>

2.2. Making low-emission vehicles more accessible for low-income and transport disadvantaged New Zealanders

Detail	Description
<p>Action/s (policy/activity)</p>	<p>Compared to other income groups, low-income New Zealanders face significant barriers in moving away from high-emitting vehicles, and this disparity is a risk to transport decarbonisation. The disparity arises from affordability constraints, a lack of suitable low-emission vehicles, and limited or no access to alternative low-emission transport options. Low-income New Zealanders are more likely to live in rental accommodation or denser accommodation which creates a further barrier to low-emissions options such as plug-in hybrids or EVs because it can be harder to install home charging in such housing.</p> <p>The Clean Vehicle Discount seeks to increase the affordability of low-emission vehicles. However, even with rebates, these vehicles may remain unaffordable to many low-income New Zealanders.</p> <p>Social vehicle leasing</p> <p>This initiative would trial, with a view to establishing, social leasing schemes of EVs for low-income households. Participants would pay an affordable weekly set fee (e.g. \$100/week for an EV) to cover running costs (except fuel), depreciation and scheme administration.</p> <p>Low-income households participating in the trial, would lease a safe, low-emission vehicle from a community supplier for 6-months. The trial would be designed and implemented with partner community groups similar to the model the Ākina Foundation has taken with the Manukau Urban Māori Authority for its small social leasing trial in one community.</p> <p>Government support would cover the capital purchase of the vehicles, administration and operation expenses, and evaluation of the initiative following the trial. This would assess the extent to which participants are likely to opt for social leasing over vehicle ownership, as well as any improvements that would make leasing more attractive to people.</p>

	<p>By helping low-income New Zealanders switch to low-emissions transport, it would:</p> <ul style="list-style-type: none"> • shield low-income households from expected increases in motoring costs as fuel prices increase with the rising cost of carbon, and the introduction of biofuels • maintain the ability of low-income households to access employment and education and to participate in society. <p>Equity-oriented vehicle scrap and replace scheme</p> <p>This initiative would trial, with a view to establishing, an equity-oriented vehicle scrappage scheme that would make cleaner vehicles affordable for low-income people.</p> <p>On scrapping a vehicle, eligible participants could receive financial vouchers for the purchase of safe, low- and zero- emissions vehicles or the alternative of vouchers for use on public transport and other low-emission uses.</p> <p>Further targeted support to make low-emission vehicles more accessible</p> <p>Investigate whether further targeted support is required to make low-emission vehicles more affordable for other disadvantaged groups and communities. This includes considering whether additional support is required to support disabled people to purchase suitable EVs (e.g. vehicles that may need to be larger to transport wheelchairs).</p>
<p>Expected outcome</p>	<ul style="list-style-type: none"> • An increase in the number of low-income New Zealanders who are able to shift to low- or zero-emission vehicles, or low-emission travel, which is a key part of achieving an Equitable Transition in transport • A reduction in the level of low-income household expenditure spent on transport • Reduction in CO₂ emissions from the earlier retirement of high emitting vehicles, entry of low emission ones and/or from reduction in number of vehicles
<p>Co-benefits</p>	<p>Improved physical and social wellbeing for low-income and marginalised communities, through increased access to newer safer vehicles (e.g. at least 3-star safety rating).</p>
<p>Interconnections with other policies/activities</p>	<p>The initiative will be designed to complement the following policies:</p> <ul style="list-style-type: none"> • 2.1 clean vehicle actions • 1.2 mode shift actions F: Equity and G: Rural Areas, which have policies to: <ul style="list-style-type: none"> ○ improve public transport and active travel networks in low income or low socio-economic areas, and improving safety for walking and cycling ○ improve access and connectivity for people in social housing: investing in public and active transport, and supporting car share, carpool, and shared bike/scooter schemes

	<ul style="list-style-type: none"> o work with local authorities to ensure that public transport fares are affordable, with a particular focus on low-income users and for transport disadvantaged⁶ groups (including people with disabilities) o investigate the potential for public transport, walking and cycling in rural and provincial areas. This could include better public transport to and between rural communities, shared transport/taxi schemes, and street improvements that make it safer to walk and cycle.
Partnerships	<p>Social leasing Waka Kotahi, MHUD, Kainga Ora, Ministry of Social Development, relevant local government agencies</p> <p>Scrappage scheme The administrator of the Scheme is to be determined. However, this agency would work with the vehicle and scrappage industries, and other private sector and local government entities that could be linked to, or contribute to, the vouchers.</p>
Timeframe for the policy/activity	<ul style="list-style-type: none"> • Cabinet approval of trials – early 2022 • If approved the trials would commence in early 2023. They would be evaluated in late 2023. • If approved, the initiatives would be rolled-out from 2024.
Progress indicators	To be determined within the design of the initiatives.

Focus area 3: Beginning work now to decarbonise heavy transport and freight

We have set new targets to reduce emissions from freight transport by 35 percent by 2035, and to reduce the emissions intensity of transport fuel by 10 percent by 2035. We need to work with the freight industry to find the best ways to reach the 2035 freight target. However, in the short term we will continue our planned investment in rail and coastal shipping and accelerate the decarbonisation of trucks. We are also working on policies that support the decarbonisation of public transport, aviation and maritime.

Lower carbon liquid fuels, such as biofuels, will play a role, alongside electrification, hydrogen and other technologies. The Sustainable Biofuels Obligation will play an important role in supporting the uptake of biofuels and achieving the 2035 fuel target.

The following tables provides more detail on the actions that support this focus area.

3.1. Decarbonising freight

A: Developing a Freight and Supply Chain Strategy

Detail	Description
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⁶ ‘Transport disadvantage’ includes people who have limited options to participate in everyday activities because of a lack of transport choices, and people who overcome lack of transport choice by paying more than they can reasonably afford for mobility. This includes disabled people, who are more likely than others to experience transport poverty, and have specific accessibility needs, which reduces their choices.

<p>Action/s (policy/activity)</p>	<p>Te Manatū Waka will develop a national Freight and Supply Chain Strategy (Strategy) with industry. This Strategy will set the direction for the national freight and supply chain for the next 30 years. The Strategy will be developed with iwi/Māori, local government and industry and will set out detailed recommendations for action across the areas of decarbonisation, resilience, productivity and innovation and wellbeing.</p>
<p>Expected outcome</p>	<p>The Freight and Supply Chain Strategy will provide a better understanding of the system and how it can help us reach several outcomes – including decarbonisation. This includes exploring longer term options for decarbonising freight modes and identifying quick wins, and exploring ways to encourage greater mode-shift to rail and coastal shipping. The Strategy will build on work being progressed in the first budget period and set the pathway for what actions we should take in the second and third budget periods.</p> <p>Developing a Freight and Supply Chain Strategy (the Strategy) will also highlight opportunities to improve the efficiency and competitiveness of the freight system.</p> <p>As Aotearoa’s capacity to build infrastructure will remain constrained, this Strategy will also signal a long-term investment pathway for infrastructure that supports freight decarbonisation.</p>
<p>Co-benefits</p>	<p>Resilient freight networks</p> <p>Resilient freight networks will support businesses to cope with significant supply chain disruption and maintain the supply of important goods and services. Aotearoa will have confidence in long term access to affordable and reliable international air and ship freight routes.</p> <p>Māori and regional economic development</p> <p>Investment in regional freight infrastructure can unlock the potential of local iwi/Māori and our regional communities. The Strategy will identify opportunities to improve economic outcomes for Māori and our regions.</p> <p>Supply chain productivity</p> <p>The Strategy will improve supply chain productivity and innovation through looking at better use of data, performance monitoring, long term access to labour, the Port system, smarter city and infrastructure design, and maritime sector development.</p> <p>Improved health and safety</p> <p>The Strategy will look at how to improve the health and safety of the workforce, supporting wellbeing and ensuring a future workforce that can flourish. It will align with the Road to Zero Strategy on road safety.</p>
<p>Interconnections with other policies/activities</p>	<p>The Strategy will be developed in coordination with the various related strategic initiatives occurring across government including:</p> <ul style="list-style-type: none"> • The National Adaptation Plan • The Infrastructure Strategy being developed by the Infrastructure Commission • RMA reform • National Energy Strategy

