



LEGISLATIVE COUNCIL

PORTFOLIO COMMITTEE NO. 6

Use of e-scooters, e-bikes and related mobility options

Report 25

February 2025

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Portfolio Committee No. 6 - Transport and the Arts

Use of e-scooters, e-bikes and related mobility options

Published on 13 February 2025

New South Wales. Parliament. Legislative Council. Portfolio Committee No. 6 - Transport and the Arts. Report no. 25.

Use of e-scooters, e-bikes and related mobility options

"February 2025"

Chair: Ms Cate Fachrmann MLC



A catalogue record for this book is available from the National Library of Australia

ISBN: 978-1-922960-80-1

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Terms of reference

That Portfolio Committee No. 6 - Transport and the Arts inquire into and report on the use of e-scooters, e-bikes (including shared schemes), related mobility options and in particular:

- (a) the current and anticipated role of all three levels of government in enabling and encouraging safe electrified active transport options
- (b) opportunities to reform the regulatory framework to achieve better and safe outcomes for riders and the community
- (c) local council, industry and stakeholder perspectives on the utilisation and impact of e-mobility devices in the community
- (d) opportunities to improve mobility, the customer experience, safety for users and the community
- (e) the potential benefits and risks of existing regulatory and policy settings, including the *Roads Act 1993*, Road Rules and Road User Space Allocation Policy and other related legislation regarding safety, traffic and personal convenience
- (f) the extent that e-mobility devices have positive community benefits such as encouraging mode shift, relieving congestion, addressing social disadvantage and tourism
- (g) opportunities across government to improve outcomes in regard to e-scooters, e-bikes and related mobility options
- (h) best practice in other Australian and international jurisdictions
- (i) the economic analysis of e-mobility contribution to safe transport at night for shift workers and women, to mode shift and to first and last mile transport and
- (j) any other related matters.

The terms of reference for the inquiry were referred to the committee by the Legislative Council on 6 June 2024.¹

¹ *Minutes*, NSW Legislative Council, 6 June 2024, pp 1230-1231.

Committee details

Committee members

Ms Cate Faehrmann MLC	The Greens	<i>Chair</i>
Hon Mark Banasiak MLC	Shooters, Fishers and Farmers Party	
Hon Anthony D'Adam MLC	Australian Labor Party	
Hon Wes Fang MLC*	The Nationals	
Hon Dr Sarah Kaine MLC	Australian Labor Party	
Hon Bob Nanva MLC	Australian Labor Party	
Hon Natalie Ward MLC	Liberal Party	

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* The Hon Wes Fang MLC replaced the Hon Sam Faraway MLC as a substantive member of the committee from 11 December 2024.

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Chair's foreword

In just a few years, e-scooters, e-bikes and other e-mobility options have transformed the way we get around our towns and cities. For many, these devices provide freedom – an accessible, eco-friendly way to navigate congested streets, reduce carbon emissions and avoid the escalating costs of car ownership. Yet, their rapid uptake has meant that our laws and infrastructure haven't kept pace. Instead of embracing the opportunities that e-mobility devices represent to transform our cities and lifestyles by being proactive in regulating statewide standards, successive NSW governments have been reactive, addressing problems only after they arise, if at all.

This reactive approach is unsustainable. Without a shift to a forward-thinking, comprehensive strategy, the opportunities promised by e-mobility could be overshadowed by safety risks, public frustration and preventable incidents. Throughout this inquiry, we heard from individuals across New South Wales who shared their experiences of shared e-bikes strewn across footpaths, battery-related fires, delivery riders speeding past pedestrians on narrow sidewalks, and teenagers riding powerful fat bikes through malls without helmets – often with pillion passengers. The issues we are seeing with e-mobility devices are not so much about the devices themselves – they are signs that the rules and the way we enforce them are outdated or ineffective. Action is needed now.

Many e-mobility advocates view e-mobility devices as more than a convenience – they represent a lifestyle and a vital tool for addressing mobility and environmental challenges. Riders depend on e-scooters and e-bikes for commuting, exploring and reducing their carbon footprints. However, they expressed frustration with the lack of dedicated cycleways, restrictive laws and prohibitions on private e-scooters on public roads.

The committee recognises the substantial benefits that e-mobility delivers in promoting a more sustainable way for people to get to where they need to go. The committee was unanimous in supporting the expansion and integration of both private and shared e-bikes and e-scooters in the state's transport system through a comprehensive regulatory framework that prioritises safety and accessibility.

Local councils have borne the brunt of the current fragmented approach and regulatory gaps, managing complaints about improper use of shared devices while being asked to support e-mobility without adequate guidance or resources from the NSW Government. The committee also heard the difficulties shared mobility operators are experiencing having to navigate a fragmented system and negotiating contracts individually with local councils instead of through a centralised, streamlined process.

The evidence gathered during this inquiry, along with insights from other jurisdictions, shows that e-mobility can be an essential part of New South Wales transport future while addressing concerns around safety, infrastructure and enforcement. The committee acknowledges the initial steps taken by the NSW Government, including plans to legalise e-scooters, regulate devices and batteries, update outdated road rules and invest in new cycleways, and many of the recommendations in this report complement that work.

The committee has made a range of recommendations, many of which focus on improving the rider experience and road user safety through regulatory reform. Key measures include adopting a statewide scheme for shared e-bikes and e-scooters, with dedicated parking infrastructure and a cap on the number of operators, which have been essential elements to the success of shared e-scooter and e-bike schemes in most other jurisdictions.

Other recommendations include investing in cycling infrastructure such as dedicated bike paths, permitting footpath use for e-mobility devices and bicycles at 15 km/h, unless otherwise stated and provided they give way to pedestrians, and implementing reduced speed limits on shared paths. We heard from many cycling advocate groups that many people don't feel safe cycling in Sydney or, indeed, in many parts of New South Wales. We have therefore made the important recommendation of reducing speed limits in the appropriate local government areas to 30 km/h in high pedestrian areas and 40 km/h in other areas.

The growing number of fires started as a result of lithium batteries exploding are a stark reminder of the dangers of lithium batteries and an issue that multiple witnesses raised with the committee. We have therefore made a number of recommendations to address the issue of lithium batteries, including managing non-compliant devices and promoting the collection, recycling and reuse of e-mobility batteries.

Another area of concern was the perception that many riders, including delivery riders, lacked the appropriate level of knowledge regarding road rules. There are two elements to this. Firstly, the road rules need updating and secondly, there needs to be mandatory education programs by shared mobility and delivery operators. There is also an urgent need for improved statewide signage and expanded enforcement efforts.

The committee urges the NSW Government to carefully consider the recommendations presented in this report. We believe that by doing so, New South Wales can fully realise the benefits of e-mobility while considerably mitigating its risks and challenges.

I extend my sincere gratitude to my committee colleagues for their collaboration, insights and contributions throughout this inquiry. I would also like to thank the many individuals and organisations who shared their experiences, perspectives and expertise. Their input has helped shape a clearer understanding of the opportunities and challenges associated with e-mobility in New South Wales.

I commend this report to the House.

Ms Cate Faehrmann MLC
Committee Chair

Findings

Finding 1

62

The proliferation of 'fat bikes' and associated rider behaviour is raising serious safety concerns for pedestrians in several New South Wales local government areas. The committee notes the current ambiguity surrounding these bikes, including a lack of a clear definition and uncertainty regarding their permissibility, which hinders effective regulation and enforcement.

Finding 2

63

That implementing a bureaucratic registration system could create barriers to adoption and limit accessibility of e-mobility devices, especially for low-income users.

Finding 3

93

Shared e-bike operators claim to have the technology and adequate staffing to manage parking and pathway obstruction issues. However, the committee finds that these problems persist and are increasingly impacting public amenity and safety, demonstrating a disconnect between operator claims and the reality on the ground.

Recommendations

Recommendation 1

31

That the NSW Government develop a comprehensive framework to integrate private and shared e-mobility into the state's transport system which:

- supports the use of both private and shared e-scooters, e-bikes and other e-mobility devices as legitimate forms of transport
- clearly defines the responsibilities of state and local governments
- sets consistent safety, operational and accessibility standards
- provides targeted support to help councils effectively manage services and usage within their local contexts.

Recommendation 2

31

That the NSW Government manage tender processes for shared e-mobility schemes at the state level to eliminate duplication across councils, reduce administrative burdens for operators and prioritise safety measures, device maintenance and service reliability, in close consultation with local councils.

Recommendation 3

31

That the NSW Government work with councils to establish a metropolitan-wide shared e-mobility device scheme and impose a cap on the number of operators.

Recommendation 4

32

That the NSW Government implement mandatory data sharing requirements for all shared e-mobility operators.

Recommendation 5

60

That the NSW Government review its e-mobility device specifications against the national standards, including consideration of the maximum continuous rated power of electrically power-assisted cycles.

Recommendation 6

61

That the NSW Government update its *Road Rules 2014* by giving consideration to the Australian Road Rules 14th Amendment Package, using the proposals put forward by the Committee for Sydney and commit to a clear timeframe for implementation to improve safety and better integrate e-mobility devices into the transport system.

Recommendation 7

61

That the NSW Government regulate the use of private e-scooters in New South Wales in close consultation with local councils, enforcement agencies, industry representatives and community groups.

Recommendation 8

61

That the NSW Government amend its draft e-scooter rules to allow riding on footpaths and shared paths, unless otherwise stated, at a maximum speed of 15 km/h, with riders having to give way to pedestrians at all times.

Recommendation 9**63**

That the NSW Government:

- establish clear protocols for identifying and managing non-compliant e-mobility devices, including granting enforcement authorities the power to seize devices when necessary
- develop clear and consistent procedures for identifying and addressing unsafe riding behaviours on roads and shared paths, ensuring the safety of all users through effective enforcement and rider accountability
- review fines for e-mobility offences to ensure they are proportionate to the risk posed and effectively promote safer riding behaviours
- create an accessible public reporting system that allows the public to report non-compliant devices and unsafe riding practices, enabling timely investigation and intervention
- implement regular training programs for enforcement personnel on e-mobility device specifications and regulations to ensure consistent and effective compliance monitoring.

Recommendation 10**73**

That the NSW Government:

- establish safety standards and protocols for the use, storage and charging of e-mobility device batteries across all relevant settings
- develop emergency response protocols for managing battery-related incidents in various environments
- implement education campaigns to inform the public about safe battery usage, storage and disposal practices.

Recommendation 11**74**

That the NSW Government:

- implement extended producer responsibility regulations, requiring manufacturers and retailers to fully fund battery collection, recycling and reuse programs
- introduce a deposit-refund scheme for e-mobility batteries, incentivising consumers to return used batteries for safe recycling
- strengthen the B-cycle stewardship program by setting specific collection and recycling targets, enhancing infrastructure and collaborating with industry stakeholders to improve battery recovery rates
- provide government subsidies or tax incentives to support businesses and local governments in covering the costs of battery collection and recycling
- promote innovation in reusable and recyclable battery design through grants and research and development incentives to reduce the financial burden of disposal.

Recommendation 12**75**

That the NSW Government:

- develop and implement a state-wide strategy to establish a network of battery-swapping stations, prioritising high-demand areas such as urban centres and delivery hotspots

- collaborate with industry stakeholders, including e-mobility manufacturers, delivery platforms and local governments, to fund, build and maintain the infrastructure
- ensure that battery-swapping facilities adhere to safety standards for battery handling, storage and charging to minimise safety risks.

Recommendation 13**93**

That the NSW Government prioritise and fund the delivery of the Strategic Cycleways Corridors Program as outlined in the Active Transport Strategy.

Recommendation 14**95**

That the NSW Government develop a plan for the provision of parking infrastructure for shared e-bikes and e-scooters in cities and key regional centres, in collaboration with local councils and in consultation with shared scheme operators and disability community representatives and that this plan includes:

- e-mobility vehicle parking on all resurfacing or other road construction projects
- dedicated parking locations, ideally no more than 200 m apart in high-density areas
- exploring the feasibility of designated e-mobility parking in areas next to intersections where car parking is prohibited due to sightlines
- designated parking at all public transport stations
- allocating existing car spaces for e-mobility parking, where practicable.

Recommendation 15**95**

That the NSW Government review the Housing and Productivity Contributions framework to require contributions from new developments for integrated active transport infrastructure, including parking and dedicated cycling pathways.

Recommendation 16**96**

That the NSW Government, in allocating funds to active transport in the NSW Budget, ensure better alignment with the proportion of active transport trips taken and the United Nations recommendation for active transport to be allocated 20 per cent of transport budgets.

