

In Confidence

Minister of Transport

Cabinet

Decarbonisation of the public transport bus fleet

Proposal

- 1 This paper seeks agreement to a work programme that supports the Government's commitments to decarbonise the public transport bus fleet.

Relation to government priorities

- 2 This Government was elected on a manifesto that included a commitment to:
 - 2.1 require only zero-emission public transport buses to be purchased by 2025
 - 2.2 target the decarbonisation of the public transport bus fleet by 2035, and
 - 2.3 support regional councils to achieve these outcomes through a \$50 million fund over four years.
- 3 The Cooperation Agreement between the Labour and Green Parties includes "decarbonising public transport" as an area of cooperation. Decarbonising the public transport bus fleet is an important part of this. I intend to work closely with the Green Party on decarbonisation of the bus fleet and other forms of public transport, such as commuter rail.
- 4 This proposal also relates to the Government's commitment to reducing emissions as part of our response to climate change. Specifically, New Zealand ratified the Paris Agreement in 2016 and committed to reducing greenhouse gas emissions to 30 percent below 2005 levels by 2030. The Climate Change Response (Zero Carbon) Amendment Act 2019 set a statutory domestic target for reductions in greenhouse gas emissions, including net emissions of greenhouse gases other than biogenic methane, to be zero by the year 2050.

Executive summary

- 5 The Government was elected on a manifesto in which it committed to require that only zero-emission buses be purchased by 2025; to decarbonise the public transport bus fleet by 2035; and to support regional councils to achieve these outcomes with a \$50 million fund over four years.
- 6 These commitments support New Zealand's broader commitment to reduce emissions as part of our response to climate change. Decarbonisation also offers additional environmental and health benefits.
- 7 Local government is key to the decarbonisation of the public bus fleet because regional councils (and Auckland Transport (AT))¹ are responsible for public transport planning and service delivery. They also contract bus services to private operators and are co-funders of bus services. Some councils (including AT, Greater Wellington

¹ The definition of "regional council" in section 5(1) of the Land Transport Management Act 2003 includes Auckland Transport for the purposes of Part 5 (regulation of public transport).

Regional Council (GWRC) and Environment Canterbury (ECAN)) have developed their own decarbonisation plans.

8 Local government faces a range of barriers to decarbonising the public transport bus fleet. I am proposing a work programme to remove or reduce these barriers in order to support decarbonisation.

9 The proposed work programme includes reviewing the Public Transport Operating Model (PTOM) and considering how changes to it could enable accelerated decarbonisation and support local government to reach the targets.

10 Legislative change may be necessary to require that only zero-emission buses are purchased by 2025. I will engage with the sector to determine whether legislative change is necessary. In the meantime, I will reiterate the Government's commitment to decarbonising the bus fleet in my Letter of Expectations to the Waka Kotahi NZ Transport Agency Board for 2021/2022.

Under active consideration

11 [Redacted]

12 I propose to report back to Cabinet in the first half of 2021:

12.1 with the outcomes of engagement with the sector on the system settings that need to be addressed to enable accelerated decarbonisation of the bus fleet;

12.2 with proposals to extend the road user charge exemption for heavy electric vehicles and broaden it to cover vehicles with other low emission power sources;

12.3 on how funding for decarbonising the public transport bus fleet should be spent; and

Under active consideration

12.4 [Redacted]

13 The proposed report back to Cabinet will include consideration of the Green Party's views.

The proposals in the paper relate to public transport bus services

14 The proposals in this paper relate to public transport bus services that are contracted by regional councils, including AT. I am conscious that there are other publicly funded bus services in New Zealand, most notably Ministry of Education- (MoE) contracted daily school bus services. My intention is that the proposals do not relate to MoE-contracted services. However, I recognise that decarbonising the bus fleet may have flow-on impacts for MoE-contracted services in the future. I am aware that some larger operators provide both public transport services and school bus services and it is common for older public transport buses to be redeployed for the delivery of school bus services. As part of the work programme described in this paper, officials will engage with MoE and operators to explore the nature of these impacts and how they can be managed.