	<ul style="list-style-type: none"> Bioeconomy strategy
Partnerships	The Strategy will be developed through engagement with Treaty partners, local government, and a broad range of industry stakeholders. This includes working with the Sustainable Business Council and its freight decarbonisation group, who have already committed to a low freight pathway, and engaging with other groups such as the Clean Vehicle Leadership Group.
Timeframe for the policy/activity	A draft of the Strategy will be sent to the Minister by December 2022 for public consultation in 2023. The strategy is expected to be published in mid 2023, with further investigation and implementation following. This may include seeking funding for a set of investment priorities, new regulatory programmes, and legislative review.
Progress indicators (examples – to be determined)	A draft strategy outlining the issues being addressed and options to move forward will be sent to the Minister by December 2022. Updates on the Strategy will be provided throughout 2023 to Ministers and stakeholders as appropriate.

B: Implementing the New Zealand Rail Plan (the Rail Plan) and investigating options to encourage greater use of coastal shipping

Detail	Description
Action/s (policy/activity)	<p>The Rail Plan implementation</p> <p>The Government released the Rail Plan in April 2021, which outlines the Government’s vision and investment priorities for rail, and the significant changes needed to strengthen rail in the transport system.</p> <p>The Rail Plan sets out two investment priorities for a resilient and reliable rail network over the next decade:</p> <ul style="list-style-type: none"> Investing in the national rail network to restore rail freight and provide a platform for future investments for growth. Investing in the metropolitan rail network to support growth and productivity in our largest cities. <p>This will enable a better service offering to freight customers supporting increased rail freight volumes and support growing demand for metropolitan rail services in Auckland and Wellington.</p> <p>Increasing the use of lower-emission transport options, including rail, is an important step in the response to the climate emergency.</p> <p>In addition, the Crown and KiwiRail will continue to invest in a programme of intergenerational replacement of locomotives, wagons, shunts, Interisland ferries, and modernisation of maintenance facilities reaching end of life.</p> <p>To date, since 2017, over \$6 billion has been allocated to Interisland ferry replacement, replacement of ageing rolling stock and significant network investment and renewals.</p> <p>Approaches to freight mode-shift, including mode-shift to rail, is also being investigated as part of Waka Kotahi’s freight mode contestability study (ART 21/15).</p>

	<p>Coastal shipping</p> <p>Coastal shipping is a carbon efficient transport mode. Alongside mode-shift to rail it will form an important part of decarbonising the freight sector. The purpose of this initiative is to strengthen Aotearoa’s coastal shipping sector and enable greater mode-shift.</p> <p>Waka Kotahi NZ Transport Agency will consider proposals from the sector to deliver coastal shipping activities from the \$30 million – \$45 million of investment allocated through the Government Policy Statement on land transport 2021 (GPS 2021). This could include new or enhanced domestic services, reducing sector emissions, new or enhanced inter-modal links, and new or enhanced maritime infrastructure.</p>
<p>Expected outcome</p>	<p>The Rail Plan is centred on restoring a resilient, reliable and safe freight and passenger rail network for Aotearoa.</p> <p>Rail delivers positive benefits including reduced congestion (in Auckland and Wellington), lower emissions and improved air quality, fewer road accidents, fuel savings and less road damage from heavy vehicles. The value of these benefits is estimated to range between \$1.7 billion and \$2.1 billion per year.</p>
<p>Co-benefits</p>	<p>Rail Plan implementation</p> <p>The Rail Plan, which outlines the Government’s vision and investment priorities for rail; and the Rail Network Investment Programme (RNIP), which outlines the Government’s investment priorities for the national rail network, and the GPS-LT 2021.</p> <p>Coastal shipping</p> <p>Coastal shipping is a significantly lower emitting mode when compared to road freight, and marginally lower than rail. Increasing coastal shipping’s mode share. This was noted in the Commissions report as one way the transport sector could meet its emission reductions targets. It is also a safer form of transport and eases congestion.</p> <p>Additionally, coastal shipping may have broader benefits to supply chain resilience, which are being explored.</p> <p>This initiative will need to align well with the rail mode shift work. Coastal shipping and rail compete for the same freight, potentially leading to poor outcomes if the incentives to shift from road freight are not carefully designed.</p>
<p>Interconnections with other policies/activities</p>	<p>The Rail Plan supplements the GPS-LT, and it is intended that the next GPS-LT and Rail Plan will be developed in close alignment.</p>
<p>Partnerships</p>	<p>Rail Plan implementation</p> <p>KiwiRail, Waka Kotahi, the Treasury (as monitor of KiwiRail and shareholders representative).</p> <p>Coastal shipping</p> <p>This programme will involve strong coordination with the maritime and port sector.</p>

<p>Timeframe for the policy/activity</p>	<p>Rail Plan implementation Both the Rail Plan and the RNIP are 10-year investment programmes.</p> <p>Coastal shipping This will be funded over 2021-24 but a more detailed breakdown is unavailable until the Waka Kotahi Board determine the investment approach for this activity class.</p>
<p>Progress indicators (examples – to be determined)</p>	<p>Rail Plan implementation KiwiRail reports to the Treasury on its commercial performance, Te Manatū Waka on progress implementing the Future of Rail review, and Waka Kotahi monitors the RNIP.</p> <p>Coastal shipping Waka Kotahi are obliged to spend their minimums each year (\$10 million). A set of indicators to measure success are being developed.</p>