Recommendation 17**96**

That the NSW Government substantially increase the allocation of funds in the Get NSW Active program to ensure the delivery of infrastructure that supports e-mobility.

Recommendation 18**97**

That the NSW Government set an ambitious mode shift target to drive policies, programs and funding that will transition trips away from private vehicle use to a far greater percentage of trips taken by public transport, cycling, walking, car sharing and e-mobility.

Recommendation 19**124**

That the NSW Government:

- optimise traffic signal phasing to prioritise pedestrians and cyclists and e-mobility users in appropriate locations
- ensure local government authorities are provided with the resources to implement these changes.

- Recommendation 20** 124
- That the NSW Government reduce on-road speed limits in the appropriate local government areas, providing for:
- 30 km/h speed limits in the city centres, high streets, around schools, around childcare centres and playgrounds, around universities and health care centres
 - 40 km/h speed limits in all other areas.
- Recommendation 21** 125
- That the NSW Government prioritise the review of the *Roads Act 1993*, within the broader legislative framework review, in line with the recommendations arising from the update of the Road User Space Allocation Policy.
- Recommendation 22** 125
- That the NSW Government institute a 15 km/h speed limit for e-mobility devices on shared paths and implement complementary measures, including enhanced enforcement and rider education programs, to ensure safe and responsible e-mobility use.
- Recommendation 23** 125
- That the NSW Government amend the *Road Rules 2014* to allow e-mobility devices and bike riding on footpaths, unless otherwise stated, at a maximum speed of 15 km/h, with riders having to give way to pedestrians at all times.
- Recommendation 24** 126
- That the NSW Government collect data on e-mobility devices separately to that of conventional bicycles and work with other jurisdictions to establish a nationally standardised crash database.
- Recommendation 25** 126
- That the NSW Government explore options for requiring shared scheme operators and food delivery platforms to share data on incidents involving e-mobility devices.
- Recommendation 26** 127
- That the NSW Government invest in a statewide social media campaign targeted at young people about safe and responsible use of e-mobility devices.
- Recommendation 27** 127
- That the NSW Government, to enhance rider and public safety, mandate ongoing safety training for food delivery platform riders, enforce compliance through regular audits and penalties and ensure all riders, particularly those using e-mobility devices, adhere to road rules and safe riding practices.
- Recommendation 28** 127
- That, after the *Road Rules 2014* have been updated regarding e-mobility devices, the NSW Government:
- adapt the Driver Knowledge Test to include elements relating to e-mobility device use
 - explore options for making this test mandatory for all e-mobility device users over the age of 16, including food delivery platform riders.

- Recommendation 29** 128
That the NSW Government explore options for an online road rules and safety knowledge test for e-mobility device users targeted at those under the age of 16 years.
- Recommendation 30** 128
That the NSW Government establish and regulate consistent, statewide standards for clear, up-to-date and easily understood signage about road rules for e-mobility device users and provide targeted funding to local governments for the installation and maintenance of this signage on road and path infrastructure.
- Recommendation 31** 128
That the NSW Government implement a requirement that all shared scheme operators ensure that users are aware of basic road rules and safe riding practices.
- Recommendation 32** 129
That the NSW Government mandate retailers to provide necessary advice on safety and legal use of e-mobility devices at the point of sale, including online sales.
- Recommendation 33** 129
That the NSW Government investigate, as a matter of urgency, potential settings to create a viable model for e-mobility insurance, including compulsory insurance for owners/riders.
- Recommendation 34** 130
That the NSW Government refer the potential settings of a viable model for e-mobility insurance and government position on the issue to Portfolio Committee No. 6 - Transport and the Arts for further public consultation.

Conduct of inquiry

The terms of reference for the inquiry were referred to the committee by the Legislative Council on 6 June 2024.

The committee received 314 submissions and 3 supplementary submissions.

The committee received 1,298 responses from individual participants to an online questionnaire.

The committee held three public hearings at Parliament House in Sydney.

Inquiry related documents are available on the committee's website, including submissions, hearing transcripts, tabled documents and answers to questions on notice.

Chapter 1 Background

This chapter offers an overview of electric scooters (e-scooters), electric bikes (e-bikes) and related mobility solutions. It defines these technologies in the context of this inquiry and examines the policy and legislative frameworks that govern their use, regulation and integration in New South Wales. It then identifies key stakeholders and the consultative mechanisms that shape state policies on e-mobility. The chapter concludes by looking at e-mobility in other jurisdictions.

E-mobility devices

- 1.1 Electric scooters (e-scooters), electric bikes (e-bikes) and related mobility technologies are transforming how people navigate their communities. Collectively referred to as e-mobility devices for this inquiry, these innovations are reshaping urban transportation by offering practical, sustainable and efficient alternatives to traditional travel methods.²
- 1.2 E-mobility devices are small, electric-powered vehicles designed for single-person use for short-distance travel. They provide an alternative to traditional transportation methods, such as private cars, particularly in urban areas.³
- 1.3 The category of e-mobility devices includes a broad spectrum of vehicles, such as e-bikes, e-scooters, electric skateboards (e-skateboards), self-balancing scooters (hoverboards), electric unicycles (monocycles) and Segways. It also encompasses mobility aids like electric wheelchairs and mobility scooters, which are specifically designed to assist individuals with limited mobility.⁴
- 1.4 This inquiry focuses primarily on e-bikes and e-scooters as these devices were frequently discussed in the evidence provided to the committee.
- 1.5 E-mobility devices are available in two ways: people can either buy and own them personally or access them through shared schemes.⁵
- 1.6 These devices are also referred to by various terms, including personal mobility devices, micromobility, e-micromobility and rideables.⁶ The NSW Government collectively refers to them as e-micromobility technologies to encompass their diverse uses and types.⁷
- 1.7 Within this category, two main types of devices are regulated for use in New South Wales: e-bikes and e-scooters. Permitted e-bikes, including those available through shared schemes, are

² NSW Government, *E-micromobility Action Plan* (October 2024), p 4, <https://www.transport.nsw.gov.au/system/files/media/documents/2024/NSW-E-micromobility-Action-Plan-October-2024.pdf>.

³ Transport for NSW, *Active Transport Strategy*, p 18, https://www.future.transport.nsw.gov.au/sites/default/files/2022-12/Active_transport_strategy_0.pdf.

⁴ iMOVE, *Micromobility*, <https://imoveaustralia.com/topics/micromobility/#definition>

⁵ iMOVE, *Micromobility*, <https://imoveaustralia.com/topics/micromobility/#definition>

⁶ Submission 148, Royal Australasian College of Surgeons NSW branch, p 1.

⁷ Submission 153, NSW Government, p 5.

allowed on public roads and related areas.⁸ E-scooters, however, are regulated differently depending on their ownership. Privately owned e-scooters are restricted to private property and cannot be used on public roads, footpaths, or bicycle paths.⁹ Shared e-scooters, in contrast, at present, are permitted only in designated trial sites under the NSW Government's Shared E-scooter Trial Program. These trials are governed by specific rules, including limiting their use to roads with speed limits of 50 km/h or less, as well as shared paths and bicycle lanes or paths.¹⁰

- 1.8** According to the NSW Government, between 2020 and 2022, e-bike purchases rose by 322 per cent.¹¹ Additionally, approximately one million residents have used an e-scooter, either in New South Wales or in another jurisdiction.¹²
- 1.9** The NSW Government is planning potential regulatory changes for e-scooters and has begun consulting with stakeholders on the issue. As part of this process, Transport for NSW has created a set of draft key rules to guide discussions. These draft key rules aim to provide a foundation for stakeholder engagement and support informed decisions about the future legal framework for e-scooter use.¹³
- 1.10** The increasing use of e-mobility devices reflects their ability to serve multiple purposes, including commuting, recreation, running errands and connecting with public transportation.¹⁴ As outlined in the NSW Government submission, these devices can reduce reliance on cars, enhance access to jobs and services and make cycling possible in areas that are remote or difficult to navigate.¹⁵ They also help lower greenhouse gas emissions, improve air quality and provide financial and health benefits.¹⁶ Additionally, e-mobility devices offer efficient solutions for last-mile freight and safer transport options for vulnerable groups and nighttime travel.¹⁷ Further details on these applications are provided in chapter 2.
- 1.11** The rapid growth in e-mobility use has also raised several policy challenges that need to be addressed for its safe and effective use. Key issues highlighted by the NSW Government include ensuring rider and pedestrian safety, managing battery risks and developing suitable infrastructure and public space solutions.¹⁸ Coordinated efforts involving policies, legislation and projects are required to support the sustainable integration of e-mobility devices.¹⁹ These issues are discussed further in this report.

⁸ Submission 153, NSW Government, p 3.

⁹ Submission 153, NSW Government, p 3.

¹⁰ Submission 153, NSW Government, p 4.

¹¹ Submission 153, NSW Government, p 3.

¹² Submission 153, NSW Government, p 5.

¹³ Transport for NSW, *Exploring options for e-scooter use in NSW*, <https://www.transport.nsw.gov.au/projects/current-projects/e-micromobility/exploring-options-for-e-scooter-use-nsw>.

¹⁴ Online questionnaire summary report - Inquiry into use of e-scooters, e-bikes and related mobility options, p 3.

¹⁵ Submission 153, NSW Government, pp 7-8.

¹⁶ Submission 153, NSW Government, pp 7-9.

¹⁷ Submission 153, NSW Government, p 3.

¹⁸ Submission 153, NSW Government, p 4.

¹⁹ Submission 153, NSW Government, p 4.

Policy and legislative framework

- 1.12** The design, functionality and capabilities of e-mobility devices can differ widely, influencing safety outcomes and policy approaches for their use.²⁰
- 1.13** The policy and legislative framework of e-mobility devices is structured across multiple layers of governance. At the federal level, the Australian Government holds regulatory authority over the importation of motor vehicles, including e-mobility devices.²¹ The NSW Government sets and enforces road rules and transport safety regulations to ensure e-mobility devices are used safely. This involves determining key policies and penalties related to helmet requirements, suitable road use conditions and speed limits (including paths), rider conduct (such as reckless riding and driving under the influence of alcohol or drugs) and the types of devices legally permitted on New South Wales roads.²² Local authorities oversee the maintenance of public infrastructure and work with residents and the NSW Government on road safety and e-mobility education initiatives.²³ This section will provide an examination of these regulatory layers.

Australian Government regulations for e-mobility devices

- 1.14** The Australian Government establishes the overarching regulatory frameworks for e-mobility devices, focusing primarily on safety standards and technical specifications. Under the *Road Vehicle Standards Act 2018* (Cth), the government regulates the importation of motor vehicles, including e-mobility devices.²⁴
- 1.15** Devices classified as 'not a road vehicle,' such as e-bikes and other e-mobility devices, can be imported without the need for formal approvals or adherence to the Australian Design Rules.²⁵ The distinction between road vehicles and non-road vehicles is outlined in Section 6 of the *Road Vehicle Standards Act 2018*²⁶ and further clarified in the Road Vehicle Standards (Classes of Vehicles that are not Road Vehicles) Determination 2021.²⁷ These legislative instruments exclude certain vehicle classes deemed inappropriate for public road use.²⁸ To qualify as 'not a road vehicle,' a device must be primarily designed for non-road use, as determined by the manufacturer's specifications.²⁹

²⁰ Submission 153, NSW Government, p 12.

²¹ Submission 153, NSW Government, p 14.

²² Submission 153, NSW Government, p 10.

²³ Submission 120, Local Government NSW, p 5.

²⁴ Submission 153, NSW Government, p 14.

²⁵ Submission 153, NSW Government, p 14.

²⁶ Submission 153, NSW Government, p 14.

²⁷ Road Vehicle Standards (Classes of Vehicles that are not Road Vehicles) Determination 2021.

²⁸ Department of Infrastructure, Transport, Regional Development, *Communications and the Arts, Australian Government, Advisory notice that a thing is not a road vehicle - overview* (2 December 2024), <https://www.infrastructure.gov.au/infrastructure-transport-vehicles/vehicles/importing-vehicle/advisory-notice-narv>.

²⁹ Department of Infrastructure, Transport, Regional Development, Communications and the Arts, *Australian Government, Advisory notice that a thing is not a road vehicle - overview* (2 December 2024), <https://www.infrastructure.gov.au/infrastructure-transport-vehicles/vehicles/importing-vehicle/advisory-notice-narv>.