Decarbonisation refers to a transition to zero-emission vehicles or zero-emission power sources

- 15 For the purposes of this paper, decarbonisation refers to a transition from the current fossil fuel power sources (predominantly diesel) to zero-emission vehicles or vehicles using zero-emission power sources. For example, decarbonisation could be achieved through the deployment of buses powered by electricity, hydrogen or other power sources that result in an equivalent reduction in greenhouse gas emissions such as bio-diesel or bio-methane.
- 16 The work programme I have outlined below is focused on decarbonising the fleet through a transition to zero-emission buses, and particularly electric buses (e-buses), since this is the technology being most widely deployed both domestically and internationally.

Decarbonising the public transport bus fleet contributes to our climate commitments

- 17 As set out above, New Zealand has committed to reducing emissions as part of our response to climate change. Globally, reducing carbon dioxide (CO₂) emissions to net zero is the highest priority in the fight against climate change. Unlike other gases, CO₂ stays in the atmosphere for hundreds of years. Greenhouse gas emissions from transport are nearly all CO₂, and transport is responsible for 47 percent of New Zealand's total domestic CO₂ emissions. This substantial share means that, without largely decarbonising transport, New Zealand cannot achieve its statutory target of net zero by 2050.
- 18 In recent years, emissions from the other major emitting sectors have largely plateaued. However, transport emissions are still increasing. Since 1990, transport emissions have increased by 90 percent and, within transport, road emissions have more than doubled. This growth compares with an increase of 17 percent in agriculture, the largest emitting sector.
- 19 The commitment to decarbonise the public transport bus fleet forms part of a wider emissions-related work programme. A strategic direction and plan which sets out how transport can play its part in reducing emissions is being developed, called the Transport Emissions Action Plan (TEAP). The TEAP will set out a strategic approach to how New Zealand should reduce emissions in the transport system, taking into account the level of investment required by Government. The TEAP will be finalised by June 2021.
- 20 An important part of the TEAP will be to encourage people to switch from making journeys by private vehicle to making journeys by low emission modes, such as buses and other public transport, and walking and cycling. The Government's investment in building public transport is a key contributor to this mode shift, as is making public transport more affordable, and encouraging behaviour change.
- 21 The TEAP will be used to inform transport policies for inclusion in an all-of-government Emissions Reduction Plan (ERP) (led by the Ministry for the Environment). The ERP will be required to respond to each of the emissions budgets recommended by the Climate Change Commission as New Zealand moves towards being net zero by 2050. The ERP is a requirement under the Climate Change Response (Zero Carbon) Amendment Act 2019, and must be agreed and published by December 2021.
- 22 Greenhouse gas emissions from the public transport bus fleet constitute just over one percent of greenhouse gas emissions generated by the transport sector. While

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this is a small proportion, decarbonising the bus fleet offers a number of additional benefits.

- 23 As well as contributing to our climate commitments, decarbonisation of the fleet will provide health benefits by reducing levels of air pollution where people may be exposed, particularly in city centres with high concentrations of bus movements (Auckland, Wellington, and Christchurch). Diesel engines produce and discharge particulate matter, carbon monoxide, volatile organic compounds, and nitrogen oxides. Some of these pollutants, as well as black carbon, are carcinogenic, and all these pollutants can harm human health.
- 24 To give an indication of the scale of the health impacts of air pollution, AT estimates that diesel vehicles (including buses and other vehicles) are responsible for 81 percent of all vehicle-related air pollution health costs in Auckland, which are estimated to cost \$466 million annually.
- 25 Decarbonising the public transport bus fleet will also deliver amenity benefits associated with a reduction in both air and noise pollution. Councils also consider that zero-emission buses, such as e-buses, will be more appealing and comfortable for passengers and lead to increased use. This supports Government objectives around making cities more liveable and increasing wellbeing.
- 26 Other key work programmes underway include the Light Vehicle Fleet Emissions Reduction Programme, and progressing the recommendations of the Ministry of Transport's Green Freight project (which considered the role alternative green fuels could play in reducing emissions in the road freight sector). I will be bringing to Cabinet proposals on these areas in the near term.