C: Accelerating the decarbonisation of trucks

Detail	Description
<p>Action/s (policy/activity)</p>	<p>Long term ambition for decarbonising heavy vehicles The Government has signed an international Memorandum of Understanding (MoU) to set a high level of ambition to decarbonise heavy vehicles. The MoU requires Aotearoa and other signatory countries to work collectively on action that leads to the proportion of brand new medium and heavy-duty zero-emission vehicles in reaching 30 percent of global sales in 2030 and 100 percent of sales in 2040. It also provides for countries to share plans, data and information to support progress. Several heavy vehicle manufacturers have also signed this MoU, ensuring that production and supply of the vehicles develops globally.</p> <p>Decarbonising heavy vehicles programme This programme of work aims to progress decarbonisation of the heavy vehicle sector. The size and weight of heavy vehicles makes decarbonisation especially challenging. The technology available is not as far progressed as it is for smaller vehicles and there are currently few commercially viable low-emissions options for heavy trucks. However, over the next few years we expect this to change. It is important to begin establishing incentives, regulations, and investment now to drive future change. This programme of work includes three main initiatives:</p> <ul style="list-style-type: none"> • Introducing more funding – for example, through the LETF – to support the sector to purchase zero- and low-emissions trucks. This will reduce the upfront capital costs of low-emissions medium and heavy vehicles through a co-funding approach. The LETF is already able to fund the seeding of low-emissions vehicles into commercial fleets, however a larger scale intervention will require additional funding. • Establishing a freight decarbonisation unit to progress regulatory and investment work to decarbonise the freight sector. • Evaluating options to:

	<ul style="list-style-type: none"> ○ Improve the fuel efficiency of heavy vehicles and identify the appropriate options for regulating heavy vehicle imports to reduce the emissions of heavy vehicles entering Aotearoa (including but not limited to reviewing whether the Clean Vehicle Programme could be extended to heavy vehicles). ○ Invest in infrastructure for green fuels and heavy vehicle fast charging. ○ Reduce emissions of heavy vehicles operated by or procured through government activities. This could include but is not limited to implementing green freight procurement through third-party contractor rules for government activities. <p>The work will put our freight sector in a strong position to be early adopters of low-emission heavy vehicle technology as these technologies become viable.</p> <p>Evaluating options for RUC to support emissions reductions including whether to extend the heavy EV exemption from RUC and whether to set RUC rates differently by fuel type/emissions</p> <p>Te Manatū Waka are consulting on whether to amend the Road User Charges Act 2012 (the RUC Act) to enable the extension of the existing heavy EV exemption from paying RUC. This will form part of a package of measures to help promote the uptake of heavy EVs.</p> <p>Heavy EVs have been exempted from paying RUC since 2016 to incentivise their uptake. The high upfront cost and long working life of heavy EVs mean that relatively short exemptions from RUC do not materially affect the economics of purchasing and operating heavy EVs. The RUC exemption has not resulted in a significant uptake of heavy EVs, with less than 200 heavy EVs entering the fleet since 2016. Extending the RUC exemption past 2025 may increase its effectiveness in promoting heavy EV uptake, by increasing the period over which it is a benefit.</p> <p>The heavy EV RUC exemption currently expires on 31 December 2025. The exemption making power in the RUC Act is constrained to only allowing an exemption to be extended by up to five years from the date the regulation is made. The Government intends to consult on amending the legislation to allow the exemption to be extended for more than five years. Assuming it is amended, then an expiry date of 2030 or later is likely to be required if it is to be effective in creating an incentive to encourage heavy EV uptake.</p> <p>Te Manatū Waka is also consulting on whether to amend the purpose of the RUC Act to allow externalities such as climate change emissions or other harms such as air pollution to be considered when setting RUC rates. This would allow reduced RUC rates or exemptions to incentivise the purchase and operation of vehicles that use low-carbon fuels such as hydrogen power vehicles (in addition to electricity, which is already exempted).</p> <p>The amendment may also be extended to allow reduced RUC rates for trailers towed by exempted heavy vehicles, as heavy trailers towed by trucks also subject to RUC separately. An exemption for trailers would further assist with the economics of the use of low-carbon fuels in the largest vehicles used on our roads.</p> <p>Consider implementing the Euro VI standard for heavy vehicles</p> <p>The government has agreed to implement the Euro VI standard for newly imported light vehicles in coming years. Euro VI is a European standard set in</p>
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	<p>2012 that dictates standards for nitrous oxide, carbon monoxide and particulate matter, which are dangerous to human health. Nitrogen oxide has a strong global warming potential contributing to climate change. Requiring Euro VI for heavy trucks would reduce nitrogen oxide, and additionally several technologies available to reduce nitrogen oxide emissions also simultaneously help reduce direct CO₂ emissions. We have had early engagement with industry and are in the process of advancing further work to seek Cabinet agreement to implementation.</p>
<p>Expected outcome</p>	<p>Decarbonising heavy vehicles programme</p> <ul style="list-style-type: none"> • Reduction in average CO₂ emissions per heavy vehicle. • Adoption of zero-emission trucks over a variety of use cases becomes mainstream this decade. <p>Extending RUC exemption</p> <p>If the RUC exemption is extended to 2030, or later, we would expect that this would lead to greater uptake of heavy zero-emission vehicles.</p> <p>Providing RUC exemptions to vehicles using low carbon fuels other than electricity, such as hydrogen fuel cell electric vehicles, and any trailers towed by them, would be expected to bring forward the date these other fuels become costs effective.</p> <p>Implementing Euro VI</p> <p>Reduction in average Nitrogen Oxides, Carbon Monoxide, CO₂ emissions and particulate matter which improve air quality and reduce GHG emissions.</p>
<p>Co-benefits</p>	<ul style="list-style-type: none"> • Will reduce social harm caused by harmful emissions from diesel engines. • Adoption of zero-emission vehicles will reduce noise pollution. • May deliver commercial operating efficiencies to freight companies.
<p>Interconnections with other policies/activities</p>	<p>Decarbonising heavy vehicles programme</p> <p>Links to 3.1. A – Developing a Freight and Supply Chain Strategy</p> <p>Links to clean vehicle actions (2.1.) – including 2.1. D – Avoid Aotearoa becoming a dumping ground for high emitting vehicles.</p> <p>Links to 3.6 – Producing a long term national EV charging infrastructure plan</p> <p>Extending RUC exemption</p> <p>Links with 3.2. Decarbonising public transport buses. A RUC exemption will assist by reducing the operating costs of electric buses.</p> <p>Increasing the use of electric heavy vehicles generally will have benefits from reduced air and noise pollution. Electric buses may also be more popular with riders as they are quieter.</p> <p>Any policy to forego revenue from RUC vehicles needs to consider work on the future of the revenue system to ensure that revenue is not unduly reduced in coming years.</p>
<p>Partnerships</p>	<p>Freight sector</p> <p>These actions will require strong collaboration with the freight sector. There are opportunities to partner with innovative firms driving progress in truck decarbonisation. This includes the work by the Sustainable Business Council and its freight decarbonisation group.</p>