- 1.16** Under this legislative instrument, e-bikes are classified into two subcategories: electrically power-assisted cycles and power-assisted pedal cycles. The Road Vehicle Standards (Classes of Vehicles that are not Road Vehicles) Determination 2021 defines electrically power-assisted cycles as pedal-driven devices with an electric motor output of up to 250 watts, where assistance gradually reduces beyond 6 km/h and ceases entirely when the cycle reaches 25 km/h or if the rider stops pedalling above 6 km/h.³⁰ Power-assisted pedal cycles, on the other hand, are primarily human-powered with supplementary electric motors, provided they meet criteria such as a maximum motor output of 200 watts, no internal combustion engine, a tare mass under 50 kg, an adjustable seat height and a motor that cannot independently propel the device.³¹
- 1.17** Certain e-scooters fall under the personal mobility device classification within this legislative instrument. To qualify as a non-road vehicle in this category, the device must be designed for one person, have one or more wheels, be powered by an electric motor and include an effective stopping system (e.g., brakes, gears, or motor control). It must not exceed 25 km/h on level ground, have a maximum footprint of 1,250 mm by 700 mm, a height of no more than 1350 mm and an unladen mass of 60 kg or less. Additionally, it should not have any non-essential protruding objects or sharp fittings that could increase the risk of bodily injury.³²
- 1.18** Other motor-assisted devices, such as rollerblades, roller skates, skateboards and unicycles are categorised as motorised recreational devices. These are wheeled vehicles designed to transport a person, typically used for recreation or play and assisted by a motor with a combined maximum power output not exceeding 200 watts.³³

Regulatory framework for e-mobility in New South Wales

- 1.19** In their submission, the NSW Government acknowledged that effective regulation and policy settings are essential to reducing risks and mitigating harm associated with e-mobility use.³⁴ They also recognise that e-mobility is an emerging technology and transport option and emphasised the need for a regulatory framework that is continuously monitored and adjusted to reflect the changing needs, preferences and safety concerns of the community.³⁵
- 1.20** The government's most recent policy framework for e-mobility is the E-micromobility Action Plan, launched in October 2024. This plan serves as a strategy to promote and support e-mobility as a 'safe, sustainable and accessible transport option'.³⁶ It identifies 58 targeted actions across five key focus areas: policy and regulation, education and engagement, infrastructure

³⁰ Road Vehicle Standards (Classes of Vehicles that are not Road Vehicles) Determination 2021(Cth).

³¹ Road Vehicle Standards (Classes of Vehicles that are not Road Vehicles) Determination 2021(Cth).

³² Department of Infrastructure, Transport, Regional Development, Communications and the Arts, Australian Government, *Importing e-scooters made easy* (19 October 2021), <https://www.infrastructure.gov.au/departments/media/news/importing-e-scooters-made-easy#:~:text=Check%20the%20local%20e%2Dscooter%20rules&Rules%20on%20motor%20capacity%2C%20speed,differ%20from%20jurisdiction%20to%20jurisdiction>.

³³ Road Vehicle Standards (Classes of Vehicles that are not Road Vehicles) Determination 2021(Cth).

³⁴ Submission 153, NSW Government, p 22.

³⁵ Submission 153, NSW Government, p 21.

³⁶ NSW Government, *E-micromobility Action Plan* (October 2024), p 4, <https://www.transport.nsw.gov.au/system/files/media/documents/2024/NSW-E-micromobility-Action-Plan-October-2024.pdf>.

development, parking and public space management and data, research, coordination and collaboration.³⁷

- 1.21 Additionally, several key government policies play a central role in shaping the regulation and integration of e-mobility in New South Wales. Notably, the updated Road User Space Allocation Policy, effective from 1 July 2024, emphasises prioritising road space for walking, micromobility devices, public transport and freight vehicles over private motor vehicles and their on-street parking.³⁸
- 1.22 The Future Transport Strategy, introduced in 2022, provides a long-term vision for an integrated and user-focused transport system, emphasising accessibility, safety, connectivity and enhanced public spaces while supporting infrastructure improvements to foster sustainable transport options.³⁹
- 1.23 The Active Transport Strategy, published in October 2022, builds on the Future Transport Strategy by delivering a detailed roadmap for walking, cycling and personal mobility, identifying specific actions and investment priorities to expand active transport networks across New South Wales and aligning with broader goals for sustainability and improved connectivity.⁴⁰
- 1.24 Complementing these policies are additional tools that shape and guide government action. The Providing for Walking and Cycling in Transport Projects Policy, introduced in February 2021, requires the integration of walking and cycling infrastructure into all Transport for NSW projects.⁴¹ The NSW Movement and Place Framework states that it seeks to balance the movement of people and goods with the enhancement of public spaces. This framework aligns with NSW policy and strategic objectives by promoting the development of 'successful streets and roads by balancing the movement of people and goods with the amenity and quality of places'.⁴²
- 1.25 In New South Wales, the use of e-bikes and e-scooters is governed by multiple Acts and regulations, as no single dedicated legislation exists for these emerging technologies. The regulatory framework encompasses various aspects including road usage, product safety standards, infrastructure requirements, fire safety protocols, accessibility provisions and

³⁷ Submission 153, NSW Government, pp 20 – 21; Evidence, Ms Anna Bradley, Executive Director, Active Transport and Vibrancy, Transport for NSW, 31 October 2024, p 38.

³⁸ Transport for NSW, *Road User Space Allocation Policy* (July 2024), p 2, https://www.transport.nsw.gov.au/system/files/media/documents/2024/road-user-space-allocation-policy_july-2024.pdf.

³⁹ Transport for NSW, *Future Transport Strategy*, https://www.future.transport.nsw.gov.au/sites/default/files/2022-09/Future_Transport_Strategy_2.pdf.

⁴⁰ Transport for NSW, *Active Transport Strategy*, https://www.future.transport.nsw.gov.au/sites/default/files/2022-12/Active_transport_strategy_0.pdf.

⁴¹ Transport for NSW, *Providing for Walking and Cycling in Transport Projects Policy*, <https://www.transport.nsw.gov.au/system/files/media/documents/2021/providing-for-walking-and-cycling-in-transport-projects-policy.pdf>.

⁴² Transport for NSW, *NSW Movement and Place Framework*, <https://www.transport.nsw.gov.au/industry/nsw-movement-and-place-framework>.

workplace safety considerations. The following legislative instruments form the core components of this framework.

- *Road Rules 2014*
- *Roads Act 1993*
- *Road Transport Act 2013*
- Road Transport (General) Regulation 2021
- Road Transport Legislation Amendment (Electric Skateboards and Bicycles) Regulation 2023
- *Gas and Electricity (Consumer Safety) Act 2017*
- *Public Spaces (Unattended Property) Act 2021*
- *Disability Inclusion Act 2014*
- *Motor Accident Injuries Act 2017*
- *Road Amendment (Electric Scooter Trial) Rule 2022*
- *Work Health and Safety Act 2011*.⁴³

- 1.26** The *Road Rules 2014* consolidates all road rules applicable in New South Wales into a single document, ensuring consistency with the Australian Road Rules while also addressing state-specific matters not covered by the national framework. Part 14, Division 2 outlines rules for individuals using wheeled recreational devices and toys. Part 15 includes additional rules for bicycle riders, which extend to e-bikes. Furthermore, Part 15-1, Divisions 1 and 2 provide specific regulations for the use of electric scooters.⁴⁴
- 1.27** The *Road Transport Act 2013* consolidates road user, transport and safety provisions, provides for nationally uniform systems for licensing, vehicle registration and standards, enhances road safety and efficiency, reduces administrative costs, facilitates expense recovery and addresses regulatory gaps beyond the scope of the national reforms.⁴⁵
- 1.28** The Road Transport Legislation Amendment (Electric Skateboards and Bicycles) Regulation 2023 introduces key updates to the *Road Rules 2014*, focusing on electric skateboards and electrically power-assisted bicycles. Notably, it permits a higher power output for electrically power-assisted cycles in New South Wales (500 watts) compared to the federal standard (250 watts).⁴⁶

⁴³ Submission 153, NSW Government, p 17 and pp 21-22; Submission 128, Australian Lawyers Alliance, p 6; Submission 133, The Law Society of NSW, pp 1-2; Submission 175, Committee for Sydney, p 6; Answer to question on notice, The Law Society of NSW, 27 November 2024, p 3.

⁴⁴ *Road Rules 2014, Pt 14, Pt 15, Pt 15-1 Divs 1-2.*

⁴⁵ *Road Transport Act 2013, Pt 1 [3].*

⁴⁶ Road Transport Legislation Amendment (Electric Skateboards and Bicycles) Regulation 2023.

- 1.29** The *Gas and Electricity (Consumer Safety) Act 2017* establishes a unified legislative framework to regulate consumer safety for gas and electrical products and services, including e-mobility battery and device safety standards.⁴⁷
- 1.30** The *Public Spaces (Unattended Property) Act 2021* provides local councils and land management authorities with powers to manage shared e-bikes and other e-mobility devices in public spaces, addressing risks to public safety or amenity and regulating devices left unattended for extended periods.⁴⁸
- 1.31** The *Disability Inclusion Act 2014* mandates public authorities to develop a Disability Inclusion Action Plan (DIAP), supporting measures that enable individuals with disabilities to fully participate in the community.⁴⁹

E-mobility projects and advancements in New South Wales

- 1.32** Transport for NSW, in partnership with local councils, is conducting the NSW Shared E-scooter Trial Program to gather evidence and insights that will inform how e-mobility is integrated into state policies and regulations.⁵⁰
- 1.33** Since commencing in 2022, trials are currently ongoing in Forster-Tuncurry and Wollongong. Trials have already been completed in Kogarah, Albury, Western Sydney Parklands, the Australian Botanic Gardens Mount Annan, Lake Macquarie and Armidale.⁵¹
- 1.34** These trials are gathering data on shared e-scooter demand, safety and community sentiment to inform future policy in New South Wales.⁵²
- 1.35** Trials are initiated through applications submitted to Transport for NSW. Approved zones are designated as Electric Scooter Use Areas under *Road Rules 2014*, permitting shared e-scooter operations within trial areas.⁵³ Each trial is initially established for a 12-month period,⁵⁴ with the possibility of extension through collaboration between Transport for NSW and the respective council.⁵⁵

⁴⁷ *Gas and Electricity (Consumer Safety) Act 2017, Pt 1 [6] and Div 2.*

⁴⁸ *Public Spaces (Unattended Property) Act 2021, Div 2 [5].*

⁴⁹ *NSW Disability Inclusion Act 2014, Div 3, s12.*

⁵⁰ Submission 153, NSW Government, p 4.

⁵¹ Transport for NSW, *NSW Shared E-scooter Trial Program* (2 December 2024), <https://www.transport.nsw.gov.au/projects/current-projects/nsw-shared-e-scooter-trial-program>

⁵² Transport for NSW, *NSW Shared E-scooter Trial Program* (2 December 2024), <https://www.transport.nsw.gov.au/projects/current-projects/nsw-shared-e-scooter-trial-program>

⁵³ Transport for NSW, *NSW Shared E-scooter Trial Program* (2 December 2024), <https://www.transport.nsw.gov.au/projects/current-projects/nsw-shared-e-scooter-trial-program>.

⁵⁴ Transport for NSW, *Shared E-scooter Trials, Frequently asked questions* (August 2024), p 1, <https://www.transport.nsw.gov.au/system/files/media/documents/2024/Shared-E-scooter-Trial-FAQs.pdf>.

⁵⁵ Transport for NSW, *NSW Shared E-scooter Trial Program* (2 December 2024), <https://www.transport.nsw.gov.au/projects/current-projects/nsw-shared-e-scooter-trial-program>.

- 1.36** While Transport for NSW does not provide direct funding, it offers comprehensive support to participating councils, including tools to streamline both the application process and trial operations.⁵⁶ A crucial aspect of the program is the council's autonomy in selecting a shared e-scooter operator through formal procurement. Once selected, the operator enters into a contract with the council and assumes full responsibility for operational aspects, including e-scooter supply and service management.⁵⁷
- 1.37** The relationship between councils and operators is governed by negotiated agreements that establish clear parameters for service delivery. These agreements typically encompass various operational aspects, including the management of poorly parked or abandoned devices, complaint handling procedures, responsiveness to geo-fencing adjustments, participation in local working groups and strategies for community engagement and education.⁵⁸
- 1.38** Transport for NSW's Strategic Cycleway Corridor program, as highlighted by Ms Anna Bradley, Executive Director of Active Transport and Vibrancy, aims to create an extensive network of safe cycling connections across the state's six major cities.⁵⁹ The initiative targets the delivery of over 100 kilometres of new cycleways by 2028, with a long-term goal exceeding 1,000 kilometres.⁶⁰

Local government efforts for e-mobility

- 1.39** Local councils are responsible for managing local roads, cycleways, parks and open spaces, providing infrastructure to support e-mobility and promoting road safety through public education campaigns in partnership with the NSW Government.⁶¹ They work with shared bike operators under locally developed guidelines to facilitate service operations.⁶² Additionally, under the *Public Spaces (Unattended Property) Act 2021*, they have the authority to manage risks associated with unattended shared e-bikes and e-scooters in public spaces.⁶³
- 1.40** Before this act was introduced, the City of Sydney, Inner West Council and four other inner-city Sydney councils took steps to address issues with shared e-bikes in the absence of action by

⁵⁶ Transport for NSW, *NSW Shared E-scooter Trial Program* (2 December 2024), <https://www.transport.nsw.gov.au/projects/current-projects/nsw-shared-e-scooter-trial-program>.

