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***Submission on Te Hau mārohi ki anamata:  
Transitioning to a low-emissions and  
climate resilient future***



**SUBMISSION TO:** Ministry for the Environment

**REGARDING:** Te Hau mārohi ki anamata: Transitioning to a low-emissions and climate resilient future

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## Executive Summary

The New Zealand Automobile Association (AA) welcomes the opportunity to provide comment on the Emissions Reduction Plan discussion document.

The AA generally supports a number of initiatives proposed in the document but we are concerned that they read like a one-size fits all approach across our urban areas. Most importantly, we think the Emissions Reduction Plan needs to recognise that there is a very large proportion of our urban population who will not have reasonable alternatives to private motor vehicle use for key trips such as commuting to work.

We also think the Plan needs to draw a sharper distinction between what can practically be achieved to reduce emissions in our urban and rural areas. In rural areas, the focus needs to largely be confined to rapidly increasing the use of biofuels and supporting the medium to long term transition to low and zero emissions vehicles.

In our more congested city centres, a handful of major supporting centres, and the main transport corridors that feed into them, there is a strong fit between residential origins and employment destinations and therefore reallocation of road space to public transport and active modes generally makes sense over time. In our most major corridors, this also justifies the case for ongoing investment in mass rapid transit, supported by planning changes to achieve the housing density to attract sufficient public transport patronage.

However, these areas only constitute a relatively small proportion of our urban areas. In most parts of our cities, there is a fundamental mismatch between origins and destinations, and journey to work trips in particular are strongly dispersed. There is a manifest inability of any public transport system or active modes network to effectively serve these trips, or for that matter, to reverse 70-years of disparate residential and employment growth through land use intervention within the Emission Reduction Plan's 15-year horizon.

This means while policies like road space reallocation make sense in the right place, they are extremely unlikely to achieve emissions reductions in others. Indeed, where road space has been reallocated to other modes in the wrong place and the alternative modes do not effectively serve a community's travel needs, the resulting congestion can result in more emissions.

Most importantly, this also means that policy interventions and finite transport investment needs to be carefully targeted to where they have the greatest potential to deliver meaningful reductions in emissions. In particular, this means focusing on understanding where people need to go rather than simply how close their home is to a major public transport route as generally seems to be the case with current transport targets.

Consequently, national transport strategies, plans and funding allocation need to be based on principles and objectives to guide sub-city projects and initiatives. In turn, projects and initiatives must be driven by strong evidence of what will best serve trip demands. For these reasons, the AA considers any regulatory change to make it easier for local government to reallocate road street space rapidly for other modes needs to include clear direction to ensure changes will actually achieve the desired emissions reductions.

The AA strongly supports establishing a fund to drive behaviour change. We propose an ongoing NLTF-funded road safety like campaign focused on informing people about individual transport emissions and providing positive messages about choices they may be able to make if practical and if they want to make a difference. Given the scale of change being asked of the sector, we see no reason why a campaign could not be implemented in 2022.

The AA notes that congestion charging is only in place in dense European and Asian cities with extensive public transport networks and has yet to be introduced in North American or Australasian cities. Moreover, with the unique exception of the very dense city-island state of Singapore, no city has introduced congestion pricing beyond their city centres.

We have grave concerns about extending congestion charging beyond city centres as contemplated by the vehicle kilometres travelled (VKT) reduction assumptions the Ministry of Transport has shared with us. This reflects both the strongly dispersed nature of trips beyond our city centres and the impossibility of developing our public transport networks to effectively meet these demands. In our view, the massive social and economic disruption which would inevitably result from the inability to connect workers to jobs would substantially outweigh the benefits from reduced emissions.

The AA supports a review of the transport revenue and funding system. Considerable complexity and the inclusion of non-transport objectives added to transport funding in recent years has made the formerly transparent system increasingly opaque. With transport funding increasingly being directed to projects that support housing development, there is a very strong case for this money to be sourced from taxpayers, general and targeted rates, developers etc in line with the main beneficiaries of these projects. Our preliminary view is that VKT could form the base of a new transport revenue system. Depending on the mechanism, this could provide the platform for other much less blunt pricing elements than punitive and widespread congestion charging.

We have made separate suggestions for a flexible working policy, consistent with the Climate Change Commission's proposed initiatives, and a network optimisation policy to be included in the final Emissions Reduction Plan.

The AA supports the introduction and implementation of the Clean Car Standard and Discount to achieve a reduction in carbon dioxide emissions from light vehicles imported into New Zealand. However, we have significant concerns that the pace of the proposed reductions are unachievable in the timeframes proposed, primarily because the automotive market in Australasia and internationally is unable to deliver the vehicles required. For New Zealand to meet the targets the Motor Industry Association has determined that half of the new entrants to the fleet will have to be Electric Vehicles (EV) by 2027. These vehicles will not be available in the numbers required in that timeframe.

The AA supports the introduction of a vehicle scrappage scheme designed to remove both high emitting and unsafe vehicles.

The AA supports mandating biofuels within the limitations of current vehicle technology, cost restraints and economic and environmental impacts.

The AA supports a comprehensive national EV charging infrastructure strategy supported by action plans.

Notwithstanding our support for the specific initiatives on scrappage, charging infrastructure and biofuels, the AA considers that we need to see a much more comprehensive strategy and a much larger investment by the government in reducing emissions from the fleet.