<p>Timeframe for the policy/activity</p>	<ul style="list-style-type: none"> • The decarbonising heavy vehicle programme will pursue initial investigations on areas identified in 2022, with initial policy options expected to be considered by 2024. The decarbonising heavy vehicle programme is expected to operate continuously over at least the next four years, identifying, prioritising, and progressively implementing new initiatives. • Setting RUC rates differently by fuel type/emissions and extending the heavy EV exemption from RUC will require Parliament to amend the RUC Act. This is likely to take 18 months to two years to implement. • Euro VI standards are likely to be in place in 2024 or soon after.
<p>Progress indicators (examples – to be determined)</p>	<p>Decarbonising heavy vehicles work programme</p> <ul style="list-style-type: none"> • More funding introduced through the LETF • Freight decarbonisation unit established • Decisions are taken by 2024, on policies and measures to: <ul style="list-style-type: none"> ○ Improve the fuel efficiency of heavy vehicles ○ Regulate heavy vehicle imports to reduce the emissions of heavy vehicles entering Aotearoa ○ Invest in infrastructure for green fuels and heavy vehicle fast charging. ○ Reduce emissions of heavy vehicles operated by or procured through government activities. <p>Long term decarbonisation of trucks</p> <p>Sales of zero-emission medium and heavy-duty vehicles increases in line with the ambition set by the 2021 global MoU on Zero-Emission Medium- and Heavy-Duty Vehicles: 30 percent of sales in 2030 and 100 percent of sales in 2040.</p>

3.2. Accelerating the decarbonisation of the public transport bus fleet

Detail	Description
<p>Action/s (policy/activity)</p>	<p>The Government has already made commitments relating to the decarbonisation of the public transport bus fleet. This includes:</p> <ul style="list-style-type: none"> • Requiring only zero-emission public transport buses to be purchased by 2025. • Setting a target to decarbonise the public transport bus fleet by 2035. • Supporting regional councils to achieve these outcomes through a \$50 million fund over four years. <p>Additional investment beyond the \$50 million already committed will be necessary to support the 2025 zero-emission bus mandate and to achieve the 2035 target. Specifically, additional investment will be required to achieve one or both of the following:</p> <ul style="list-style-type: none"> • Help councils meet additional operating costs of deploying low- or zero-emission vehicles. • Enable councils to own or take control of assets that are necessary to support the deployment of low- or zero-emission vehicles – for example by directly purchasing vehicles, charging infrastructure or depots.

Expected outcome	Accelerating the decarbonisation of the public transport bus fleet will contribute to reduced carbon emissions.
Co-benefits	<p>Improved public health Improved public health through reduced harmful emissions.</p> <p>More liveable cities Improved local amenity through reduced noise pollution.</p> <p>Reduced operating costs Zero-emission buses are typically cheaper to operate because of fuel cost savings.</p>
Interconnections with other policies/activities	This initiative will increase the emissions reduction benefits from mode-shift to public transport, and has interconnections with initiatives under 1.2, particularly package B - Improving the reach, frequency, and quality of public transport.
Partnerships	Relevant local government authorities, and public transport operators.
Timeframe for the policy/activity	<ul style="list-style-type: none"> • 2025 mandate to be established in the first emission Budget period. • Initial decisions on investment part of Budget 2022.
Progress indicators (examples – to be determined)	<ul style="list-style-type: none"> • Establishment of the 2025 mandate. • Deployment of zero-emission and/or decarbonised buses for public transport services.

3.3. Decarbonising aviation

Detail	Description
Action/s (policy/activity)	<p>Air travel has a role in moving people and freight to both domestic and international destinations. In many cases, air travel is an essential mode for inter-city and inter-regional travel. Improving its sustainability is important, alongside improving alternatives to interregional air travel in some places.</p> <p>Developing targets for decarbonising aviation We will develop and set specific targets for decarbonising domestic aviation in line with Aotearoa’s climate targets.</p> <p>Establishing a public-private leadership body focussed on decarbonising aviation</p> <ul style="list-style-type: none"> • We will work with industry to establish a public-private leadership body focused on decarbonising aviation in Aotearoa. This leadership body will be a partnership between industry and government to bring together ministers and stakeholders, with the aim of delivering sustainable aviation outcomes. This will include lowering emissions from domestic and international flights through operational and infrastructure improvements, driving the ambitious delivery of new technologies and seeking innovative ways to cut aviation emissions.

	<ul style="list-style-type: none"> • We will task this leadership body with identifying policies and regulatory settings needed to support reducing aviation emissions in line with achieving the new aviation targets. This would be similar to the UK ‘Jet Zero Council’ within an Aotearoa context. • Policy and regulatory settings may need to be reviewed and/or developed to ensure an environment which enables and supports the following: <ul style="list-style-type: none"> ○ domestic sustainable aviation fuels (SAF) production ○ a SAF mandate ○ electric plane development, manufacture, operation, import, and research and development of solutions for aviation. <p>Implementing a SAF Mandate</p> <p>We will implement a SAF mandate. Following Cabinet confirmation of the Sustainable Biofuels Obligation, MBIE and Te Manatū Waka will develop the proposed settings for a SAF-specific mandate by December 2022, once the findings of Air New Zealand’s SAF feasibility study are available.</p>
Expected outcome	<ul style="list-style-type: none"> • The domestic production of SAF will increase should its commercial viability be confirmed. • A SAF Mandate will lead to the uptake of SAF in domestic jet fuel supply, resulting in lower emissions from aviation fuel.
Co-benefits	<p>Economic prosperity</p> <p>Sustainable aviation could lead to economic benefits through the delivery of new technologies and innovation and enhancing the green credentials of our aviation sector.</p> <p>Economic resilience</p> <p>Supporting more sustainable aviation could lead to greater economic resilience, such as through the promotion and uptake of electric aircraft and domestic production of SAF, as less reliance on overseas jet fuel means we will be more resilient to oil shocks.</p>
Interconnections with other policies/activities	<p>The decision to develop a separate mandate for SAF has arisen from a recommendation under the Sustainable Biofuels Obligation. Specific policy requirements may need to be consulted and/or aligned with those set under the Sustainable Biofuels Obligation or in development, such as the Ministry for the Environment’s (MfE’s) update to the Climate Change (Liquid Fossil Fuels) Regulations 2008 with respect to the inclusion of SAF.</p>
Partnerships	<p>Public-private leadership group</p> <p>Ministers of Transport and Energy, and leaders/senior representatives at Te Manatū Waka, MfE, the Civil Aviation Authority, SCION Research, Tourism NZ, alongside key private sector organisation across aviation, energy, research and sustainability sectors.</p>
Timeframe for the policy/activity	<ul style="list-style-type: none"> • Establishment of the public-private leadership group will take place in 2022. • Policy recommendations on the design of a SAF mandate to be developed for Cabinet’s consideration by December 2022.