⁵⁷ Transport for NSW, *Shared E-scooter Trials, Frequently asked questions* (August 2024), p 3, <https://www.transport.nsw.gov.au/system/files/media/documents/2024/Shared-E-scooter-Trial-FAQs.pdf>.

⁵⁸ Transport for NSW, *Shared E-scooter Trials, Frequently asked questions* (August 2024), p 3, <https://www.transport.nsw.gov.au/system/files/media/documents/2024/Shared-E-scooter-Trial-FAQs.pdf>.

⁵⁹ Evidence, Ms Anna Bradley, Executive Director, Active Transport and Vibrancy, Transport for NSW, 31 October 2024, p 45.

⁶⁰ Transport for NSW, *Strategic cycleway corridors* (2 December 2024), <https://www.transport.nsw.gov.au/operations/walking-and-bike-riding/strategic-cycleway-corridors#:~:text=What%20is%20the%20purpose%20of,progressively%20develop%20local%20bike%20networks>.

⁶¹ Submission 120, Local Government NSW, pp 5-6.

⁶² Transport for NSW, *E-bikes*, <https://www.transport.nsw.gov.au/operations/active-transport/e-bikes>.

⁶³ Submission 153, NSW Government, p 18.

the NSW Government. In 2017, these councils jointly developed guidelines outlining their expectations for dockless shared bike operators. The guidelines covered areas such as customer safety and behaviour, bike placement, bike distribution and redistribution, data sharing and the collection or relocation of damaged bikes. However, these guidelines do not have any regulatory enforcement.⁶⁴

1.41 To further promote e-mobility and public safety, several councils have implemented targeted strategies, including:

- City of Newcastle: Through its Newcastle 2040 Community Strategic Plan, the Council emphasises accessible and diverse transport options, including e-mobility. In 2021, it adopted the On Our Bikes cycling plan to develop a safe and connected active transport network and promote a shift toward active and public transport, aligning with its broader commitment to supporting all forms of active transport.⁶⁵
- City of Sydney: As part of its Sustainable Sydney 2030-2050 Vision, the Council aims to create a 'City for Walking, Cycling and Public Transport', targeting net zero transport emissions by 2035 and 90 per cent of city-centre workers and 66 per cent of other local workers using sustainable transport by 2050. By 2030, all residents should be within a 10-minute walk of essential services.⁶⁶ The City of Sydney has adopted policy positions on e-mobility through Council resolutions. For shared e-bikes, the Council supports implementation with regulated caps on operator numbers and strict safety standards. For e-scooters, the Council supports trials restricted to separated cycleways, contingent on the completion of cycling infrastructure, with pedestrian safety remaining the top priority.⁶⁷
- Northern Beaches Council: The Northern Beaches Bike Plan, adopted in 2020, outlines the actions needed to encourage cycling as a viable transport option and create a safer cycling environment. The Move – Northern Beaches Transport Strategy 2038 reinforces the Council's commitment to increasing cycling for transport and positioning it as an attractive alternative to car travel.⁶⁸
- City of Coffs Harbour: The Council's position on e-mobility is outlined in the Coffs Harbour Movement and Place Strategy (2023). The Strategy, developed in collaboration with the NSW Government, focuses on leveraging technology and innovation to create safer, greener and more sustainable transport networks. Objectives include creating safer and connected paths for conventional and e-bikes, as well as other forms of e-mobility and potentially expanding these networks to include e-scooters in the future. The Strategy commits to adopting contemporary design guidance to encourage walking, cycling and e-mobility and working with Transport for NSW and private industry to integrate new mobility options.⁶⁹

⁶⁴ Submission 180, Inner West Council, p 5; Submission 134, City of Sydney, p 22.

⁶⁵ Submission 97, City of Newcastle, p 1.

⁶⁶ Submission 134, City of Sydney, pp 8-11.

⁶⁷ Submission 134, City of Sydney, pp 8-11.

⁶⁸ Northern Beaches Council, *Northern Beaches Bike Plan*, p 4, https://hdp-au-prod-app-nthbch-yoursay-files.s3.ap-southeast-2.amazonaws.com/7315/9738/2036/2020_466898__Northern_Beaches_Bike_Plan_-_FINAL_Adopted.PDF.

⁶⁹ Submission 212, City of Coffs Harbour, p 1.

- Lake Macquarie City Council: The Walking, Cycling and Better Streets Strategy outlines a comprehensive plan to improve active transport and e-mobility throughout the city. The Strategy envisions a Principal Bicycle Network connecting major centres within Lake Macquarie to Newcastle and the Central Coast, primarily using shared paths for pedestrians, cyclists and e-mobility users. Where space allows, pedestrians and cyclists will be separated to reduce the risk of collisions. The Strategy also defines Principal Pedestrian Networks around urban centres, prioritising wider footpaths, infrastructure for active school travel, traffic management on local streets and bus stop upgrades to meet the growing demand for walking, cycling and e-mobility.⁷⁰

Key stakeholders in developing e-mobility initiatives

- 1.42** The implementation of e-mobility initiatives in New South Wales involves the collaborative efforts of multiple stakeholders, including state and local government agencies, as well as private operators of shared e-bikes and e-scooters.
- 1.43** Transport for NSW serves as the lead agency within the interagency group responsible for developing the policy framework for e-mobility devices. To support its initiatives, Transport for NSW engages with various advisory groups, including:
- the Electric Scooter Advisory Working Group (ESA), established in February 2019
 - Transport's Accessible Transport Advisory Committee, comprising representatives from 25 disability and ageing advocacy organisations
 - Transport's Road Safety Advisory Council, a key forum consisting of 16 road user and safety organisations
 - the E-Micromobility Interagency Group: Including representatives from 13 NSW Government agencies, this group evolved from the earlier E-Scooter Oversight Group.⁷¹

The E-Micromobility Interagency Group

- 1.44** In response to the growing need for a coordinated approach to e-mobility, Transport for NSW established the E-Micromobility Interagency Group in May 2024. This group, evolving from the earlier E-Scooter Oversight Group supporting the NSW Shared E-Scooter Trial Program, is tasked with overseeing the E-micromobility Action Plan. Comprising representatives from 13 NSW Government agencies, the Interagency Group is dedicated to maximising the environmental, social and economic benefits of e-mobility while addressing associated challenges. Its members include representatives from:
- Building Commission NSW
 - Fire and Rescue NSW
 - NSW Department of Planning, Housing and Infrastructure
 - NSW Environment Protection Authority

⁷⁰ Submission 162, Lake Macquarie City Council - HRMC, NSW, p 3.

⁷¹ Tabled document, Transport for NSW, *E-micromobility engagement summary*, October 2024, p 2.

- NSW Fair Trading
- NSW Police
- NSW Ministry of Health
- NSW State Insurance Regulatory Authority
- Office of Local Government
- Office of the 24-Hour Economy Commissioner
- Premier's Department
- SafeWork NSW
- Transport for NSW.⁷²

1.45 The perspectives of key stakeholders in the e-mobility ecosystem, including their insights on challenges and opportunities, are presented throughout the report. These stakeholders include shared e-bike and e-scooter operators, cycling and pedestrian safety advocates, community members affected by e-mobility initiatives, individuals with mobility challenges, professionals in battery recycling, insurers and healthcare practitioners addressing public health and safety considerations related to e-mobility.

E-mobility in Australian jurisdictions

1.46 States and territories across Australia have implemented various approaches to e-mobility regulation. While road rules for e-bikes remain largely consistent across jurisdictions, with no state or territory mandating registration, licensing or insurance requirements,⁷³ the regulatory landscape for e-scooters shows more variation. This section examines the regulatory frameworks in Victoria and Queensland – two states frequently referenced in submissions to this inquiry – and provides a broader comparative analysis of e-scooter regulations across Australian states and territories.

E-bike rules and regulations in Queensland and Victoria

1.47 Victoria and Queensland permit the use of e-bikes on roads without requiring registration or a driver's licence, provided they meet specific legal criteria. These states classify e-bikes into two main categories: electrically power-assisted cycles, which feature an auxiliary motor providing up to 250 watts of power that only operates while pedalling and ceases assistance at speeds above 25 km/h; and bicycles with motors limited to a continuous output of no more than 200 watts, both of which are recognised as legal bicycles.⁷⁴

⁷² Submission 153, NSW Government, pp 20-21.

⁷³ Answers to questions on notice, The Law Society of NSW, 27 November 2024, pp 3 – 6.

⁷⁴ Queensland Government, *Electric bicycle rules*, <https://www.qld.gov.au/transport/safety/rules/wheeled-devices/electric-bicycle-rules> (25 October 2024); Transport Victoria, *Electric bikes*, <https://transport.vic.gov.au/road-rules-and-safety/bicycles/electric-bikes>.

- 1.48 Any e-bikes exceeding these specifications are classified as motorcycles in both states, requiring licensing and registration. Both jurisdictions allow compliant e-bikes broad access rights: Queensland permits e-bike use on all roads and paths except where bicycles are specifically prohibited, while Victoria treats compliant e-bikes as regular bicycles with equivalent access privileges.⁷⁵
- 1.49 As discussed earlier in this chapter, New South Wales permits more powerful electrically power-assisted cycles up to 500 watts - doubling the limit allowed in Victoria and Queensland. This variance extends to path access regulations as well, as detailed in chapter 3, creating distinct operating conditions for e-bike users in the state.
- 1.50 A broader comparison of shared e-mobility adoption across Australian jurisdictions, as shown in Table 1, reveals that Sydney lags behind other state capitals. Local Government NSW attributes this gap to the city’s limited cycling infrastructure, particularly the sparse network of separated cycling lanes in Greater Sydney. Additionally, Sydney’s challenging topography presents further obstacles to the successful implementation of active transport initiatives. These factors have combined to slow Sydney’s progress in embracing e-mobility, leaving it trailing other states in adoption rates.⁷⁶

Table 1 Public e-scooter and e-bike use in Australian capital cities⁷⁷

City	Average trips per day	Total trips	Total distance (km)
Adelaide Central	2,000	2,790,300	3,975,418
Canberra	2,900	3,326,700	6,277,002
Brisbane	6,800	10,639,500	22,167,309
Hobart	1,100	789,300	1,321,216
Melbourne	6,900	7,552,600	14,185,678
Sydney	1,900	2,471,500	4,887,747

E-scooter rules and regulations across Australian and select international jurisdictions

- 1.51 The table below provides a comparative overview of e-scooter regulations across Australian jurisdictions, highlighting differences in legality, age restrictions and permitted riding environments, including footpaths, shared paths, cycle paths and roads. This comparison illustrates the variation in approaches to e-scooter use, reflecting differing priorities and regulatory frameworks in each state and territory.

⁷⁵ Queensland Government, *Electric bicycle rules*, <https://www.qld.gov.au/transport/safety/rules/wheeled-devices/electric-bicycle-rules> (25 October 2024); Transport Victoria, *Electric bikes*, <https://transport.vic.gov.au/road-rules-and-safety/bicycles/electric-bikes>.

⁷⁶ Submission 120, Local Government NSW, pp 5-6.

⁷⁷ Submission 120, Local Government NSW, p 5.