The AA has advocated for and strongly supports the hypothecation of ETS levies from fuel sales that was announced in the 2021 budget. It is vital that we see much more progress on detailing how that funding will be targeted and administered. This will need to cover the public and private realm. For

example, to complement the rollout of public charging infrastructure, we would like to see initiatives to incentivise private charging explored (e.g. innovative solutions such as the installation of EV chargers in existing and future homes to avoid the lack of home charging facilities becoming a barrier to EV uptake). Further, the scale of biofuels development needed will not occur without further government investment. A key issue for a strategy to address is how the hypothecated funds could be used to speed up and scale up that rollout of biofuels.

Reaching the target of 30% of the light fleet being zero emissions will be largely dependent on the availability of large numbers of EVs in the period leading up to 2035. The AA believes this target is attainable but is premised on large numbers of zero emission vehicle being available from 2030 onwards.

## Submission structure

This submission responds to the Ministry of the *Environment’s Te hau mārohi ki anamata: Transitioning to a low-emissions and climate-resilient future* document.

We have responded to proposed initiatives in two of the three Focus areas in the following tables. These are the areas that are most directly relevant to AA Members. Following specific comments on the proposals in the document, we have provided further suggestions for reducing emissions that have not been included in the Ministry’s discussion document.

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

Proposed Initiatives	AA position
<b>Public transport</b>	
Plan for and substantially increase investment in urban public transport nationwide	The AA strongly supports increased investment in public transport but to achieve meaningful emissions reductions it will need to be carefully targeted to where it will be most effective. It is not simply a matter of continually expanding public transport coverage and the frequency of services. This has happened extensively over the past few years and there is currently considerable empty and near empty running of many services in most of our urban centres. We recommend the Ministry of Transport works with Waka Kotahi to develop a robust investment framework which directs investment to public transport infrastructure and services where there is a strong evidence base that it will drive significant patronage increases.
Progress towards delivery of Auckland light rail along the city centre to Māngere corridor. Work with Auckland to agree a plan for the development of Auckland’s rapid transit network for the next 30 years	<p>Auckland doesn’t need another plan. It already has one. With the CRL and substantial supporting investment on the city’s rail network, as well as the Eastern Busway well underway, Auckland needs additional rapid transit lines from the city centre to Māngere, the northwest (Westgate) and the North Shore. We note the light rail team’s recent advice that the Northern Busway could run out of capacity as soon as the early 2030s which is about when the airport line would open. We also note that the current (2021-31) ATAP plan states that while the current interim bus improvements to the northwest will deliver some benefits, there is an urgent need to progress towards delivery of a proper rapid transit solution in this corridor.</p> <p>The current \$14.6 billion price tag for what is expected to be the government’s favoured option for light rail from Auckland city centre to the airport risks putting back plans for the other two rapid transit lines, including an additional Waitemata Harbour Crossing, by a decade or more.</p> <p>Without these three critical components of the public transport network in place, there is no chance of Auckland achieving the scale of emissions reductions the Ministry is proposing.</p>

	<p>Moreover, a gold-plated solution will inevitably delay public transport infrastructure improvements in other cities. The airport line proposal either needs to be massively scaled back to demonstrate strong value for money or a clear timeframe and funding commitments need to be put in place for all three lines.</p>
<p>Progress work with local government in Greater Christchurch on a mass rapid transit network, together with increasing public transport capacity</p>	<p>The AA supports further improvement to public transport capacity in Greater Christchurch and a robust investigation into the potential for mass transit. A pre-requisite to success, as with current Auckland and Wellington mass transit work programmes, will be supporting planning and zoning changes to significantly increase housing density along the mass transit corridor. This is particularly critical given the north and south spread of the Greater Christchurch urban area since the 2011 Earthquake.</p>
<p><b>Prioritising public transport and active modes</b></p>	
<p>Implement Agreed Mode Shift Plans in our fastest growing urban areas, including assessment of mass transit in Auckland, Wellington and Christchurch</p>	<p>We agree with the strong focus on the six fastest urban areas. We note there is considerable scope for mode shift in Tauranga, Hamilton, Queenstown and Christchurch where public transport mode share is minimal. We also note that, in other cities considerable funding increases in recent years has only achieved minimal or no change in public transport mode share. In most cases, achieving significant mode shift will require a combination of bus priority, bus lanes and mass/ rapid transit infrastructure with journey times that are at least competitive with private vehicles. This reflects that the most important factor in all successful transport planning is travel time.</p> <p>In the right places, where demand is sufficient or there is strong evidence it will be in the short term, the AA also supports measures to increase priority for active modes.</p> <p>To be successful, it is also essential that Mode Shift Plans are accompanied by planning changes which enable significant increases in housing density.</p> <p>A strong mode shift approach will work effectively in some parts of our urban areas but would be disastrous in others, particularly beyond much of the central areas and the public transport corridors that feed into them.</p> <p>In the outer parts of urban areas, there is a fundamental mismatch between residents and employment locations and the dispersed nature of employment means it is utterly impossible to serve these trips through public transport.</p> <p>Unfortunately, this equates for a big proportion of urban travel. (In Auckland’s case its outer urban area currently accounts for 60% of its trip growth and 38% of all jobs and we assume the figures would be relatively similar for other urban areas).</p>

