

In Confidence

Minister of Transport

Cabinet Economic Development Committee

RELEASE OF PROACTIVE RELEASE OF HĪKINA TE KOHUPARA – KIA MAURI ORA AI TE IWI- TRANSPORT EMISSIONS – PATHWAYS TO NET ZERO BY 2050 CABINET PAPER CABINET PAPER**Proposal**

- 1 This paper seeks agreement to release *Hikina te Kohupara – Kia mauri ora ai te iwi: Transport Emissions – Pathways to Net Zero by 2050* (HtK) as a discussion document for targeted engagement.

Relation to government priorities

- 2 In 2019, Parliament passed the Climate Change Response (Zero Carbon) Amendment Act 2019. This amended the Climate Change Response Act 2002 and introduced the 'Zero Carbon Framework' to enable New Zealand to develop climate change policies that contribute to the temperature goals in the Paris Agreement. It also allows New Zealand to prepare for, and adapt to the effects of climate change.
- 3 The Zero Carbon framework sets a domestic target for New Zealand to reduce net emissions of all greenhouse gases (GHG) except biogenic methane to zero by 2050.
- 4 The Zero Carbon framework requires emission budgets to be set to act as stepping-stones towards this long-term target. The Climate Change Commission will provide the first three emission budgets in May 2021, covering the period 2022 to 2035.
- 5 By 31 December 2021, the Government must publish the first three emissions budgets and an Emissions Reduction Plan. This plan will set out the policies and strategies needed to meet the first emissions budget and put New Zealand on a pathway to meeting its 2050 target. The Emissions Reduction Plan may also include policies and strategies to meet the second and third emissions budgets (2026-2039 and 2031-2035).
- 6 On 2 December 2020, the Government declared a climate emergency and committed to take urgent action to reduce emissions.
- 7 HtK will assist the Government to complete the transport section of the Emissions Reduction Plan, and to take a strategic approach to reducing transport emissions. It does this by identifying and quantifying opportunities to reduce emissions across the transport system. The Government will need to decide which of these opportunities to pursue, and when.

Executive Summary

- 8 Transport is responsible for almost half of New Zealand's carbon dioxide emissions. The Climate Change Commission has signalled that the biggest emissions reductions for New Zealand as a whole need to occur in transport. In its draft report released in February 2021, it recommended a 47 percent reduction in transport emissions from 2022 to 2035.

- 9 Current policies will slow the growth in transport emissions, but not nearly enough to meet New Zealand's obligations and targets. Additional policies and interventions will be required given that the New Zealand Emissions Trading Scheme (NZ ETS) provides a weak price signal due to demand inelasticity in petrol prices.
- 10 The Government is legally required to prepare an Emissions Reduction Plan, including a transport section, by December 2021. This needs to identify policies that the Government will develop and implement to reduce emissions.
- 11 The Ministry of Transport (MoT) developed *Hikina te Kohupara – Kia mauri ora ai te iwi: Transport Emissions – Pathways to Net Zero by 2050* (HtK) to inform the Government's Emissions Reduction Plan. HtK identifies what the Government could do to accelerate emission reductions from transport. It does not commit the Government to specific policies or actions.
- 12 HtK includes four potential pathways to zero transport carbon emissions. These pathways aim to demonstrate the scale of change required to decarbonise the transport system. One of these pathways aligns with the draft target set by the Climate Change Commission¹ to reduce transport emissions by 47 percent from 2022 to 2035. The other pathways do not meet this target, but do take us close to zero transport carbon emissions by 2050.
- 13 The Government will need to make major further interventions as soon as possible to significantly reduce transport emissions by 2035, including major investments and regulatory action. The level of reduction needed² will be determined by the Climate Change Commission's final advice and how Government chooses to achieve the abatement needed across the whole economy. It is expected that transport will play a major role in meeting agreed emissions budgets.
- 14 It will be very challenging to rapidly decarbonise our transport system, but this transition will make New Zealand a healthier, safer, more vibrant, resilient, and prosperous place to live and work. There are many opportunities to reduce emissions while improving well-being, creating more liveable towns and cities, and stimulating economic activity and jobs.
- 15 I am seeking Cabinet's approval to release HtK as a discussion document for targeted engagement with key transport stakeholders and partners from central and local government, businesses, NGOs, academics and Māori/iwi from May to June 2021. This engagement will inform the Government on what transport policies we should include in the Emissions Reduction Plan. We can receive feedback on options and the pathway we could take, without committing to specific policies during this engagement.
- 16 Following this targeted engagement, the Government will need to move swiftly (within a month) to confirm what to include in the transport section of its draft Emissions Reduction Plan. The Government will undertake public consultation on the Emissions Reduction Plan in the second half of 2021 (dates are to be confirmed), before it is finalised. Although these timeframes are very tight, targeted engagement on HtK in May and June will make it easier to consult on the transport content of the draft Emissions Reduction Plan. It will help to ensure that options are credible before wider consultation begins, and help to build a public mandate.

¹ Final advice from the Climate Change Commission is due on 31 May 2021.

² Currently 47 percent by 2035 in the Climate Change Commission's draft advice.

Background

Deep reductions in transport emissions are needed for New Zealand to meet its climate change targets

- 17 Transport is responsible for almost half of New Zealand's carbon dioxide (CO₂) emissions. Major reductions in transport emissions are therefore critical to achieving New Zealand's net zero target by 2050.
- 18 Transport emissions increased by 90 percent between 1990 and 2018, and are forecast to keep increasing. The Ministry of Transport (MoT) has projected that without any major interventions transport emissions will keep rising until around 2024 (see Figure 1), before slowly declining due to an increasing rate of electric vehicle uptake.