Public transport services are planned, contracted and delivered under PTOM

- 27 Public transport services are planned, contracted, and delivered under PTOM, which sets some of the key parameters for achieving the Government's decarbonisation objectives. Under PTOM, regional councils (including AT) are responsible for planning and service delivery, with services contracted to private operators. PTOM has enabled regional councils to implement significant changes to their public transport networks, especially in larger urban areas such as Auckland, Wellington and Dunedin. This has had benefits of allowing a transition to more co-ordinated public transport systems, with integrated services and ticketing. However, other issues with the PTOM model have been identified.
- 28 The PTOM framework sees bus routes bundled into units and competitively tendered or negotiated with operators. Services are co-funded by central government through Waka Kotahi . Service contracts are funded from a mix of fares, local share (predominantly rates), and the National Land Transport Fund (NLTF).
- 29 Through its Procurement Manual, Waka Kotahi sets requirements for procurement strategies and pre-approved procurement procedures and provides guidance to councils. Under PTOM, in addition to running bus services, operators also provide the depots and buses used to deliver the services. Tendered contracts last for nine years and directly negotiated contracts for six years. Some transitional 'Like-for-Like' contracts are for 12 years, in recognition of services that were previously provided commercially. To date, price has been the key driver of decisions to award contracts. However, these contracts have included continuous improvement of public transport bus fleets.

- 30 Under PTOM, the Requirements for Urban Buses (the RUB) sets the minimum standards all urban buses used to deliver public transport contracts must meet, including emission standards. To receive funding from the NLTF, councils must incorporate these standards when putting bus services out to tender, including timeframes for providing compliant buses.
- 31 Waka Kotahi is currently working with the sector to review and update the RUB. At the moment the RUB accommodates electric vehicles and hydrogen, but it would be possible to use this document to require zero-emission buses outside of legislation.

Local government is the key actor to decarbonise the public transport bus fleet

- 32 Because local government is responsible for delivering public transport in their areas, council decisions drive decarbonisation. Prior to the outbreak of COVID-19 in New Zealand, Auckland Council (through AT), GWRC, and ECAN, which together contract services that use 80 percent of New Zealand's public transport bus fleet, established commitments and ambitions to decarbonise their bus fleets:
- 32.1 In November 2017, the Mayor of Auckland joined 11 international cities in signing the C40 Fossil-Fuel-Free Streets Declaration. The Declaration commits Auckland to buying only zero-emission buses from 2025 and ensuring a major area of the city is zero-emission by 2030. This commitment is reflected in AT's detailed plan to transition to a zero-emission bus fleet by 2040.
- 32.2 On 21 August 2019, GWRC declared a climate emergency and formally established a target to become carbon neutral by 2030. One of the key actions to achieve this is decarbonising the bus fleet.
- 32.3 ECAN's Regional Public Transport Plan targets a transition to a zero-emission bus fleet. This includes a short-term target that more than 40 percent of the public transport vehicle fleet is low or zero-emission by 2025, and a medium-term plan that all new buses procured after 2025 are zero-emission.
- 33 Over the next few years these councils will deploy an increasing number of zero-emission buses, including 98 additional zero-emission buses in Wellington, 25 in Canterbury, and 32 in Auckland. That three of our largest council bus fleets are already purchasing electric busses will help to deliver the Government's commitment to decarbonise the bus fleet. The Government's work will help accelerate the progress in decarbonising the fleet.
- 34 These councils are also progressing work, both individually and collaboratively, to support their decarbonisation objectives beyond this short-term vehicle deployment. For example:
- 34.1 AT is convening a Low Emission Bus Working Group that is focussed on removing barriers to early adoption of zero-emission buses. The Working Group is comprised of councils, operators, government, vehicle suppliers/manufacturers, and energy/electricity stakeholders
- 34.2 the Regional Authorities Transport Special Interest Group, chaired by GWRC, is currently scoping a joint project between councils and government on decarbonising the public transport fleet.
- 35 Officials from central government are engaging in both of these initiatives.