	<p>Mode shift plans should be principle and objective based and generally focus on corridors which can be effectively served by public transport because there is a strong fit between origins and destinations.</p> <p>Implementation at a local level needs to be based on strong understanding of both local communities’ travel patterns and those who need to use transport corridors that pass through communities.</p> <p>This means a tight focus on the most effective modes in the right place – the relative strengths and weaknesses of public transport and micro-mobility need to be carefully targeted to the types of trips and locations where they will generate effective emissions reductions.</p>
<p>Engage with the public to build support for active and shared travel</p> <p>Establish a fund to drive behaviour change</p>	<p>The AA strongly supports these initiatives. Our observation is that there is currently limited understanding of what individuals can do to reduce emissions. There would appear to be considerable scope for promoting public transport to a large number of people who avoid it because they don’t understand it or have false impressions of it.</p> <p>More significantly, there is scope to encourage people to switch to active modes for short (2km or less and somewhat longer for e-bikes) local trips where this is a practical choice once they have a greater understanding of the potential environmental benefits. We wonder whether, like road safety, there is a case for an ongoing NLTF-funded campaign focused on informing people about transport emissions and providing positive measures about choices they can make if they want to make a difference. Given the scale of change being asked of the sector we see no reason why this could not be implemented in 2022.</p> <p>We also note that the Energy Efficiency and Conservation Authority has a Low Emissions Travel Behaviour Programme. This could perhaps provide a base for a significantly scaled up transport programme.</p>
<p>Integrating land-use, urban development and transport planning and investments.</p>	<p>The AA strongly supports this initiative for the most part. It has the most potential in existing built-up areas where there is strong evidence that proposed public transport improvements will be able to effectively serve residents’ employment destinations and catalyse housing development.</p> <p>It makes less sense in outer urban areas such as with the recent Mill Road, Drury decision to focus investment almost solely on rail stations. The majority of Drury residents will be commuting to jobs all over South Auckland and North Waikato which cannot be effectively served by the rail network. Without complementary investment in the necessary road improvements, this will inevitably result in increased congestion and emissions on the existing road network.</p> <p>We agree that the most significant reductions in emissions will be achieved in the medium to long term from this initiative.</p>

<p>Change regulation to make it easier for local government to reallocate road/street space rapidly for public transport, walking, cycling and shared mobility in urban areas, and create an expectation that this will occur.</p>	<p>Reallocating road space along corridors to other modes makes sense where there is clear evidence it will result in sufficient mode change to achieve reduced emissions either when the change is implemented or within a relatively short period of time afterwards.</p> <p>Similarly, in dense or rapidly intensifying suburban and city centres, there can be a sound case for reallocating road space to active modes both to support further intensification and for safety reasons.</p> <p>However, without either of these tests being met the end result can be largely underutilised road space apart from infrequent, often substantially empty buses (or cycle lanes) because they are unable to serve the community’s diverse travel destinations. Meanwhile, long lines of traffic stuck remain stuck in a single lane with the resulting carbon and air quality emissions (often in the worst places such as suburban centres).</p> <p>Any move to free up the current process to enable rapid changes and creating an expectation this will occur needs to be accompanied with direction to ensure changes are not made without sufficient evidence that mode shift and emissions reductions will be achieved. Without this, there is a risk of perverse outcomes because in the wrong places this can increase rather than reduce emissions.</p>
<p>Make regulatory changes to streamline public consultation requirements and make it easier for councils to trial street/road changes that support travel by public transport, walking, and cycling, including low-traffic neighbourhoods</p>	<p>The Innovating Streets trials have had a chequered history. The absence of prior consultation with local communities meant some of the more high-profile ones created unnecessary stress, and in some cases, provoked widespread anger.</p> <p>To be successful and to have long lasting positive impacts, it is imperative that such changes are supported both by the communities who live in and the people who travel through the streets.</p> <p>More generally, this sort of approach can be very effective and achieve multiple objectives in town and city centres where there is sufficient density and therefore walking and cycling, and most importantly where public transport is able to serve a very significant proportion of trip demands.</p> <p>Unfortunately, given the general lack of density, this isn’t the case in most parts of our cities. The AA is concerned a streamlined approach risks a backlash from residents and commuters that could prevent its implementation in the places where it could make a meaningful difference to emissions.</p>