<p>Progress indicators (examples – to be determined)</p>	<ul style="list-style-type: none"> To be determined.
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3.4. Decarbonising maritime transport

Detail	Description
<p>Action/s (policy/activity)</p>	<p>Implementing international obligations to reduce emissions from ships</p> <ul style="list-style-type: none"> Aotearoa intends to ratify Annex VI of the International Convention for the Prevention of Pollution from Ships (MARPOL), bringing into force new domestic requirements in 2022. This will set (internationally determined) energy efficiency standards, management plans and reporting for ships over 400 Gross Tonnage. MARPOL Annex VI is the primary international regulatory mechanism for addressing the climate change impacts from shipping. New measures to reduce GHG emissions from ships are to be adopted internationally by 2023. Aotearoa’s accession to MARPOL Annex VI will commit us to implementing these measures for Aotearoa flagged ships and foreign ships operating in Aotearoa waters. <p>Developing and implementing a national action plan to reduce commercial and recreational maritime emissions</p> <ul style="list-style-type: none"> Prepare a national action plan to reduce maritime emissions in line with international and domestic decarbonisation ambitions. The national action plan will set out an approach to decarbonise maritime transport, which may include: <ul style="list-style-type: none"> improving domestic institutional and legislative arrangements for the effective implementation of existing International Maritime Organisation (IMO) instruments developing activities to further enhance the energy efficiency of ships initiating research and advancing the uptake of alternative low-carbon and zero-carbon fuels (see policy below) accelerating port emission reduction activities fostering capacity-building, awareness-raising and regional cooperation facilitating the development of infrastructure for green shipping. The national action plan will set out a trajectory towards zero carbon emissions from shipping. That trajectory will be guided by the following targets: <ul style="list-style-type: none"> all new small passenger, coastal fishing, and recreational vessels to be zero-emissions by 2035 all new large passenger, cargo and offshore fishing vessels to meet highest carbon intensity reduction, as set by the IMO, by 2035. <p>Supporting the uptake of alternative low- and zero-carbon fuels for ships</p> <ul style="list-style-type: none"> Undertake research to advance the development and uptake of alternative low- and zero-carbon fuels for shipping in Aotearoa.

	<ul style="list-style-type: none"> • Develop safety and environmental standards, as well as the response frameworks (e.g. for spills and other incidents) needed to mitigate risks with the use of alternative fuels. The absence of such standards/response frameworks for alternative fuels could pose significant risks to the environment and safety if not addressed. <p>Enabling net zero-carbon shipping on key trade routes by 2035</p> <ul style="list-style-type: none"> • Aotearoa will work with other like-minded countries operating ports on key shipping trade routes for its exports and imports to put in place the conditions to allow low- or zero-carbon shipping to operate on these routes. This might include coordinated approaches to infrastructure investments and other measures (such as use of transitional fuels such as biofuels). • This sort of approach is already envisaged under the ‘Clydebank Declaration’, which aims to provide “<i>a mechanism for governments to establish maritime ‘green corridors’ – specific maritime routes decarbonised from end to end, including both land-side infrastructure and vessels.</i>”
<p>Expected outcome</p>	<p>In the short term, implementing MARPOL Annex VI will lead to improvements in the energy efficiency of ships operating in Aotearoa. This will enhance the carbon reduction potential of mode shifts identified in the Freight and Supply Chain Strategy. In the longer term, the national action plan and supporting activities will help the sector to decarbonise.</p>
<p>Co-benefits</p>	<p>This maritime package is likely to:</p> <ul style="list-style-type: none"> • enhance (or, at least, protect) the attractiveness of Aotearoa exporters / products • enhance (or, at least, protect) the attractiveness for Aotearoa as a supply chain destination for international shipping • support the resilience of supply chains by ensuring shipping lines have maximum flexibility in servicing Aotearoa • ensure continued access to markets that require carbon mitigation • provide more resilience against future international pricing of maritime emissions • potentially assist with the development of green fuels supply options (e.g. global markets) • lead to reductions in other pollutants from shipping on key trade routes • ensure the import of newer and therefore safer ships in Aotearoa.
<p>Interconnections with other policies/activities</p>	<p>Elements of this package will be developed in coordination with 3.1 - A Developing a Freight and Supply Chain Strategy which will have a focus on freight decarbonisation.</p> <p>It will also connect with wider Government work under the GPS-LT on coastal shipping (Waka Kotahi) and the LETF for marine transport (EECA).</p>
<p>Partnerships</p>	<p>Implementing international obligations to reduce emissions from ships</p> <ul style="list-style-type: none"> • MARPOL Annex VI will be a regulatory requirement and compliance will be delivered through:

	<ul style="list-style-type: none"> ○ The Maritime Transport regulatory system, overseen by Maritime New Zealand. ● MBIE, who will lead on compliance with fuel quality standards. ● However, working with the maritime industry (shipping operators, ports and others) as well as key 3rd parties in the regulatory system (such as surveyors) to build awareness and capability will be critical successful implementation. ● The standards under MARPOL are set internationally under the IMO; and we expect these standards to evolve over time. Ongoing engagement and partnership with other countries in the wider IMO will be critical to ensure that we can continue to influence these developments. <p>Developing and implementing a national action plan to reduce maritime emissions</p> <p>The national action plan will need to be developed in close consultation with the maritime sector (shipping operators, ports, exporters and others). It is anticipated to be a mix of regulatory, incentive based, infrastructure investment, engagement / awareness based and voluntary measures.</p> <p>Supporting the uptake of alternative low- and zero-carbon fuels for ships</p> <p>Any standards/response frameworks would need to be delivered by Maritime New Zealand, but this will need significant external technical and international engagement. The fuel industry, ports and the shipping industry will be key partners in ensuring standards for alternative maritime fuels in Aotearoa are fit for purpose.</p> <p>Enabling net zero-carbon shipping on key trade routes by 2035</p> <p>This will require close cooperation with other countries along key trade routes used by Aotearoa exporters and importers; as well as with relevant ports, international shipping companies and key exporters.</p>
<p>Timeframe for the policy/activity</p>	<p>Implementing international obligations to reduce emissions from ships</p> <p>The framework for Aotearoa to adopt and implement international GHG reduction measures for shipping will be in place in early 2022. Implementation will be ongoing from 2022 to take account of evolving obligations, and new GHG reduction measures, to be implemented from 2023.</p> <p>Developing and implementing a national action plan to reduce maritime emissions</p> <p>To be determined.</p> <p>Supporting the uptake of alternative low- and zero-carbon fuels for ships</p> <p>To be determined.</p> <p>Net zero-carbon shipping on key trade routes by 2035</p> <p>Timeframes likely vary depending on country and route. But reasonable to assume 2 years to negotiate an agreement and then begin implementation.</p>
<p>Progress indicators</p>	<p>To be determined.</p>