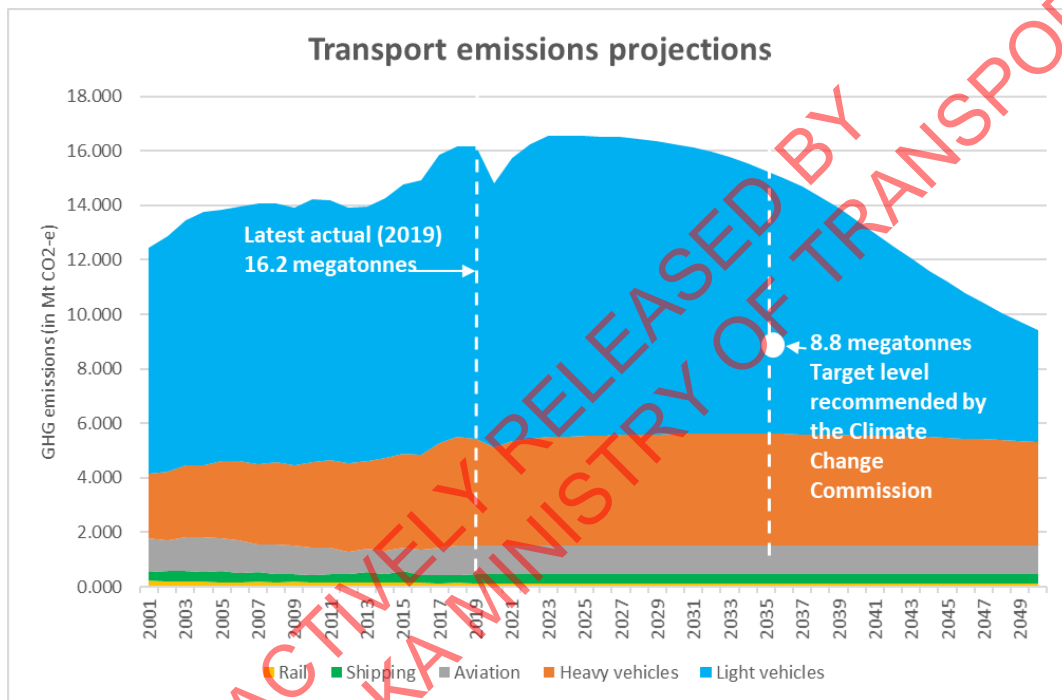


Figure 1. New Zealand's forecast transport CO₂ emissions by vehicle type

- 19 This projected peak and gradual decline do not come close to aligning with New Zealand's emission reduction targets.
- 20 The Climate Change Commission, in its draft report released in February 2021, signalled that the biggest emissions reductions in New Zealand need to occur in the transport sector. The Climate Change Commission recommended reducing current transport emissions by 47 percent by 2035. I note that final advice from the Climate Change Commission is not due until the 31 May 2021 and that this may differ from what has been consulted on.
- 21 While current policies may slow some growth in transport emissions, the Government will need to make further interventions so that we can sufficiently reduce transport emissions and meet our national emissions reduction obligations and targets.

Achieving New Zealand's emission reduction targets will require changes across the whole transport system

- 22 Figure 2 illustrates where New Zealand's domestic transport CO₂ emissions come from, by transport mode.

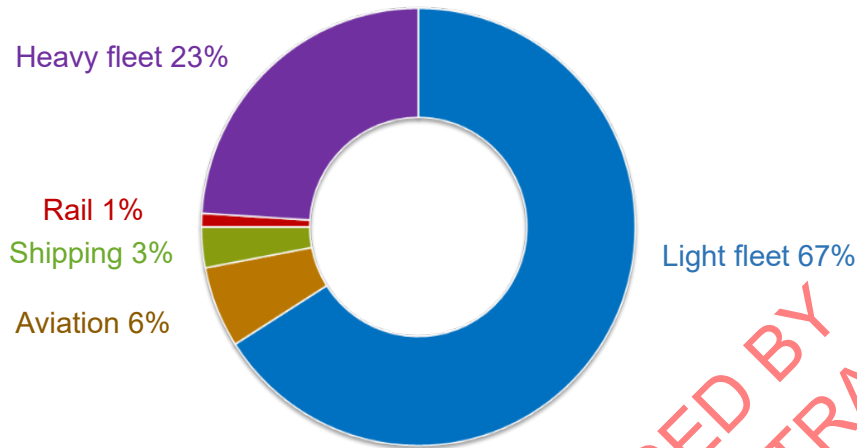


Figure 2. New Zealand's domestic CO₂ emissions by transport mode

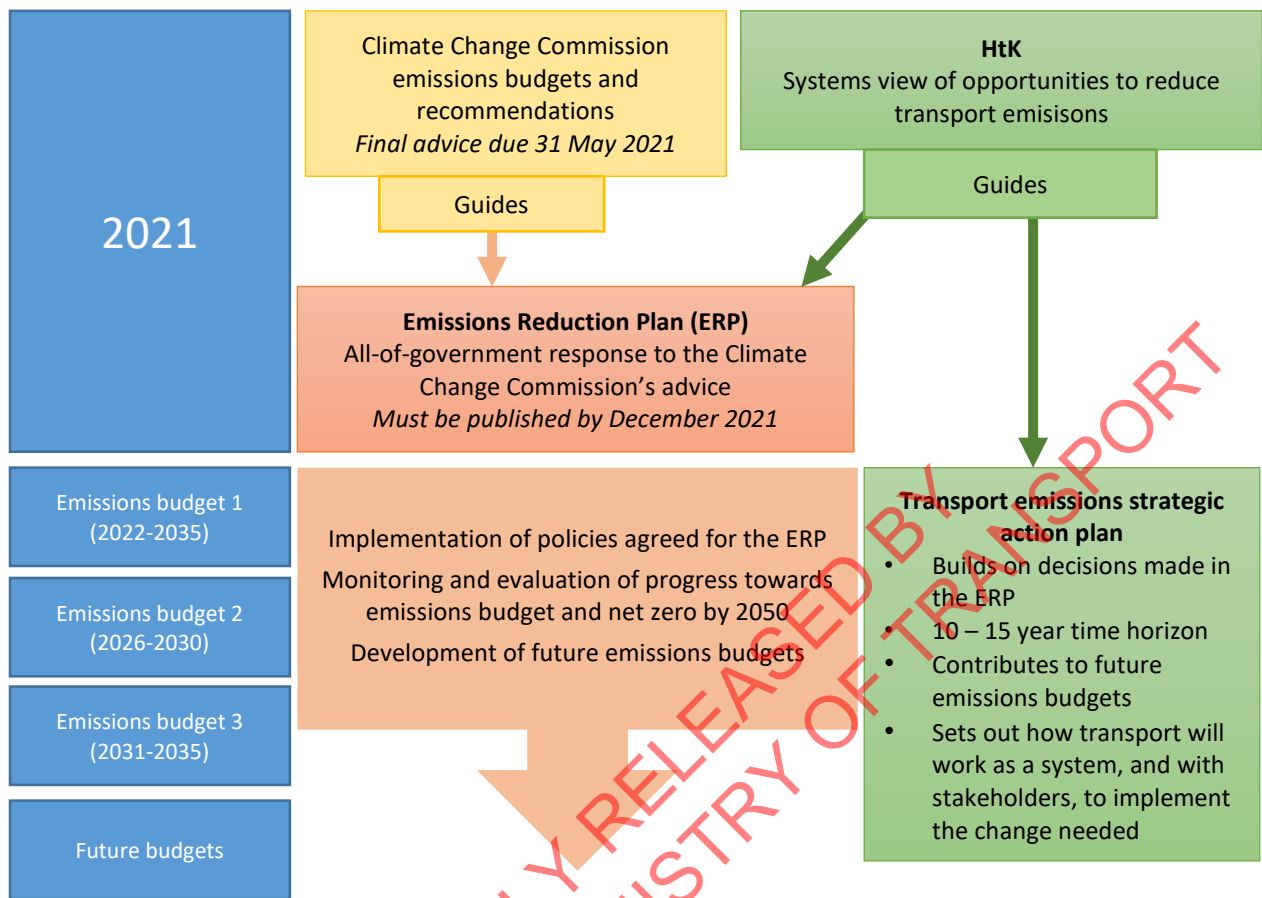
- 23 The light fleet (cars, SUVs, utes, vans and light trucks) accounts for 67 percent of transport emissions. This reflects New Zealand's high level of car dependence, exacerbated by decades of car-oriented urban development.
- 24 Heavy vehicles (the majority of which are heavy trucks) account for 23 percent of transport emissions. Without any new interventions, trucks will be the main contributor to transport emissions in 2050. This reflects the current difficulties with decarbonising heavy vehicles compared to light vehicles.
- 25 Domestic aviation accounts for six percent of transport emissions, shipping and maritime transport contribute three percent, and approximately one percent comes from rail transport.
- 26 HtK only covers domestic emissions. It does not cover international aviation and maritime emissions for travel to/from New Zealand. Government is addressing international emissions through its involvement with the International Civil Aviation Organization and the International Maritime Organisation. However, HtK does consider some opportunities that could reduce international aviation and maritime emissions, such as low carbon fuels.
- 27 Transport is covered by the NZ ETS, however the NZ ETS provides a weak price signal due to demand inelasticity in petrol prices. Subsequently, transport-specific emissions reductions strategies and interventions will be required to play a key role in reducing domestic emissions.
- 28 There are also sectors beyond transport that have a significant impact on transport emissions, particularly housing and urban development. Greater collaboration and leadership across government will be required to align land use, urban development, and transport planning to reduce emissions from the transport system. The Government's current urban development work programme supports this. The National Policy Statement on Urban Development, long-term spatial plans being developed

