



# Tasmania's sustainable transport future

Submission to the Draft Transport Emissions Reduction and Resilience Plan

Tasmanian Policy Exchange

November 2023

UNIVERSITY of  
**TASMANIA** 

Ranked #1 in the world for Climate Action

## Acknowledgement of Country

The University of Tasmania pays its respects to elders past and present, and to the Tasmanian Aboriginal community that continues to care for Country. We acknowledge the profound effect of colonial settlement on this Country and seek to work alongside Tasmanian Aboriginal communities, respecting their deep wisdom and knowledge as we do so.

The palawa/pakana belong to one of the world's oldest living cultures, continually resident on this Country for 42,000 years.<sup>1</sup> We acknowledge this history with deep respect, along with the associated wisdom, traditions, and complex cultural and political activities and practices that continue to the present.

The University of Tasmania also recognises a history of truth that acknowledges the impacts of invasion and colonisation upon Aboriginal people and their lands, resulting in forcible removal, and profound consequences for the livelihoods of generations since.

The University of Tasmania stands for a future that profoundly respects and acknowledges Aboriginal perspectives, culture, language and history, and continued efforts to realise Aboriginal justice and rights, paving the way for a strong future.

## Contributors

This University of Tasmania submission was prepared by the Tasmanian Policy Exchange. The primary authors are Richard Eccleston, Megan Langridge, Sarah Hyslop, Kimberly Brockman, Lachlan Johnson, and Robert Hortle, drawing on research and expertise from across the University and beyond. We would particularly like to thank Swee-Hoon Chuah and the UTAS Behavioural Lab for their contributions. The views expressed in this submission are the views of the authors and not necessarily the views of the University of Tasmania.

## About the Tasmanian Policy Exchange

The Tasmanian Policy Exchange (TPE) was established in 2020 to enhance the University's capacity to make timely and informed contributions to policy issues and debates which will shape Tasmania's future.

The TPE works with government and community partners to identify and address significant issues to make a positive impact on Tasmania's future. It also works with staff from across the University of Tasmania to develop evidence-based policy options and longer-term collaborations.

The TPE's recent policy analysis includes:

- [Shaping a strategic partnership for Western Tasmania](#)
- [Tasmania's greenhouse gas emissions: Annual update](#)
- [The Future of Local Government Review](#)

See more at [www.utas.edu.au/tpe](http://www.utas.edu.au/tpe)

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<sup>11</sup> Members of the Tasmanian Aboriginal community identify with a range of terms, including palawa, pakana, Pallawah, Aboriginal, Aborigine, Indigenous, Traditional Owners, First Nations, and First Peoples. In this submission, we use the term Tasmanian Aboriginal people and communities, while recognising that there are several other ways Tasmanian Aboriginal people may choose to refer to themselves.

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## Introduction

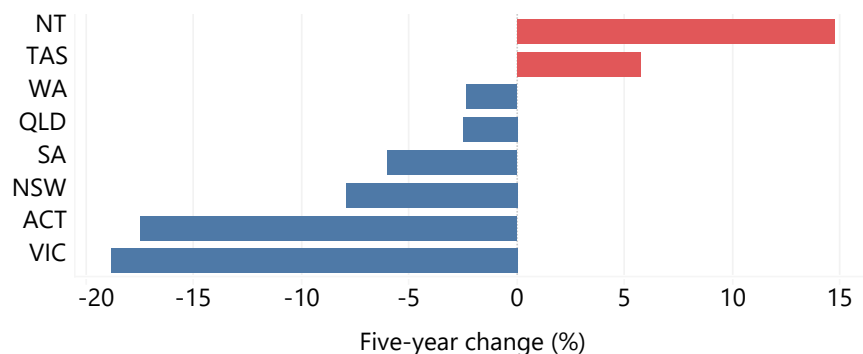
Tasmania's transport system is carbon-intensive, unhealthy, inequitable, and unsafe. We drive the [oldest and most polluting vehicles](#) of any state or territory in Australia. We also own more of them and use them more intensively than anywhere else in the country due to our low uptake of public and active transport options. We die in traffic accidents at almost [twice the national average rate](#), partly due to our ageing, unsafe car fleet and poor road quality.

Clearly these are problems worth fixing for their own sake, but the climate emergency we are confronting makes the need for a rapid transition towards a cleaner, greener, safer future for Tasmanian transport all the more urgent. With this imperative front of mind, we welcome the opportunity to respond to the State Government's recently released draft *Emissions Reduction and Resilience Plan* (henceforth ERRP or Draft Plan) for the transport sector.

We acknowledge that the Draft Plan includes many worthwhile initiatives, such as the rollout of Electric Vehicle (EV) chargers under the ChargeSmart grant program and the 100% EV target for the Government vehicle fleet by 2030. However, we argue in this submission that it does not go far enough.

Tasmania needs a bolder and more strategic plan to deliver significant emissions reduction in the shortest possible time, while also creating a more resilient transport system for the future. Business as usual simply won't get us where we need to go. We are already a laggard on transport emissions reduction (see Figure 1 below) and cannot credibly claim [world leadership on climate action](#) without new, ambitious, and appropriately resourced initiatives to modernise and future-proof our transport system.

Figure 1: Percentage change in transport sector emissions, 2017-2021



Crucially, Tasmanians want and expect better emissions reduction performance in the transport sector.

Our [independent survey research](#), conducted in partnership with RACT and the *Mercury*, shows that a majority of Tasmanians (62%) supports the establishment of a state-level transport emissions reduction target and 60% support a zero-emissions vehicle (ZEV) uptake target. If the ERRP is to effect real change, the State Government must listen to Tasmanians and set ambitious, timebound targets to guide action.

Although state-level targets and concrete policy commitments are essential, it is also important to acknowledge that we cannot go it alone. External factors such as the limited supply of ZEVs and national policies like fuel quality regulation, vehicle emissions standards, and tax concessions will also influence

the speed of the transition to a sustainable transport sector. Therefore, the State Government should be doing everything it can to support transport decarbonisation in partnership with other levels of government and industry stakeholders. Finally, individual actions and community choices will play a critical role, which is why we are working with colleagues at the UTAS Behavioural Lab on potential strategies to influence transport behaviour. Even if sustainable transport options are in place, they are no good unless individuals and communities are willing and able to use them.

The remainder of our submission focuses on the key policies we believe should be implemented in the short- and medium- to long-term in the following five key priority areas:

1. Transitioning to zero-emissions light vehicles
2. Increasing the use of public transport
3. Increasing the uptake of active transport
4. Decarbonising heavy transport
5. A resilient transport sector ready for the future

More information and greater detail on the policy proposals outlined here can be found on our [website](#).

### Targets and measuring progress

Given that this is the first of a series of ERRPs, we feel it is important the State Government establishes a strong precedent through setting specific, measurable, achievable, relevant, and timebound (SMART) targets and goals. Other Australian states have already established specific targets to reduce transport emissions. For example, Queensland has set targets for 100% of eligible government passenger fleet vehicles to be zero-emissions by 2026; every new public bus to be zero-emissions from 2025-2030; 50% of new passenger vehicle sales to be zero-emissions by 2030, and 100% by 2036 (see Tables 1 and 2 below).

Bold and ambitious new targets are notably absent from the Draft Plan, which instead notes, based on prior consultation, that “partnership between government and industry is the preferred approach to support emissions reduction”. Partnering with industry is certainly one important pillar of transport decarbonisation policy and we emphatically support an engaged, collaborative approach. However, it is no substitute for clear, credible targets for at least three reasons:

1. Targets are key to ensuring accountability and provide a simple, transparent framework to assess progress. There is no reliable way to gauge success (or failure) without clearly articulating what the plan intends to achieve and in what timeframe.
2. Targets drive action, community engagement, and participation. They are a vital way for the public to understand and engage with emissions reduction efforts.
3. Targets will provide a basis for gaining international recognition and enhancing Tasmania’s climate-positive brand. Only a handful of jurisdictions have so far established sectoral emissions targets (i.e., [Ireland](#) and [Kenya](#)), providing an opportunity for Tasmania to establish itself as a leader. Sectoral targets will clearly demonstrate to the world Tasmania’s ambition and credentials on climate.

Our overarching aim should be to lead Australia on emissions reduction in the transport sector and ensure that we retain our current net-negative emissions status to 2030 and beyond. Within this framing, it is important that the State Government consults with the community and industry to set

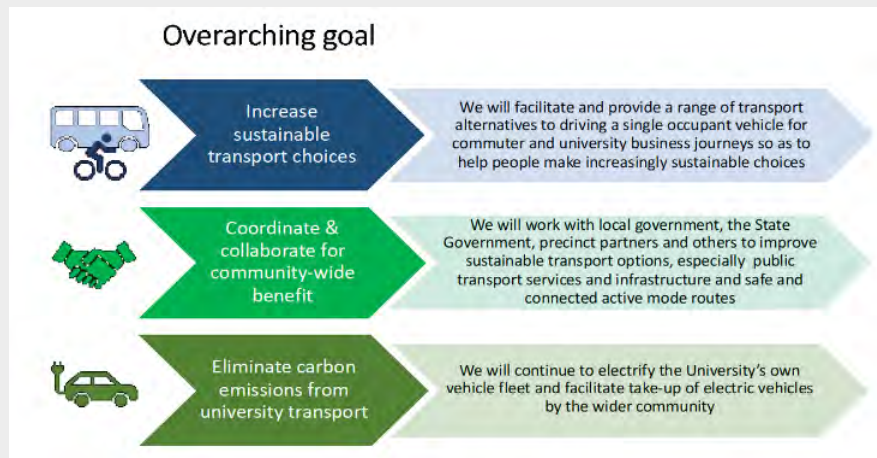
SMART targets. Working with the Tasmanian community and industry to set clear targets for each of the ERRPs will help guide and focus efforts and ensure accountability with tangible outcomes.

Targets should be supported by an action plan which systematically lays out a method and timeline for achieving priorities within specific timeframes. To ensure accountability, this should include assessment processes that are clearly outlined and conducted transparently. For example, the [Australian Capital Territory's Zero Emissions Vehicle Strategy 2022-30](#) commits to 28 actions all to be achieved by specific dates. [Queensland's Zero Emission Vehicle Strategy 2022-2032](#), and accompanying [Zero Emission Vehicle Action Plan 2022-2024](#) commit to reporting on progress every two years to show how they are tracking towards achieving their short- and long-term goals.

In our recent [survey](#), the majority of respondents (62%) were supportive of Tasmania setting an additional 2030 emissions reduction target specifically for the transport sector. Therefore, based on [our previous analysis](#), **we believe the State should implement a target of reducing transport emissions by 37% on 2020 levels by 2030.** In addition to this target, which is central to all of the priority areas outlined above, our submission proposes several more specific policy options, which are summarised in the table below (p.8).

## The University of Tasmania's Sustainable Transport Strategy

UTAS has had a Sustainable Transport Strategy since 2012. The Strategy details transport practices within the University community and maps a pathway for more sustainable transport practices and outcomes, and applies to students, staff and visitors. The Strategy has three overarching goals and associated pledges regarding its transport services and infrastructure for staff and student commuting.



The Strategy features clear targets to help the different units and agencies deliver on its objectives:

- >70% of students will use sustainable modes when attending campuses by 2032
- >50% of staff will use sustainable modes for commuting by 2032
- >60% reduction in carbon emissions from University land business-related travel by 2032 from a 2015 baseline year

Some of the key initiatives already underway include:

- electric charging for bikes, motorcycles, and cars
- bike hubs, end-of-trip facilities, and bike parking rails
- e-bike salary sacrifice opportunity
- implementation of a UniHopper bus service for students and staff between Sandy Bay and Hobart CBD
- public transport infrastructure, services, and Green card incentives
- first carshare scheme in Tasmania (Flexicar at Sandy Bay and Hobart CBD campuses)
- embedding of sustainable transport principles in campus master planning and detailed designs for precincts and buildings.

UTAS' implementation of sustainable transport initiatives led to an estimated reduction of greenhouse gas emissions of ~1,000 t CO<sub>2-e</sub> between 2015 and 2019, as calculated by the Commonwealth Climate Active Carbon Neutral Standard for Organisations.

For more information see [here](#)

Priority Area	Established State Government initiatives	Priority actions	Future priorities
<b>1. Transition to zero-emissions light vehicles</b>	<ul style="list-style-type: none"> <li>• Transitioning the State Government fleet to 100% electric vehicles by 2030</li> <li>• Participation in the Electric Vehicle Grid Integration Working Group, considering bi-directional charging</li> <li>• Supporting the uptake of ZEVs by State Government businesses and the private sector (e.g., Aurora Energy Carbar EV subscription service)</li> <li>• The ZEV rebate program, which supports uptake by providing \$2,000 to those who purchase eligible new or second hand ZEVs</li> </ul>	<ol style="list-style-type: none"> <li>1. Establish a ZEV sales target</li> <li>2. Encourage Tasmanian organisations to transition their fleets</li> <li>3. Allow only ZEVs to be available for state service salary-packaged leases</li> <li>4. Follow the recommended ratio between ZEVs and charging infrastructure (one level two charger per 10 ZEVs and one level three charger per 100 ZEVs)</li> <li>5. Ensure that the location and accessibility of ZEV charging infrastructure reflects the users within that area, but does not leave out rural or remote areas</li> <li>6. Support accessible charging infrastructure at workplaces, and for those who cannot access off-street parking or install charging infrastructure at home</li> </ol>	<ol style="list-style-type: none"> <li>1. Continued development and support of charging infrastructure to ensure that the charger to ZEV ratio remains within benchmarks and avoid significant queue anxiety, which may hinder uptake of ZEVs</li> <li>2. Investigate the use of vehicle to home (V2H) to enable ZEVs to support home power usage (potentially to be used in conjunction with solar panels)</li> </ol>
<b>2. Increasing the use of public transport</b>	<ul style="list-style-type: none"> <li>• Developing park and ride facilities, particularly in the south of the state</li> <li>• Supporting ferry trials between Bellerive and Hobart – with \$19 million in funding over four years to</li> </ul>	<ol style="list-style-type: none"> <li>7. Improve the quality of service</li> <li>8. Apply behavioural insights to encourage more public transport use</li> <li>9. Set a target for public bus fleet conversion</li> </ol>	<ol style="list-style-type: none"> <li>3. Plan for and build charging infrastructure for the decarbonisation of Tasmania’s public transport system</li> <li>4. Pilot and develop on-demand public transport options for</li> </ol>



Priority Area	Established State Government initiatives	Priority actions	Future priorities
	<p>deliver this service, explore future options for low emissions ferries, and support infrastructure development</p> <ul style="list-style-type: none"> <li>• Supporting Metro Tasmania trials of electric and hydrogen buses</li> <li>• The <a href="#">Keep Hobart Moving plan</a> has a target to increase public transport use for journey to work from 6.4% to 10% by 2030</li> </ul>		<p>rural and regional communities</p>
<p><b>3. Increasing uptake of active transport</b></p>	<ul style="list-style-type: none"> <li>• Financial support for Tasmanians purchasing e-bikes and e-scooters</li> <li>• The \$8.8 million Better Active Transport in Tasmania grant program (over four years or until exhausted) supports local councils to create and provide active transport infrastructure (i.e., cycleways and shared pathways)</li> <li>• Supporting the Bicycle Network’s delivery of the Back on your Bike Programs and Ride2School Day</li> <li>• The <a href="#">Keep Hobart Moving plan</a> aims to double the number of people walking,</li> </ul>	<p>10. Increase the number of safe, continuous, and connected cycling and pedestrian lanes</p> <p>11. Apply behavioural insights to active transport campaigns</p> <p>12. Set an active transport uptake target</p>	<p>5. Establish a statewide target for infill development</p>

Priority Area	Established State Government initiatives	Priority actions	Future priorities
	<p>wheeling, and bike riding over 10 years (from around 8% to 16% of people across greater Hobart)</p>		
<p><b>4. Decarbonising heavy transport</b></p>	<ul style="list-style-type: none"> <li>The Bioenergy Vision for Tasmania sets out the State Government’s role in increasing bioenergy use by heavy transport, and identifies opportunities in Tasmania</li> </ul>	<p>13. Support the transition to electric heavy vehicles where practical (e.g. for urban freight deliveries)</p>	<p>6. Work with major haulage companies to support the development of further zero-emissions options to power long-haul travel</p>
<p><b>5. A resilient transport sector ready for the future</b></p>			<p>7. Expansion of electricity generation and transmission to support electrification</p> <p>8. Planning scheme changes to encourage home charging</p>

## Priority area 1: Transition to zero-emissions light vehicles

A key focus of any transport emissions reduction plan must be supporting the adoption of ZEVs in place of internal combustion engine vehicles (ICEVs). The transition to ZEVs is already underway; the technology is available and Tasmanians have told us loud and clear that they want to embrace low-carbon options. In our survey, 62% of respondents – and 70% of those aged under 45 – want ambitious transport emissions reduction targets. Moreover, a majority (~63%) of respondents aged between 25 and 44 indicated that they are likely to purchase a ZEV as their next car. The ERRP must outline not only state-level policy responses, but also how the State Government will work with the Commonwealth, councils, and local communities to accelerate these efforts.