Local government faces a range of barriers to decarbonise the public transport bus fleet

- 36 Local government currently faces a number of barriers to decarbonising the public transport bus fleet by 2035. Each council will likely experience these barriers, and their relative weighing, differently. These include:
- 36.1 high upfront capital costs of zero-emission vehicles such as battery electric and hydrogen buses;
 - 36.2 high upfront costs of supporting infrastructure, such as charging infrastructure for e-buses and upgrades to power distribution networks;
 - 36.3 a risk premium applied by operators for deploying unproven technology with an unknown residual value;
 - 36.4 the impact of private ownership of assets on the potential for continued competition for public transport bus contracts;
 - 36.5 the higher weight of e-buses and the lack of options available that are compliant with New Zealand's vehicle weight regulations;
 - 36.6 a limited range of e-buses compared to diesel buses, which may mean more buses are required to deliver the current services
 - 36.7 high road user charge (RUC) costs that will likely apply to e-buses after 2025, when the current RUC exemption for heavy electric vehicles expires; and
 - 36.8 difficulty accessing global zero-emission bus supply chains given our relatively low volume of vehicles required.
- 37 In particular, I am aware that the increased use of e-buses may impact the way that vehicles (that have reached the end of their public transport service life²) are cascaded through other service types or uses. This creates greater uncertainty about the residual value of e-buses. For example, it has been common practice to redeploy diesel public transport buses to deliver MoE-contracted school bus services. In the case of e-buses, the requirement for the charging infrastructure that is necessary to operate the vehicles disrupts this model without further rollout of electric charging facilities that may support school bus services. This may contribute to a price premium on operating zero-emission public transport buses.

The Government can support local government to decarbonise the public transport bus fleet through a range of measures

- 38 I am proposing to progress a work programme to support the Government's target to decarbonise the bus fleet. This work programme is outlined below.

The PTOM review can address some system barriers to decarbonisation of the public transport bus fleet

² Waka Kotahi's Requirements for Urban Buses, which has been developed with industry and council stakeholders, currently sets a maximum vehicle age of 20 years.

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- 39 The Government is reviewing PTOM to ensure it is fit for purpose and can support the Government's transport and wider objectives. This review is underway, with the first stage nearing completion.
- 40 The PTOM review will include a focus on addressing the current system barriers to ensure PTOM supports decarbonisation of the bus fleet where it can. For example, a change to the usual procurement and ownership arrangements for zero-emission buses, depots and supporting infrastructure may allow the high upfront capital costs to be overcome and to ensure continued competition for service contracts. This could include national-level procurement to have greater purchasing power and to help councils to transfer vehicles or parts between them rather than having to source them from overseas. Changes in procurement or ownership which could reduce the costs of implementing decarbonisation of the fleet and could help to better manage costs and improve the efficiency of public transport fleets more generally.
- 41 Officials have advised me that there are alternative ownership and procurement arrangements being used internationally that can mitigate the risk of deploying new technology. These include operators leasing vehicles from manufacturers or leasing a vehicle component from a manufacturer (for example, the battery of an e-bus).
- 42 To be successful, the PTOM review will need to be progressed collaboratively with the sector, particularly given that the responsibility for delivery of public transport services rests with local government and services are contracted to private businesses. To facilitate engagement with the sector, I will prepare a discussion paper in early 2021. I will report back to Cabinet on the outcomes of engagement with the sector in the first half of 2021.

Officials are investigating options to extend the current RUC exemption for heavy electric vehicles

- 43 Both the Labour and Green parties campaigned on extending the RUC exemption for heavy electric vehicles to hydrogen heavy vehicles and consider extending this exemption past 2025.
- 44 Officials have advised me that the current exemption from paying RUC for heavy electric vehicles is particularly important for the uptake of e-buses. This is because the additional weight of the batteries in e-buses means that they would be subject to significantly higher on-road costs than equivalent diesel buses. As noted above, these high RUC costs could be a significant barrier to e-bus deployment, particularly given the current expiry would see RUC costs apply to e-buses from 2025, which coincides with regional council plans to significantly increase the deployment of zero-emission buses.
- 45 I am conscious that the benefits of extending the RUC exemption will need to be balanced with the forgone revenue and the potential for increased road maintenance costs associated with deployment of heavier zero-emission buses. Officials have advised me that altering the current RUC exemption will require amendments to the Road User Charges Act 2012. I have therefore instructed officials to provide me with advice on:
- 45.1 options for legislative change that would enable an extension to the current RUC exemption for heavy electric vehicles after 2025; and