through the Urban Growth Partnerships programme, and emerging direction under the Resource Management reform all highlight a need for integrated planning to reduce transport emissions.

- 29 Reducing emissions from urban form and transport will also require action from the building and construction sector to improve the energy efficiency of buildings and infrastructure, and reduce their embodied emissions. The Emissions Reduction Plan will include a chapter on building and construction emissions, where these linkages may be addressed.

The purpose of HtK is to inform the Government's Emissions Reduction Plan by outlining system-wide opportunities to reduce transport emissions

- 30 It will be very challenging to decarbonise transport, especially over relatively short timeframes, but this transition will make New Zealand a healthier, safer, more vibrant, resilient, and prosperous place to live and work. There are many opportunities to reduce emissions while improving well-being and the liveability of our towns and cities, and to stimulate economic activity and create new jobs.
- 31 To date, policies to reduce transport emissions have primarily focused on encouraging the uptake of cleaner cars. We need to take a more strategic and system-wide approach to reducing transport emissions if New Zealand is to meet its emission targets.
- 32 MoT developed HtK to inform the Government's Emissions Reduction Plan. It is MoT's first comprehensive analysis of the transport emissions challenge. It outlines a broad range of opportunities to reduce transport emissions across the transport system.
- 33 HtK identifies what the Government *could* do to accelerate emission reductions from transport, so that New Zealand can meet its emission reduction targets. HtK does not commit the Government to specific policies or actions.
- 34 HtK could also subsequently be used to develop a strategic action plan to reduce transport emissions. This action plan would build on decisions made by the Government for policies to include in the first Emissions Reduction Plan in 2021. It would give more detail and clarity on actions that Government will take to reduce transport emissions over the next 10-15 years, and set longer-term direction.
- 35 The diagram below illustrates the relationship between HtK with the Climate Change Commission's advice, the development of the Government's first Emissions Reduction Plan, and a strategy for reducing transport emissions.



HtK has three main parts, which broadly cover context, opportunities to reduce emissions, and pathways to zero carbon by 2050

36 These three parts are summarised below.

Part One of HtK: Context

37 Chapters 1 to 4 set out the purpose of HtK and its relationship to the Climate Change Commission's advice and the Emissions Reduction Plan, the current state of transport emissions, the range of government levers available to reduce transport emissions, and the role of innovation to reduce emissions.

Part Two of HtK: Opportunities to reduce emissions

- 38 Chapter 5 sets out the 'Avoid Shift Improve' framework that underpins the strategic approach taken in HtK (Figure 3). This is a well-established international framework for reducing transport emissions and enabling a sustainable transport system.

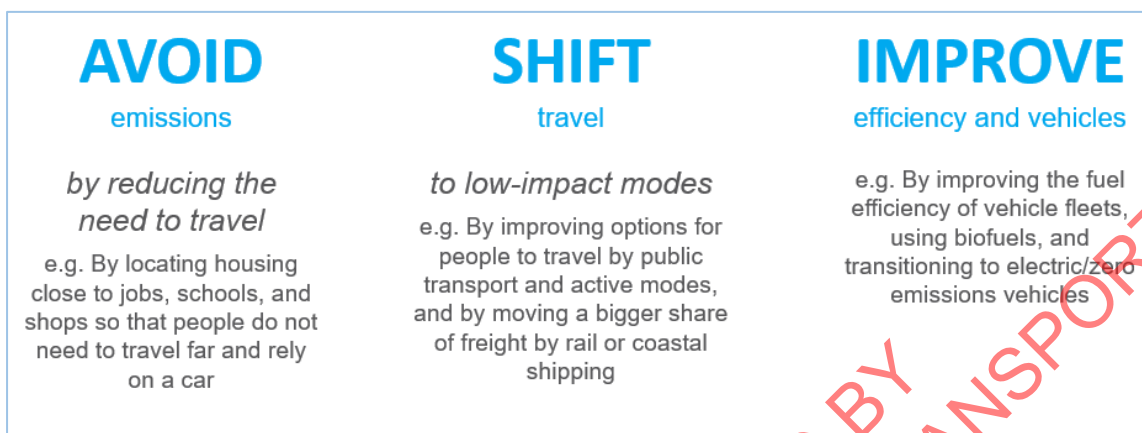


Figure 3. Avoid Shift Improve framework

- 39 Chapter 6 identifies opportunities to reduce/avoid the need for people to travel, reduce trip distances, and encourage mode-shift to low emission modes. This includes opportunities to better integrate land use, urban development, and transport planning to reduce car dependence and to make it easier for people to access opportunities by public transport, walking and cycling. This chapter also highlights transport pricing and other demand management opportunities. Many of the initiatives outlined in this chapter require close cooperation and leadership across Government to reduce transport emissions (particularly, those relating to land use planning and urban development).
- 40 Chapter 7 outlines opportunities to improve passenger vehicles, including increasing the supply and demand for electric cars, and decarbonising public transport fleets and aviation.
- 41 Chapter 8 highlights opportunities to support a more efficient freight system to reduce emissions. This includes opportunities to improve the efficiency of supply chains, shift freight to low emission modes, and to improve fuel efficiency and the carbon intensity of freight modes and fuels.