3.5. Biofuels Obligation – a GHG reduction-based obligation to increase the use of sustainable transport biofuels

Detail	Description
<p>Action/s (policy/activity)</p>	<p>Liquid biofuels are a renewable, low-emissions fuel source that can be used immediately to reduce our transport sector emissions. Biofuels are the main viable mitigation opportunity for Aotearoa’s existing ICE vehicle fleet, which will remain significant over the next 20 years. For the aviation and heavy freight sectors, biofuels are the only immediately commercially available mitigation option in Aotearoa. Unlike biofuels, other low-emissions transport fuels, such as hydrogen and electricity, are not compatible with existing ICE vehicles and fuelling infrastructure.</p> <p>This initiative will introduce a Sustainable Biofuels Obligation (the Obligation) to help overcome the cost and risk barriers to facing biofuels uptake in Aotearoa.</p> <p>The Sustainable Biofuels Obligation will require fuel suppliers⁷ that purchase or import fuel for use in Aotearoa to reduce the total emissions of the fuels they sell by a set percentage each year. Fuel suppliers will do this by blending biofuels into some, or potentially all, of the fuels they sell. Both domestically produced and imported biofuels can be used to meet the percentage reduction, subject to their meeting set sustainability criteria.</p> <p>The obligation will come into effect from 1 April 2023. Annual emissions reduction percentage targets are set at 1.2 percent in 2023, increasing to 2.4 percent in 2024, and 3.5 percent in 2025. Provisional targets for outyears will be confirmed by Cabinet in 2024 and 2029 for the years 2026 – 2030 and 2031 – 2035 respectively.</p> <p>A single target will be set for petrol and diesel fuels. A separate mandate for aviation will be set during 2022, based on consultation with key stakeholders.</p> <p>As a GHG reduction-based obligation, there is capacity for the Obligation to be expanded to include other low-emissions fuels over time (e.g. electricity, hydrogen, e-fuels).</p>
<p>Expected outcome</p>	<p>This initiative will help increase the use of sustainable biofuels across the domestic transport sector. In doing so it will:</p> <ul style="list-style-type: none"> • guarantee a level of annual transport emissions reductions, thus contributing to our net zero 2050 emissions target • guarantee a level of demand for sustainable transport biofuels, which in turn could stimulate investment in domestic biofuels production.
<p>Co-benefits</p>	<p>Economic development</p> <p>The Obligation alone will not generate sufficient conditions for domestic biofuels production, but it sets a strong foundation for the development of an industry over time. This could result in regional economic development and employment gains.</p>

⁷ Under the Sustainable Biofuels Obligation, liable fuel suppliers would be: Allied Petroleum, BP, Challenge, Caltex (administered by Z Energy), Gull, Gasoline Alley Services, McKeown Group, Mobil, Nelson Petroleum Distributors, Petroleum Logistics, RD Petroleum, Southfuels, Northfuels, Waitomo Group, Z Energy.

Interconnections with other policies/activities	<ul style="list-style-type: none"> The initiative will complement several other transport policies, including those relating to decarbonising trucks, aviation and maritime. [3.1. Decarbonising freight, 3.3. Decarbonising aviation, 3.4. Decarbonising maritime] The Obligation is likely to complement the Government’s wider work around the development of a national Bioeconomy Strategy.
Partnerships	<ul style="list-style-type: none"> MBIE. The Environmental Protection Authority as the regulatory agency responsible for the Sustainable Biofuels Obligation’s compliance and oversight.
Timeframe for the policy/activity	<ul style="list-style-type: none"> Cabinet approval of final policy design – 28 October 2021. <p>Legislative drafting and Select Committee process: 2022</p> <ul style="list-style-type: none"> Legislation – mid/late June 2022 Select Committee process – mid/late July 2022 – mid/late October 2022 (four months) Bill enacted – December 2022 (or February 2023 as stop gate) Empowering provisions for regulations – Day after Royal Assent Remainder of Bill comes into effect – 1 April 2023 <p>Regulations drafting: 2022</p> <ul style="list-style-type: none"> Regulations policy development and discussion document drafting – January – March 2022 Consultation – April – June 2022 Final policy approval for regulations – June 2022 Regulations made – early 2023 Regulations in effect 1 April 2023 <ul style="list-style-type: none"> Enactment from 1 April 2023. Review of Obligation – 2024 (after one year in operation)
Progress indicators (examples – to be determined)	<p>Compliance with annual percentage emissions reduction targets over years 2023, 2024, 2025 (to start).</p>

3.6. Producing a long-term national EV charging infrastructure plan

Detail	Description
Action/s (policy/activity)	<p>Provide long-term strategic direction as Aotearoa’s EV charging infrastructure expands</p> <p>A long-term EV charging infrastructure strategy (the Strategy) will set out the Government’s vision and policy objectives around EV charging, and could be aligned with upcoming emissions budget periods (i.e. through 2035 and/or up to 2050).</p>

	<p>The Strategy will provide agencies, local government, and the private sector with a clear sense of the Government’s purpose and direction. It would also be important in terms of setting clear roles and responsibilities and to ensure the Government’s long-term strategic policy objectives are signalled early to key stakeholders and the public.</p> <p>This will include setting an overarching vision for Aotearoa’s EV charging infrastructure to support the transition to and use of low-emissions transport by being accessible, affordable, convenient, secure and reliable for all.</p> <p>The Strategy will take a holistic, systems-oriented approach, including:</p> <ul style="list-style-type: none"> • both public and private charging infrastructure and charging considerations (such as, home, journey and destination charging); • a focus on charging for light EVs, while accommodating for and recognising areas where other vehicle modes and zero-emission energy sources may fall within scope, such as commercial heavy trucks, hydrogen and micro-mobility; and • a commitment to all New Zealanders (existing and future users of light EVs) to support an Equitable Transition. <p>Engagement with key stakeholders, utility companies, and charging providers, as well as partnership with local government agencies, will help to inform the Strategy’s development. This will include seeking feedback on challenges and opportunities associated with the following five key policy objectives:</p> <ul style="list-style-type: none"> • minimising stress on the electricity network • improving the equity of, and access to, residential charging for all • accommodating for geographic variation in charging needs and energy supply (including the charging needs of rural and isolated areas) • planning for coverage and capacity • improving standardisation and interoperability. <p>Establish a cross-agency EV Charging infrastructure work programme</p> <ul style="list-style-type: none"> • The Government will establish a cross-agency EV charging infrastructure work programme covering both public and private charging infrastructure. This structure will coordinate work on EV charging currently underway by government while also helping to identify where further policy action may be needed to address key EV charging barriers and gaps. A coordinated platform will also streamline government investment and engagement on EV charging with key public and private stakeholders. • The Programme will be led by a group of core central government agencies coordinated by Te Manatū Waka, with membership from MBIE, Waka Kotahi and EECA (the core interagency working group). The core interagency working group will be responsible for developing the Government’s vision and long-term strategy to guide the expansion our national EV charging infrastructure system. <p>Review of the Electricity (Safety) Regulations to cover the safety precautions associated with charging EVs</p> <ul style="list-style-type: none"> • This will require the core interagency working group to work closely with WorkSafe to evaluate how the Electricity (Safety) Regulations can best help enable EV uptake. For example, this may include investigating new
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	regulations for corporately owned EVs while simultaneously encouraging employees to use fleet EVs.
Expected outcome	Improved EV charging infrastructure coverage and services will support increased EV uptake and usage levels by reducing barriers to EV uptake, resulting in lower transport emissions.
Co-benefits	Increased EV uptake will support a range of co-benefits, including reduced household and business travel costs, increased economic resilience, and improved public health. [See 2.1. Low-emission vehicle policies].
Interconnections with other policies/activities	The initiative will be designed to complement policies that accelerate the uptake of low-emission vehicles. [2.1. Low-vehicles emission vehicles policies and 2.2. Low-emission vehicles equity package] This initiative also links to 3.1 C Accelerating the decarbonisation of trucks
Partnerships	Key industry stakeholders will be involved in the Strategy’s development and review, though the nature and membership of this group is still to be determined (though likely to include utility companies and charging providers).
Timeframe for the policy/activity	<ul style="list-style-type: none"> • Public consultation on the strategy – early/mid 2022 • Cabinet approval of the strategy – mid/late 2022
Progress indicators	To be determined within the strategy’s design

Focus area 4: Cross-cutting and enabling actions to support the transition to a low emissions transport system

For the transport actions outlined in this plan to be successful, there is a range of other cross-cutting and enabling actions that need to be taken. This includes:

- ensuring that we have the evidence and data to understand the impact of policies, and support monitoring and evaluation
- ensuring that we promote behavioural change including incorporating behavioural insights into intervention development and implementation to maximise the intended effects
- ensuring that we understand how the effects of policy are distributed to enable development of any measures needed for an Equitable Transition
- ensuring that we set a long-term planning horizon that gives us greater confidence we’re on track to achieve our targets
- providing people, communities, and businesses with the information and support they need to make changes that support the transition
- ensuring the rights skills and capability are in place across the transport sector (central government, local government, communities, iwi/Māori, suppliers, infrastructure supply chains) to support the transition
- addressing any barriers to accessing the materials and labour that will be needed to deliver changes to transport infrastructure and services.