- 45.2 the merits of broadening the current exemption to cover other low emission power sources such as hydrogen and enabling lower RUC to be charged for less emission intensive vehicles.
- 46 The advice will also detail the potential cost and revenue implications of extending and broadening the current exemption. I will report back to Cabinet in the first half of 2021 with this advice.

Legislative change may be necessary to require that only zero-emission public transport buses are purchased by 2025

- 47 I propose to engage with the sector to determine whether legislative change will be necessary to achieve the Government's decarbonisation objectives as part of the PTOM review. Any proposed changes to legislation could then be considered alongside broader changes to the PTOM framework or if faster implementation is required introduced as a separate legislative amendment. I am conscious that, in making any legislative changes, the Government will need to provide some flexibility in how councils and operators achieve decarbonisation given the different service demands and operating environments. In particular, as outlined above, decarbonising the bus fleet could be achieved through the use of zero-emission buses or buses operating using zero-emission power sources.
- 48 In the interim, prior to making any legislative changes, there are other measures that would encourage the sector to make the transition to zero-emission buses.

Waka Kotahi can support decarbonisation objectives with investment and procurement levers

- 49 Waka Kotahi holds a range of levers that can support the decarbonisation of the public transport bus fleet. As outlined above, Waka Kotahi sets requirements for procurement strategies. This includes setting the minimum standards for urban buses through the RUB and pre-approved procurement procedures. Waka Kotahi also provides guidance to councils. As co-funder of public transport services, Waka Kotahi also makes investment decisions. As I noted above, at the moment the RUB accommodates electric vehicles and hydrogen, but it would be possible to use this mechanism to require zero-emission buses outside of legislation.
- 50 In my Letter of Expectations to the Waka Kotahi Board for 2021/22, I will reiterate the Government's commitment to decarbonising the public transport bus fleet and set out my expectation that Waka Kotahi supports this objective through the use of its levers.

It may be necessary to amend the current Government Policy Statement on Land Transport (GPS) or use the next GPS to give greater priority to decarbonisation

- 51 As part of engagement with the sector on the PTOM review, I will consider whether it is necessary to amend the current GPS or use the next GPS to signal the priority of decarbonising the public transport bus fleet and link funding to achieving this outcome.

Additional funding or financing may be needed to support decarbonisation

- 52 The current barriers to decarbonisation set out above mean that regional councils are paying a premium to provide services with zero-emission buses compared to diesel equivalents. Some of these barriers are a direct result of high upfront capital costs, while some are a result of our current system settings and how risk is priced.

- 53 Officials have advised me that early engagement with the sector has indicated significant variability in the scale of the current price premium. Recent experience suggests the premium can be anywhere from 20 percent to 100 percent (i.e. double) the price of providing services in diesel vehicles. This variability exists because currently there is a complex range of factors, and a high degree of uncertainty, influencing the price set by privately owned operators to deploy zero-emission vehicles.
- 54 Officials advise me that AT has undertaken modelling to estimate the cost of decarbonising Auckland's public transport bus fleet by 2030. This modelling estimates these costs as cumulative increases of \$150 million to \$164 million between 2020 and 2030.
- 55 Officials do not have cost estimates for decarbonising the bus fleet in other regions. However, Auckland's bus fleet makes up approximately half of New Zealand's public transport bus fleet. Officials are undertaking further work to identify cost estimates in other regions.
- 56 The Government has signalled \$50 million over four years to support regions with decarbonisation of the bus fleet. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] **Under active consideration**
- 57 In order to achieve the timeframes set out by the Government it will be important to invest early so that Councils who require new electric charging infrastructure in place by 2025 have the necessary capacity installed in time.