Part Three of HtK: Pathways

- 42 Chapter 9 outlines key considerations for supporting a Just Transition and mitigating potential distributional impacts from policies to reduce transport emissions. The transition will create significant economic opportunities for businesses, and job creation in the transport and energy sectors. Many people will also benefit through the transition from having better transport options, better health, and lower and more stable transport costs over time. To make a Just Transition, the Government will need to mitigate the impacts of interventions if they increase transport costs for disadvantaged groups, such as low-income households.
- 43 Chapter 10 illustrates four potential pathways for how New Zealand could reach a zero-carbon transport system by 2050, including a breakdown of the potential investment required to achieve this outcome. These pathways aim to provoke thinking and demonstrate the scale of the changes required. The modelling shows that it will be challenging to reach zero-carbon by 2050. However, it will be achievable if the

Government introduces complementary policies across the transport system and other sectors support reducing transport emissions.

- 44 Chapter 11 summarises Government's current policies that contribute to mitigating emissions. It also identifies opportunities that the Government should consider progressing during the first three emission budgets to achieve the 2050 target. The table in this Chapter only identifies options, so it does not represent agreed Government policy. The table is attached at Appendix 1.

One of the pathways in HtK aligns with the draft target set by the Climate Change Commission to reduce transport emissions by 47 percent from 2022 to 2035.

- 45 The pathways outlined in HtK differ from the pathway developed by the Climate Change Commission. The Climate Change Commission's pathway assumes much stronger electric vehicle uptake over time and stronger technological change in comparison to the HtK pathways. MoT's view is that the assumptions made by the Climate Change Commission about the availability and costs of electric vehicles in New Zealand over the next 10-15 years may be challenging to achieve.
- 46 MoT has developed a pathway that reaches an equivalent level of emission reduction as the Climate Change Commission's pathway. This highlights that the Government will need to make significant further interventions as soon as possible to reduce transport emissions in line with the Climate Change Commission's pathway, including major investments and regulatory action.
- 47 The other pathways in HtK do not meet this target, but do take us close to zero transport carbon emissions by 2050.

Targeted engagement on HtK will inform Government decisions, ensure options are credible, and build the social mandate for changes

- 48 MoT has received feedback on some of the content of HtK, including from Waka Kotahi New Zealand Transport Agency, the Ministry for the Environment, the Ministry of Business, Innovation and Employment, the Ministry of Housing and Urban Development, and the Energy Efficiency and Conservation Authority. There has also been some input from local government, including Wellington and Auckland Councils.
- 49 MoT has not consulted more widely on the document.
- 50 The Government needs to work closely with Māori/iwi, communities, businesses and councils to reduce transport emissions. Therefore, I think it is critical for government to undertake targeted stakeholder engagement on the opportunities highlighted by this document to inform which transport policies should be included in the first Emissions Reduction Plan.
- 51 Releasing HtK as a Government discussion document (Green Paper) provides an opportunity to receive feedback on the different opportunities highlighted, without locking in a commitment to specific policies at this stage. Releasing it as a discussion document will also enable us to demonstrate how the Government could mitigate transport emissions through future policy decisions.
- 52 Targeted engagement with key partners and stakeholders on HtK will complement the public consultation that will take place for the Emissions Reduction Plan in the second half of 2021 (dates are to be confirmed) . I want to engage early with key partners and stakeholders, who have a technical or professional interest in transport, to strengthen

the options put forward in the draft Emissions Reduction Plan that goes out for public consultation.

I am seeking Cabinet's approval to release HtK as a discussion document and undertake targeted engagement on it

- 53 Targeted engagement would involve key transport stakeholders and partners from central and local government, businesses, NGOs, academics and Māori/iwi.
- 54 Subject to Cabinet's approval, MoT would make any final editorial changes to HtK and get it professionally designed before publishing it on its website.
- 55 MoT would then ask key transport stakeholders from central government and local government, industry, NGOs and academia to make submissions. MoT may also meet with a small number of stakeholders and/or hold targeted workshops.
- 56 This engagement would take place from May to June 2021. This would enable MoT to receive feedback in time for it to inform the transport section of the Government's Emissions Reduction Plan.
- 57 MoT also plans to set up marae-based technical advisory groups with regional iwi in Nelson, Rotorua, Auckland, Christchurch and the East Coast. This is a targeted approach to iwi engagement, which takes into account the extensive engagement with iwi taking place on a wide range of government policies. These particular iwi indicated that they had capacity to engage on this work. This will give MoT the opportunity to build relationships with these iwi for ongoing engagement on HtK and the Emissions Reduction Plan. MoT is also planning to engage with the Iwi Chairs Board.
- 58 I am investigating an opportunity to set up a forum led by myself to support this engagement process.

Risks

- 59 The key risk with releasing HtK is that it will raise expectations that the Government will implement all the potential policies identified in the paper. There is also a potential risk that the public will consider all of the policies must be implemented because the illustrative pathways do not reach the target set out in the Climate Change Commission's draft advice. MoT can mitigate this risk by being explicit that HtK is a discussion document and does not lock in policies for action by the Government and that choices must be made on what will be in future emissions budgets.
- 60 There is also a risk with only undertaking targeted engagement rather than a full public consultation process. Parties not involved in a targeted engagement process could raise concerns that Government is prioritising some groups and views over others. MoT can mitigate this risk by ensuring that targeted engagement captures a broad range of perspectives. In addition, there will be a public engagement process for the Emissions Reduction Plan, which will enable all New Zealanders to have a say on the Government's approach to emission reductions. The engagement on HtK will focus on ensuring well-developed proposals make it into the consultation version of the Emissions Reduction Plan.

Financial Implications

- 61 There are no financial, fiscal or economic implications arising directly from this paper. The proposed release of HtK as a discussion paper will help to inform the development of future policies that will have financial implications.

Legislative Implications

- 62 There are no legislative implications arising directly from this paper. The proposed release of HtK will inform the development of policy options inform the development of future policies that could have legislative implications.

Impact Analysis

- 63 A Regulatory Impact Assessment (RIA) has not been undertaken for this paper because it does not involve introducing or changing legislation. It will inform policy options that will require RIAs in the future.
- 64 A Climate Implications of Policy Assessment (CIPA) has not been undertaken for this paper because it does not have direct GHG emissions impacts. It will inform policy options that will require CIPAs in the future. HtK is a significant step in policy development that will eventuate in transport emission reductions.

Population Implications

- 65 There are no implications arising as a direct result of this paper for specific population groups. However, the opportunities highlighted in HtK do have implications for specific population groups. The proposed engagement will inform the development of policy options which may have gender implications, implications for Māori, disabled people, rural communities, and low-income households. These implications may need to be considered in future papers. This includes considering current and future accessibility legislation and New Zealand's commitments in the New Zealand Disability Strategy to ensure access to all places, services and information with ease and dignity.

Human Rights

- 66 This paper does not have implications for human rights.