Table 2 Select domestic policy settings for e-scooters⁷⁸

Jurisdiction	Private use (in public spaces)	Age settings	Riding environment			
			Footpaths	Shared paths	Cycle paths/ lanes	Roads
New South Wales	Illegal (share-scooters are currently being trialled)	Minimum 16	Prohibited	Permitted; Maximum 10 km/h	Permitted; Maximum 20km/h	Permitted where road speed limit is 50 km/h or less; Maximum 20 km/h
Australian Capital Territory	Legal and regulated	Minimum 12 (under 12 with adult supervision)	Permitted; Maximum 15km/h (prohibited on pedestrian side of a separated footpath)	Permitted; Maximum 25 km/h	Permitted; Maximum 25 km/h	Prohibited unless there is no practical alternative; Maximum 25 km/h
Northern Territory	Illegal (share-scooters are currently being trialled)	Minimum 18	Permitted; Maximum 15 km/h	Permitted; Maximum 15 km/h	Permitted; Maximum 15 km/h	Prohibited unless there is no practical alternative (for a Maximum of 50m); Maximum 15km/h
Queensland	Legal and regulated	Minimum 16 (12 with adult supervision)	Permitted; Maximum 12 km/h	Permitted; Maximum 12 km/h	Permitted; Maximum 25 km/h	Permitted where road speed limit is 50 km/h or less, has no dividing line or median strip and if one way, has no more than one marked lane; Maximum 25 km/h
South Australia	Illegal (share-scooters are currently being trialled with private use to come into effect in 2025)	Minimum 18	Permitted; Maximum 15 km/h	Permitted; Maximum 15 km/h	Prohibited	Prohibited unless to cross or to avoid a hazard (for a Maximum of 50 m only, where road speed limit is 50 km/h or less, has no dividing line or median strip and if one way, has no more than one marked lane);

⁷⁸ Submission 153, NSW Government, pp 27-28.

Jurisdiction	Private use (in public spaces)	Age settings	Riding environment			
			Footpaths	Shared paths	Cycle paths/ lanes	Roads
						Maximum 15 km/h
South Australia (proposed)		Minimum 16	Permitted; Maximum 15 km/h	Permitted; Maximum 15 km/h	Permitted; Maximum 25 km/h	Permitted where road speed limit is 50 km/h or less; Maximum 25 km/h
Tasmania	Legal and regulated	Minimum 16	Permitted; Maximum 15 km/h	Permitted; Maximum 25 km/h	Permitted; Maximum 25 km/h	Permitted where road speed limit is 50 km/h or less, has no dividing line or median strip and if one way, has no more than one marked lane; Maximum 25 km/h
Victoria	Legal and regulated under trial	Minimum 16	Prohibited	Permitted; Maximum 20 km/h	Permitted; Maximum 20 km/h	Permitted where speed limit is 60 km/h or less; Maximum 20 km/h
Western Australia	Legal and regulated	Minimum 16	Permitted; Maximum 10 km/h	Permitted; Maximum 25 km/h	Permitted; Maximum 25 km/h	Permitted where road speed limit is 50km/h or less, has no dividing line or median strip and if one way, has no more than one marked lane; Maximum 25 km/h

1.52 Similarly, as shown in the following Table 3, international jurisdictions demonstrate significant variation in the legality and regulation of e-scooters and other e-mobility devices.

Table 3 Select international policy settings for e-scooters⁷⁹

Jurisdiction	Private use (in public spaces)	Age settings	Riding environment			
			Footpaths	Shared paths	Cycle paths/ lanes	Roads
France	Legal and regulated	Minimum 14	By exception only; Maximum 6 km/h	-	Permitted; Maximum 25 km/h	Permitted; Maximum 25 km/h

⁷⁹ Submission 153, NSW Government, p 28.

Germany	Legal and regulated	Minimum 14	Prohibited	-	Permitted; Maximum 20 km/h	Permitted; Maximum 20 km/h
Ireland	Legal and regulated	Minimum 16	Prohibited	-	Permitted; Maximum 20 km/h	Permitted; Maximum 20 km/h
Italy	Legal and regulated	Minimum 14	By exception; Maximum 6km/h	Permitted; Maximum 20km/h	Permitted; Maximum 20 km/h	Permitted; Maximum 20 km/h
Sweden	Legal and regulated	No minimum age	Prohibited	-	Permitted; Maximum 20 km/h	Permitted where road speed limit is 50 km/h or less; Maximum 20 km/h
United Kingdom	Illegal (share-scooters are currently being trialled)	Requirement for driving licence means effective Minimum 17	Prohibited	-	Permitted; Maximum 25 km/h	Permitted; Maximum 25 km/h

Committee comment

- 1.53** The committee recognises the e-mobility sector in New South Wales has experienced remarkable growth, with e-bike purchases surging by 322 per cent between 2020-2022 and approximately one million residents having used e-scooters. This rapid adoption reflects strong public demand but has created challenges for regulatory oversight and infrastructure development.
- 1.54** The current regulatory approach to e-mobility in New South Wales is fragmented across multiple agencies and levels of government, creating potential gaps and inconsistencies. Without dedicated legislation, the sector relies on adapting existing laws designed for traditional transport modes, which may not adequately address the unique characteristics and challenges of e-mobility.
- 1.55** While New South Wales has implemented strategic initiatives such as the E-micromobility Action Plan and Shared E-scooter Trial Program, the committee notes that it maintains more conservative regulations than other jurisdictions, particularly regarding private e-scooter use. This cautious stance may be constraining the full potential benefits of e-mobility adoption.
- 1.56** Subsequent chapters of this report further examine the benefits and regulatory challenges of e-mobility, as well as its safety and wellbeing impacts and infrastructure requirements. These chapters will explore the key issues raised by stakeholders, providing a comprehensive analysis of the opportunities and challenges associated with e-mobility integration in New South Wales.

Chapter 2 E-mobility and its benefits

E-mobility presents a transformative opportunity with far-reaching benefits for health, society, the economy and the environment. This chapter examines the diverse advantages of e-mobility, focusing on the settings that maximise these positive impacts. The chapter also reviews shared e-bike and e-scooter schemes in New South Wales.

Diverse adoption patterns of e-mobility

- 2.1** The rapid growth in e-mobility device usage, as discussed in chapter 1, spans diverse demographic groups with varying needs and preferences:
- young people have emerged as enthusiastic early adopters.⁸⁰
 - families are increasingly adopting e-mobility, with parents using cargo e-bikes for school drop-offs and errands as an alternative to car trips.⁸¹
 - urban commuters rely on e-mobility devices, particularly in areas with limited public transport access or topographical barriers.⁸²
 - the gig economy has embraced e-mobility, with e-bikes providing affordable transportation options for workers without access to cars.⁸³
 - recreational use remains a key driver of e-mobility adoption, with many users enjoying the flexibility and eco-friendly advantages of these devices for leisure activities.⁸⁴
- 2.2** E-mobility devices are also breaking down transport barriers for older populations, people who are above a healthy weight, those with health or physical limitations and those who are not currently exercising regularly.⁸⁵
- 2.3** The tourism sector has also embraced these devices, as they offer visitors flexible, eco-friendly options for exploring destinations.⁸⁶

⁸⁰ Submission 97, City of Newcastle, p 1; Submission 141, Northern Beaches Council, p 1; Submission 159, Bicycle NSW, p 1; Submission 160, Kobi Shetty, p 2; Submission 176, MidCoast Council, p 9; Submission 193, BIKEast, p 1; Submission 86, Name suppressed, p 1.

⁸¹ Submission 141, Northern Beaches Council, p 2; Submission 160, Kobi Shetty, p 2; Submission 156, Newtown Climate, p 4.

⁸² Submission 141, Northern Beaches Council, pp 1-2; Submission 147, Narrabri Shire Council, p 3; Submission 150, Wollondilly Shire Council, pp 2-3; Submission 314, HelloRide, p 8; Submission 153, NSW Productivity and Equality Commission, p 1; Submission 164, Randwick City Council, p 1.

⁸³ Submission 158, DoorDash, p 1.

⁸⁴ Online questionnaire summary report - Inquiry into use of e-scooters, e-bikes and related mobility options, p 3.

⁸⁵ Submission 130, National Heart Foundation of Australia, p 2; Submission 170, Beam Mobility, p 6.

⁸⁶ Submission 170, Beam Mobility, p 5; Submission 211, Dr Richard Buning, pp 1-2.

Benefits of e-mobility

- 2.4 The committee noted that e-mobility devices provide a wide range of benefits, addressing economic, social, environmental and health challenges.

Enhanced mobility through mode shift and congestion reduction benefits

- 2.5 E-mobility has been identified as a key solution for diversifying transport options, reducing congestion and addressing accessibility challenges.⁸⁷
- 2.6 Market research conducted by Transport for NSW revealed the following trends in mode shift, which refers to changes in how people travel, among e-mobility riders.
- 34 per cent of riders shifted from private vehicles, with a higher proportion in Regional New South Wales (45 per cent) compared to metropolitan Sydney (30 per cent).
 - 27 per cent transitioned from public transport.
 - 22 per cent of trips replaced walking.
 - 10 per cent of trips replaced push-bikes.
 - 6 per cent of trips were new trips that would not have otherwise been taken.⁸⁸
- 2.7 The Centre for Accident Research and Road Safety – Queensland provided evidence that further elaborates on these trends.
- Shared e-scooters are mostly used for short trips, typically around 1 km, with most trips lasting under 10 minutes.
 - The number of car trips replaced by e-scooters varies internationally, with less than 10 per cent in European cities and 33–50 per cent in US cities, depending on car dependency and public transport availability.
 - Private e-scooters are more effective at replacing car trips than shared ones, as seen in higher replacement rates in Canberra and Brisbane.
 - However, e-scooter trips often replace walking, cycling, or public transport rather than significantly reducing car use overall.⁸⁹
- 2.8 The City of Sydney demonstrated e-mobility's mode shift potential by integrating e-bikes into its fleet, replacing car trips with over 1,000 kilometres of monthly travel. This approach has improved productivity by allowing staff to navigate the city more quickly while reducing reliance on cars.⁹⁰

⁸⁷ Submission 153, NSW Government, p 7; Submission 170, Beam Mobility, p 4; Submission 154, Liverpool City Council, p 4; Submission 163, Lime, p 11.

⁸⁸ Answers to questions on notice, NSW Government, 27 November 2024, p 9.

⁸⁹ Submission 182, Centre for Accident Research and Road Safety – Queensland, p 22.

⁹⁰ Submission 134, City of Sydney, p 12.

- 2.9** The committee was informed that e-mobility is particularly beneficial in areas where public transport access is limited.⁹¹
- 2.10** Randwick City Council highlighted how steep gradients deter pedal bicycle use but can be overcome with e-mobility options.⁹²
- 2.11** Similarly, the NSW Government identified e-mobility as a way to reduce car dependency by supporting local trips without private vehicles and alleviating parking demand. The Government also stated that e-mobility devices can support major events by complementing public transport and improving connectivity.⁹³ Highlighting the benefits of e-scooters, the NSW Productivity and Equality Commission noted that they offer a viable 'alternative to conventional bicycles and walking ... delivering substantial time savings. Commuters can bypass traffic congestion and reach their destinations faster, contributing to increased productivity'.⁹⁴
- 2.12** To maximise these benefits, several submissions proposed establishing a state-led mode shift target to transition trips from private vehicles to sustainable modes like public transport, cycling, walking, carsharing and shared e-mobility. Stakeholders recommended mechanisms for state intervention if councils fail to make progress on these targets.⁹⁵ Mode shift is discussed in more detail in chapter 5.

Economic benefits

- 2.13** The Inner West Council Bicycle Working Group highlighted that owning e-mobility devices offers a cost-effective alternative to car ownership. This is particularly evident when considering expenses such as registration, insurance, maintenance and fuel in addition to the vehicle's purchase price.⁹⁶ According to the NSW Government, these costs amount to \$27,792 per year.⁹⁷ The Inner West Council Bicycle Working Group commented that families who replace a car with even a top-tier e-bike can save thousands of dollars annually due to significantly lower maintenance expenses.⁹⁸ Furthermore, the NSW Government's submission noted that at 'an interest rate of 6.22 per cent, removing one car and the associated cost from a two or three-car family would service a \$347,968 housing loan'.⁹⁹
- 2.14** The Inner West Council Bicycle Working Group further pointed out that cars, due to their weight, cause substantial damage to roads, resulting in significant maintenance costs. These costs are primarily borne by local governments and their ratepayers, rather than the drivers

⁹¹ Submission 162, Lake Macquarie City Council - HRMC, NSW, p 10; Submission 150, Wollondilly Shire Council, p 1.

⁹² Submission 164, Randwick City Council, p 1.

⁹³ Submission 153, NSW Government, p 6.

⁹⁴ Submission 139, NSW Productivity and Equality Commission, p2.

⁹⁵ Submission 192, GoGet, p 2; Submission 156, Newtown Climate, p 2.

⁹⁶ Submission 171, Inner West Council Bicycle Working Group, p 1.

⁹⁷ Submission 153, NSW Government, p 6.