Some of the most important levers to drive ZEV uptake are in the hands of the Federal Government. These include the proposed adoption of national fuel standards and the Fringe Benefits Tax exemption for low-emissions vehicles under \$85,000, established under an amendment to the *Fringe Benefits Tax Act 1986* (Cth). Therefore, it is critical that Tasmania works with other Australian governments to ensure national-level policies are put in place that are good for our environment and support Tasmanians to transition to ZEVs, as outlined in the Draft Plan (p. 14).

At the state level, supporting everyday Tasmanians to transition to ZEVs will be important. We welcome the State Government's [launch of a program](#) to support ZEV uptake, including financial incentives and more EV chargers, as referred to in the Draft Plan (p. 14). We recommend two further high-impact, short-term priority actions:

1. Promoting ZEV fleet sales
2. Planning and scaling up the charging infrastructure required to power Tasmania's future ZEV fleet.

### Promoting ZEV fleet sales

The ERRP should focus on supporting and encouraging government agencies, businesses, and other organisations to transition their fleets to ZEVs through the implementation of purchasing policies and targets. This would be a highly effective way of reducing emissions from the transport sector because the majority of new vehicles in Tasmania are purchased by organisations.<sup>2</sup>

The Tasmanian Government has already started this important work by committing to a target of [100% of the Government fleet to be ZEVs by 2030](#). UTAS, Tasmania's second largest employer behind the Tasmanian State Service (TSS), has [an almost completely electric fleet of vehicles](#) (see textbox on p. 7 for more information on the UTAS Sustainable Transport Strategy). Rapid fleet conversion will also substantially increase the pool of ZEVs available on the second-hand market in the coming years. Most

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<sup>2</sup> The ACCC's 2017 [New Car Retailing Industry Market Study](#) found that roughly 64% of new cars in Australia are sold to government and businesses either on the wholesale market or through authorised dealers. We expect, given Tasmanians' lower than average incomes, that new car sales to households are a smaller share of the total market here than on the mainland.

Tasmanians purchase second-hand cars when in need of a vehicle,<sup>3</sup> and 54% of our survey respondents stated that the lack of availability of second-hand ZEVs discourages them from buying one.

Priority actions to promote light ZEV fleet sales	
1. Establish a ZEV sales target	Tasmania should join most other states and territories in Australia by adopting a ZEV sales target (see Table 1 below). Setting a target would send a firm signal to suppliers and consumers that the State Government is serious about enabling the transition to ZEVs. This would be a popular policy: 60% of our survey respondents agree that Tasmania should set a 2030 target for new light ZEV sales. <a href="#">We have argued</a> elsewhere that the target should be for 67% of new light vehicle sales in Tasmania to be ZEVs by 2030, and 100% by 2035.
2. Encourage Tasmanian organisations to transition their fleets	A program similar to the South Australian <a href="#">EV fleet pledge</a> should be adopted. This would encourage organisations (including local and state governments, universities, metro taxis, and ride-share services) to commit to electrifying their fleets. The program should aim to foster knowledge development and exchange, and provide driving and operating experiences with ZEVs to inform investment choices.  In behavioural terms, transitioning fleets will allow participating organisations (and their leaders) to position themselves as environmental stewards, leading to a stronger social licence to operate. Organisations will also be motivated by customer goodwill, particularly as a majority of Tasmanians are in favour of decarbonising transport.
3. Allow only ZEVs to be available for TSS salary-packaged leases	The State Government should only provide salary packaging arrangements for ZEVs (with exemptions where necessary). This would likely provide FBT savings as well as climate benefits.

Table 1: ZEV sales targets adopted in Australian jurisdictions

Jurisdiction	Sales target
Australian Capital Territory	80-90% of new light vehicle sales to be ZEVs by 2030
New South Wales	52% of new car sales to be EVs in 2030-2031, the “vast majority” to be EVs by 2035
Queensland	50% of new passenger vehicle sales to be ZEVs by 2023, 100% by 2036
South Australia	100% of new passenger car sales to be fully electric by 2035
Victoria	50% of all light vehicle sales in Victoria to be ZEVs by 2023

<sup>3</sup> While reliable data on the second hand market are relatively scarce, an [industry report from 2015](#) suggested Australian second-hand car sales were in the region of 3 million units per annum (around 3 times as many used car sales as new car sales). As with the fleet sales data discussed above, we would expect the share of used car sales in Tasmania to be higher than average due to the state’s low incomes and high average vehicle fleet age.

## Scaling charging infrastructure

Charging infrastructure is important and essential to the uptake and use of ZEVs. Currently, it is one of the main barriers within Australia for the uptake of electric vehicles, with research suggesting that we may only reach around 60% of market uptake without addressing charging infrastructure constraints ([Broadbent et al. 2022](#)). In our [survey](#), 64% of respondents indicated that accessibility of public charging infrastructure discourages them from purchasing a ZEV (second only to purchase price). Moreover, 74% of respondents would be more likely to purchase a ZEV if there were more charging infrastructure, with this being the most popular policy option to encourage ZEV uptake. Having a clear plan regarding the rollout and creation of charging infrastructure will be important to encourage users to purchase and use ZEVs. This plan to scale charging infrastructure should involve different strategies to support private infrastructure creation through regulations as well as ensuring the electricity grid is fit for purpose.

At this stage of ZEV uptake, range anxiety appears to be prevalent among potential buyers. However, as the number of ZEV users increases, queue anxiety is likely to become more common. Therefore, it will be important that there are enough chargers – both in quantity and speed of charging - to suit the demand levels of particular areas.

Initially, charging infrastructure may need to be subsidised or owned by government, but should eventually become privately owned and managed infrastructure (as with the Electric Highway Tasmania). As a result, the government should only own and managing charging locations that may never be profitable (such as those in remote or rural areas). To help support private charging infrastructure, the government should consider the current allocation of land for chargers, and potential regulations to assist the creation of and require charging infrastructure on private car parks.

New Zealand has a good framework for charging infrastructure. Currently, the New Zealand nationwide EV charging network (which is privately owned by ChargeNet) [has over 300 fast charging points, with at least one charging station on every 75km of highway](#) (with some rural exceptions). There has also been a commitment to [double this network over the next three years](#) to help keep up with the growing ZEV sales, including the installation of charging hubs at key locations – which allow for up to 10 vehicles to charge at one time.

The draft Plan lists the investigation of electricity tariffs and time-of-use pricing as a future opportunity to encourage off-peak charging of EVs to manage electricity demand. Importantly, this could also act as an incentive to purchase ZEVs: 70% of our survey respondents indicated they would be more likely to purchase a ZEV if they were able to access an off-peak ZEV charging discount.

Priority actions to scale up charging infrastructure	
4. Follow the recommended ratio between ZEVs and charging infrastructure (one level two charger per 10 ZEVs and one level three charger per 100 ZEVs)	The EU's Alternative Fuels Infrastructure Directive recommends that public charging infrastructure should meet a benchmark density of around one charger for every 10 ZEVs, whilst <a href="#">Harrison &amp; Thiel (2017)</a> suggest an optimal ratio somewhere between one charger for every 5 to 25 ZEVs. Within this, there needs to be an appropriate mix of level 2 (up to 22kW, which adds 40 to 100km of range per hour of charging) and level 3 <a href="#">chargers</a> (between 25kW and 350kW, at the lower end can add up to 150km of range per hour of charger or at the upper end can charge electric vehicles in 10 to 15 minutes), ideally at least one level two charger per 10

## Priority actions to scale up charging infrastructure

	<p>ZEVs, and one level three charger per 100 ZEVs. We commend the Tasmanian Government for <a href="#">meeting this benchmark</a> in 2021, however as the number of ZEVs continues to grow, more charging infrastructure will be needed to meet and exceed these benchmark ratios.</p>
<p>5. Ensure that the location and accessibility of ZEV charging infrastructure reflects the users within that area, but does not leave out rural or remote areas</p>	<p>It will be important to ensure that areas of high-demand (such as key highways – like the Midlands) have sufficient charging infrastructure – both in terms of quantity of chargers, as well as speed and accessibility. Users will need to feel safe to leave their vehicle to charge and able to access facilities in that area (i.e., toilets and/or stores – like current petrol station infrastructure). Additionally, charging infrastructure needs to be well-maintained to ensure that users are not constantly met with broken chargers -as is becoming problematic in some countries such as the <a href="#">US</a>.</p> <p>However, it will also be important that chargers are sufficiently spaced out and do not exclude rural or remote areas. It is likely that these locations may not be profitable but will be vital to help reduce range anxiety and encourage rural residents and tourists to purchase and use ZEVs in these areas. As such, there may need to be government-owned chargers installed in remote areas as private investment may not provide sufficient charging infrastructure in these areas.</p>
<p>6. Support accessible charging infrastructure for those who cannot access off-street parking, are unable to install charging infrastructure in their homes, and in workplaces</p>	<p>Additional considerations will need to be had for users who are unable to charge their vehicles at home due to a lack of off-street parking - particularly those in apartment and semi-detached dwellings - or those who cannot install charging infrastructure due to their rental agreements or circumstances, as well as providing charging infrastructure at workplaces. In our survey, almost half of participants (44%) considered lack of accessibility of charging infrastructure at home to be a barrier to purchasing a ZEV. Some examples of strategies to help combat this include <a href="#">fitting streetlights</a> with <a href="#">charging infrastructure</a> – which is either free or connected and paid for via an app. Other options involve utilising key destinations (such as supermarkets and shopping centres) as a place of these users to charge their vehicles.</p> <p>To help encourage infrastructure installation in homes and apartments with off-street parking, regulations relating to <a href="#">strata requirements could be adapted to allow for installation without an onerous approval process</a>. Additionally, regulation and requirements that would mean tenants are able to install charging infrastructure (that can then be taken with them) or to mandate the installation of charging infrastructure should be considered.</p>

Future priorities	
1. Continued development and support of charging infrastructure within Tasmania to ensure that the charger to ZEV ratio remains within benchmarks and avoid significant queue anxiety, which may hinder uptake of ZEVs	Tasmania's <a href="#">current ZEV charging network</a> is more or less adequate for our relatively small number of ZEVs. However, the rate at which the network has been growing will soon fall behind projected increases in ZEV uptake. If Tasmania follows the CSIRO's medium uptake pathway, there will be around 40 times more ZEVs on our roads in 2030 than there are today. For our charging infrastructure to keep pace with <a href="#">demand modelling</a> and the rule-of-thumb guidance in the EU's <a href="#">Alternative Fuels Infrastructure Directive</a> noted above, we will need over 2000 level two chargers plus some 200 level three chargers across the state by 2030.
2. Investigate the use of vehicle to home (V2H) to enable ZEVs to support home power usage (potentially to be used in conjunction with solar panels)	Government support of trials and investigations into the cost and feasibility of bi-directional charging will be important to help increase the accessibility of this technology. The draft Plan lists undertaking a bidirectional charging trial to demonstrate the ability of electric vehicles to provide a service to electricity networks during peak periods. Once the technology is more ubiquitous, this could be a useful initiative to demonstrate to the Tasmanian community.

### South Australia's leading action on EV uptake

Currently, South Australia is aiming [to become a national leader in electric vehicle uptake and smart charging \(using renewable energy\) by 2025](#). To achieve this, the South Australian Government is investing \$41 million to accelerate the uptake of EVs. The primary focus is on charging infrastructure – including ensuring charging infrastructure in priority regional sites and a statewide charging network, which [will be comprised of over 530 chargers in over 140 stations](#) (with clear information surrounding the rollout).

In addition to commitments by the Government to transition to a fully electric government fleet by 2030, there is an EV fleet pledge that businesses and organisations can opt into to show consumers their commitment to emissions reductions. Prior to making the pledge, organisations participate in information sessions with the Government EV team to help the transition to electric vehicles.

South Australia has also been the first Australian jurisdiction to allow vehicle to home (V2H) and vehicle to grid (V2G) – which enables users to [power their homes](#) or place power [back into the electricity grid](#). This will allow users to reduce their household electricity bills by charging their vehicle during times of off-peak pricing, which can be used when electricity is more expensive.

## Priority area 2: Increasing the use of public transport

Vehicle electrification is a key pillar of transport decarbonisation, but [it will not be enough](#) to drive the drastic emissions reductions needed to meet Tasmanian and Australian 2030 climate goals. Given that the conversion of our vehicle stock to ZEVs will take decades, the most immediate change we can make is a largescale shift to public and active transport. Our survey results indicate that the majority of Tasmanians (58% of respondents) are willing to increase their use of public and/or active transport on a regular basis, but that fundamental structural barriers currently prevent them from doing so.

The current Draft Plan includes a range of actions to improve public transport, including introducing a statewide public transport fare structure, integrated ticketing system, and real-time information. These are all promising initiatives and will allow Tasmanians access to services now common in other jurisdictions. However, we still have a long way to go before Tasmania's public transport system ceases to be perceived as the ["mode of last resort"](#).