<p>Improve public transport and active travel networks in low-income or low-socioeconomic areas (where appropriate, based on population size and distribution), and improving safety for walking and cycling</p>	<p>The AA supports improving active travel networks for lower socio-economic communities and improving public transport in principle.</p> <p>However, as is the case with the majority of cities, while white-collar employment tends to be concentrated at few locations and can therefore be readily served by public transport, the opposite is usually the case for lower income workers. There are significant challenges with effectively serving such multitudinous destinations with any form of public transport.</p> <p>This explains the fact that in all our cities the majority of public transport trips end up in the city centre rather than simply being because there is less effective public transport elsewhere.</p> <p>We note Richard <a href="#">Paling's</a> analysis on the 2018 census journey to work results for Auckland. His report noted that the high car modal share for south and many west Auckland residents probably reflected that the jobs they hold are in areas where public transport accessibility is poor and often their shifts can start and end at times when public transport do not run.</p> <p>It would be a noble initiative to provide comprehensive public transport services to enable the majority of workers in these communities to use it to get to their places of employment. However, the huge numbers of employment destinations means there is only limited scope for improving public transport where there is some reasonable degree of correlation between residents homes and their employment destinations.</p> <p>This suggests two important conclusions. First, it will be important to allocate finite public transport investment where it has the greatest potential to deliver meaningful reductions in emissions. Second and more importantly, the final Emissions Reduction Plan needs to recognise that there is a very large proportion of our urban population who will not have reasonable alternatives to private motor vehicles.</p> <p>This particularly includes the outer urban areas of our cities, which is Auckland's case equates for 38 percent of employment destinations and 45 percent of residents (we assume similar figures are likely for our other cities).</p> <p>For public transport to provide people with a realistic alternative to private vehicle travel, a person's residence and their destination both need to be easily accessible by quality public transport (and any time lost to transfers not be unduly prohibitive). For the majority of trips – including journey to work trips – which are to destinations outside the main urban centres, this is not the case.</p>
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<p>Improve access and connectivity for people in social housing, investing in public and active transport and supporting car share, carpool, and shared bike/scooter schemes.</p>	<p>The AA strongly supports improving access and connectivity for people in social housing. However, we are concerned with placing too much emphasis on alternative modes and potentially limiting their access to private motor vehicles. This includes the removal of minimum parking requirements for new housing in the National Policy Statement on Urban Development and increasing moves by local authorities to remove the ability of people to park outside their homes on local streets.</p> <p>Access to a private car is often the most critical factor in a person’s ability to join or re-join the workforce. Access to employment opportunities for the majority of people in social housing are unlikely to be met by public transport due to the widely dispersed nature of the employment destinations for the types of jobs they are most likely to be able to secure. We note the Ministry of Social Development recognises this importance through funding for driver licence programmes and financial support for licence application and testing fees.</p> <p>Car share schemes are impractical for people who need their cars to get to and from work every day and bike and scooter “schemes” are only feasible for people who can secure jobs that are sufficiently close to their homes.</p>
<p>Make public transport cheaper</p>	<p>The AA supports the current Auckland trial of public transport discounts for community service card holders and extending this nationwide if the trial is successful. More generally, as for a number of the other proposed initiatives, any move to reduce the cost of public transport needs to be supported by evidence that investment will deliver significant returns in emissions reductions through increased patronage.</p> <p>We note there is conflicting evidence on the extent to which cheaper public transport generally increases patronage and there is fairly strong evidence that the main drivers of increased use are better infrastructure and services. We recommend moves to reduce costs to users be supported by strong evidence that this will achieve better outcomes than investment in other aspects of the public transport system.</p>

**Reducing road supply and demand**

<p>Ensure further investment for additional highway and road capacity for light private vehicles is consistent with climate change targets. This is to avoid encouraging further travel by private cars and light vehicles.</p>	<p>Roads have always fulfilled an essential economic and social function in connecting our communities and regions. In our fastest growing urban areas, they are also needed to open up greenfields areas for new housing. (The AA has not seen any analysis that shows the housing crisis can be resolved by a singular focus on intensification in existing urban areas).</p> <p>While it is also important that greenfields housing areas be served by public transport, given the widely dispersed nature of employment destinations for residents from greenfield locations, public transport can realistically only serve a minority of these trips.</p> <p>Similarly, in locations where congestion and therefore emissions are particularly heavy, there is a strong argument that additional capacity, or at least treatment to address bottlenecks, can in fact reduce emissions – particularly taking into account the timeframe it will take to move the private vehicle fleet to zero emissions.</p> <p>Moreover, many of our highways cannot be upgraded to meet the safety standards now expected of modern roads. This means new roads will need to be built to meet road safety targets.</p> <p>Implementing what effectively amounts to a ban on new roads is an ideological approach and we are not aware of any overseas jurisdictions adopting this policy. Even the city of London is currently building a road tunnel for congestion relief.</p>
<p>Reduce congestion and support emission reductions by enabling congestion pricing, and work with Auckland Council to implement it. Create a model that other councils can adopt, with emphasis on Wellington in this emissions budget period. Look at using other pricing tools to reduce emissions</p>	<p>The AA notes that congestion pricing is only in place in dense European and Asian cities with extensive public transport networks and has yet to be introduced in North American or Australasian cities. Moreover, with the unique exception of the very dense city-island state of Singapore, no city has introduced congestion pricing beyond their city centres.</p> <p>The AA recognises potential for congestion charging to work in Auckland and Wellington city centres. We note that congestion charging has been promoted for the travel time savings it will offer motorists. In Auckland’s case, city centre trips are such a minor proportion of traffic that any network-wide time savings will be small.</p> <p>Given the plans underway to progressively restrict private vehicle access to city centres, it remains to be seen whether the projected de-congestion benefits and time savings for motorists will be realistic. It might be more honest to focus, as London and other cities have, on the benefits of a congestion charge both for other modes, including improving the attractiveness of the city centre environment for active modes.</p> <p>We have grave concerns about extending congestion charging beyond city centres as contemplated by the <i>Congestion Question</i> work. This reflects both the strongly dispersed nature of trips beyond our city centres and the manifest inability of any public transport system to effectively meet these</p>