Consultation

- 67 The following departments were consulted during the development of this paper: Waka Kotahi New Zealand Transport Agency, Civil Aviation Authority, Te Puni Kōkiri, the Ministry for the Environment, Ministry of Housing and Urban Development, Ministry of Primary Industries, the Energy Efficiency and Conservation Authority, Ministry of Social Development, Office for Disability Issues, Ministry of Business, Innovation and Employment, and the Treasury. The Department of Prime Minister and Cabinet was informed of the paper.

Communications

- 68 Subject to Cabinet's agreement, MoT will publish HtK on its website in early May and share it with key partners and stakeholders.

Proactive Release

- 69 Subject to Cabinet's agreement, this paper will be proactively released by publishing it on MoT's website.

Recommendations

I recommend Cabinet to:

- 1 **note** that on 2 December 2020, the Government declared a climate emergency and committed to take urgent action to reduce emissions;
- 2 **note** that under the Climate Change Response Act 2002, the Government must prepare an Emissions Reduction Plan by December 2021 that responds to the emission budgets recommended by the Climate Change Commission to put New Zealand on pathway to reduce net emissions of all GHGs (except biogenic methane) to zero by 2050;
- 3 **note** that transport is responsible for almost half of New Zealand's carbon dioxide emissions and major reductions in transport emissions are therefore critical to achieving New Zealand's 2050 target;
- 4 **note** that current policies may slow some growth in transport emissions but are not enough for transport to play its part in meeting New Zealand's emission reduction obligations and targets;
- 5 **note** that *Hikina te Kohupara – Kia mauri ora ai te iwi: Transport Emissions – Pathways to Net Zero by 2050* (HtK) was developed and written by the Ministry of Transport (MoT) to inform the Emissions Reduction Plan;
- 6 **note** that HtK does not commit the Government to specific policies or actions;
- 7 **note** that HtK outlines:
 - 7.1 a strategic and system-wide approach to tackling the transport emissions challenge;
 - 7.2 a broad range of opportunities to reduce transport emissions;
 - 7.3 four potential pathways for how New Zealand could move towards a zero-carbon transport system by 2050, which aim to provoke thinking and demonstrate the scale of change required.
- 8 **note** that the Climate Change Commission recommends that New Zealand reduces transport emissions by 47 percent by 2035, and HtK includes one pathway that aligns with this target;
- 9 **note** that targeted engagement on HtK will inform which transport policies are included in the Emissions Reduction Plan, and help to ensure options are credible and have a public mandate;
- 10 **note** this targeted engagement will complement the public consultation that will take place on the Emissions Reduction Plan by strengthening the transport content before it goes out for public consultation;

- 11 **note** that releasing HtK as a Government discussion document (Green Paper) provides an opportunity for the Government to receive feedback on the different opportunities highlighted in the document, without locking in a commitment to policies at this stage;
- 12 **note** that targeted engagement will take place from May to June to ensure that feedback on HtK is received in time to contribute to the Emissions Reduction Plan;
- 13 **agree** to release HtK as a discussion document for targeted engagement with key transport stakeholders and partners, including from central and local government, industry, NGOs, academia and Māori/iwi;
- 14 **agree** that the Minister of Transport can approve any further minor and technical changes to HtK prior to its publication as a discussion document.

Authorised for lodgement

Hon Michael Wood

Minister of Transport

PROACTIVELY RELEASED BY
TE MANATŪ WAKA MINISTRY OF TRANSPORT

Appendix 1

This table (taken from Chapter 11 of HtK) outlines current policies that contribute to mitigating transport emissions, as well as opportunities for the Government to consider progressing in the first three emission budgets to achieve the 2050 zero carbon target. These opportunities are options – they have not been agreed to by the Government.

Theme 1 – Changing the way we travel			
Shaping our towns and cities			
Current work underway	Budget period 1: 2022-2025	Budget period 2: 2025-2030	Budget period 3: 2030-2035
	<i>Note: The responsibility for reducing transport emissions does not rest with transport decision-makers alone. The following opportunities require a coordinated approach by different agencies involved in land use, urban development and economic and social policy.</i>		
Urban Growth Partnerships <ul style="list-style-type: none"> The Urban Growth Partnerships programme provides a long-term and integrated approach to land use and infrastructure planning. The current approach to spatial planning under Urban Growth Partnerships identifies climate change as a key challenge, alongside other big challenges relating to integrated land use and transport. Several Urban Growth Partnerships are considering how to respond to climate change in the development of spatial plans. Transport projects, including future rapid transit systems and frequent public transport networks, feature heavily in all of these evolving partnerships and spatial plans. However, most of these transport projects do not currently have funding allocated to deliver them. 	<ul style="list-style-type: none"> Continue to progress the Urban Growth Partnerships programme. These partnerships, and the spatial plans that are integral to them, could play a valuable role in reducing emissions. The Government should ensure that emission reductions are central to this approach to land use and infrastructure planning, and prioritise transport projects that contribute to emission reductions. Government could enable Waka Kotahi, Local Government, KiwiRail and Kāinga Ora to take more active roles in developing sites around frequent public transport services. This would help to unlock compact development (and give more certainty of the outcome) and ensure growth takes place around key transport nodes. Work with local government to establish how major transport projects agreed to in spatial plans could be funded in the future. 		
Resource Management Act (RMA) reforms <ul style="list-style-type: none"> The current Government has committed to reform the RMA. Proposed reforms to the RMA include a new Strategic Planning Act, which would improve long-term integrated planning. Regional spatial planning, which could become mandatory under this Act, is a useful tool to integrate transport planning/investments with land use planning. This could support the development of town and cities where housing is concentrated close to jobs, schools, amenities, and rapid transit nodes – making it easier for people to access places by walking, cycling, or using public transport. 	<ul style="list-style-type: none"> The RMA reform is a crucial opportunity for the Government to embed spatial planning. Central government also needs to work with local government to improve capabilities for spatial planning. By mandating spatial plans that integrate land use, urban development and transport planning to achieve quality, compact, mixed-use urban development, the RMA reform could have a significant impact on emissions over the long term. Councils could be required to demonstrate how spatial plans will deliver long-term emission reductions. Begin implementing RMA reforms, including guidance to councils. 	<ul style="list-style-type: none"> Continue implementing RMA reforms. 	
National Policy Statement on Urban Development (NPS-UD) and Government Policy Statement on Housing and Urban Development (GPS HUD)	<ul style="list-style-type: none"> To build off the NPS-UD, the Government may need to undertake work that supports councils to accelerate widespread street changes to support walking, cycling, public transport and placemaking – all of which are 		