### Restoring confidence in public transport

The challenges facing public transport and in particular, Metro Tasmania, are well known and widely understood. Our survey found that the vast majority of respondents are deterred from using public transport in Tasmania due to waiting times (84%), reliability (83%), and travel time (80%). Lack of suitable transport routes was another significant barrier: "From New Town to Rosny there isn't a bus... I'd have to go to town and then over the bridge... [which would take] about an hour rather than 10 mins in a car". Poor quality infrastructure (65%) and lack of access to infrastructure (63%) were also deterrents. Survey respondents identified the most important improvements to be increased frequency (81%), reliability (79%), providing more options such as rapid buses or light rail (78%), and providing more routes (76%).

The State Government must increase the ambition of the public transport commitments in the ERRP in line with community needs. For example, although the introduction of a statewide fare structure will be useful, survey respondents identified the cost of public transport as the least significant deterrent (50%) of all options we presented. On the supply side, the state Government should consider policies focused on improving the quality of service, which were more popular with survey respondents than those aimed at improving infrastructure (e.g., park and ride locations, security cameras, bus stops, bike infrastructure).

On the demand side, the State Government should use behavioural insights to address the cognitive barriers that prevent people from using public transport. For example, one important barrier is people's lack of awareness of the negative externalities and consequences caused by their driving private vehicles, which could be addressed by providing feedback to each Tasmanian household on the amount of transport emissions they produce, relative to a meaningful benchmark (e.g. the amount produced by similar Australian households). Another key barrier is that people hold negative perceptions of public transport, largely due to regular media coverage of delayed or cancelled services and anti-social behaviour (the availability bias). This could be countered by testimonials on the benefits of public transport delivered by frequent public transport riders with whom people can identify (social proof).



## Tasmanian bus service challenges

Research into the experiences of people on public transport undertaken earlier this year highlights some of the issues with Tasmanian bus services. The researchers found that overall, ‘the labour of moving around Greater Hobart was... exhausting’. Infrastructure and timetabling issues meant that bus trips took significantly longer than private transport – an issue which was commonly exacerbated by delayed buses or trip transfers – while several routes felt ‘stuffy’ and uncomfortable due to the large volume of passengers. There were also several instances where the field researchers felt unsafe due to the behaviour of other passengers towards them (including being offered drugs, witnessing someone urinating, and being constantly bumped by another passenger’s bag) and towards the driver (which included one instance of overt racism). Additionally, it was noted that there are significant challenges for parents to get on and off the bus with their children and baggage.

### Priority actions to restore confidence in public transport

7. Improve the quality of service	The best way to restore confidence in public transport and encourage more people to use it is to improve the quality of existing services. This should encompass higher frequency of trips, improved reliability, more options, and more routes, and will most likely involve a focus on recruiting and providing rewarding careers for bus drivers.
8. Apply behavioural insights to encourage more public transport use	Investment in public transport will need to go hand-in-hand with behavioural change and education (information and feedback) programs to challenge Tasmania’s private car-dominated culture.

### Phasing out the purchase of diesel buses

Electric buses are now common around the world. For example, in 2022, 75% of newly registered buses in [Denmark](#) were electric; and closer to home, [SkyBus](#) is already operating two fully electric buses between Hobart Airport and the city. Transitioning to electric buses could further incentivise people to shift transport modes, with 63% of our survey respondents indicating they would be more likely to use public transport if it were zero-emissions.

The State Government needs to take decisive action on moving to a zero-emissions bus network. It is currently supporting Metro Tasmania to deliver battery-electric bus trials in Launceston from late 2023, and hydrogen fuel cell electric bus trials in Hobart from mid-2024. However, these trials are unnecessary: the effectiveness of battery-electric buses has already been proven. Instead of supporting additional trials, the State Government should set an ambitious target for converting the Metro Tasmania bus fleet to electric buses as soon as possible.

### Priority actions to phase out diesel buses

9. Set a target for public bus fleet conversion	Tasmania should set an ambitious but achievable target for public bus fleet conversion. This has already been done by other Australia jurisdictions (see Table 2 below).
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Table 2: Public bus fleet conversion targets in other Australian jurisdictions

Jurisdiction	Target
Australian Capital Territory	100% zero-emissions public transit by 2040
New South Wales	100% electric public bus fleet by 2030
Queensland	100% of new buses to be ZEVs by 2030 (Southeast and Translink-funded buses by 2025)
Victoria	>50% buses to be ZEVs by 2031; all new buses to be EVs by 2025

Future priorities	
3. Plan for and implement the necessary charging infrastructure for decarbonisation of Tasmania’s public transport system	<p>Charging infrastructure for zero-emissions public transport will need to be designed to support the fleets.</p> <p>One example of infrastructure being created and used for public transport is the <a href="#">solar powered bus depot in New South Wales</a>. This features 36 electric chargers, with an on-site battery storage system to support bus charging and reduce the grid uptake requirements.</p>
4. Pilot and develop on-demand public transport options for rural and regional communities	<p>Demand responsive transport (DRT) services are typically booked through a Smartphone app or call centre, cost a similar amount to conventional public transport, and are characterised by flexible operating schedules, stops, and/or routes. DRT is more responsive to community transport needs than conventional fixed-route mass transit, which has historically served densely populated urban areas and neglected those in suburbs and rural regions. DRT is intended to provide an affordable, convenient, and low-emissions option in areas where conventional public transport is underutilised, too expensive to run, or ineffective.</p>

### Priority area 3: Increasing the uptake of active transport

Encouraging active transport is an important way to reduce emissions from the transport sector. Other Australian jurisdictions are taking action in this area. The 2022/23 Victorian Budget [allocated funding specifically for active transport, with roughly \\$21.8 million available](#). The funding was used for upgrading bike facilities, creating specific and shared bike infrastructure, and increasing the number of bike parking facilities at train stations. In [New South Wales, around \\$60 million in grant funding](#) to local councils has been allocated to programs and infrastructure that enable more people to use active transport.

The State Government has encouraged active transport uptake through a range of policies and investments. These include committing \$12 million since 2018 to provide bicycle infrastructure through the [Better Active Transport in Tasmania Grant Program](#) and the recently announced [e-Mobility Rebate](#) program, which will support Tasmanians to purchase e-bikes, cargo e-bikes, e-scooters and e-skateboards. The ERRP is an opportunity to further prioritise walking and cycling by planning future transport development and infrastructure around people, not cars.

#### Increase investment in dedicated active transport infrastructure to improve safety

Our survey results indicate that safety concerns are the biggest barrier to active transport use in Tasmania (81% of respondents were impacted by safety concerns), alongside lack of access to infrastructure (73%) and poor-quality infrastructure (71%). Respondents also stated that they increasingly feel “at risk from inattentive, unskilled and disrespectful drivers” and noted the need for greater motorist education: “Laws around safe driving need to be enforced to make cyclists safer – safe speed, safe passing, harassment of cyclists including throwing objects, parking in/across bike lanes, pulling out in our path”.

Reflecting these concerns, survey respondents indicated they would be most likely to increase their use of active transport if cycling and pedestrian lanes were physically separated from traffic (70%), if there were more cycling and pedestrian lanes in general (65%), if cycling and pedestrian lanes were continuous and connected (64%), and if there were lower speed limits, car-free zones, and traffic calming strategies (52%). These findings are similar to a recent [VicRoads survey](#), which found that 76% of Victorians want to walk and bike more and would do so if they had more paths, crossings, and calmer streets.

Behavioural interventions can also be used to address psychological barriers preventing increased uptake of active transport. One such barrier is the status quo bias, which is the tendency for people to stick with what they have always done – in this case, driving. There are, however, ways to disrupt this status quo. For example, it is possible to ‘sneak’ active transport into everyday routines by tapping into people’s competitive nature using regular workplace or community cycling challenges. Another barrier is present bias, in which people dislike working hard now for benefits that accrue in the future. Countering this could involve public information campaigns highlighting the enormous health, environmental, and social benefits of active transport.

### Key policies to increase active transport uptake

10. Increase the number of safe, continuous, and connected cycling and pedestrian lanes	The State Government should commit to increasing the availability of active transport infrastructure, including through pop-up bike lane trials which can be rolled out in the short-term. <a href="#">Victoria has committed to trialling</a> 100km of pop-up bike lanes in key areas. The temporary and flexible nature of the pop-up approach would allow the State Government to ensure new bike lanes are fit for purpose, while enabling more people to access safe active transport as soon as possible.
11. Apply behavioural insights to active transport campaigns	Investment in active transport infrastructure will need to go hand-in-hand with behavioural change and education programs that seek to counter Tasmania’s car-dominated culture and the prejudices often faced by bicycle riders.
12. Set an active transport uptake target	Currently, Victoria is the only state or territory with a target for active transport uptake, at 25% of mode share by 2030 (up from 18% in 2021). Tasmania should follow in Victoria’s footsteps by setting an ambitious and achievable target for active transport mode share by the end of the decade. The <a href="#">Climate Council</a> recommends that governments aim to increase active transport mode share to 15% and public transport to 49% of mode share by 2030.

### Future priorities

5. Establish a statewide target for infill development	Land use and urban planning strategies that encourage urban consolidation have the potential to reduce transport emissions and improve traffic congestion, liveability, and wellbeing for those living in cities over the long-term. Until now, Tasmanian cities have tended towards outward growth and urban sprawl. Delivering additional housing through urban consolidation and infill development will enable residents to travel shorter distances, facilitate more frequent public transport services, generate more local employment, and reduce cities’ overall environmental impact.
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## Priority area 4: Decarbonising heavy transport

Although trucks and buses only comprise around 4% of Tasmania’s vehicle fleet, they are responsible for about 30% of the state’s transport emissions. The good news is that electric buses and trucks are becoming [increasingly competitive](#) over shorter distances, while hydrogen fuel cell technology will likely play a role in the decarbonisation of longer-distance heavy transport. Tasmania is an ideal environment for electric and/or hydrogen cell fuelled medium- and heavy-duty vehicles (MHDVs) due to its relatively short travel distances and limited number of heavy vehicle routes.

Barriers to the uptake of heavy ZEVs in the freight sector identified by the [Electric Vehicle Council \(EVC\)](#) and the [Australian Trucking Association \(ATA\)](#) include: the limited availability of electric (and other) vehicle models; a lack of charging infrastructure; the cost of creating charging infrastructure; limited consumer awareness; restrictive Australian design rules; and the upfront cost. Despite these barriers, it is possible that rapid uptake of electric heavy vehicles and light commercial or medium-duty vehicles is not far away. [Recent modelling](#) of the comparative cost of ZEVs versus ICE heavy transport suggests that while upfront costs will remain higher for the foreseeable future, the lower running and maintenance costs for ZEVs mean that whole-of-life cost parity with ICEVs is imminent.

The current overall priority should be to focus on actions that reduce emissions in the short term, such as the use of battery-electric technology where possible, while preparing for the future by planning for new technologies better suited to long-distance heavy vehicle travel.

Priority actions to support development of zero-emissions heavy transport	
13. Support the transition to electric heavy vehicles where practical (e.g. for urban freight deliveries)	<p>We are supportive of the range of potential future opportunities listed in the Draft Plan to address relevant barriers, including:</p> <ul style="list-style-type: none"> <li>• A demonstration trial of low-emissions heavy vehicles in the private sector to increase education and awareness for operators.</li> <li>• Grants, subsidies, or no-interest loans to support owners of heavy vehicle fleets to invest in low emissions technologies.</li> <li>• Increasing awareness of new and emerging technologies among heavy vehicle fleet managers and users.</li> </ul>

Future priorities	
6. Work with major haulage companies to support the development of further zero-emissions options to power long-haul travel	<p>Planning for technologies that enable longer-haul heavy transport will be crucial, including hydrogen and biofuels. In the case of biofuels, it will be important to ensure that their production, harvesting, and use is truly zero emissions. Ideally, they should fall under a national renewable fuel standard for diesel, aviation and shipping fuels, as advocated for by the <a href="#">Grattan Institute</a>.</p>

## Priority area 5: A resilient transport sector ready for the future

It will be important to design a resilient transport system for Tasmania that can adapt to the various challenges our state will face in the future. The main emerging challenges are:

- Climate change and extreme weather events, which will pose physical risks to our transport systems and infrastructure.
- Ensuring that all Tasmanians benefit from the decarbonisation of the transport sector, and that no one is left behind.
- Increased demand for ZEV maintenance and charging infrastructure, which will place greater pressure on the relevant workforces.
- Ensuring that Tasmania's electricity network is able to provide for future needs related to ZEVs, including bidirectional charging.
- Investing in enough new renewable electricity generation capacity to ensure that ZEV uptake does not increase our reliance on imported fossil fuel energy.

### Ensure equitable access to transport for low-income households and rural communities

The combination of electrification and greater uptake of public and active transport advocated in this submission will inevitably be easier for some people than others. In particular, Tasmanians who live in rural areas or have low incomes (or both) will struggle to reduce their dependence on private ICEV transport for the foreseeable future without State Government support. It is essential that these communities are not left behind. Measures to facilitate a just transition could include: ensuring that enough ZEV chargers are available in remote and rural locations (see Key Policy 5 above); state-level action and national-level advocacy to increase supply of ZEVs and decrease their prices; and providing more accessible public transport options, such as on-demand services (see Future Priority 4 above).

Over the long term, there is a risk that people who cannot afford to upgrade to a ZEV are left paying high running and maintenance costs for their ICEV once the market transitions away from fossil fuels. Cars often represent a significant asset for those on lower incomes, and once ICEVs are no longer desired on the second-hand market they may become burdensome stranded assets. This may ultimately require the implementation of loan or buy-back schemes to help lower income Tasmanians to purchase a ZEV.

### Transition of transport and associated industries in terms of workforce and changing commercial environment

The transition to ZEVs will entail new opportunities for businesses and workers in Tasmania. Mechanics and other skilled trades will need training in ZEV maintenance – including for buses and trucks – while retaining the skills to maintain ICEVs into the medium term, particularly heavy vehicles. The Draft Plan notes that exploring new dual trade-based training courses related to EVs for electrical and mechanical automotive technicians is a future opportunity for the State Government. This will be important, but we suggest that the Government also undertakes broader and more holistic planning by engaging with industry and workforce stakeholders to help determine their needs. This will help to ensure that the transition is as equitable as possible.

## Increase education and action on ZEV safety and sustainability

There is significant public scepticism in Tasmania regarding the safety and sustainability of ZEVs. Our survey received many comments arguing that ZEVs are not truly zero-emissions, that they are less sustainable than petrol or diesel vehicles, that the electricity grid cannot support ZEV charging, that ZEV batteries are dangerous, and that batteries have a short life span and/or cannot be recycled.

These beliefs can be allayed by through education and by addressing areas of concern around the ethical and sustainable production of batteries. The Draft Plan notes that as ZEVs become more ubiquitous it will be important that owners and users are educated about how to safely use and maintain their vehicles. However, it will also be important that the State Government takes actions to ensure that battery components are sustainably sourced and that used batteries are recycled. This will primarily involve national-level advocacy for Federal Government action. Jurisdictions around the world are paying increasing attention to these issues, with the EU and China now [requiring battery manufacturers](#) to pay for setting up and collection and recycling systems. This year, the EU [passed regulations](#) relating to all types of batteries, including EV batteries, requiring stronger action on social and environmental risks, including responsible sourcing and minimum requirements for recycled content.