⁹⁸ Submission 171, Inner West Council Bicycle Working Group, p 2.

⁹⁹ Submission 153, NSW Government, p 6.

themselves. In contrast, bicycles cause negligible road damage, making their dedicated infrastructure far cheaper to maintain.¹⁰⁰

2.15 When asked about the impact of e-mobility on local businesses, the Committee for Sydney, presented a global analysis of evidence highlighting the economic benefits of cycleways, pedestrian access and cyclist access.

- A Brisbane study revealed restaurateurs assumed 59 per cent of revenue came from customers arriving by car, but the actual figure was 19 per cent, with 70 per cent coming from those who walk, bike, or use public transport.
- A London study reported a 17 per cent reduction in retail vacancies on more accessible high streets.
- A New York City study linked new cycleways to a retail sales increase of up to 49 per cent.
- In Portland, Oregon, people who walk or bike make more trips and spend more monthly at local businesses compared to those who drive.¹⁰¹

2.16 Adding to the evidence, Beam Mobility, a provider participating in the NSW Shared E-scooter Trial Program, noted that e-scooters and e-bikes contribute to increased foot traffic in key commercial areas, boosting patronage and spending at local businesses. Findings from Beam Mobility's 2024 rider survey revealed that 70 per cent of trips taken on their services in New South Wales resulted in a purchase at a nearby establishment.¹⁰²

Gender equity benefits

2.17 In their submission, the Inner West Council Bicycle Working Group, highlighted that e-bikes are encouraging more women to take up cycling for their commutes. The 2024 'Super Tuesday' Commuter Bike Count revealed that while women made up 24 per cent of all cyclists – a figure that has remained steady in recent years – they accounted for 36 per cent of e-cyclists.¹⁰³

2.18 The Committee for Sydney highlighted findings from Australian research that demonstrate how e-bikes significantly enhance cycling accessibility for women. A Sydney study noted that e-bikes make cycling more practical for women, particularly mothers transporting children, along with school bags, or sports and music equipment. E-bikes also help riders navigate hills more easily and reduce the perceived length of journeys.¹⁰⁴

2.19 Ms Harri Bancroft, Policy Manager – Mobility at the Committee for Sydney, explained that women are more likely to adopt e-bikes than conventional bicycles. She attributed this to the confidence e-bikes provide, as they enable women to feel safer and more capable on the road. She elaborated '[a woman] may feel that they aren't as strong as a man, so can't move as quickly

¹⁰⁰ Submission 171, Inner West Council Bicycle Working Group, p 3.

¹⁰¹ Answers to questions on notice, Committee for Sydney, 25 November 2024, pp 2-3.

¹⁰² Submission 170, Beam Mobility, p 5.

¹⁰³ Submission 171, Inner West Council Bicycle Working Group, p 3.

¹⁰⁴ Submission 175, Committee for Sydney, p 2.

if they need to get out of the way, or that they can't lug around what they need to take with them on their day-to-day journey'.¹⁰⁵

2.20 The Bicycle Network, as quoted by the Committee for Sydney, reported that women are nearly twice as likely to commute on an e-bike as men, with 16 per cent of female riders using an e-bike compared to 9 per cent of male riders.¹⁰⁶

2.21 In their submission, the NSW Government referred to a report by Neuron Mobility, a rental e-scooter company, which analysed survey data from over 10,000 e-mobility riders across Australia, New Zealand, Canada and the United Kingdom. The report found:

- that over '43 per cent of females indicated their top reason for riding at night was that e-scooters were often cheaper than taxis or rideshare services'.
- e-scooters were 'potentially safer when travelling alone, improving their [females'] sense of personal security at night compared to walking or public transport'.¹⁰⁷

2.22 The NSW Government put forward that this perspective was further supported by local gender impact assessments in Victoria, which indicated that women and gender-diverse individuals feel safer using share e-scooter schemes as an alternative to walking, public transport or traditional taxis, particularly during 'after-hours' travel.¹⁰⁸

Tourism

2.23 Several inquiry participants spoke of the potential benefits that the uptake of e-mobility can provide to local tourism within New South Wales.

2.24 Khancoban Adventures Pty Ltd, a small tourism operator based at the entrance to Kosciuszko National Park, emphasised the transformative role of e-bikes in driving experiential tourism growth. The company highlighted that e-bikes make activities such as rail trails, multi-day rides and gravel trail riding more accessible, categorising these as 'medium adventure' experiences. This category lies between 'hard adventure' (e.g., mountain biking, scuba diving and white-water rafting) and 'soft adventure' (e.g., hiking and boat tours). The company further noted that, with high insurance costs limiting the growth of the hard adventure market, medium adventure tourism offers a valuable opportunity for expansion.¹⁰⁹

2.25 According to Khancoban Adventures Pty Ltd, the introduction of e-bikes has significantly expanded access to trail rides, enabling participation from a broader age range and varied ability

¹⁰⁵ Evidence, Ms Harri Bancroft, Policy Manager – Mobility, Committee for Sydney, 29 October 2024, pp 24-25.

¹⁰⁶ Submission 175, Committee for Sydney, p 2.

¹⁰⁷ Submission 153, NSW Government, p 9, quoting Neuron Mobility (2023). *Bridging the E-scooter Gender Gap: Enhancing Adoption and Safety*. Neuron Mobility and Victorian Government (2024). *Micromobility Share Schemes Guide for Councils*. Victorian Government.

¹⁰⁸ Submission 153, NSW Government, p 9, quoting Neuron Mobility (2023). *Bridging the E-scooter Gender Gap: Enhancing Adoption and Safety*. Neuron Mobility and Victorian Government (2024). *Micromobility Share Schemes Guide for Councils*. Victorian Government.

¹⁰⁹ Submission 77, Khancoban Adventures Pty Ltd, p 1.

levels. The company highlighted that e-bikes require less maintenance and pose lower risks compared to mountain biking.¹¹⁰

- 2.26** They also noted the untapped potential of e-scooters, which are increasingly popular internationally for both transport and recreation. These devices can be adapted for urban, gravel and off-road use. The company expressed concern that Australia's focus – including in New South Wales e-scooter trials – has focused too narrowly on evaluating the business model of mass rental fleets, overlooking the broader potential of e-scooters in tourism and recreation.¹¹¹
- 2.27** The company also acknowledged that the e-bike market faces significant challenges due to a lack of engagement from insurers. This is driven by legal uncertainties and limited research in this rapidly growing segment of cycling. As a result, there are very few insurance products available for those hiring e-bikes or arranging tours. Khancoban Adventures Pty Ltd explained that existing options are prohibitively expensive and restrictive, with insurers openly admitting that they have not yet developed suitable products for e-bikes. Additionally, the company noted that e-bikes and e-bike tours are far more advanced in other adventure tourism markets globally, while Australia lags significantly due to restrictions on bike types, battery sizes and other regulatory limitations.¹¹²
- 2.28** Local councils, including Narrabri Shire Council and Wollondilly Shire Council, have actively begun exploring opportunities to incorporate e-scooters and e-bikes into their tourism strategies. Wollondilly Shire Council emphasised that promoting these eco-friendly modes of transport can enhance sustainable tourism, providing a dual benefit of boosting the local economy while minimising the environmental footprint of traditional tourism-related travel.¹¹³ Similarly, Narrabri Shire Council's tourism team is collaborating with local operators to gauge interest in initiatives such as introducing push bikes. These discussions form part of a larger effort to evaluate the feasibility and potential of e-mobility solutions, such as e-scooters and e-bikes, to enrich visitor experiences and improve local transportation options.¹¹⁴
- 2.29** MidCoast Council, a participant in the New South Wales Shared E-scooter Trial Program, reported to the committee that the trial's greatest benefit has been its positive impact on tourism, significantly enhancing the visitor experience in Forster and Tuncurry.¹¹⁵
- 2.30** In his submission to the committee, Dr Richard Buning, Senior Lecturer, UQ Business School, University of Queensland emphasised the significant role of e-mobility in enhancing tourism experiences. He reported that tourists constitute a substantial proportion of share e-mobility users in Queensland. These transport options activate destinations, enhance visitor satisfaction and encourage dispersed tourist spending.¹¹⁶ Dr Buning contended that 'other than walking, micromobility is the preferred transport option for tourists to explore and experience an urban destination'.¹¹⁷

¹¹⁰ Submission 77, Khancoban Adventures Pty Ltd, p 1.

¹¹¹ Submission 77, Khancoban Adventures Pty Ltd, p 2.

¹¹² Submission 77, Khancoban Adventures Pty Ltd, p 2.

¹¹³ Submission 150, Wollondilly Shire Council, p 1.

¹¹⁴ Submission 147, Narrabri Shire Council, p 3.

¹¹⁵ Submission 176, MidCoast Council, p 9.

¹¹⁶ Submission 211, Dr Richard Buning, p 1.

¹¹⁷ Submission 211, Dr Richard Buning, p 1.

- 2.31** Dr Buning highlighted that e-mobility options, such as e-scooters, provide tourists with an easy, efficient and enjoyable way to explore. These options allow visitors to access hidden and less accessible parts of the city, offering a richer, more authentic experience. Many tourists, surveyed by Dr Buning, described e-mobility as a highlight of their trip, enabling them to see and do more than would be possible with traditional modes of transport.¹¹⁸ One international visitor to Brisbane, quoted in the research, remarked, 'It's about being in control of your own destination and stopping where you want, instead of relying on a bus with fixed schedules and routes.'¹¹⁹

Health benefits

- 2.32** In its submission, the National Heart Foundation of Australia recognised that e-bikes 'when used to replace motorised vehicles ... can deliver health and community benefits through increased physical activity in users'.¹²⁰ However, the Foundation noted that while e-scooters offer an affordable and sustainable mode of transport, they have not shown significant fitness benefits, especially when they replace walking or cycling.¹²¹
- 2.33** The Committee for Sydney referred to research from New Zealand which found that e-bikes made cycling more accessible for individuals who feel less fit or perceive themselves as 'not fit enough'.¹²²
- 2.34** Adding to the evidence, the NSW Government submission highlighted the significant health and well-being benefits of e-bikes, as well as their role in reducing the harmful health impacts of car emissions. E-bikes enable riders to meet physical activity recommendations and improve fitness levels, particularly for individuals who do not regularly cycle. According to the NSW Government, regular e-bike use can help:
- reduce the risk of heart disease and stroke
 - reduce the risk of developing certain cancers
 - manage weight, blood pressure and cholesterol
 - prevent and control diabetes
 - maintain bone density, reducing the risk of osteoporosis and fractures
 - improve balance and coordination reducing the risk of falls and injuries
 - improve mood which cumulatively leads to better mental health.¹²³
- 2.35** However, the NSW Government noted that potential disbenefits, such as replacing walking or conventional cycling trips with e-mobility, need further investigation. Preliminary data from the NSW Shared E-Scooter Trial Program revealed that 50 per cent of participants replaced walking trips, eight per cent replaced car trips and 27 per cent made new trips not substituting another mode.¹²⁴

¹¹⁸ Submission 211, Dr Richard Buning, p 2.

¹¹⁹ Submission 211, Dr Richard Buning, pp 1-2.

¹²⁰ Submission 130, National Heart Foundation of Australia, p 1.

¹²¹ Submission 130, National Heart Foundation of Australia, p 2.

¹²² Submission 175, Committee for Sydney, p 2.

¹²³ Submission 153, NSW Government, p 8.

¹²⁴ Submission 153, NSW Government, p 9.

- 2.36** E-mobility uptake also benefits broader community health by reducing external impacts associated with private vehicle use, including noise pollution, air pollution and third-party injuries in crashes.¹²⁵

Night and shift workers

- 2.37** In its submission, the NSW Government highlighted the potential of e-mobility to support night and shift workers.¹²⁶
- 2.38** E-mobility solutions, such as e-bikes and e-scooters, provide practical, affordable and flexible transportation alternatives, especially during late hours when public transport services are limited. E-scooters and e-bikes offer a safe and efficient option for night workers and patrons to travel home – when alcohol consumption is not a factor.¹²⁷
- 2.39** The City of Sydney reported that, between January and June 2024, 22.8 per cent of the 918,000 shared bike trips occurred between 8 pm and midnight, providing data that supports the government's claims about the role of shared bikes in enhancing the night-time economy.¹²⁸

Environmental benefits

- 2.40** E-mobility has the potential to contribute to New South Wales' emission reduction goals, including the target of a 50 per cent reduction by 2030 and achieving net zero by 2050. The NSW Government stated that shifting from car use to e-mobility offers substantial environmental benefits, such as lowering greenhouse gas emissions, improving air quality and reducing noise pollution.¹²⁹
- 2.41** The City of Sydney's submission highlighted the potential climate benefits, estimating that 918,000 shared bike trips save around 1,850 tonnes of carbon emissions each year.¹³⁰
- 2.42** E-mobility also plays a critical role in last-mile freight delivery, which in turn, also reduces carbon emissions by providing sustainable transportation solutions for the final stage of goods distribution. Evidence from Bicycle Industries Australia highlighted that delivering packages from a central warehouse to customers' homes is far more carbon-intensive and logistically complex than earlier stages of the transport chain, where goods are transported in bulk. Last-mile deliveries can account for up to 50 per cent of total carbon emissions in the delivery process.¹³¹
- 2.43** Studies cited by Bicycle Industries Australia show that electric cargo bikes deliver parcels 60 per cent faster than vans in city centres, with bikes averaging a drop off of 10 parcels per hour

¹²⁵ Submission 153, NSW Government, p 9.