A new contestable fund could be established to support decarbonisation

- 58 One option is to establish a contestable fund. I will ask officials to investigate how such a fund could be used to support the distribution of funding to advance the decarbonisation of the public transport bus fleet.
- 59 Contestable and applicant-based funding models are already being used to support decarbonisation efforts. For example, the Low Emission Vehicles Contestable Fund, which is administered by the Energy Efficiency and Conservation Authority, provides a funding source to support the transition to electric vehicles. This is primarily used to support the decarbonisation of the light vehicle fleet.
- 60 An agile and responsive contestable fund model may be a useful mechanism for supporting the deployment of zero-emission public transport buses. In particular, it may be the most effective way of ensuring optimisation of funding in a way that is responsive to local needs. The body in charge of administering the fund could maintain a watching brief over price and technology improvements. This would allow it to offer targeted funding on a per-applicant and year-to-year basis.
- 61 I envisage that councils in partnership with their operators would be invited to develop proposals to accelerate the uptake of zero-emission buses, allowing the proposals to be compared and funding allocated to those that make the best use of the money available.
- 62 As Waka Kotahi has a key role in working closely with councils to invest in public transport infrastructure, it could potentially be the lead agency for administering any funding mechanism for supporting the deployment of zero-emission buses if

introduced. The design of such a funding mechanism will need to take into account the potential synergies and overlaps with existing programmes run by Waka Kotahi and other government agencies.

- 63 This funding, coupled with expenditure through the NLTF and current local government funding, is unlikely to be sufficient to deliver the Government's decarbonisation commitments. It will require more funding from local government rates, bus fares, other funding and financing mechanisms, or funding from central government.
- 64 I am proposing that as part of the review of PTOM, officials engage with councils to understand the funding and financing implications of our commitment to require only zero-emission buses to be purchased from 2025 and the target of decarbonising the public transport bus fleet by 2035.
- 65 In my report back to Cabinet in the first half of 2021, I will advise whether additional funding is necessary, over and above the \$50 million signalled, to achieve our decarbonisation objectives, and potential sources of funding.

Under active consideration

[REDACTED]

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

The sector is facing other cost pressures for public transport service delivery

COVID-19 is impacting the sustainability of public transport service provision

- 71 I am aware that initiatives to decarbonise the public transport bus fleet are progressing against a backdrop of the COVID-19 pandemic and the impacts from the pandemic on the public transport system. Although a number of councils have commitments to decarbonise their public transport bus fleets, these commitments

were made before the COVID-19 pandemic and were based on pre-COVID-19 patronage and revenue projections. Since then, the economic context has changed.

72 Public transport patronage and farebox revenue was severely impacted because of restrictions on travel and measures to maintain physical distancing under alert levels 2, 3 and 4. Patronage had recovered strongly but the Auckland COVID-19 resurgence and associated travel and distancing restrictions saw further impacts on patronage. This has impacted fare revenue, putting pressure on councils and Waka Kotahi.

73 In mid-2020, additional Crown funding was provided to support the NLTF given reduced revenues associated with COVID 19. This allowed Waka Kotahi to set aside \$111 million for 2020/2021 to meet additional public transport cost and revenue pressures associated with COVID-19, including reduced farebox revenue. This has enabled regional councils to maintain service levels despite reduced patronage. Waka Kotahi has agreed to fund COVID-19-related forgone fare revenue fully up until 31 December 2020. However, Waka Kotahi is yet to make a decision on whether this support can continue for the remainder of 2020/2021.

74 I am conscious there is the continued potential for resurgence of COVID-19, which means there is a risk of ongoing impacts to patronage. Maintaining public transport service levels is critical to the long-term viability and growth of public transport and achieving this may require further Government support.

The SuperGold Card Scheme and other interventions to bring back public transport patronage may have additional costs

Under active consideration

75 [REDACTED]

Under active consideration

76 [REDACTED] The previous Government began work on a “green card” concession for disadvantaged groups. [REDACTED]

Implementing improvements to bus driver terms and conditions and working conditions is likely to increase service costs

77 Collaborative work is underway across the sector to improve bus driver terms and conditions. In particular, I am aware that unions representing bus drivers have high expectations that a wage floor will be implemented for public transport service contracts. Waka Kotahi is working with the sector to progressively achieve this outcome. However, the implementation of a wage floor will ultimately need to be negotiated between councils and operators for existing service contracts or established as a requirement for future service procurements. In either case, any additional costs will need to be met by councils and Waka Kotahi through the National Land Transport Programme.