Future priorities	
7. Expansion of electricity generation and transmission to support electrification	Tasmania is currently more or less self-sufficient in renewable electricity, but this will change as the growing pace of electrification increases demand. In order to decarbonise our transport system, we will need to increase investment in new renewable generation and transmission. More information on this subject can be found in our submission to the Tasmanian Parliament's Energy Pricing Inquiry.
8. Planning scheme changes to drive home charging	Most people who own ZEVs currently charge them at home, but this is not an option for all households. Whether due to their building structure (e.g. multi-storey dwellings or units without off-street parking,) or tenure (renters), some Tasmanians have less access to home charging than others. To ensure that as many people have access to home charging as possible, the ability to install relevant infrastructure should be incorporated into planning provisions and rental agreements where appropriate.

# Driving net-zero:

Survey of Tasmanians' attitudes towards reducing transport emissions



Report prepared by the  
**Tasmanian Policy Exchange**  
September 2023



A photograph of traditional Aboriginal objects. In the foreground, there is a dark wooden bowl with a braided cord around its rim. To its right is a large, shallow, reddish-brown clay bowl. In the background, there are several woven baskets made of natural fibers, some containing dark stones or seeds. The objects are arranged on a light-colored, textured surface, possibly a piece of animal skin or a woven mat.

## Acknowledgement of Country

We acknowledge the palawa/pakana of lutruwita, the traditional owners of the land upon which we live and work.

We pay respects to Elders past and present as the knowledge holders and sharers. We honour their strong culture and knowledges as vital to the self-determination, wellbeing and resilience of their communities.

We stand for a future that profoundly respects and acknowledges Aboriginal perspectives, culture, language and history.

## About the Tasmanian Policy Exchange

The TPE has been established at the University of Tasmania to make timely and informed contributions to key policy debates occurring in Tasmania and beyond, thus making a positive contribution to the future of our state and its people.

The TPE's policy work and analysis can be found at [www.utas.edu.au/tpe](http://www.utas.edu.au/tpe)

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**We would like to acknowledge the RACT and the *Mercury* for their support promoting this survey.**





## Driving net-zero: Options for reducing Tasmania's transport emissions

While it's great that Tasmania has had a net-negative greenhouse gas emissions profile for nearly a decade, our absolute emissions have barely changed – if anything, they are trending upward.

Right now, transport offers some of the best opportunities to reduce carbon emissions, so it makes sense that the Tasmanian Government's first Emissions Reduction and Resilience Plan, due in November 2023, will focus on transport.

To support this important step in Tasmania's transition to a low-carbon society, the TPE has prepared a Discussion Paper and survey to find out from Tasmanians what you think the best ways to reduce transport emissions in our State.

Have your say...



Take our Transport Survey!

Want to learn more?



Visit our website!

[www.utas.edu.au/tpe/netzerotransport](http://www.utas.edu.au/tpe/netzerotransport)

## Background and context

In August 2023, the Tasmanian Policy Exchange conducted a survey – in partnership with the RACT and the *Mercury* – to better understand Tasmanians' attitudes towards options for reducing transport emissions in the state.

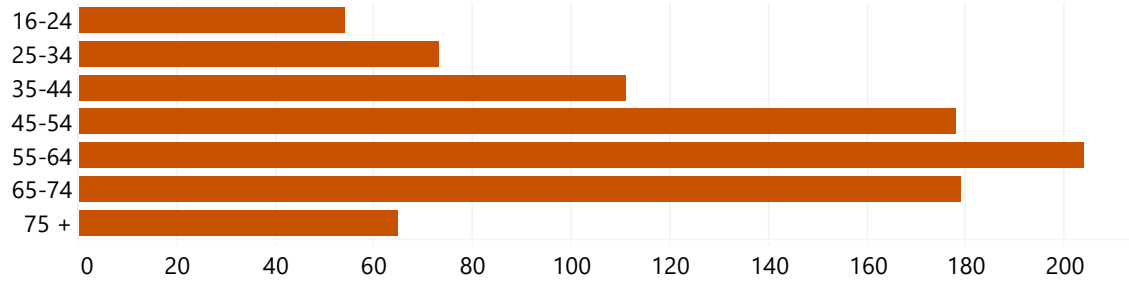
The University of Tasmania is deeply committed to addressing the global climate challenge and is working with communities, industry, and governments to develop policies and strategies to establish Tasmania as a leader on climate action.

We welcome the release of the Tasmanian Government's *Climate Action Plan* and its commitment to develop Emissions Reduction and Resilience Plans (ERRPs) for key industry sectors, starting with transport.

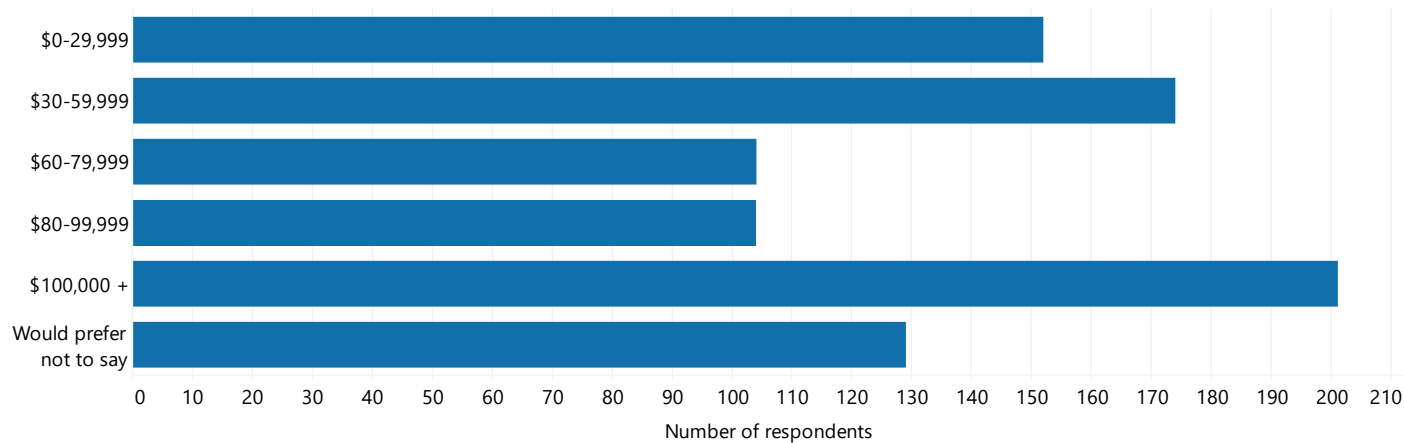
Following the release of our [discussion paper](#) and [technical policy paper](#), we conducted this survey to better understand community attitudes and preferences in relation to different transport emissions reduction options. The survey results are intended to help inform the design of Tasmania's first ERRP.

This report summarises the key findings from the data gathered.

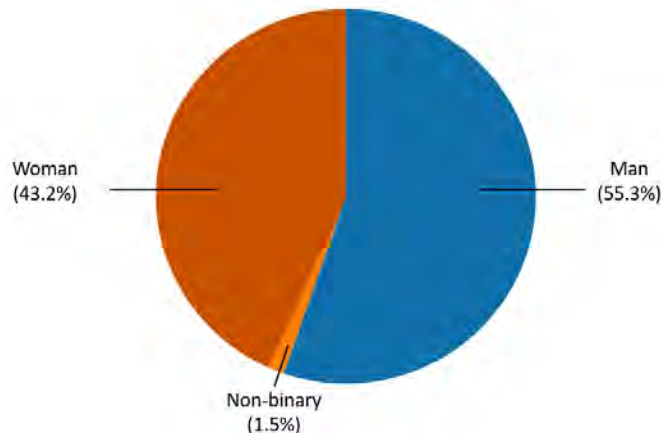
## Respondents' age



## Respondents' income



## Gender identity of respondents



## The survey sample

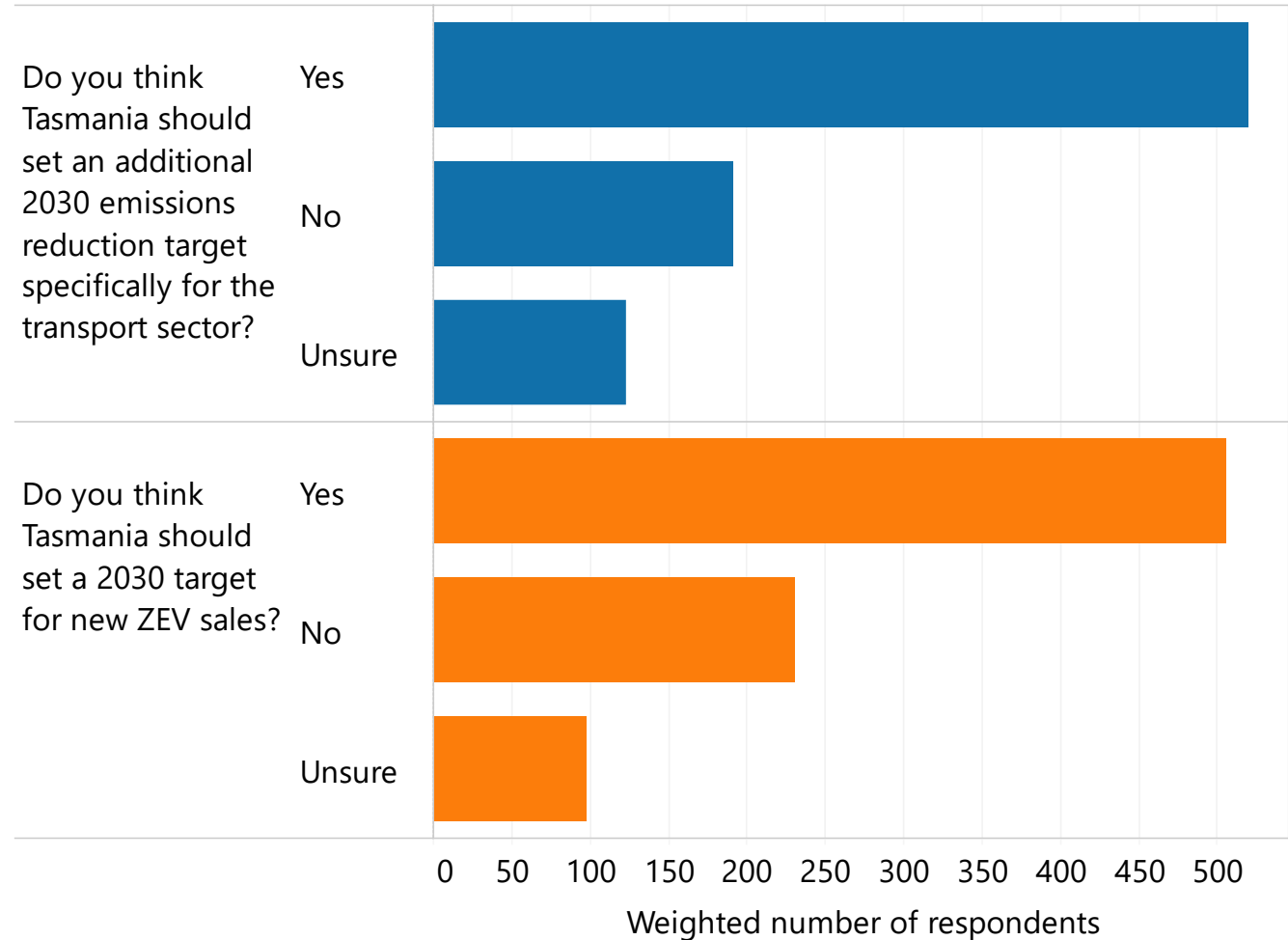
The survey received **864 responses from Tasmanians from all over the island**. The survey asked participants 25 questions relating to emissions reduction targets and strategies, ZEVs, active transport, and public transport. We believe this to be the most comprehensive survey of Tasmanians' attitudes and preferences in relation to transport emissions reduction to date.

Our sample is reasonably representative of the state as a whole and, where appropriate, the survey results have been weighted according to age, gender, and income to ensure they accurately represent the Tasmanian population.

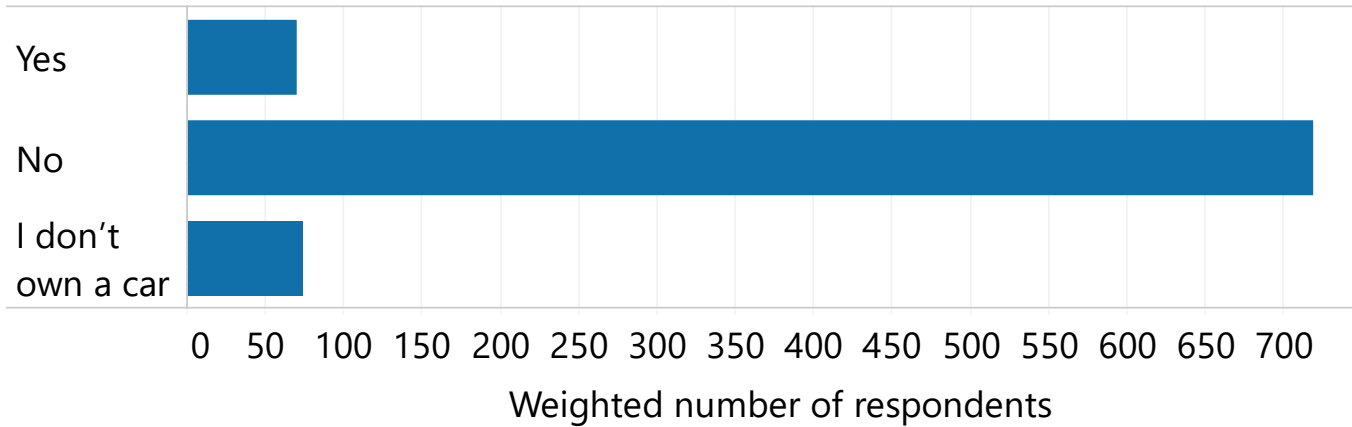
## Most respondents (62%) want ambitious transport emissions reduction targets

- Currently, Tasmania's overall emissions reduction target is to achieve net-zero emissions, or lower, from 2030. Most respondents (62%) believe Tasmania should set an additional 2030 emissions reduction target specifically for the transport sector. [In our recent report](#), we argue that this target should be to reduce transport emissions by 37% on 2020 levels by 2030.
- In the first six months of 2023, [around 9%](#) of new vehicles sold in Tasmania were ZEVs. Most respondents (60%) believe Tasmania should set a 2030 target for new ZEV sales. [We have argued](#) that this target should be for 67% of new vehicle sales in Tasmania to be ZEVs by 2030.
- Women are more supportive of both of these targets than men, with 70.4% in favour of an emissions reduction target and 60% in favour of a ZEV sales target, compared to 53% of men for both targets.
- Younger people are also more supportive of both transport emission reduction targets than older people, with around 70% of those aged under 45 in favour compared to only 50% of those over 45.