¹²⁶ Submission 153, NSW Government, p 7.

¹²⁷ Submission 153, NSW Government, pp 7-8.

¹²⁸ Submission 134, City of Sydney, p 12.

¹²⁹ Submission 153, NSW Government, p 8.

¹³⁰ Submission 134, City of Sydney, p 12.

¹³¹ Submission 151, Bicycle Industries Australia, p 22.

compared to six for vans. Additionally, cargo bikes reduce carbon emissions by 90 per cent compared to diesel vans and by a third compared to electric vans.¹³²

The gig-economy

- 2.44** The uptake of e-mobility devices among the gig economy, has exploded in recent years, driven by the significant growth in personal services, such as home deliveries and online shopping.¹³³
- 2.45** North Sydney Council observed that food delivery riders spend more time on the roads each day than most bike commuters do in an entire week. They noted that delivery services on e-bikes are efficient at navigating urban environments and contribute to reducing carbon emissions and traffic congestion.¹³⁴
- 2.46** DoorDash, a food delivery platform, highlighted to the committee the growing role of e-bikes in facilitating deliveries, enabling individuals without cars to earn extra income. The company reported significant growth in its platform in the first half of 2024, with nearly 5,000 of its couriers using bikes or e-bikes to complete deliveries in New South Wales. DoorDash claimed that e-bikes help merchants in congested areas by reducing car traffic, minimising congestion and fostering a more sustainable delivery process that benefits businesses and their communities.¹³⁵
- 2.47** While e-mobility offers significant benefits to the gig economy, stakeholders have raised important concerns about its impact on gig workers' safety and well-being. These challenges are examined in detail in chapter 6.

Debate over e-mobility's classification as active transport

- 2.48** While e-mobility was broadly recognised for its benefits, some stakeholders raised concerns during the inquiry about classifying fully motorised devices as a form of active transport.
- 2.49** In their submission, the Pedestrian Council of Australia Ltd argued that the terms 'active travel' or 'active transport' should be strictly reserved for trips that involve walking or cycling for at least part of the journey. These activities, they emphasised, require 'health-enhancing levels of large muscle activity with an energy expenditure commensurate with health benefits'.¹³⁶ They claimed that e-scooters ridden on or obstructing footpaths can deter walking, especially for older individuals and those with limited mobility. They also claimed that this reduction in physical activity impacts public health.¹³⁷
- 2.50** The Pedestrian Council of Australia Ltd contended that e-rideables such as 'e-scooters, e-Monocycles, e-Hoverboards, Segways, e-Skateboards and modified e-Bicycles are the very

¹³² Submission 151, Bicycle Industries Australia, p 22.

¹³³ Submission 106, Institute of Public Works Engineering Australasia (NSW & ACT), p 1.

¹³⁴ Submission 119, North Sydney Council, p 2.

¹³⁵ Submission 158, DoorDash, pp 1-2.

¹³⁶ Submission 1, Pedestrian Council of Australia Ltd, p 2.

¹³⁷ Submission 1, Pedestrian Council of Australia Ltd, p 2.

antithesis of Active Transport'. They asserted that these devices diminish rather than promote active travel and defining them as active transport is both 'false and misleading'.¹³⁸

- 2.51 Similarly, Local Government NSW argued that e-scooters and e-bikes primarily operated in 'motorized modes should not be categorised as active transport'.¹³⁹

Shared e-scooters and e-bikes

- 2.52 This section examines how shared e-bikes and e-scooters are currently operating throughout New South Wales. It analyses key challenges and perspectives from both local councils and e-mobility operators as they manage their operations.

Shared e-scooters

- 2.53 As outlined in chapter 1, shared e-scooter services are restricted to designated zones established under the NSW Shared E-scooter Trial Program. Beam Mobility and Neuron Mobility are the service providers participating in the trial.¹⁴⁰

Dockless shared e-bike services in Greater Sydney

- 2.54 Dockless shared e-bike services are available across multiple local council areas in Greater Sydney, provided by four companies: Lime, HelloRide, Ario,¹⁴¹ and Beam.¹⁴²
- 2.55 Dockless shared e-bike services allow users to rent bicycles through a smartphone app. These bikes can be picked up and dropped off almost anywhere, making them attractive options for one-way or return trips. To access a bike, users need to sign up with a provider, locate a bike via the app and unlock it directly through the app.¹⁴³
- 2.56 Addressing whether there should be a cap on operators or schemes, Mr Sebastian Smyth, Executive Manager, City Access and Transport for the City of Sydney, expressed strong support for regulation. He stated, '[o]ur adopted view is that it makes sense to limit the number of operators in any geographical area... At the moment, when it's free entry and exit, there are many operators trying to flood the market'.¹⁴⁴

¹³⁸ Submission 1, Pedestrian Council of Australia Ltd, p 2.

¹³⁹ Submission 120, Local Government NSW, p 8.

¹⁴⁰ Submission 120, Local Government NSW, p 3.

¹⁴¹ City of Sydney, *Bike sharing* (6 January 2025), <https://www.cityofsydney.nsw.gov.au/guides/bike-sharing>.

¹⁴² Submission 170, Beam Mobility, p 3.

¹⁴³ Inner West Council, *Dockless bike share* (14 January 2025), <https://www.innerwest.nsw.gov.au/explore/parks-sport-and-recreation/walking-and-cycling/dockless-bike-share#:~:text=Dockless%20bike%20share%20allows%20you,with%20one%20of%20the%20operators>.

¹⁴⁴ Evidence, Mr Sebastian Smyth, Executive Manager, City Access and Transport, City of Sydney, 29 October 2024, p 9.

- 2.57** Mr Smyth elaborated that uncontrolled market entry can lead to over-saturation, as companies vie for dominance by deploying excessive numbers of devices. He emphasised the need for capping both the number of operators and the volume of bikes or devices in a region to prevent market disruption, adding, '...it's just to make sure that there's not this argy-bargy of one company flooding the market to gain dominance and squeeze out operator two, three and four'.¹⁴⁵

Challenges for operators in establishing operations

- 2.58** Shared e-bike operators face significant logistical challenges when establishing operations. As noted in chapter 1, each provider must individually negotiate and secure contracts with local councils through tender processes. Mr Adam Rosetto, Country Manager, Ario, described the scale of this undertaking: 'There are 33 councils in Greater Sydney alone and 128 statewide'.¹⁴⁶

- 2.59** Mr Rosetto identified fundamental problems with this council-by-council approach that affects quality and safety of services offered by operators. He stated:

Firstly, councils can have limited experience or be under-resourced to adequately manage a new shared mobility program.... Council after council identified that running a shared mobility program was not a core functional area, nor something they really wanted to do. Secondly, the shared service operator that is willing to pay the highest fees to a council is very often the one that wins the tender. Shouldn't the operator that has the best program, the safest product, the one committed to building and maintaining social licence be the operator of choice? Commonly and unfortunately, not. The impacts of this approach are straightforward. To compensate for high fees, operators commonly cut other critical activities, such as moving toppled devices that are causing hazards, investing in patent technology, running safety programs or building social licence.¹⁴⁷

- 2.60** The administrative boundaries of local government areas (LGAs) present another significant challenge. As Mr Sebastian Smyth, City of Sydney explained, these boundaries can create impractical scenarios where '...you literally hop off one provider and have to find another provider when you hit an LGA boundary'.¹⁴⁸ Using King Street as an example, where it is shared between the City of Sydney LGA and the Inner West Council LGA, Mr Peter Warrington, Manager, Transport Policy, City of Sydney illustrated how council boundaries could force riders to end their journeys mid-route, as 'people want to ride from place to place; they don't want to ride within local government boundaries'.¹⁴⁹

- 2.61** While councils generally support shared mobility as a transport option, resource constraints and competing priorities make individual council management challenging. Both Mr Smyth and Mr Warrington advocated for a metropolitan-wide approach led by the NSW Government, suggesting this would enable more effective implementation across council boundaries and ensure consistent safety standards.¹⁵⁰

¹⁴⁵ Evidence, Mr Smyth, 29 October 2024, p 9.

¹⁴⁶ Evidence, Mr Adam Rosetto, Country Manager, Ario, 29 October 2024, p 12.

¹⁴⁷ Evidence, Mr Rosetto, 29 October 2024, p 12.

¹⁴⁸ Evidence, Mr Smyth, 29 October 2024, p 5.

¹⁴⁹ Evidence, Mr Peter Warrington, Manager, Transport Policy, City of Sydney, 29 October 2024, p 4.

¹⁵⁰ Evidence, Mr Warrington, 29 October 2024, pp 4 - 5.

- 2.62** Local councils advocated for stronger state government involvement in shared mobility management. Inner West Council proposed a permit system that would regulate shared e-bike numbers within each local government area, with operators required to share their data with Transport for NSW to enable effective compliance monitoring by both state and local authorities.¹⁵¹
- 2.63** This vision of increased state oversight was echoed by Waverley Council, which emphasised the potential for Transport for NSW to take a more direct role in administering shared mobility services, with shared schemes considered 'an extension of the public transport network, as the patronage of one, promotes the patronage of the other'.¹⁵²

Community feedback on the NSW Shared E-scooter Trial Program

- 2.64** The NSW Shared E-Scooter Trial Program has elicited diverse responses from councils, users and stakeholders.
- 2.65** Lake Macquarie City Council introduced a shared e-bike trial in June 2022, followed by a shared e-scooter trial in December 2022. Community feedback on the shared e-bikes was mixed; while users generally appreciated the service, concerns were raised about cost and technical challenges. Non-users expressed more critical views, citing issues such as visual amenity and perceived safety risks. Regarding shared e-scooters, a sentiment survey of 489 respondents showed that 74 per cent were satisfied with the service, 83 per cent felt safe using e-scooters and 76 per cent of non-users observed that rules were generally followed.¹⁵³
- 2.66** Mr John Groom, President, Illawarra Ramblers, shared his perspective on the shared e-scooter trial. He noted dissatisfaction with the speed limits and cost, stating:
- ...the main problem is that they're too slow. I don't want them to go faster but it's 10 kilometres an hour and six in some parts of central Wollongong. The last time I rode one, I was only going a fairly short distance. It cost me \$16. That was the alternative to walking.¹⁵⁴
- 2.67** Addressing concerns about perceived versus actual risks, Ms Anna Bradley, Executive Director, Active Transport and Vibrancy, Transport for NSW emphasised the safety record of the shared e-scooter trials. She stated that the number of serious incidents was low, with 'eight serious incidents overall for the trials... a very low rate of incidents involving other road users'. She added that 99.9 per cent of trips taken through the trials were incident-free, with most incidents affecting the rider rather than other road users.¹⁵⁵
- 2.68** Shared e-scooter operator, Beam Mobility, one of the first providers to launch e-scooter operations in New South Wales, proposed several measures to refine the NSW Shared E-scooter Trial Program and improve council participation, including:

¹⁵¹ Submission 180, Inner West Council, p 5.

¹⁵² Submission 152, Waverly Council, p 2.

¹⁵³ Submission 162, Lake Macquarie City Council - HRMC, NSW, pp 5-7.

¹⁵⁴ Evidence, Mr John Groom, President, Illawarra Ramblers, 30 October 2024, p 11.