78 While Waka Kotahi has a contingency in the NLTF to support the progressive implementation of a wage floor, regional councils may be unable to meet their share of the costs given the other cost pressures and competing priorities.

These cost pressures may make funding of decarbonisation more challenging

79 The impacts of COVID-19, in addition to the other cost pressures on AT, ECAN and GWRC's targets for de-carbonisation and affordability, will also be explored as part of engagement on funding options to deliver the 2025 and 2035 targets.

Any funding to support the target of decarbonising the public transport bus fleet should be considered alongside other actions to reduce emissions

80 As outlined above, officials are preparing a TEAP that will set out a strategic approach to how New Zealand should reduce emissions in the transport system, taking into account the level of investment required by Government. I propose that the Government considers any funding to support decarbonising the public transport bus fleet in the broader context of other actions to reduce transport emissions.

Financial Implications

Under active consideration

81 [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] I will also report back to Cabinet in the first half of 2021 on:

81.1 how funding for decarbonising the public transport bus fleet should be spent

Under active consideration

81.2 [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Legislative Implications

82 Some of the potential options to accelerate decarbonisation of the bus fleet may require legislative change. I will report back to Cabinet on initial options, including any legislative implications, in the first half of 2021.

Regulatory Impact Statement

83 The Regulatory Quality Team at the Treasury has determined that this Cabinet paper relating to decarbonisation of the public transport bus fleet does not involve a regulatory policy proposal and therefore the Regulatory Impact Analysis requirements do not apply.

Climate Implications of Policy Assessment

84 The Climate Implications of Policy Assessment (CIPA) team has been consulted and confirms that the CIPA requirements apply to this proposal as an objective of the proposal is to reduce greenhouse gas emissions.

85 New Zealand's public transport bus fleet currently produces an estimated 155 thousand tonnes of carbon dioxide equivalent (CO₂-e) per year, and is projected to increase to between 167 thousand and 204 thousand tonnes of CO₂-e by 2035

without any additional measures. The projected annual emission reduction from a zero emission bus fleet in 2035 is estimated to be between 150 thousand and 189 thousand tonnes of CO₂-e.

- 86 Without intervention the cumulative emissions from the public transport bus fleet between 2020 and 2050 is projected to be between 4.9 to 6.4 million tonnes CO₂-e. The cumulative impact of meeting the commitment to target decarbonisation of the public transport bus fleet by 2035 is estimated to be a 3.0 to 4.5 million tonnes CO₂-e reduction in emissions by 2050.
- 87 The emissions amounts disclosed do not represent the actual emissions impact of the Government's commitment to decarbonisation, but rather the potential total emissions reduction of this proposal. No information is available on the emissions impact of the funding measures. The emissions impact of each measure will be assessed for its emissions impact (as appropriate) as proposals are advanced.
- 88 The requirement that only zero-emissions buses be purchased by 2025 will greatly reduce the emissions of the new public transport fleet in the long term. However, if the funding is not sufficient, there is a risk that overall emissions could increase if local government take actions to save money including purchasing new diesel buses prior to 2025, scaling back public transport services, or raising prices of these services.
- 89 The co-benefits of better health outcomes due to improvements in air quality have not been considered in the analysis, but are likely to be significant.

Population Implications

- 90 The proposals in this paper would support the decarbonisation of the public transport bus fleet. These changes are expected to have positive impacts on those living in urban areas, through reduced vehicle emissions and improved air quality. The decarbonisation of the public transport bus fleet may impact employment opportunities in the sector, particularly for diesel mechanics. However, I anticipate this will be part of a broader shift in the road transport sector that requires retraining or upskilling.

Human Rights

- 91 There are no human rights implications from these proposals.