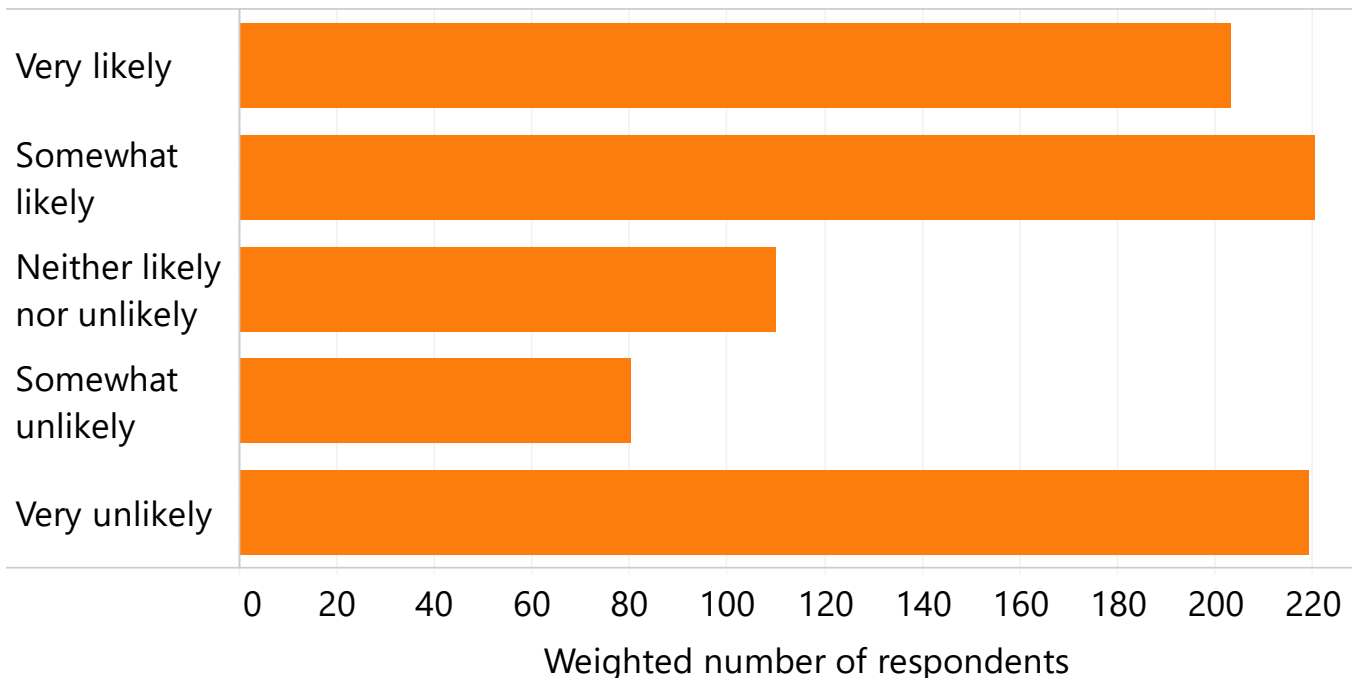
Response to the introduction of policy targets in Tasmania



Is your current primary vehicle a zero-emissions vehicle (ZEV)?



How likely are you to buy a ZEV as your next car purchase?



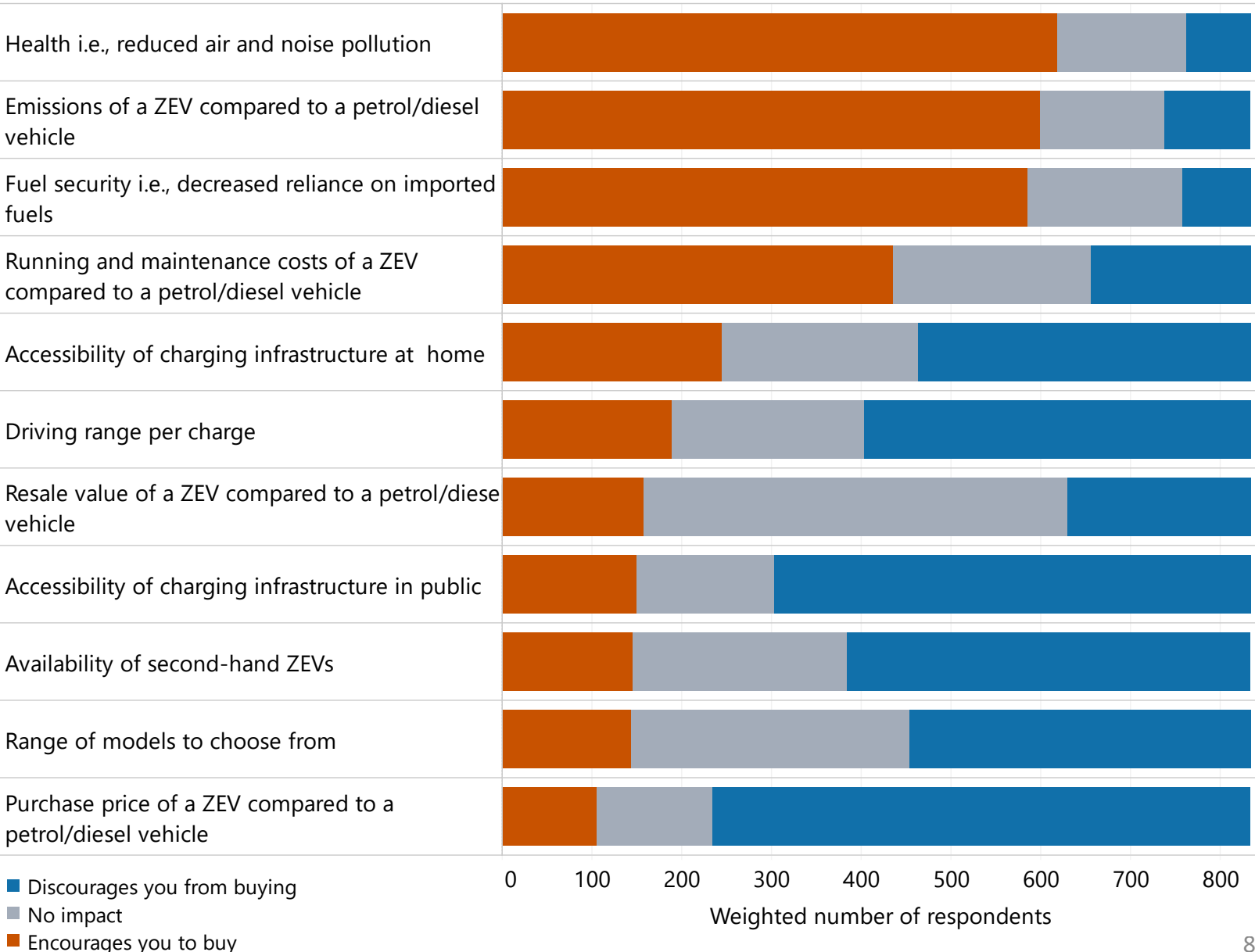
**The majority of respondents (50.8%) are likely to purchase a ZEV as their next vehicle**

- A large number (84.6%) of the Tasmanians surveyed do not currently own a ZEV as their primary vehicle. ZEV owners were, however, overrepresented in this survey; around 5% of survey respondents owned a ZEV, while only [around 0.4%](#) of all registered vehicles in Tasmania are EVs.
- Those who stated they were unlikely to purchase a ZEV as their next car were more likely to be a man; over 45; have an income less than \$60,000; or live rurally.
- Those who stated they were likely to purchase a ZEV as their next car were more likely to be a woman; aged between 25-44 and 55-64; have an income less than \$80,000; or live in urban (or suburban) locations.

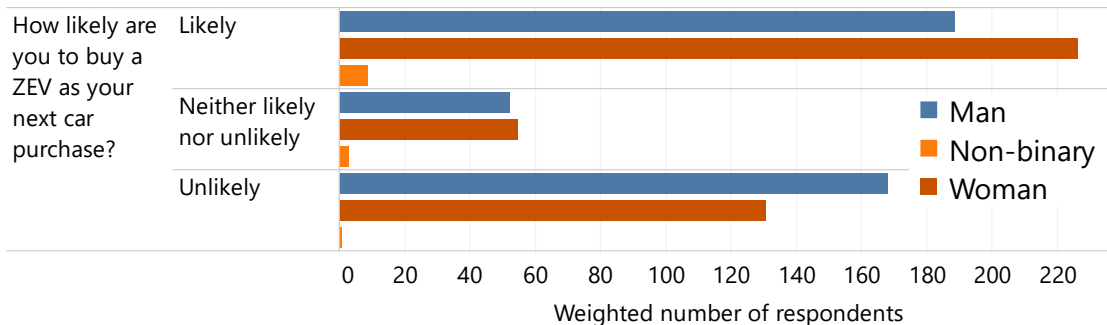
# Price is the main barrier to purchasing a ZEV

- The most significant factors encouraging respondents to purchase a ZEV are health benefits (74%) and emissions reduction (72%).
- The primary barriers to respondents buying ZEVs are the purchase price (72% of respondents were discouraged), the accessibility of charging infrastructure in public (64%) and the home (44%), the availability of second-hand ZEVs (54%), the driving range per charge (52%), and the range of models available (46%).
- Comments indicated that in addition to these factors, some respondents are concerned about the safety of ZEVs, the sustainability of their manufacturing processes, and the longevity/replacement of batteries.

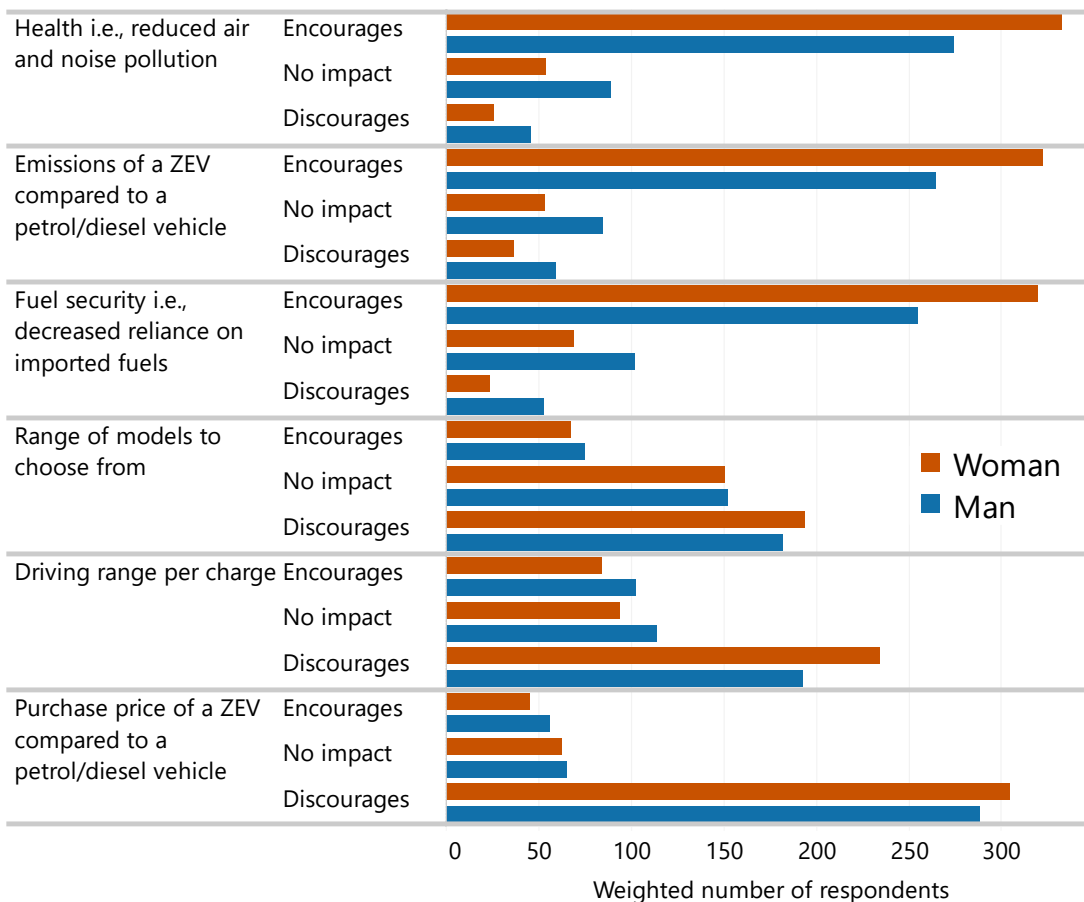
## Factors impacting respondents' decision to purchase a ZEV



## Women have more favourable attitudes towards ZEVs than men



## To what degree do the following factors currently influence your decision to purchase a ZEV?



## Women have more favourable attitudes towards ZEVs than men

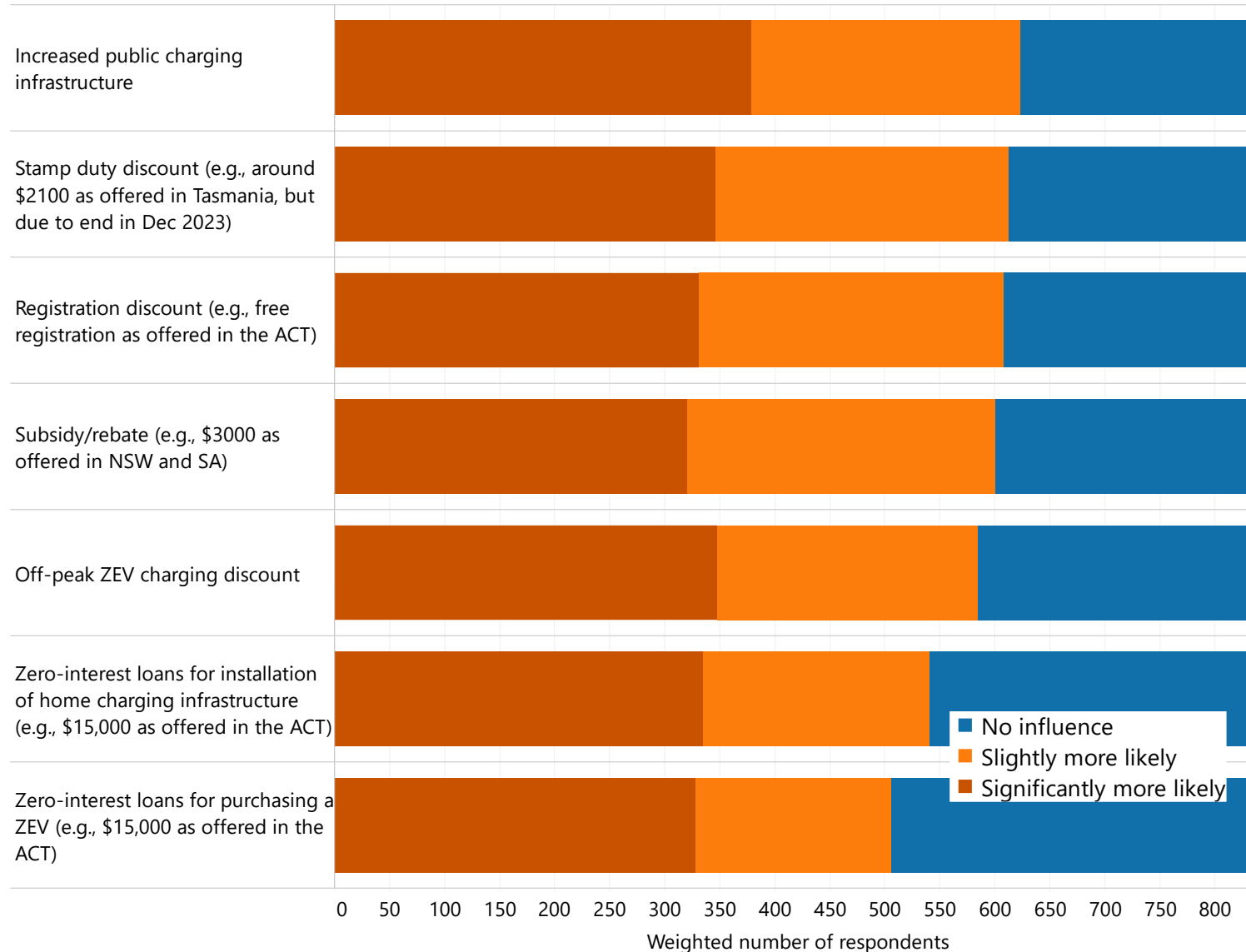
- Women are more likely than men to be motivated to purchase a ZEV because of the health benefits (i.e., reduced air and noise pollution), lower emissions, and fuel security. Men, on the other hand, are more likely than women to be encouraged to purchase a ZEV by the price, driving range per charge, and range of models available.
- This indicates that women potentially prioritise environmental and communitarian concerns relative to men when it comes to considering purchasing a ZEV.
- Despite the fact that women are more likely to be discouraged by material concerns like purchase price, they are overall more likely to purchase a ZEV as their next car than men, and their biggest motivators are altruistic.
- This aligns with a number of [studies](#) which have found that women tend to favour climate change policy arguments that focus on ethics and environmental justice, while men prefer arguments based on 'science and business'.