	<p>demands. In our view, the massive social and economic disruption which would inevitably result from the inability to connect workers to jobs would substantially outweigh the benefits from reduced emissions.</p> <p>This perhaps explains why other cities have not extended congestion charging beyond their city centres.</p> <p>We also note that research referred to us by the Ministry of Transport <a href="#">Rodlier 2008</a> states that in some cities pricing may actually increase VKT by shifting housing and employment to outer areas and that pricing is more effective in European cities with higher quality public transport alternatives.</p> <p>Before contemplating charging beyond city centres, we recommend extensive research be undertaken to understand the purpose and nature of the current trips and the availability or potential availability of reasonable alternatives that will effectively serve the destinations.</p> <p>We agree that congestion charging would impact worst on vulnerable communities. We are unclear what form of mitigation might address this situation. We agree with the <i>Congestion Question's</i> view that discounts or exemptions should not be offered as they would undermine the purpose of congestion charging. However, it is far from clear that additional social welfare support would be sufficient to ensure low income workers are able to juggle their incomes to ensure they could pay a congestion charge to get to and from work.</p>
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**Transport revenue and funding**

<p>Investigate ways to raise revenue for transport in future, including to replace the land transport funding system</p>	<p>The AA supports this move. While we agree with Ministry of Transport analysis that the expiry date for the current system remains some years away, there are other compelling reasons for replacement.</p> <p>There has been considerable complexity added to transport funding in recent years. This includes Crown funding dedicated to projects picked by Ministers, political city deals reached outside of the NLTP process and then implemented through it and separate individual regional, housing infrastructure and Covid recovery funds allocated to specific transport initiatives.</p> <p>This has resulted in a formerly transparent funding system becoming increasingly opaque and the bizarre situation that a strong user pays system has reverted to a transport tax with motorists funding a laundry list of activities, while the taxpayer is picking up the tab for big roading projects.</p> <p>With transport funding increasingly being directed to projects which support housing development, there is a very strong case for this money to be sourced from taxpayers, general and targeted rates, developers etc in line with the main beneficiaries of these projects.</p> <p>Our preliminary view is that VKT could form the base of a new transport revenue system. Depending on the mechanism, this could provide the</p>
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	<p>platform for other much less blunt pricing elements than punitive and widespread congestion charging.</p> <p>Currently motorists are paying between 18 and 20 cents a litre at the pump for the ETS levy. This is currently generating almost \$1 billion per annum year and will presumably continue to increase with the carbon price. The AA supports the government’s decision that these funds be allocated to activities that will further reduce emissions. However, we consider there is a need to go a step further and fully hypothecate the funds to transport investment targeted at reducing emissions (also see pages 21 and 22).</p>
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**Monitoring and responding to impacts**

<p>Monitor and respond to the impacts of transport policy actions on the accessibility and affordability of transport, particularly for lower income households and communities</p>	<p>Given the scale of transport sector change proposed in the Emissions Reduction Plan discussion document, comprehensive monitoring, together with a flexible strategy which explicitly provides for the ability to dynamically respond to unforeseen impacts is critical.</p> <p>A monitoring programme will need to be very carefully designed to ensure it is targeting the right people, asking the right questions and putting the right mitigations in place in the right places. In particular, this means focusing on understanding where people need to go rather than simply how close their home is to a major public transport route as generally seems to be the case with current transport targets. Social and economic impacts will be sub-regional, sub-urban and local so the programme will require extensive expertise and stakeholder input to be successful.</p> <p>The programme also needs to be transparent. We support the Climate Change Commission’s recommendation for the government to report on indicators annually from 31 December 2022. We also agree with the Commission’s suggestions that this could include mode share by distance travelled for private car use, public transport, walking and cycling and would need to be measured regionally (and in some cases locally) and aggregated nationally.</p>
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## 1.0 Other suggestions for reducing emissions

### Working from home

There is a general consensus in the transport literature that the requirement for office workers to work from home during the Covid pandemic has resulted in a structural change in demand for travel to work. People and organisations have discovered that it is practical to work from home, particularly with the use of meeting and file sharing technology.

We note that increasing the amount of time people work from home was included in the Climate Change Commission's proposed transport initiatives so we were surprised to see it did not feature in the initiatives in the Emissions Reduction Plan discussion document.

There are considerable potential emissions reduction benefits from flexible working arrangements and a large number of workplaces in New Zealand and worldwide have subsequently implemented permanent work from home policies. The government's recent climate change policy decision to require large companies to monitor and report their emissions provides a further incentive for businesses to consider this option where feasible.

There is potentially considerable scope to further reduce the amount of work travel if more workplaces are able to adopt it as a policy.

The other key benefit of a flexible working policy is that it avoids the blunter impacts of some of the other proposed initiatives such as widespread congestion charging, including the adverse social and economic impacts of increasing the costs of journeys to work.

We have raised this at the most senior levels of Auckland Transport. AT has acknowledged the benefits but also the contradiction with their core focus on growing public transport. Accordingly, we consider this is something central government should take up but ultimately this should be part of the tool kit when urban local authorities engage with businesses on their workplace travel plans.

### Network optimisation

It is clear that the initiatives across all three focus areas proposed in the transport chapter of the *Emissions Reduction Plan discussion document* will take a number of years to generate significant reductions in emissions.

In the meantime, there is considerable scope for a comprehensive programme of minor roading interventions (mainly intersection-level bottlenecks, improved traffic light synchronisation and dynamic lanes) to address long queues of traffic idling and emitting at choke points. Such initiatives are well below the threshold to be considered additional capacity and are not of sufficient scale to generate additional trips on the network.