The following tables provides more detail on the actions that support this focus area.

4.1. Ensuring the next Government Policy Statement on land transport (GPS-LT) guides transport investment that is consistent with the ERP

Detail	Description
Action/s (policy/activity)	We will need to utilise all levers available to achieve emissions reductions. The GPS-LT has a particularly important role to play as it sets the Government’s objectives for land transport investment and Crown funding for transport initiatives.
Expected outcome	The GPS-LT provides a transport investment strategy that is consistent with the emissions reduction plan.
Co-benefits	Clarity for the transport sector on how to meet Government’s multiple priorities for the land transport system, and where investment will come from. Clarity for the urban development and housing sector on the need to share responsibility for reducing enabled land transport emissions and relevant targets.
Interconnections with other policies/activities	<ul style="list-style-type: none"> The GPS-LT is a collection of policies from across land-transport. Where those policies/programmes/priorities already exist, success will rely on these areas being set up to be aligned with the emissions reduction plan. The GPS-LT will need to help link planning and funding as RM reforms embed. Government Policy Statement on Housing and Urban Development (GPS-HUD) and GPS-LT need to ensure they provide consistent messaging on how to achieve urban form that puts Aotearoa on the road to net zero emissions.
Partnerships	Funding decisions in Waka Kotahi, Local Government and KiwiRail are guided by the GPS-LT. Waka Kotahi own the investment decision-making framework.
Timeframe for the policy/activity	<ul style="list-style-type: none"> Development of GPS-LT 2024 takes place in 2022. This will need to consider how the GPS-LT can guide investment in a new way so that investments reduce emissions, whilst also achieving outcomes such as safety and access. Publication in July 2023 publication, to allow time for direction to be considered in RLTPs and the NLTP that take effect from 2024. NLTP 2024-2027 published mid 2024 (or by 31 August at the latest). GPS-LTs are reviewed (but will not necessarily change) every 3 years.
Progress indicators	<p>The GPS-LT monitoring report is published annually and includes emissions reductions indicators. This indicator set may be reviewed and updated as new data sources become available.</p> <p>We may explore additional ways of checking progress, which could include check-ins with the sector on whether they feel direction is consistent between the ERP and GPS-LT; post-implementation reviews of investments using the NLTF to see if they have contributed to emission reduction aims;</p>

	reviewing whether implementation of the GPS-LT has realised the intended alignment.
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4.2. Developing a strong evidence base to inform transport decarbonisation and an Equitable Transition

Detail	Description
Action/s (policy/activity)	<p>Collaborate across agencies to develop a strong evidence base Invest in expanding the transport evidence base to support cross-sector initiatives that inform an Equitable Transition to a zero-carbon transport system, to ensure policies, interventions and activities are effective in the Aotearoa context. A better understanding of travel accessibility, preferences and behaviour across all user groups and modes will aid the development, assessment, and modelling of future policies. The evidence base will support the monitoring and evaluation of the future state, to understand the impact of policies, including the use of behavioural measures and insights.</p> <p>Develop a Transport Climate Research plan Develop a Transport Climate Research plan to set out the direction for further research and to implement research activities to fill the high priority research gaps. The research plan will build on the knowledge gaps identified in the Transport Evidence Base Strategy but with a focus on effectiveness and efficiency of transport emissions reduction interventions, Equitable Transition interventions and effects, and behavioural responses and measures. This plan will support the Emission and Climate Research Strategy.</p> <p>Develop outcome and milestone indicators Develop consistent, fit-for-purpose and measurable outcome and milestone indicators as well as necessary arrangements to collect such information to allow monitoring and evaluation of policies/activities.</p> <p>Expand tools for assessing interventions Develop a consistent approach for:</p> <ul style="list-style-type: none"> • treating deep uncertainty on both costs and effects • handling and accounting for multi-sector interactions and issues • better understanding how inter-related projects, issues and/or programmes should be assessed • better accounting for risks and opportunities, including irreversible impacts.
Expected outcome	<p>We have the data we need to make evidence-based policies that reflect any changes in behaviours, preferences and travel needs.</p> <p>Widening the evidence-base will assist better identification of emissions reduction opportunities to develop targeted interventions and support better modelling, monitoring and evaluation of interventions so we can understand whether we are on track to achieve targets and any readjustment is needed.</p>

Co-benefits	<ul style="list-style-type: none"> • Contributes to global evidence-base to help inform efforts to lower emissions in other countries. • Transferrable insights for other industries/sectors that are less advanced. • Support wider understanding of equity issues in the Aotearoa context.
Interconnections with other policies/activities	<ul style="list-style-type: none"> • Implementation of the Transport Evidence Base Strategy • Waka Kotahi’s Transport Sector Research Programme • Agent-based modelling • Urban plans, land-use, Regional and Local spatial plans and planning • MfE GHG inventory
Partnerships	<ul style="list-style-type: none"> • Waka Kotahi • Local government • Interagency Climate Change Data and Modelling Group • Expanding existing research partnerships with universities
Timeframe for the policy/activity	Ongoing.
Progress indicators	<ul style="list-style-type: none"> • Domestic transport costs and charges study released – Q3 2022 • Transport costs and accessibility analysis research completed – Q3 2022 • Transport elasticities research completed – Q4 2022 • Transport climate research plan – Q4 2023 • Outcome and milestone indicators drafted – Q4 2022

4.3. Embedding long-term transport planning

Detail	Description
Action/s (policy/activity)	<p>Embed long-term planning</p> <p>Set a longer-term planning horizon, with a range of choices to provide options as circumstances change. This will give greater confidence that we’re on a path to eliminate emissions and achieve other goals.</p> <p>Te Manatū Waka is using the Generational Investment Approach (GIA) to guide planning through to 30–50 years out. It is applying this with partner agencies, through cross-system strategies such as the National Supply Chain and Freight Strategy. The GIA supports better investment and intervention advise that considers sector-wide impacts, reveals interdependencies and sequencing, builds a portfolio of choices to manage over time, and includes more sophisticated analysis tools.</p> <p>The approach to long term planning should be collaborative, to complement and support a range of other long-term planning activities, including:</p> <ul style="list-style-type: none"> • The Waka Kotahi 30 Year Plan • KiwiRail’s 30 year Network Strategy • InfraCom’s infrastructure pipeline • Spatial plans under the SPA, including RSSs.