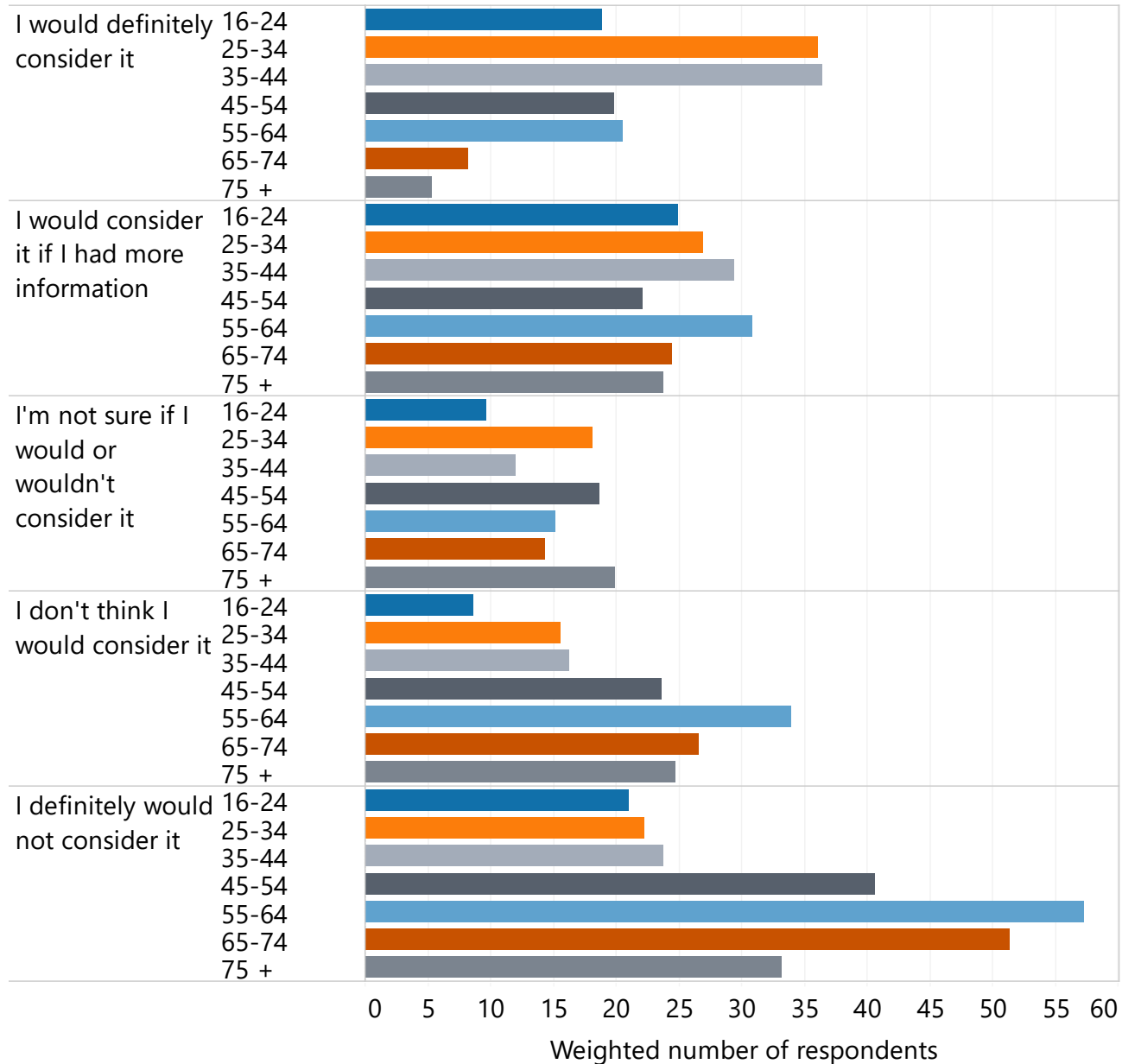
# 74% of respondents would be more likely to purchase a ZEV if there was increased public charging infrastructure

- Most of the suggested strategies were relatively popular, with the majority of respondents indicating they would be at least slightly more likely to purchase a ZEV if any of the listed policies were implemented.
- The least popular policies, although not by a significant margin, were zero-interest loans for the installation of home charging infrastructure and for purchasing a ZEV (35% and 39% responding it had no impact).
- Additionally, half of respondents (49%) support the introduction of a modest surcharge/tax on new petrol/diesel vehicles to help fund a subsidy for ZEVs (not pictured in the table).
- Women were more likely to be ‘significantly’ influenced by all strategies than men, although there were similar levels of ‘slightly’ more likely responses between both cohorts.
- Interestingly, strategies that reduce the sticker price of ZEVs tended to be more influential among those with lower incomes (<\$30,000), but also those with higher incomes (\$80,000+).

How likely is it that you would purchase a ZEV if the following strategies were introduced?



## Would you consider using a ZEV car sharing program similar to the current Hobart e-scooter sharing program?



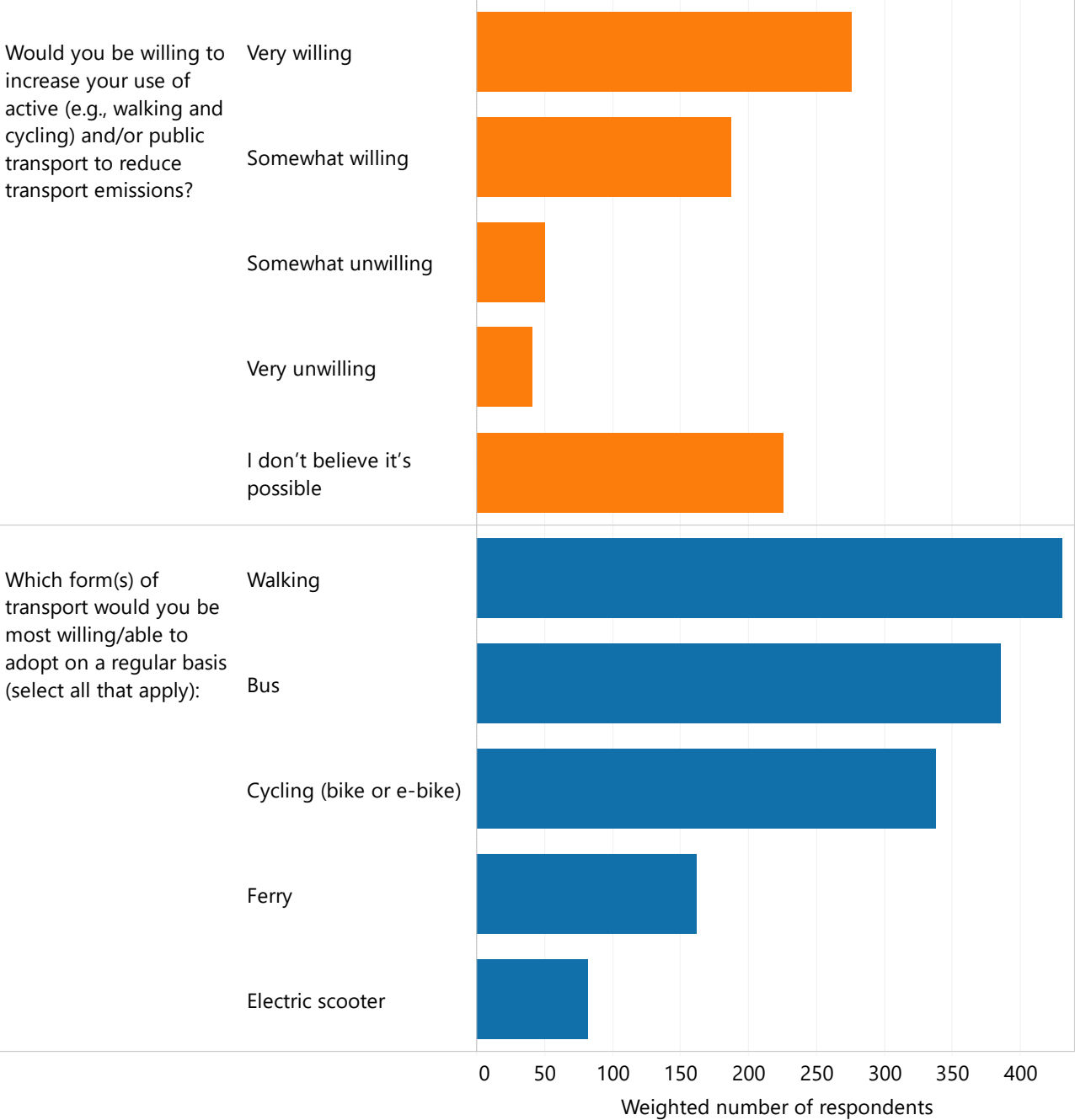
## Car sharing programs could be a viable alternative for some cohorts

- Attitudes towards a ZEV car sharing program are relatively split overall, with 22% of respondents stating they would consider it or consider it with more information, and 30% stating they didn't think they would or definitely wouldn't consider it.
- However, over half of those aged between 16-64 said they would consider using a car sharing program, compared to only 30% of those over 65.**
- The qualitative comments indicated that some respondents believed a car sharing program would not be suitable for their needs, primarily because they lived regionally. Others had questions/concerns about how the model would operate. More information is needed about who would run the scheme, costs, logistics of hiring, convenience, availability, and reliability for respondents to make an informed judgment.

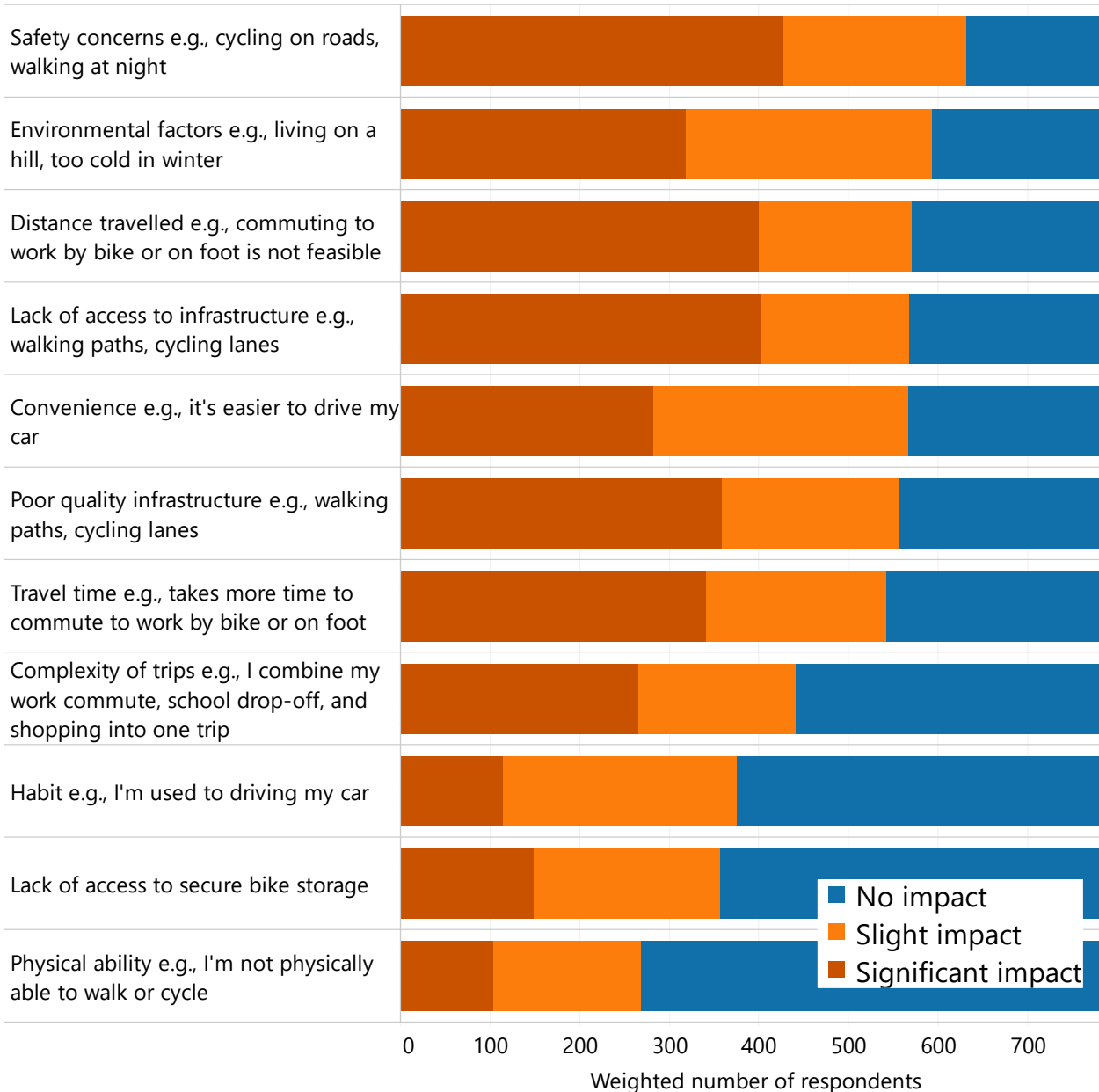
# Over half of respondents (58%) are willing to increase their use of active and/or public transport

- However, around 29% of respondents did not think that increasing their use of active/public transport was possible given their current circumstances.
- Respondents were similarly willing to increase their use of walking (30.8%), buses (27.6%), and cycling (24.2%). Therefore, the implementation of strategies to reduce certain barriers could lead to increased uptake of these alternative modes of transport.
- In the 'other' category (not pictured), some respondents stated they would utilise small responsive bus services (if they were available), rail and light rail (if it was available), trams (if they were available), running, skating, ride-sharing, and even kayaking.
- Women tended to be more open than men to increasing their active/public transport usage (53% of women compared to 46% of men).