<ul style="list-style-type: none"> Councils are currently implementing the NPS-UD, which requires them to plan well for growth and ensure a well-functioning urban environment for all people, communities and future generations. Reducing GHGs from urban development is one of its objectives. This will drive existing and future urban development including transport needs. The Ministry of Housing and Urban Development is currently developing the GPS HUD which must be finalised by 1 October 2021. This will set out the Government's overall direction and priorities for housing and urban development, to provide direction to Kāinga Ora and to guide the actions of other actors in the housing and urban development system. It is required to provide expectations for how Kāinga Ora recognises the need to mitigate and adapt to the impacts of climate change but there is an opportunity to set broader expectations about how the housing and urban development system mitigates and adapts to climate change. 	<p>critical for mode shift and supporting higher density living. The project the Ministry is currently scoping called 'Reshaping Streets' will help to understand the opportunities in this area.</p> <ul style="list-style-type: none"> Develop design guidance and expectations for quality high-density environments (including streets, public spaces, buildings, and green space). 		
<p><i>Making streets more sustainable, healthier, and inclusive</i></p> <ul style="list-style-type: none"> The Ministry of Transport is scoping a project called Reshaping Streets to determine whether transport system settings need changing to accelerate the uptake of widespread street changes in Aotearoa that support public transport, active travel, and placemaking. Waka Kotahi is developing the One Network Framework, which will provide consistent classification system for streets and roads to support greater collaboration across planning sectors, and help improve urban form and mobility outcomes. Waka Kotahi is developing the Aotearoa Urban Street Guide to provide a national framework and high-level principles for excellence in multimodal street design in urban contexts. 	<ul style="list-style-type: none"> Progress/and or implement opportunities identified through the Reshaping Streets scoping project (if any). Remove barriers and improve funding for tactical urbanism and innovative approaches to street design (e.g. expand on Waka Kotahi's Innovating Streets for People Programme). Invest in placemaking and urban design capability and capacity of transport agencies and transport functions within local government. Clarify the principles of living infrastructure, and set expectations that living infrastructure is incorporated into transport plans and projects. Review street design standards and develop nationally applicable consistent sets of standards for Aotearoa. 		
<p><i>Linking funding more closely with requirements to reduce emissions</i></p> <ul style="list-style-type: none"> The Government Policy Statement on land transport 2021 (GPS 2021) includes a strategic priority on climate change. 	<ul style="list-style-type: none"> Government could make transport investments conditional on having appropriate land use and urban development plans. This is a strong transport lever, which could help to ensure that transport investments are effective through better integration of land use and urban development planning. Government could consider how to encourage transport investments (including National Land Transport Fund and Crown investments) towards packages and programmes (as opposed to projects) that are purposefully designed to reduce long-term land transport GHG emissions as well as deliver wider benefits. Government could require transport GHG emission impact assessments for proposed urban developments (including the transport GHG emissions of residents and business owners that would be located in the development). Developments that are inconsistent with emission reduction objectives could potentially be 		

	required to undergo redesign and/or an acceptable form of durable mitigation.		
Providing Better Travel Options			
Current work underway	Budget period 1: 2022-2025	Budget period 2: 2025-2030	Budget period 3: 2030-2035
<p><i>Government Policy Statement on land transport 2021 (GPS 2021)</i></p> <ul style="list-style-type: none"> GPS 2021 invests in infrastructure and support for walking, cycling and public transport (including rapid transit, such as in Drury, Hamilton to Auckland passenger rail, and City Rail Link). <p><i>Crown investment in public transport, walking and cycling</i></p> <ul style="list-style-type: none"> There is also investment from the Crown (e.g. NZ Upgrade Programme, Provincial Growth Fund) into public transport, walking and cycling infrastructure. 	<ul style="list-style-type: none"> Support mode-shift to public transport, walking, and cycling – prioritising New Zealand’s largest urban areas. Significantly increase investments by central Government in public transport (including public transport infrastructure, services and operations), walking and cycling (including improving footpaths and walking infrastructure, and quality connected urban cycling networks). Investigate opportunity to incentivise mode shift by introducing nationally consistent public transport fare concessions. 	<ul style="list-style-type: none"> Consider mode-shift opportunities in remaining urban areas – whilst continuing to prioritise investment in New Zealand’s main urban centres. Continue significant investments in public transport, walking and cycling. 	<ul style="list-style-type: none"> Continue significant investments in public transport, walking and cycling.
<p><i>Keeping Cities Moving (Waka Kotahi)</i></p> <ul style="list-style-type: none"> Waka Kotahi’s plan for enabling mode shift in urban areas. This includes a wide range of actions, including the development of specific mode shift plans for all high-growth urban areas as well as initiatives, such as Innovating Streets. <p><i>Auckland Transport Alignment Project</i></p> <ul style="list-style-type: none"> A strategic approach for transport in Auckland between central and local government, supported by a confirmed investment package. Modelling for the 2021-2031 package shows an increase in emissions of 6 per cent. The package by itself reduces emissions by 13 per cent but this is outstripped by population growth. Modelling out to 2051 shows an emissions reduction potential of around 50 per cent. <p><i>Let’s Get Wellington Moving (LGWM)</i></p> <ul style="list-style-type: none"> To ‘future-proof’ Wellington city’s transport network to get ahead of growing demand by maintaining and developing Wellington’s liveability, economic growth and productivity by reducing reliance on private vehicles and developing a multi-modal transport approach. Some initiatives may contribute to emission reductions and others may increase emissions. 	<ul style="list-style-type: none"> Support mode-shift by implementing Waka Kotahi and local government’s mode shift plans for New Zealand’s high-growth (and emerging high-growth) urban areas. However, these plans should be revisited to ensure they are designed to maximise transport GHG emission reductions. Consider other barriers facing mode-shift to public transport, walking and cycling. In particular, the Government may need to undertake further work to: <ul style="list-style-type: none"> clarify the roles of agencies to deliver large frequent public transport systems and ensure that there are legislative settings in place to enable them (e.g. land acquisition, consenting) accelerate wide spread street changes, remove regulatory and investment barriers, require greater network planning, and develop guidance and standards. Consider whether further support is warranted for shared mobility schemes – such as car share, car-pooling, shared micromobility and Mobility as a Service. 		
<p><i>Accessible Streets – package of regulatory changes</i></p> <ul style="list-style-type: none"> Accessible Streets is a package of regulatory changes to increase the safety and attractiveness of walking and cycling. Accessible Streets has been publicly consulted on. 	<ul style="list-style-type: none"> Implement Accessible Streets proposals. Deliver integrated ticketing for public transport. Consider extending public transport fare concessions to other low-income groups. 		