Consultation

- 92 The following agencies have been consulted on this Cabinet paper: ACC, Department of Conservation, Department of Internal Affairs, Ministry of Business, Innovation and Employment, Ministry of Education, Ministry of Health, Ministry of Justice, Ministry of Social Development, Ministry for Primary Industries (Rural Communities team), Office for Seniors, Office for Disabilities, NZ Police, Waka Kotahi NZ Transport Agency, Te Puni Kōkiri, NZ Treasury, WorkSafe and Ministry for the Environment. The Department of the Prime Minister and Cabinet has been informed.
- 93 The agencies consulted were supportive of the Government's commitments to decarbonise the public transport bus fleet. Some agencies noted the potential trade-offs from pursuing these commitments, and in particular the possibility that any increased costs would be passed on to users in the form of increased fares or communities in the form of increased rates. As part of the review of PTOM, officials

will engage with councils to understand the funding and financing implications of our decarbonisation commitments.

- 94 Some agencies also noted the potential challenges with decarbonisation of public transport buses that operate in regional and rural areas, and noted that the benefits will largely be seen in urban centres. Agencies also noted the potential flow-on impacts for MoE-contracted school bus services.
- 95 The Office for Disability Issues also noted that disabled people are frequent users of public transport, particularly buses. Many support the principle of decarbonisation of the national bus fleet. The commissioning of new, low-emission buses, provides for an excellent opportunity to improve the accessibility of public transport.
- 96 The Green Party was consulted on the draft of this Cabinet paper because it covers a policy area listed in the Cooperation Agreement between the Labour and Green Parties.
- 97 The Green Party's view is that decarbonising the bus fleet is an important part of decarbonising public transport, but only one part. The Green Party considers that decarbonising rail should also be a work programme as part of this area of cooperation.

Communications

- 98 If Cabinet agrees to my proposals, I will announce the Government's commitments to decarbonising the public transport bus fleet and outline the work programme I will progress to achieve these commitments.

Proactive Release

- 99 I intend to proactively release this Paper and associated papers within 30 days of the Cabinet decision, subject to any redactions as appropriate under the Official Information Act 1982.

Recommendations

The Minister of Transport recommends that the Committee:

- 1 **note** the Government is committed to:
 - 1.1 requiring that only zero-emission public transport buses be purchased by 2025;
 - 1.2 a target of decarbonising the public transport bus fleet by 2035; and
 - 1.3 supporting regional councils to achieve these outcomes with a \$50 million fund over four years;
- 2 **note** that decarbonising public transport is included in the Cooperation Agreement between the Labour and Green parties and the Green Party was consulted on the final of this Cabinet paper;
- 3 **note** that further work on decarbonising public transport more broadly will be done as part of the area of cooperation with the Green Party;
- 4 **note** that local government is the key actor to decarbonise the public transport bus fleet and faces a range of barriers to achieving this outcome;

5 **agree** that officials will commence a work programme to support local government to decarbonise the public transport bus fleet by addressing systemic barriers;

Under active consideration

6 [REDACTED]

7 **invite** the Minister of Transport to report back to Cabinet in the first half of 2021:

7.1 with the outcomes of engagement with the sector on the system settings that need to be addressed to enable accelerated decarbonisation of the bus fleet;

7.2 with proposals to extend the road user charge exemption for heavy electric vehicles and broaden it to cover vehicles with other low emission power sources;

7.3 on how funding for decarbonising the public transport bus fleet should be spent; and

Under active consideration

7.4 [REDACTED]

8 **note** that this report back will include consideration of the Green Party's views;

9 **note** that legislative change may be necessary to require that only zero-emission public transport buses be purchased by 2025, and the Minister of Transport will engage with the sector to determine whether legislative change is required;

10 **note** that there are short-term non-legislative measures that could encourage the sector to make the transition to zero-emission buses; and

11 **invite** the Minister of Transport to reiterate the Government's commitment to decarbonising the bus fleet in the Letter of Expectations to the Waka Kotahi NZ Transport Agency Board for 2021/2022.

Authorised for lodgement

Hon Michael Wood

Minister of Transport