## Willingness and options to increase public and/or active transport



How much do the following things discourage you from using active transport (e.g., walking, cycling)?



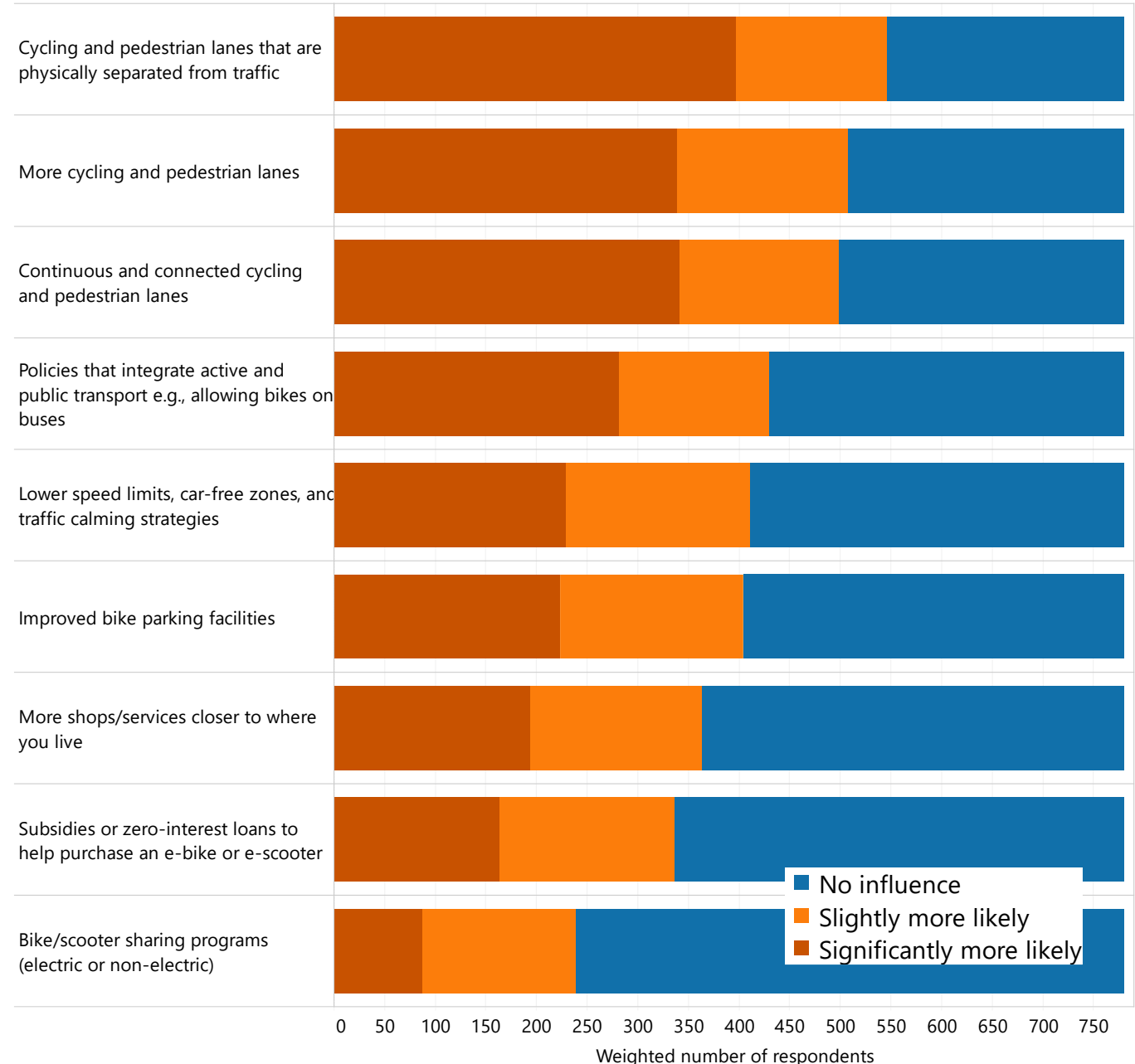
## Safety concerns (81%) are the biggest barrier to increased use of active transport (particularly cycling)

- Safety concerns are interlinked with lack of access to infrastructure and poor-quality infrastructure. Some respondents highlighted the behaviour of road users and negative driver attitudes towards cyclists: *“Bike riding is my main form of urban transport. However I am increasingly feeling at risk from inattentive, unskilled and disrespectful drivers...”*
- This kind of hostility towards cyclists and bike lanes was evident in the survey response itself, through comments such as:
  - *“Why are roads being overtaken by bike lanes”*
  - *“Already too many bike lanes. Selfish cyclists still use roadways, often just a few metres away from a bike path.”*
- Women are more likely than men to report themselves as being significantly impacted by every one of these factors with the exception of physical ability, where they are equally impacted.

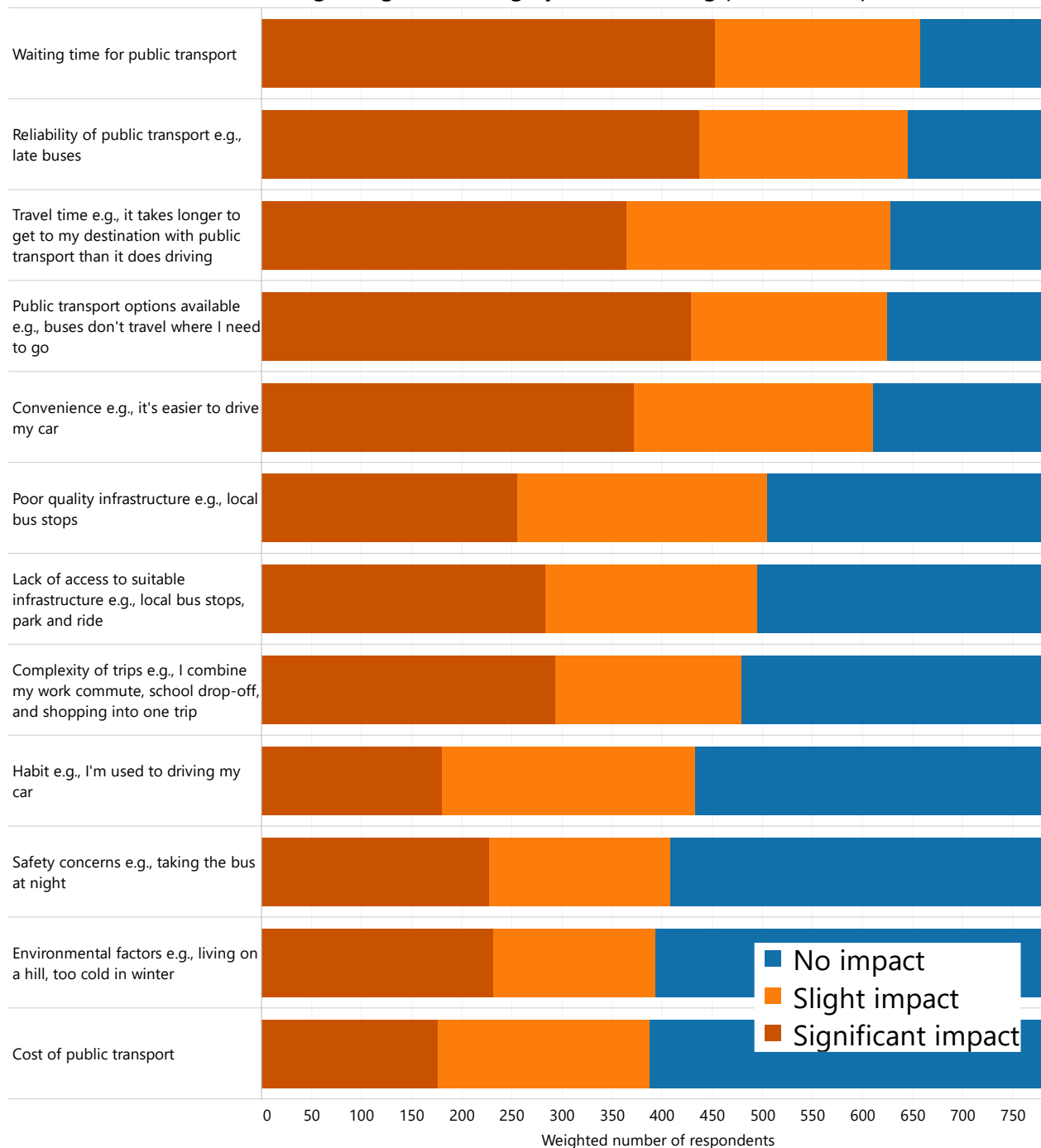
# Tasmanians need improved access to safe, continuous, and connected cycling and pedestrian lanes

- Reflecting the safety concerns on the previous slide, the strategy most likely to result in increased active transport usage is creating more cycling and pedestrian lanes that are physically separated from traffic (70%), closely followed by increasing the number of cycling and pedestrian lanes in general (65%) and creating continuous and connected cycling and pedestrian lanes (64%).
- Some respondents noted the need for greater motorist education in relation to safely sharing the road. There were also suggestions that higher penalties be placed on motorists who are aggressive towards cyclists and other road users: *“Laws around safe driving need to be enforced to make cyclists safer- safe speed, safe passing, harassment of cyclists including throwing objects, parking in/across bike lanes, pulling out in our path”*
- Based on this information, it is clear that Tasmanians are willing to increase their use of walking and cycling. With greater access to safe, continuous, and connected cycling and pedestrian lanes which are physically separated from traffic, and with improved public awareness and education, we could greatly increase the uptake of active transport in the state, at least in urban areas.

How likely is it that you would use active transport more if the following strategies were introduced?



## How much do the following things discourage you from using public transport?



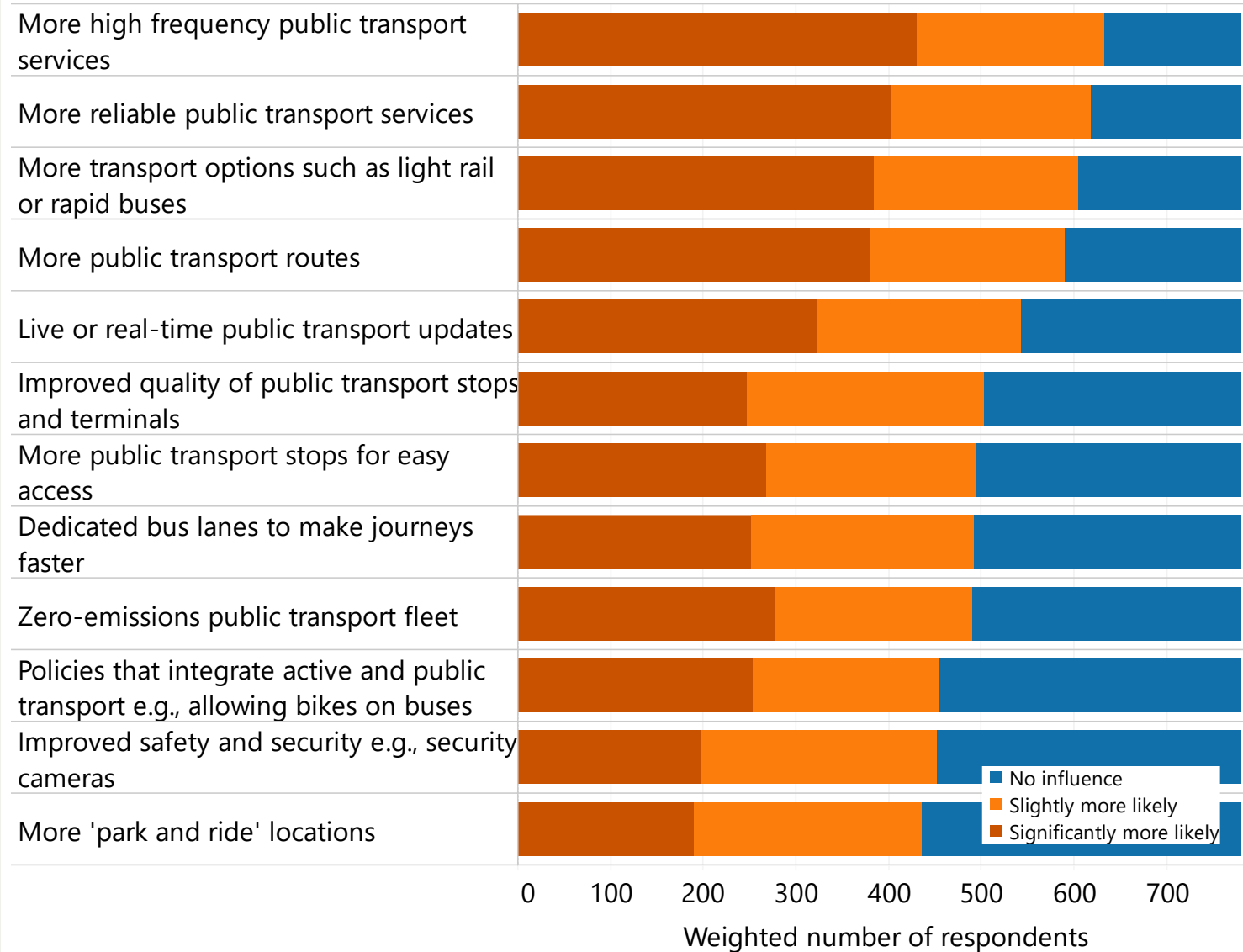
## The majority of respondents find public transport in Tasmania to be unreliable, inaccessible, and inconvenient

- Poor quality service has the greatest impact on respondents using public transport, including waiting time (84%), reliability (83%), and travel time (80%).
- This response is not surprising, given that [only 13.5% of households in Hobart have access to public transport](#) (the lowest of all capital cities in Australia), and 5% of households in Launceston.
- Lack of suitable transport routes was another significant barrier: *"From New Town to Rosny there isn't a bus... I'd have to go to town and then over the bridge... [which would take] about an hour rather than 10 mins in a car"*.
- The comments highlighted that there are systemic failures at play: *"For 12 months metro has cancelled my bus every morning. There is actually no way for me to get to work now... I'm having to ride my bike on a highway at 5am 20kms... I'm surely going to die very soon. Drivers are aggressive and abusive. Public transport is unreliable, and cycling is too dangerous. I don't drive. So what am I to do?"*
- While safety concerns ranked relatively low overall in the graph opposite, women were far more to report being impacted by safety (63.8%) than men (42.6%). It was the lowest overall concern for men, while for women it ranked 7<sup>th</sup> of the 12 factors.