<p>Officials are now preparing advice for the Minister of Transport on how to progress the package, including whether changes to the proposals are necessary based on consultation.</p> <p><i>Investment in integrated ticketing for public transport</i></p> <ul style="list-style-type: none"> Waka Kotahi is developing an integrated ticketing system for public transport, which is likely to support public transport uptake. <p><i>Continued funding of SuperGold Card scheme</i></p> <ul style="list-style-type: none"> The SuperGold Card scheme subsidises public transport use for those over the age of 65 and veterans. 			
Transport Pricing and Demand Management			
Current work underway	Budget period 1: 2022-2025	Budget period 2: 2025-2030	Budget period 3: 2030-2035
<p><i>Investigation into congestion pricing for Auckland (called the Congestion Question)</i></p> <ul style="list-style-type: none"> Investigation into whether congestion pricing could work for Auckland. No decisions have been made about implementing congestion pricing. 	<ul style="list-style-type: none"> Aim to introduce pricing mechanisms alongside land use changes and public transport investments. In the first budget period, this could involve implementing congestion pricing in Aotearoa's main urban centres, in particular Auckland. Congestion pricing could have more or less impact on emissions depending on its set up. The Government could also consider introducing incentives (subsidies and/or rewards) that encourage people to use public transport, walk or cycle. 	<ul style="list-style-type: none"> Introduce further pricing mechanisms, where appropriate in other urban areas. 	
<p><i>Future of the Revenue System project</i></p> <ul style="list-style-type: none"> This project looks at the future purpose and objectives of the land transport revenue system (was narrowed to focus on electronic distance-based charging in 2019, but scope has expanded again). 	<ul style="list-style-type: none"> Continue to investigate opportunities to innovate distance based charging, as more motorists switch from petrol powered vehicles to vehicles powered by other sources that will be subject to road user charges. This includes considering how all motorists can fairly contribute to funding the land transport system, including EV owners. 	<ul style="list-style-type: none"> 	
	<ul style="list-style-type: none"> Parking management can significantly influence demand for parking and encourage mode shift. The Government could require councils to continue to develop and implement parking pricing strategies, introduce maximum parking standards for some areas, and consider workplace/private property/commuter parking levies. 		
	<ul style="list-style-type: none"> Government could investigate increasing rates of fuel excise duty and implementing a transport fuels only carbon tax. 	<ul style="list-style-type: none"> Consider increasing fuel excise duty / transport fuels only carbon tax. 	

Theme 2 – Improving our passenger vehicles			
Decarbonising the light vehicle fleet			
Current work underway	Budget period 1: 2022-2025	Budget period 2: 2025-2030	Budget period 3: 2030-2035
<p><i>Clean Car Standard</i></p> <ul style="list-style-type: none"> The Government has agreed to implement the Clean Car Standard, which will come into effect from 2022, to improve the fuel efficiency of new and used light vehicles imported into Aotearoa. 	<ul style="list-style-type: none"> Implement the Clean Car Standard The Government should also clearly signal the phase out of light ICE vehicles – such as a commitment to phase out fossil fuel vehicle imports by 2030-2035. 	<ul style="list-style-type: none"> Strengthen the Clean Car Standard. Consider policies that remove ICE vehicles from the fleet more quickly. 	<ul style="list-style-type: none"> The Government should phase out ICE light vehicle imports by 2030-2035.
<p><i>Road User Charge exemption and rates</i></p> <ul style="list-style-type: none"> There is a Road User Charge (RUC) exemption in place for low emission light vehicles to increase the speed of their uptake. The Ministry is also investigating enabling RUC rates taking into account a vehicles' emissions. <p><i>Vehicle fuel economy labelling</i></p> <ul style="list-style-type: none"> There is a vehicle fuel economy labelling (VFEL) system in place which allows buyers to compare the fuel economy of one vehicle against another (not emissions). Work is underway to expand the role of the VFEL so that it can support the purchase of low emission vehicles. <p><i>The Low Emission Vehicle Contestable Fund</i></p> <ul style="list-style-type: none"> The Energy Efficiency and Conservation Authority (EECA) is reviewing the scope of its Low Emissions Vehicle Contestable Fund to accelerate LEV uptake through encouraging innovation. <p><i>Road to Zero strategy</i></p> <ul style="list-style-type: none"> The strategy includes the aim of removing the most unsafe vehicles on the roads, which are generally also the highest emitting. <p><i>Government procurement</i></p> <ul style="list-style-type: none"> All government departments have a 2025 target to be carbon neutral for all of their operations including transport. Government investment is available to facilitate this. A procurement rule is in place that requires government agencies to buy electric vehicles, unless there is a strong business reason not to. MBIE runs all-of-government procurement. 	<ul style="list-style-type: none"> Increase demand for cleaner vehicles by addressing their high upfront cost through introducing incentives. This could include a feebate scheme (e.g. the Clean Car Discount) and/or other subsidies. The Government may need to ramp up its investment in electric charging infrastructure to support the increasing numbers of EVs in the fleet Investigate the potential for tax incentives to stimulate the demand for low emission vehicles (including Fringe Benefit Tax, Depreciation and Tax Grants) and implement changes to the system if necessary. Government departments must take steps to achieve the 2025 target to be carbon neutral. 	<ul style="list-style-type: none"> Continue to incentivise uptake of EVs. Final decisions by government departments to complete their fleet transition to being zero emissions. 	

<i>Electric Vehicle Infrastructure – scoping project</i> <ul style="list-style-type: none"> The Ministry, with MBIE, EECA and Waka Kotahi, is scoping national guidance on electric vehicle public charging infrastructure to determine the best way to be ready for the uptake in low emission vehicles required to meet our targets. 	<ul style="list-style-type: none"> Consider scaling up investment in low emission vehicle infrastructure to support the uptake of low emission vehicles. The Ministry, with MBIE, EECA and Waka Kotahi, is currently scoping what might be required. 		
<i>Reviewing the 2008 Biofuel Sales Obligation for reinstatement</i> <ul style="list-style-type: none"> To support the development of a sustainable transport biofuels mandate. 	<ul style="list-style-type: none"> Implement a biofuel mandate to help address emissions from existing vehicle fleet. 	<ul style="list-style-type: none"> The Government may need to strengthen the biofuel mandate to increase biofuel use in existing fleet. 	
Decarbonising the public transport fleet			
Current work underway	Budget period 1: 2022-2025	Budget period 2: 2025-2030	Budget period 3: 2030-2035
<i>Decarbonising buses</i> <ul style="list-style-type: none"> The Government has committed to a target of decarbonising the public transport bus fleet by 2035. The Government will require only zero emissions buses to be purchased by 2025. The Government has announced that it will provide \$50m over four years to help councils achieve the targets. <i>Review of the Public Transport Operating Model</i> <ul style="list-style-type: none"> This review will consider how changes could enable accelerated decarbonisation of public transport and support local government to reach the targets set by Government. 	<ul style="list-style-type: none"> Engage with the sector to identify what support is required to accelerate the decarbonisation of the bus and ferry fleet. Implement zero emissions buses by 2025 mandate. Consider extending the RUC exemption for electric buses. Consider if legislative change is necessary to enable the acceleration decarbonisation of the public transport fleet. Implement monitoring and reporting of funding to inform future decision-making. Investigate options to decarbonise existing diesel buses, e.g. greater use of biofuels or synthetic diesel. Consider future investment needs to ensure existing rail networks are fit for purpose. 	<ul style="list-style-type: none"> Ongoing engagement with the sector to identify whether continued support is required to accelerate decarbonisation of the bus and ferry fleet. 	
Decarbonising aviation			
Current work underway	Budget period 1: 2022-2025	Budget period 2: 2025-2030	Budget period 3: 2030-2035
<i>Decarbonising aviation</i> <ul style="list-style-type: none"> Implementing the International Civil Aviation Authority's Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) into domestic legislation. <i>Reviewing the 2008 Biofuel Sales Obligation for reinstatement</i> <ul style="list-style-type: none"> To support the development of a sustainable transport biofuels mandate. This is intended to apply to all modes including aviation. <i>Operational improvements</i>	<ul style="list-style-type: none"> Sustainable aviation fuel has the most potential to reduce aviation emissions in the short to medium term. The Government should keep working with the aviation industry to investigate its potential in New Zealand. Implement a biofuel mandate to help address emissions from aviation. Consider subsidies to support domestic biofuel production. Continue implementation of operational improvements through NSS and PBN. 	<ul style="list-style-type: none"> Strengthen biofuels mandate. Consider continuing subsidies to support domestic biofuel production. Continue implementation of operational improvements through NSS and PBN. 	<ul style="list-style-type: none"> Strengthen biofuels mandate. Consider continuing subsidies to support domestic biofuel production. Continue implementation of operational improvements through NSS and PBN.