We appreciate anything that improves conditions for general traffic is considered poor for carbon emissions. However, given the limited scope for achieving transformational modal shift or moving a sufficient proportion of the fleet to zero-emissions vehicles in the next few years, we are satisfied there is sufficient evidence network optimisation could contribute to reduced emissions. Given the size of the transport challenge in front of all of us, it is more important to apply a pragmatic approach rather than an ideological one.

### **1.1 Transport Target 1: Reduce VKT by cars and light vehicles by 20% by 2035 through providing better travel options, particularly in our largest cities**

The AA appreciates the Ministry of Transport sharing the VKT assumptions behind this target. In light of the numerous initiatives proposed across land use, public transport, walking, cycling and roading, on one level we were a little taken aback to see that 80 percent of the proposed reductions are assumed to come from a combination of parking, congestion and VKT pricing and only the remaining approximately 20 percent coming from land use changes and public transport improvements.

On another level, we are not surprised. This reinforces our view that while positive land use change and public transport improvements can be made for particular communities with concentrated trip patterns, it is simply not possible to achieve the change in density required that would turn the dial on emissions by 2035.

We are unable to comment in detail on the VKT figure without seeing the assumptions behind it other than to note it is certainly ambitious. An appropriately set VKT charge, particularly one which is visible to motorists when they make their trips will result in a reduction in at least some discretionary travel. Similarly, a congestion charge focused on a city centre will marginally reduce city-wide VKTs and achieve modal shift to public transport.

## 1.2 Recommendations on Focus Area 1

1. **Ensure** the final Emissions Reduction Plan recognises that there is a very large proportion of our urban population who will not have reasonable alternatives to private motor vehicle use for key trips such as commuting to work
2. **Target** policy interventions and finite transport investment to the transport corridors and locations where they will be most effective – generally in our more congested city centres, a handful of major supporting centres, and the main transport corridors that serve them
3. **Develop** a robust public transport and active modes investment framework to direct investment in infrastructure and services to routes and locations where there is a strong evidence base that it will drive significant mode shift
4. **Ensure** mode shift plans are principles and objectives based and focus primarily on corridors which can be effectively served by public transport because there is a strong fit between origins *and* destinations
5. **Ensure** mass rapid transit solutions will deliver strong value for money to avoid gold-plated solutions delaying other mass transit proposals and wider public transport investment
6. **Ensure** any proposals to liberalise regulations to make it easier for local government to reallocate road/street space to other modes are accompanied by direction to ensure that changes are not made without sufficient evidence that mode shift and emissions reductions will be achieved.
7. **Implement** an ongoing NLTF-funded road safety like campaign, which draws on lessons from EECA’s Low Emissions Travel Behaviour Programme and is focused on informing people about transport emissions and providing positive measures about choices they can make if it is practical to do so and they want to make a difference
8. **Undertake** extensive research to understand the purpose and nature of current trips and the availability or potential availability of reasonable alternatives that will effectively serve the destinations before contemplating congestion charging beyond city centres
9. **Continue** with the review of the transport revenue and funding system to address the increasing complexity and opacity added to the system in recent years; the increasing inclusion of non-transport objectives – particularly housing development and the need for a new system which better aligns funding with beneficiaries
10. **Include** as additional initiatives in the final Emissions Reduction Plan: direct engagement on a flexible working policy (consistent with the Climate Change Commission’s recommendation) and a network optimisation policy focused on minor roading interventions to address emissions blackspots caused by transport bottlenecks

## 2. Focus Area 2: Rapidly adopting low-emission vehicles and fuels

Proposed Initiative	AA position/ comment
Implement the Clean Car Standards and Discount	<p>The AA supports the introduction and implementation of both the Clean Car Standard and Discount to achieve a reduction in carbon dioxide emissions from light vehicles imported into New Zealand. However, while the ambition is admirable, the AA does not consider the proposed emissions reductions are achievable in the timeframes proposed because the automotive market will be unable to deliver the vehicles required.</p> <p>New Zealand is too small for manufacturers to supply bespoke vehicles to meet unique requirements. Therefore, the new vehicle market is treated by most manufacturers as a branch of the larger Australian market, making up 15% of the Australasian market. The Australasian market accounts for only 2% of total world sales of new vehicles and less than 0.17% of new vehicles in any one year are sold in New Zealand. More than 80% of new vehicles imported into New Zealand are manufactured to meet the Australian Design Rules.</p> <p>Australia only has a voluntary industry target to reduce emissions by 4% per annum for light passenger vehicles and 3% p.a. for light commercial vehicles. These targets do not match the ambitious target of reducing emissions from new entrants to the New Zealand fleet in 2027 by 60% from 2020 levels.</p> <p>For New Zealand to meet the Clean Car Standard emission targets the Motor Industry Association has determined that half of the new entrants to the fleet will need have be Electric Vehicles (EV) by 2027. Simply put, these vehicles will not be available in that timeframe.</p> <p>Currently the international motor industry is suffering from a critical shortage of silicon chips. The shortage is thought to be further exacerbated by the move to electric vehicles. For example, current ICE powered vehicles typically use a few hundred chips, whereas new electric vehicles can use a few thousand. VW predict the shortage could continue to 2024 although it's difficult to precisely predict when it will end. The chip shortage has meant drastic production cuts at a time when demand is high. This further brings to question the availability of BEV to meet the standard in the timeframes stated.</p> <p>With the single and understandable exception of Tesla, who sell their carbon credits to other manufacturers, all automotive manufacturers have delivered the same message at select committee hearings on the proposed legislation. There is a very clear risk that there will be insufficient low emissions vehicles available, with the result that the policy will only achieve limited emissions savings and will effectively function as a regressive tax for the majority of vehicle purchases. The AA is concerned the end result will be vehicles in the existing fleet are retained for a longer period with subsequent adverse emission and safety impacts.</p>