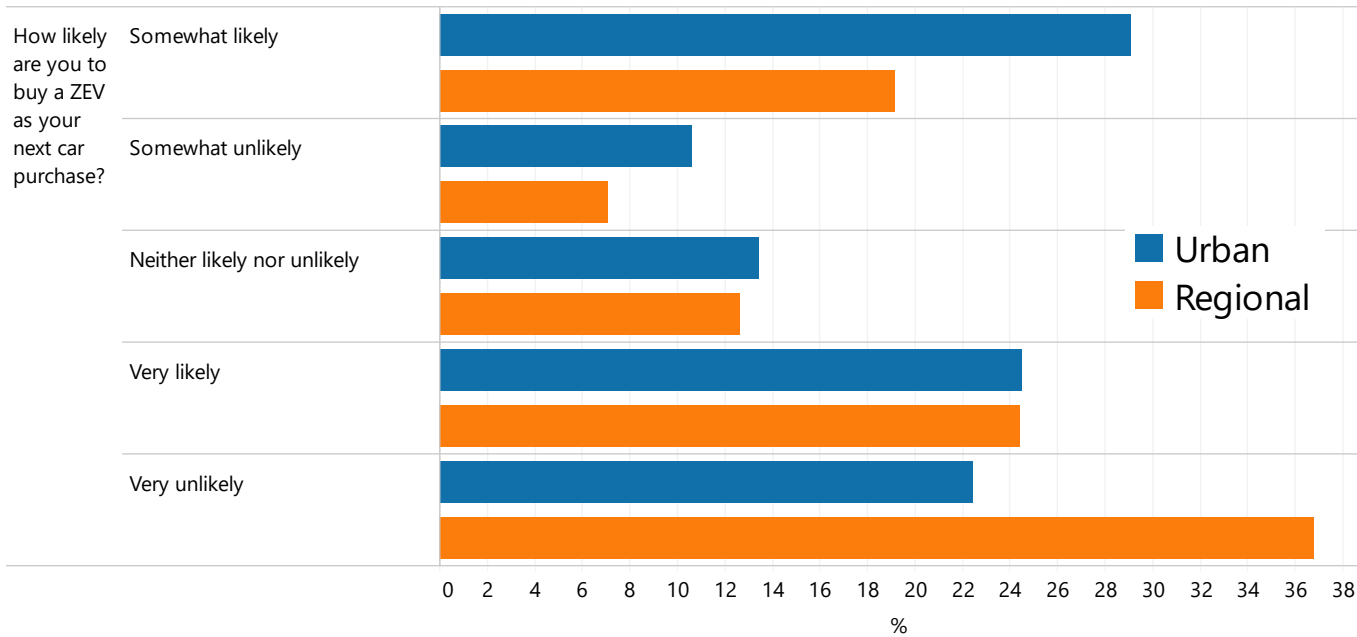
# There is an urgent need to improve public transport services

- Unsurprisingly, the policies that are most likely to encourage increased public transport usage are those that address some of the biggest barriers to its use – improving quality of service.
- This includes more high frequency public transport services (81%), greater reliability (79%), more options such as light rail or rapid buses (78%) and more routes (76%).
- It appears that policies focused on improving quality of service are more popular than improving infrastructure (i.e., park and ride locations, security cameras, bus stops, bike infrastructure).
- Additionally, while cost of public transport was the least discouraging factor on the previous page, some respondents noted that the lack of bank card or phone payment integration made it inconvenient to pay fares.
- For those above 65, improved safety appears to be one of the more influential strategies (ranked 5<sup>th</sup>), while for those under 34, dedicated bus lanes are more influential (ranked between 4<sup>th</sup> and 5<sup>th</sup>).
- Women were significantly more likely than men to increase their use of public transport if any of these strategies were introduced.

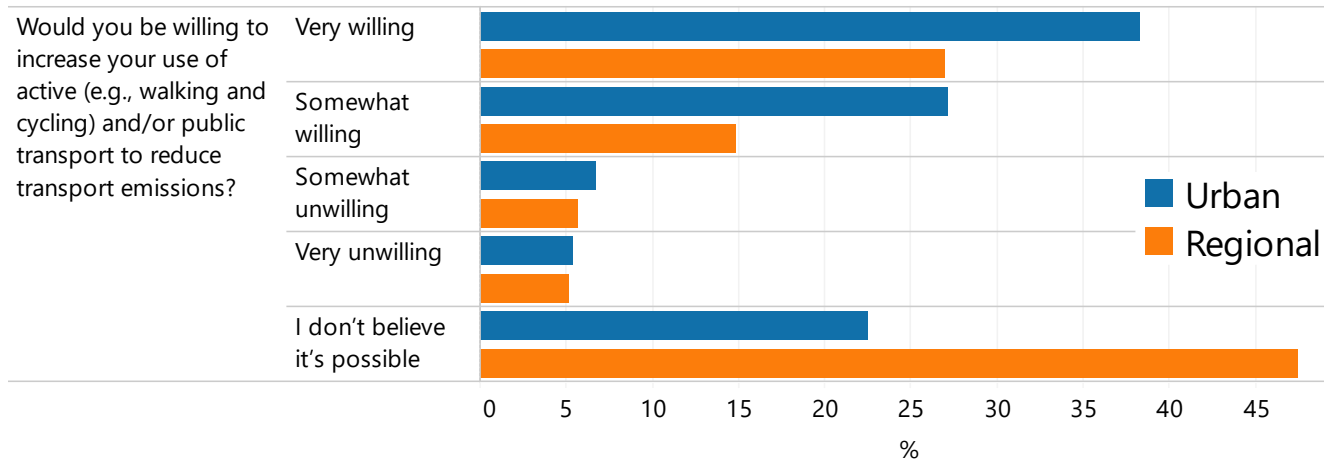
## How likely is it that you would use public transport more if the following strategies were introduced?



## Likelihood of purchasing a ZEV as your next vehicle - urban vs regional



## Willingness to increase public and active transport - urban vs regional



Note: The location data in these graphs has not been weighted, however the data remains fairly representative of the Tasmanian population. The different locational cohorts equal 100% in these graphs.

# There remain a lack of viable options for those in regional communities to reduce their transport emissions

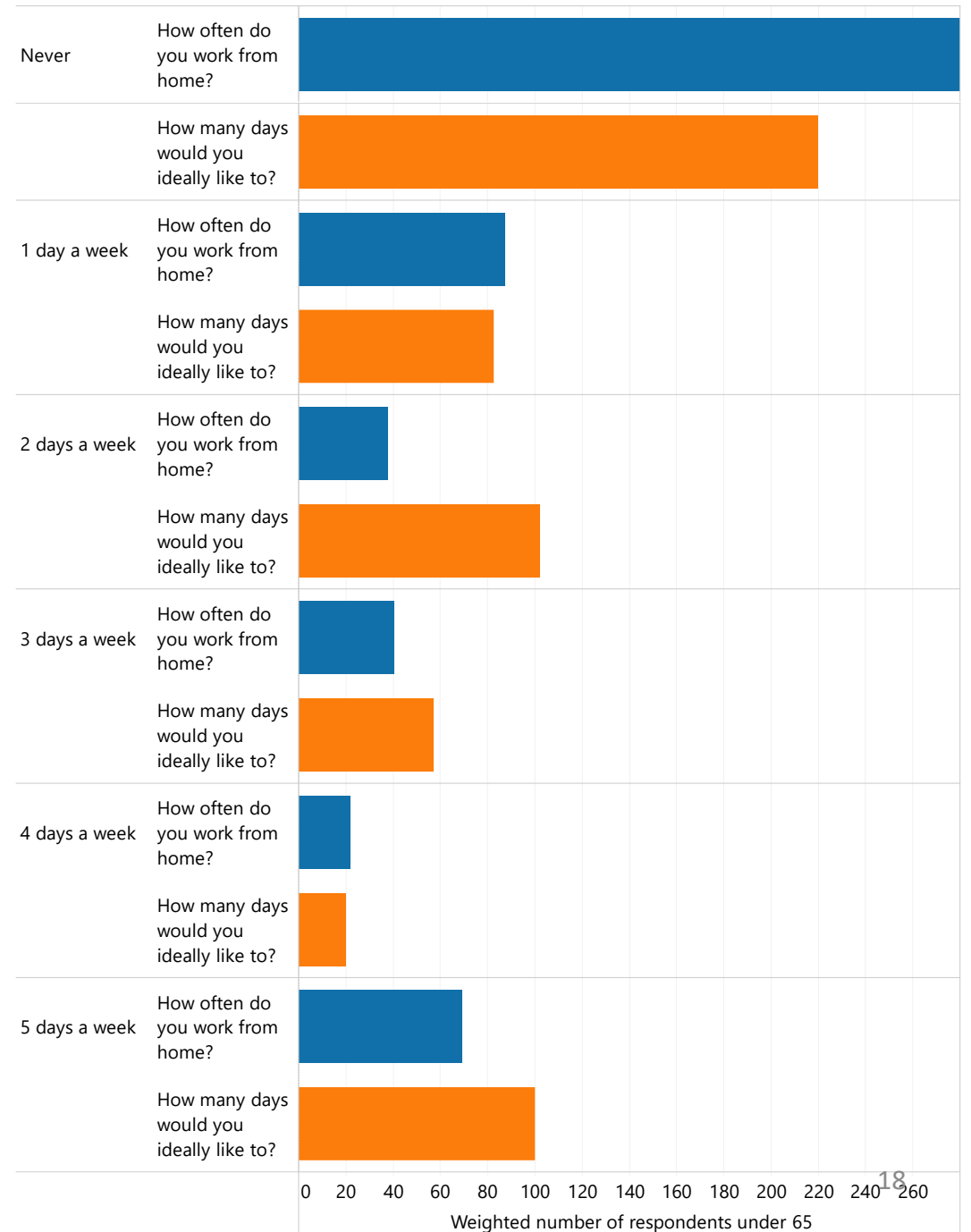
- Long distances and insufficient infrastructure are impediments to regional residents using active transport: *“I would cycle/walk/scooter/ferry places if it was convenient, but I can’t be walking 25km to get education/shopping etc!”*
- At the same time, public transport services are often extremely limited: *“The public transport needs to be improved... as there are just not enough services for rural areas...”*
- Suitable ZEV models aren’t necessarily widely available yet for those with regional/rural lifestyles: *“At this stage [the] main barrier is cost... [there are] large numbers of rural residents for whom utility vehicles are necessary. I hate my diesel twin cab ute but [I] have no choice – I don’t have money for multiple cars/registration...”*
- Furthermore, public charging stations are not yet widely available in all regional areas: *“I live rurally and could not travel without a significant improvement in charging locations”*.



## Respondents showed an interest in increasing the number of days they work from home

- Many working aged Tasmanians are interested in increasing the number of days they work from home.
- It should be noted that for a significant portion of the 'never' category, it's possible that they either work in an industry where working from home is not possible, or they do not work and therefore the question is not applicable to them.
- We have applied the ABS definition of working age to this graph, while acknowledging that many Tasmanians over the age of 65 may continue to work.
- [Our previous research](#) indicated that if Tasmanians in suitable occupations undertook remote work an average of two days a week, it could result in a 14.5% reduction in the State's transport emissions. This hybrid model balances the benefits of working in the office with the flexibility and lack of commuting associated with working from home.

## Work from home preferences for under 65s



## Income can be a significant barrier to transitioning to low- or zero-emissions transport options

Many respondents commented that the cost of a ZEV is the most significant barrier to uptake, and while second-hand ZEVs remain limited in their availability, purchasing a ZEV simply remains out of reach for many Tasmanians - particularly those on lower incomes: *“For people on low-income eating is more important than emissions or buying new cars”*.

Furthermore, some respondents noted that subsidies and rebates unevenly benefit those who can afford to purchase a new car, highlighting the need to provide targeted support for lower income households: *“Incentives will tend to disproportionately benefit the non-poor so governments should focus on increasing the supply of second-hand ZEVs through government purchasing policies, NOT subsidising the rich...”*.





## Those who are disabled, older, or have limited mobility experience disproportionate transport disadvantage

Some Tasmanians with reduced mobility, namely people with disabilities and older people, face additional challenges when it comes to utilising active or public transport: *“Buses are not user friendly for disabled. Mum is 90 and cannot climb the steep bus stairs. Ageing means reduced mobility through no fault of our own”*.

Furthermore, it was highlighted that public transport accessibility is not only about physically walking onto the bus, but also walking to/from bus stops. One respondent suggested the implementation of more *“modes of transport that are disability accessible and don’t rely on walking e.g., mini mass transit, mini buses that pick up people from houses...”*.

[Recently published research](#) has demonstrated that transport disadvantage is experienced by disabled people of all ages in Tasmania, with participants reporting that the inaccessibility of public transport contributed to feelings of isolation and loneliness, limited their employment and education options, and negatively impacted their ability to access health appointments and treatment.

It is clear that [“disabled people’s needs and voices are not centred in transport planning and decision making in Tasmania”](#) and engagement and consultation with people with disabilities and older Tasmanians is essential to co-designing effective and accessible public and active transport options that suit their needs.

## Some comments highlight the need for more information about the sustainability of production processes and safety of ZEVs

We received a range of comments in which respondents appeared to raise sincere concerns about the sustainability of ZEV production and the safety of their operation. These comments tended to argue that ZEVs are not truly 'zero-emissions' and, due to their production, are less sustainable than petrol/diesel vehicles; that the electricity grid cannot support ZEV charging; that ZEV batteries are dangerous, have a short life span and cannot be recycled; and that ZEVs are more likely to catch fire than petrol/diesel vehicles, among other concerns. These kinds of beliefs could be mitigated through greater education and information about ZEVs and their operation.

We also received a handful of comments from respondents who were worried that the promotion of ZEVs is part of a nefarious agenda propagated by governments and media intentionally spreading false and/or misleading information: *"This is a World Economic Forum promotion to lock us into 15-minute cities. Climate change is a hoax, stop trying to enforce this upon us"*.





## Conclusion

This survey demonstrates that Tasmanians have a strong desire to reduce their transport emissions and take action on climate change but barriers including infrastructure, cost, and social attitudes stand in their way.

The Tasmanian ERRP for the transport sector needs to focus, among other things, on improving the safety of active transport options, increasing the quality of public transport services, and reducing the cost of ZEVs.

As the uptake of ZEVs accelerates over the next decade there will have to be rapid scaling up of public charging infrastructure, especially on major highway routes, and well as a review of road user charges.

Innovative interventions such as car sharing models, demand-driven public transport, and flexible remote working arrangements should all be considered, particularly to cater to the unique needs of different cohorts within our community.

The establishment of ambitious transport emissions reduction and ZEV uptake targets will set a vision for what we want to achieve as a state and a community by the end of the decade and beyond.

As outlined in our [recent reports](#), transport is the 'low-hanging fruit' of decarbonisation opportunities in terms of abatement potential, economic feasibility, and technological readiness, and the results of this survey consultation highlight that the Tasmanian community are ready for more ambitious action.