Expected outcome	<ul style="list-style-type: none"> Identify the mix of activities/multi-year programmes needed nationally and in each place that will deliver on Emissions Reduction targets. Alternative pathways for implementation of Emissions Reduction initiatives to enable the plan to be adapted as things change and new challenges are identified.
Co-benefits	<ul style="list-style-type: none"> Better value for money by planning for major investments, identifying best combinations and sequencing of options and exposing trade-offs. Mitigate risks to the delivery of the programme by allowing for multiple implementation pathways. Potential to reduce the need to invest in new infrastructure by wider consideration across the range of interventions. Provide guidance on critical interdependencies (e.g. availability of pricing tools; alignment of urban development decisions and interface with RSSs).
Interconnections with other policies/activities	<ul style="list-style-type: none"> The GIA sits across the sector and across medium-term strategies such as 3.1. A - Developing a National Supply Chain and Freight Strategy. In this way it will strengthen the connection between delivery plans and broader and longer-term strategies. There will also be connections to: <ul style="list-style-type: none"> New Resource Management instruments GPS-HUD InfraCom Strategy National Adaptation Plan
Partnerships	<ul style="list-style-type: none"> GIA governance includes Te Manatū Waka, Waka Kotahi, KiwiRail, and MHUD. All work is being progressed collaboratively.
Timeframe for the policy/activity	<ul style="list-style-type: none"> Delivery of Freight and Supply Chain Strategy (early findings due 2022). Aspiration to embed use of GIA across Te Manatū Waka and the wider transport sector over the next five years.
Progress indicators	<ul style="list-style-type: none"> We cannot draw a direct causal link between investments made as a result of advice that used the GIA and improvements in the Transport Outcomes Framework indicators. There will be too many external factors such as political preferences and funding available that determine final investments. However, progress of this activity is likely to be reflected in: <ul style="list-style-type: none"> use of the GIA by Te Manatū Waka and transport sector quality of advice as reflected by NZ Institute of Economic Research scores and Ministerial feedback to department.

4.4. Investing in information and education to support change

Detail	Description
Action/s (policy/activity)	<p>Transport will be one of the first areas to make significant changes to reduce emissions. This will affect our people, communities, and businesses nationwide. We will:</p> <ul style="list-style-type: none"> invest in information and education to support and encourage people and businesses to change their behaviour, while recognising that the biggest barrier is often a lack of good transport options

	<ul style="list-style-type: none"> work across sectors to ensure consistent messages and actions. <p>Behaviour change tools have evolved from advertising and social marketing campaigns to encompass a range of measures aimed at overcoming or exploiting behavioural biases. Funding should be devoted to developing behavioural insights to inform what interventions are needed to encourage change, including information, awareness and behavioural change campaigns.</p> <p>In delivering activities that support change, we will:</p> <ul style="list-style-type: none"> use research/analysis to understand how to best encourage behavioural shifts, identify and pilot interventions to support effective implementation of emission reduction plan initiatives consider the kinds of national and local leadership and community engagement required to support change and build social licence, particularly for difficult but highly effective interventions such as street reallocation, reduced speeds, parking and vehicle restrictions and pricing. Public inclusion in, understanding of and support for these activities will be critical to their success.
Expected outcome	<ul style="list-style-type: none"> Policies are framed in a way to overcome behavioural biases and include information that is salient and timely to decisions involving mode shift. Public attitudes and actions show support for a lower emissions transport system. Policies are designed to make the desired changes in behaviour palatable and easy to adopt.
Co-benefits	Cross-sector collaboration to support alignment on behavioural considerations in policy development.
Interconnections with other policies/activities	<p>Individual initiatives will likely have their own information and education campaigns built in but there may still be a role for a general education/information campaign for the transport sector.</p> <p>There is an important connection with efforts to increase skills and capacity within Te Manatū Waka and Waka Kotahi in the areas of behavioural analysis.</p>
Partnerships	<ul style="list-style-type: none"> Waka Kotahi EECA
Timeframe for the policy/activity	Scope of intervention to be determined.
Progress indicators	To be determined.

4.5. Developing the skills and capability required to transition to a low emissions transport system and support an Equitable Transition

Detail	Description
<p>Policy/activity</p>	<p>We need to ensure the right skills and capability are in place across the transport sector (central government, local government, communities, iwi/Māori, suppliers, infrastructure supply chains) to support the transition. We will:</p> <ul style="list-style-type: none"> • Consider what capability and capacity building will be needed, including but not limited to: <ul style="list-style-type: none"> ○ integrated land use and transport planning; spatial planning and long-term multimodal network planning – at a scale not currently required ○ multimodal network integration (active mode integration with shared modes; intermodal integration for freight) ○ network reshaping and network optimisation using network management and technology tools ○ demand management – pricing, promotion, parking management, workplace/commuter travel planning, school/education travel planning; designing incentives/disincentives ○ design and delivery of a substantial increase in multimodal infrastructure, including nationally significant public transport, walking and cycling networks ○ technologies for network management, customer information, integrated ticketing, integrated payment systems, MaaS, congestion and network pricing ○ investment assessment – particularly supporting a shift from activity to programme based assessment ○ general capability building in understanding and designing sustainable transport systems that reduce emissions and improve access ○ public transport service providers (need for increased number of bus drivers; need for new and flexible public transport services to cater for major urban, regional and rural needs) ○ capability and capacity in universal design and other approaches for a more inclusive system addressing the needs of range of transport disadvantaged ○ carbon impact assessment and carbon accounting; including effective management of offsetting, should this be required. ○ automotive industry skillset ○ light and heavy vehicle specialists (vehicle standards, assessment of new vehicle types etc) ○ modelling and analytics ○ behavioural science and analysis skills ○ innovative financing ○ design, delivery, management and operation of infrastructure assets in the context of carbon neutral requirements; and including nature-based solutions to support climate change adaptation

	<ul style="list-style-type: none"> ○ sophisticated partnering and community engagement skills to enable the collaboration required and build social license for change. ○ change leadership at national and local levels. • Work with the transport sector to plan for the transition. <p>There are also challenges facing the transport sector related to accessing the materials and labour need to deliver changes to transport infrastructure and services.</p> <ul style="list-style-type: none"> • We will investigate any barriers the transport sector faces accessing the materials and labour needed to deliver the transition and consider what Government can do to address them.
Expected outcome	A transport sector that has the skills and capability required to transition to a low emissions transport system.
Co-benefits	Potentially significant economic co-benefits related to new jobs, increased employment opportunities, minimisation of job losses, new areas of economic activity (e.g. high value digital innovation).
Interconnections with other policies/activities	Required for the success of most policies/actions in the emissions reduction plan.
Partnerships	To be scoped but will impact multiple sectors (e.g. education, construction, transport etc).
Timeframe for the policy/activity	To be scoped.
Progress indicators	To be scoped.

PROACTIVELY RELEASED BY
TE MANATŪ WAKA MINISTRY OF TRANSPORT