	<p>Further work is needed to develop an optimal timeline to zero emissions vehicles. This means setting ambitious but achievable targets which recognise international and Australasian automotive market supply constraints, and which will maximise the reduction in net emissions from both new vehicles entering the fleet and the existing fleet.</p>
<p>Set Maximum CO<sub>2</sub> limits for individual ICE powered imports</p>	<p>The Government already has the ability to set maximum CO<sub>2</sub> limits for individual models of vehicles. The Energy Efficiency and Conservation Act 2000 allows the Minister of Energy to prescribe minimum energy performance standards (MEPS) for services, including all vehicles. Setting the fuel efficiency level (CO<sub>2</sub>) for each class of vehicle would be similar to what already occurs for products such as refrigerators and air conditioners (heat pumps).</p> <p>MEPS have been successful in improving the energy efficiency of a range of domestic and commercial products thereby reducing CO<sub>2</sub> emissions from their energy source.</p> <p>However, the devil is in the detail and MEPS works most effectively when there are alternatives available on the market, there is no adverse impact on prices and a broad range of suitable alternatives are available. Notably, MEPS should always be set with a clear understanding of supply chain constraints, something that appears to be missing with the emissions targets proposed in the Clean Car Standards Bill.</p> <p>The AA does not consider the application of MEPS for vehicles in the light fleet is appropriate at this time as it would prevent vehicle importers from meeting their obligations under the clean car programme. Both the Clean Car Standard and the Clean Car Discount use pricing to influence supply and demand. The Clean Car Standard requires importers to balance their low and high emitting vehicle imports to meet agreed targets. Applying MEPS to restrict access to certain models would limit importers offerings, reduce consumer choice and has the potential to distort the market. In later years when the viability of a ban on ICE powered vehicles is being considered it may be appropriate to apply MEPS to light vehicle imports.</p>
<p>Introduce a vehicle scrappage scheme to support low-income New Zealanders to shift to low emission transport.</p>	<p>The AA supports a scrappage scheme that targets high emitting and unsafe (less than 3-star safety rating) light vehicles and is universal – meaning it applies across our national fleet. Nationwide application is needed to achieve significant emissions reductions across the fleet.</p> <p>About 41% of the light fleet only has a 1 or 2-star safety rating. The average age of a light vehicle in the fleet is over 14 years, and for scrapped vehicles, over 20 years. Less safe, older vehicles with high emission profiles should be the target for any future scrappage scheme. A scrappage scheme should not consider the circumstances of the owner and whether they are low income or not. The ownership of 1 star and 2-star vehicles is not related to household income.</p>

	<p>The AA is a willing and active party to an industry group that is proposing to design an industry-supported scrappage scheme that will give more detail and direction to Government about how a scrappage scheme would work.</p> <p>A social policy to support low income New Zealanders into low emission transport could support a scrappage scheme but would need to be independent of it. The policies are complementary and need to be linked but remain separate given their different objectives.</p>
<p>Introduce a sustainable biofuels mandate to reduce emissions from existing vehicles.</p>	<p>The AA strongly supports mandating biofuels (alternative fuels) within the limitations of current vehicle technology, cost restraints and economic and environmental impacts.</p> <p>Given the long lead time for achieving significant emission reductions from the other proposed policies in the discussion document, a focus on reducing emissions from the current vehicle fleet has the greatest potential in the short, and arguably, medium term. We are therefore concerned that there appears to have been no investigation or ambition into how domestic production of biofuels could be significantly scaled up in New Zealand.</p> <p>At current prices, the ETS levy is generating close to \$1 billion per annum from fuel sales. Revenues of that scale give the government options to reinvest to incentivise, leverage, or partner in large scale biofuel production. We would like to see a strategy for the reinvestment of ETS revenues developed as a high priority.</p> <p>The AA supports the certification of biofuel to assure that the biofuels meet any required standards and are sustainable. Separate percentages targets for different fuels will ensure alternative fuels are available across the transports sector. This will enhance deployment in aviation, road freight, rail and coastal shipping.</p> <p>Diesel-powered light commercial vehicles are a growing subset contributing to increased CO<sub>2</sub> emissions. This subset is expected to keep growing. A separate diesel percentage target will ensure that biofuel is available for these vehicles which might not be the case with a single emissions reduction percentage across all fuels. A separate percentage target is also justified for diesel over petrol biofuel substitution on air pollution grounds. Diesel is dirtier and with more PPM and NOX that will be mitigated with biodiesel.</p>

<p>Plan for large-scale rollout and investment in EV charging.</p>	<p>The AA supports a comprehensive national EV charging infrastructure strategy supported by action plans.</p> <p>EV public charging infrastructure is relatively well developed so far with public charging stations for every 75km of state highway. This development was supported by the Low Emission Vehicles Contestable Fund. This needs to continue to grow to match the expected uptake of EV in the light fleet.</p> <p>To complement the growth in public charging infrastructure, the AA considers the government will need to explore ways to incentivise an increase in private charging infrastructure. This should include incentivising installing EV chargers in existing and future homes to avoid the lack of home charging facilities becoming a barrier to the uptake of EVs. Innovation in this area needs to form a part of an overall strategy and investment plan for how the hypothecated ETS funds can be used to reduce transport emissions.</p>
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## 2.1 Other suggestions for reducing emissions

Further work and investment is needed to establish a smart electrical grid to utilise the other potential benefits BEV have. These include electricity storage, emergency supply and wireless electricity transmission. Changes needed to unlock further emissions reductions and maximise utility in the electricity sector include time of use pricing, additional renewable generation and electronic controls and communication technologies to flatten the demand profile. By managing the load profiles and preventing peak loads, the need for coal and gas for electricity generation will be mitigated.