<ul style="list-style-type: none"> New Southern Sky (NSS) and Performance Based Navigation (PBN) have been implemented to implement emerging aviation technologies and improve air traffic flow and efficiency. 			
Theme 3 – Supporting a more efficient freight system			
Improving the efficiency of our overall freight supply chain			
Current work underway	Budget period 1: 2022-2025	Budget period 2: 2025-2030	Budget period 3: 2030-2035
<i>National Supply Chain Strategy</i> <ul style="list-style-type: none"> Scoping work has begun on a National Supply Chain Strategy that will provide strategic direction and set out priorities amongst the various objectives for the supply chain, one of which is the reduction of emissions. 	<ul style="list-style-type: none"> Identify opportunities to improve the overall efficiency of the freight supply chain to avoid/reduce freight emissions. This is a focus of the National Supply Chain Strategy. 	Implement opportunities agreed to improve the overall efficiency of the freight supply chain.	Implement opportunities agreed to improve the overall efficiency of the freight supply chain.
Enabling modal-choice in freight through the use of low emissions modes			
Current work underway	Budget period 1: 2022-2025	Budget period 2: 2025-2030	Budget period 3: 2030-2035
<i>Future of Rail</i> <ul style="list-style-type: none"> A range of decisions have been taken by the Government over the past 2 to 3 years with the aim of improving the viability of rail as an alternative freight choice in order to reduce the negative externalities of road freight, in particular GHG reduction. <i>Coastal Shipping</i> <ul style="list-style-type: none"> Opportunities to improve the uptake of coastal shipping will be explored through the National Freight Strategy. A key driver is emissions reduction given coastal shipping has lower GHG than road transport. The Ministry is working with Waka Kotahi to see how the newly created Coastal Shipping allocation in the National Land Transport Fund may contribute towards the aim of increasing coastal shipping. 	<ul style="list-style-type: none"> Identify opportunities for supporting mode shift. This is a focus of the National Freight Strategy. 		

Decarbonising freight modes

Current work underway	Budget period 1: 2022-2025	Budget period 2: 2025-2030	Budget period 3: 2030-2035
<p><i>The Low Emission Vehicle Contestable Fund</i></p> <ul style="list-style-type: none"> The Energy Efficiency and Conservation Authority (EECA) is reviewing the scope of its Low Emissions Vehicle Contestable Fund to accelerate LEV uptake through demonstrating low-emissions technologies and fuels, supporting the development of vehicle charging and refuelling infrastructure. <p><i>Reviewing the 2008 Biofuel Sales Obligation for reinstatement</i></p> <ul style="list-style-type: none"> To support the development of a sustainable transport biofuels mandate. <p><i>Extending the Road User Charge (RUC) exemption for heavy vehicles</i></p> <ul style="list-style-type: none"> To increase the speed of heavy low emission vehicle uptake. 	<ul style="list-style-type: none"> Government should investigate the best opportunities for decarbonising trucks (building on the Ministry's Green Freight strategic working paper), including: <ul style="list-style-type: none"> introducing CO2 standards for trucks increasing funding available to accelerate the uptake of zero and low emission trucks. Implement a biofuels mandate to help reduce emissions from trucks (in addition to light vehicles). Consider subsidies to support domestic biofuel production. Consider targeted investments in infrastructure for green fuels and for fast charging heavy vehicles. Investigate and introduce Green freight procurement through third party contactor rules for government activities. 	<ul style="list-style-type: none"> Consider strengthening CO2 standard. Strengthen biofuel mandate. Consider continuing subsidies to support domestic biofuel production. Consider continuing targeted investments in infrastructure for green fuels and for fast charging heavy vehicles. Investigate disincentives for high emitting trucks. Consider refurbishing used diesel trucks with zero emission options. 	<ul style="list-style-type: none"> Phase out the registration of diesel heavy vehicles beyond a certain date, e.g. from 2035 or banning diesel trucks in certain cities or zones. Strengthen biofuel mandate. Introduce disincentives for high emitting trucks. Consider continuing subsidies to support domestic biofuel production.
<p>The Future of Rail Review has recognised the importance of investment in core asset replacement to provide a resilient and reliable rail network and to facilitate mode shift. NZ's Rail Plan of investment priorities, which will also facilitate emissions reductions through:</p> <ul style="list-style-type: none"> Replacement of old assets with modern equivalents (i.e. assets which are more energy efficient) Encouraging mode shift to rail as a result of greater resilience and reliability 	<ul style="list-style-type: none"> KiwiRail will progress its procurement of a new South Island mainline locomotive fleet. A key consideration will be improved engine performance. KiwiRail progressively replaces lighter duty mainline locomotives and shunt locomotives across Aotearoa with new units with more modern technology. The Government's investment in Auckland Metro rail network which involves several packages of work progresses. This includes the Wiri to Quay Park (Third Main) and extending electrification from Papakura to Pukekohe. 	<ul style="list-style-type: none"> Three ferries are replaced with two new rail-enabled ferries that are diesel-electric hybrids. Ongoing exploration of the potential for further network electrification and its impact on the national grid. Continued investigation of alternative propulsion technologies and adapting KiwiRail's rolling stock strategy as this evolves. 	<ul style="list-style-type: none"> Continued investigation of alternative propulsion technologies and adapting KiwiRail's rolling stock strategy as this evolves
<p><i>MARPOL VI</i></p> <ul style="list-style-type: none"> MARPOL Annex VI is the international regulatory mechanism for addressing the climate change impacts from shipping and Aotearoa is in the process of aligning domestic legislation and regulations to accede to MARPOL Annex VI by early 2022. 	<ul style="list-style-type: none"> Work with the maritime industry to investigate options to decarbonise shipping fleets. 		