Understanding when a sharp uptake in BEV will occur and where it will occur will be key factors for electricity suppliers to understand and manage. Investment in resized transformers, smarter meters, future proofing garages and charging locations needs to start now.

## 2.2 Transport Target 2: Increase zero-emissions vehicles to 30 per cent of the light fleet by 2035

Reaching the target of 30% of the light fleet being zero emissions will be largely dependent on the availability of BEV leading up to 2035. Internationally, the motor industry is moving development and investment away from ICE vehicles to BEV vehicles, but this will take time. New Zealand's small market size makes it impossible for us to get ahead of international markets that also seek and incentivise the uptake of zero emission vehicles.

The AA is concerned that the Clean Car Standard as it is currently proposed will not deliver the projected CO<sub>2</sub> emission reductions sought in the early years of its introduction. This is due to a combination of the demand for zero emission vehicles internationally and our ability to source them. Having said that, the motor industry is investing heavily in BEV technology and when the battery range reaches 500-600 km range further development on extending the range will stop and standardised batteries will be the norm. This will result in the total cost of ownership being less for

BEV than ICE vehicles and economies of scale will drive prices down. The path to the target will therefore be slow in the first few years with increasing momentum as the end of the decade approaches. The majority of the vehicles needed to meet the target will enter the fleet post 2030.

New Zealand will need 1 million to 1.5 million zero emissions vehicles in the fleet to meet the 2035 target. In a straight-line adoption this equates to 100,000 vehicle per annum. This figure will not be met in the first five years which means that by 2030 nearly all new entrants to the fleet will have to be zero emissions if the 2035 target is to be achieved.

The AA believes this target is attainable but is premised on large numbers of zero emission vehicle being available from 2030 onwards. The target must also be supported by the removal of existing high emission vehicles from the fleet. This is as equally important as meeting the target for low emission vehicles entering the fleet.

### **2.3 Transport Target 3: Reduce the emissions intensity of transport fuel by 15 per cent by 2035**

Reducing the emissions intensity of transport fuels will primary be met by more fuel-efficient ICE vehicles, combined with a mix of biofuels and BEV adoption. It is important that the contribution of very efficient ICE and hybrid vehicles are recognised as they will contribute significantly in the next five years as the capital cost of BEV and ICE vehicle reach parity. Although hydrogen is seen as another contributor, its use will be primary in the heavy vehicle sector.

### **2.4 Recommendations on Focus Area 2**

1. **Undertake** further work on the Clean Car Standard and Discount to develop an optimal path to zero emissions vehicles which sets ambitious but achievable targets that recognise international market supply constraints and which will maximise the reduction in net emissions from both new vehicles entering the fleet and the existing fleet
2. **Delay** any considerations to implement MEPS for vehicles until the clean car programme has finished
3. **Progress** work to introduce a vehicle scrappage scheme for the national light vehicle fleet to remove both high emitting and unsafe vehicles
4. **Implement** the sustainable biofuels mandate and further investigate, with haste, ways that the government can incentivise the scaling up and speeding up of their adoption in the existing fleet
5. **Progress** the roll out of a large scale public charging network for EVs to meet the growing demand
6. **Urgently** progress the development of comprehensive strategy and investment plan for the use of the nearly \$1 billion per annum that is being collected in ETS revenues from fuel sales including for incentivising, leveraging or partnering in large scale biofuel production

## About the NZ Automobile Association

The NZAA is an incorporated society with over 1.8 million members, representing a large proportion of New Zealand road users.

The AA was founded in 1903 as an automobile users' advocacy group, but today our work reflects the wide range of interests of our large membership, many of whom are cyclists and public transport users as well as private motorists.

Across New Zealand, the motoring public regularly come into contact with the AA through our breakdown officers, 37 AA Centres and other AA businesses. Seventeen volunteer AA District Councils around New Zealand meet each month to discuss local transport issues.

Our policy and research team regularly surveys our Members on transport issues and Members frequently contact us unsolicited to share their views. Via the AA Research Foundation, we commission original research into current issues in transport and mobility. Collectively, these networks, combined with our professional resource, help to guide our advocacy work and enable the NZAA to develop a comprehensive view on mobility issues.

Motorists pay over \$4 billion in taxes each year through fuel excise, road user charges, registration fees, ACC levies, and GST. Much of this money is reinvested by the Government in our transport system, funding road building and maintenance, public transport services, road safety work including advertising, and Police enforcement activity.

On behalf of AA Members, we advocate for sound and transparent use of this money in ways that improve transport networks, enhance safety and keep costs fair and reasonable. Our advocacy takes the form of meetings with local and central government politicians and officials, publication of research and policy papers, contributing to media on topical issues, and submissions to select committees and local government hearings.