¹⁵⁵ Evidence, Ms Anna Bradley, Executive Director, Active Transport and Vibrancy, Transport for NSW, 31 October 2024, p 45

- Greater flexibility in trial parameters, such as footpath riding, speed limits and curfews, to meet specific council needs.
- Clearer definitions of the roles and responsibilities of Transport for NSW, local government and operators in delivering the program.
- Enhanced engagement from state leaders, including the NSW Premier and relevant ministers, to promote the legitimacy and benefits of e-scooter use.
- Educational campaigns targeting councils and the public to build awareness of e-scooter use and encourage collaboration between councils and industry to address the rapid development of micromobility technology.¹⁵⁶

Key challenges and opportunities for advancing shared e-mobility

- 2.69** The committee explored the challenges and opportunities associated with shared e-mobility, focusing on the importance of infrastructure, innovation and user behaviour in supporting its successful integration.
- 2.70** The Centre for Accident Research and Road Safety – Queensland observed that e-scooter regulations vary significantly across jurisdictions and have evolved over time within individual areas. They noted that governments are under pressure to regularly review operational permits for ride-share companies due to unanticipated launches, disruptive e-scooter user behaviour, public safety concerns and an increase in crashes and fatalities. According to the centre, discussions have focused on developing policies and rules that effectively address the safety and health implications of shared e-scooter use.¹⁵⁷
- 2.71** Mr Stephen Coulter, Director, Zipidi, a consultancy and risk management company for the e-mobility industry, highlighted that some shared e-mobility programs, are beginning to 'normalise' and become 'business as usual' in cities like Brisbane and Auckland that have had them for six years now. He noted, '[w]e're not seeing the emotional reaction we're seeing in some of the cities when it first gets launched'. Success factors include addressing issues that have generated significant public concern, particularly parking management and footpath riding. Mr Coulter emphasised, '[n]one of the systems are perfect. The technology is improving all the time'.¹⁵⁸
- 2.72** Mr Coulter further stressed the importance of government investment in infrastructure to create protected riding lanes, explaining that unsafe road conditions often push riders onto footpaths.¹⁵⁹ He noted, '[a]round the world, there is a lot of evidence to show that most of the path riding happens where safe infrastructure isn't being provided'.¹⁶⁰

¹⁵⁶ Submission 170, Beam Mobility, p 2.

¹⁵⁷ Submission 182, Centre for Accident Research and Road Safety – Queensland, p 7.

¹⁵⁸ Evidence, Mr Stephen Coulter, Director, Zipidi, 29 October 2024, p 15.

¹⁵⁹ Evidence, Mr Coulter, 29 October 2024, p 15

¹⁶⁰ Evidence, Mr Coulter, 29 October 2024, p 16.

- 2.73** Ms Krystyna Weston, Director, Zipidi, added that fostering innovation is critical, cautioning against mandating specific technologies as it could hinder progress. She stated, '[w]e need to continue to encourage operators to innovate'.¹⁶¹
- 2.74** User behavior was identified as a critical concern in the shared e-mobility space. While some cities, such as London, have implemented stringent laws and regulations to enforce compliance, Mr Trent Williams, Head of Strategic Communications, Ario, emphasised a more balanced approach. He highlighted the operators' responsibility to shape positive user behaviors, stating the goal is to '...get riders to be better and to conform'.¹⁶²
- 2.75** Mr Williams discussed both technical and non-technical solutions to address these challenges. For example, technical measures such as geofencing and helmet and pedestrian detection while non-technical approaches might involve implementing clear codes of conduct.¹⁶³ He also stressed the importance of fostering a mindset shift among users, urging them to view e-mobility devices as more than mere toys, but as advanced pieces of technology, valued at '\$2,500 to \$3,000 at wholesale'.¹⁶⁴

Committee comment

- 2.76** The committee recognises the substantial benefits that e-mobility delivers in promoting sustainable mobility. Evidence highlights its capacity to provide affordable transportation options, alleviate traffic congestion, boost the night-time economy, enhance tourism opportunities and reduce greenhouse gas emissions. Moreover, the committee acknowledges the role of e-mobility in improving accessibility for a diverse range of users. Therefore, the committee recommends that the NSW Government support the expansion and integration of private and shared e-mobility in the state's transport system through a comprehensive framework that:
- supports the use of both private and shared e-scooters, e-bikes and other e-mobility devices as legitimate forms of transport
 - clearly defines the responsibilities of state and local governments,
 - sets consistent safety, operational and accessibility standards and
 - provides targeted support to help councils effectively manage services and usage within their local contexts.

¹⁶¹ Evidence, Ms Krystyna Weston, Director, Zipidi, 29 October 2024, p 16.

¹⁶² Evidence, Mr Trent Williams, Head of Strategic Communications, Ario, 29 October 2024, p 18.

¹⁶³ Evidence, Mr Williams, 29 October 2024, pp 18-19.

¹⁶⁴ Evidence, Mr Williams, 29 October 2024, p 18.

Recommendation 1

That the NSW Government develop a comprehensive framework to integrate private and shared e-mobility into the state's transport system which:

- supports the use of both private and shared e-scooters, e-bikes and other e-mobility devices as legitimate forms of transport
 - clearly defines the responsibilities of state and local governments
 - sets consistent safety, operational and accessibility standards
 - provides targeted support to help councils effectively manage services and usage within their local contexts.
-

- 2.77** Despite these advantages, the committee identifies significant challenges within the current policy and regulatory framework. The fragmented, council-by-council approach to shared e-mobility has led to operational inefficiencies and inconsistent user experiences. Operators are required to navigate multiple tender processes across different jurisdictions, resulting in administrative burdens and market inefficiencies. Furthermore, some councils may face challenges in accessing the resources and expertise needed to effectively manage shared mobility programs. Tender processes that prioritise pricing over other evaluation criteria can impact investments in operational areas such as safety programs and device maintenance. Therefore, the committee recommends that the NSW Government manage tender processes for shared e-mobility at the state level to ensure consistency, eliminate duplication across councils, reduce administrative burdens for operators and prioritise safety measures, device maintenance and service reliability, in close consultation with local councils.
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Recommendation 2

That the NSW Government manage tender processes for shared e-mobility schemes at the state level to eliminate duplication across councils, reduce administrative burdens for operators and prioritise safety measures, device maintenance and service reliability, in close consultation with local councils.

- 2.78** The committee recognises stakeholder concerns about the proliferation of shared e-mobility operators within local government areas. A high operator density strains council resources for coordination and management, fragments service delivery and can negatively impact both market competition and public safety. Therefore, to mitigate these negative impacts and ensure a more efficient and user-friendly shared mobility landscape, the committee recommends that the NSW Government work with councils to establish a metropolitan-wide shared e-mobility device scheme and impose a cap on the number of operators.
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Recommendation 3

That the NSW Government work with councils to establish a metropolitan-wide shared e-mobility device scheme and impose a cap on the number of operators.

- 2.79** The committee notes that mandatory data sharing between operators of shared e-mobility and Transport for NSW would enable better monitoring of compliance, usage patterns and service effectiveness, supporting evidence-based policy development. This approach would help create a more cohesive and efficient shared e-mobility network across New South Wales. Therefore, the committee recommends that the NSW Government implement mandatory data sharing requirements for all shared e-mobility operators.

Recommendation 4

That the NSW Government implement mandatory data sharing requirements for all shared e-mobility operators.

Chapter 3 Regulations, compliance and enforcement

This chapter examines the regulatory challenges associated with e-mobility devices, such as e-scooters and e-bikes, in New South Wales. It focuses on key areas including safety requirements, permitted use and the integration of these devices into public spaces. The chapter evaluates the current laws and regulations and makes recommendations for improvement to support the safe and efficient use of these devices while enhancing safety outcomes for all road users.

Rules and regulations for e-mobility in New South Wales

- 3.1 New South Wales manages e-mobility through a range of existing laws and policies, as detailed in chapter 1. However, the rapid evolution and uptake of these devices is challenging existing regulatory and policy frameworks.¹⁶⁵
- 3.2 The NSW Government has recognised these developments and indicated that '[Transport for NSW is] exploring the key regulatory functions ... [and] consultation is underway on ... key pieces of reform—exploring the options for the safe introduction of e-scooters and exploring the regulatory regime for share scheme providers'.¹⁶⁶
- 3.3 The NSW Government has adopted the Safe System approach, aiming to achieve a transport network free of fatalities and serious injuries by 2050.¹⁶⁷ The Government's submission stated that this strategy considers the interplay between infrastructure, speed settings, vehicles and human behaviour in preventing road trauma.
- 3.4 Mr Michael Timms, Chair, NSW Chapter, Australasian College of Road Safety explained that, finding the right regulatory mix becomes particularly complex when considering e-mobility devices:

We've spent quite a lot of effort in road safety over the last couple of decades, encouraging people to purchase five-star ANCAP-rated vehicles. I suppose it's somewhat of a paradox now that we're talking about someone not using a five-star-rated vehicle but instead using a scooter, which can travel at high speed.¹⁶⁸

- 3.5 This section provides an analysis of the current regulatory framework, explores key compliance challenges and examines proposed solutions to improve regulatory effectiveness and outcomes.

Regulations for the sale of e-bikes, e-scooters and lithium-ion batteries

- 3.6 The NSW Government, in its submission, advised that NSW Fair Trading has 'designated e-micromobility vehicles, batteries and battery chargers as declared electrical articles under the

¹⁶⁵ Evidence, Ms Genevieve Henderson, President, NSW Branch Committee, Australian Lawyers Alliance, 30 October 2024, p 37.

¹⁶⁶ Evidence, Ms Anna Bradley, Executive Director, Active Transport and Vibrancy, Transport for NSW, 31 October 2024, p 38.

¹⁶⁷ Submission 153, NSW Government, p 10.

¹⁶⁸ Evidence, Mr Michael Timms, Chair, ACRS, NSW Chapter, Australasian College of Road Safety, 30 October 2024, p 30.

Gas and Electricity (Consumer Safety) Act 2017' with the changes set to take effect from February 2025.¹⁶⁹

- 3.7** Under this new designation, all e-bikes, e-scooters, e-skateboards and hoverboards - along with their lithium-ion batteries and chargers - must undergo testing, certification and marking before entering the market. This classification extends to replacement and substitute batteries.¹⁷⁰
- 3.8** The regulations empower NSW Fair Trading with substantial enforcement authority, including the power to 'inspect, seize, recall and prohibit the sale' of non-compliant devices. Violations incur significant penalties: corporations face fines of up to \$550,000 (5,000 penalty units), while individuals may be fined up to \$55,000 (500 penalty units). Repeat offenders risk increased penalties and potential imprisonment for up to two years.¹⁷¹
- 3.9** New product standards will be implemented in a three-stage process starting in February 2025. From 1 February 2025, all products must comply with the standards but are exempt from testing, certification and marking. From 1 August 2025, products must be tested and certified, though compliance marking will not yet be required. By 1 February 2026, products must be tested, certified and marked for compliance in NSW. A Consumer Information Standard was released on 4 November 2024, with consultation closing on 6 December 2024 and an amendment regulation to enforce this standard will be introduced in early 2025. The NSW Government stated that further changes to the *Gas and Electricity (Consumer Safety) Act 2017* will also be pursued in 2025 as part of broader building legislation reforms.¹⁷²

Regulations for the safe use of e-bikes and e-scooters

- 3.10** This section reviews the rules and regulations in New South Wales governing the safe use of e-bikes and e-scooters. It incorporates provisions highlighted in submissions to the committee and focuses on areas where compliance issues were most frequently raised, addressing requirements for both riders and devices.

Permitted devices

- 3.11** As noted in chapter 1, there are two types of e-bikes permitted in New South Wales: power-assisted pedal cycles and electrically power-assisted cycles. Both types require the rider to propel the bike primarily through pedaling, with the motor serving only as an aid, such as when riding uphill or against strong winds. The motor cannot be the sole source of propulsion.¹⁷³ The main differences between power-assisted pedal cycles and electrically power-assisted cycles are as follows:
- A power-assisted pedal cycle is equipped with one or more motors with a combined maximum power output of up to 200 watts. These bikes cannot rely solely on the motor

¹⁶⁹ Submission 153, NSW Government, p 15; Answer to Question on Notice, NSW Government, 27 November 2024, p 14.

¹⁷⁰ Submission 153, NSW Government, p 15.

¹⁷¹ Submission 153, NSW Government, p 15.

¹⁷² Answer to Question on Notice, NSW Government, 27 November 2024, p 14.

¹⁷³ Transport for NSW, *E-bikes*, <https://www.transport.nsw.gov.au/roadsafety/bicycle-riders/ebikes>.

for propulsion and must weigh less than 50 kilograms, including the batteries. Additionally, they must have a height-adjustable seat.¹⁷⁴

- An electrically power-assisted cycle features a motor with a maximum continuous rated power of up to 500 watts. The motor's assistance is gradually reduced as the bike's speed exceeds 6 km/h and is completely cut off in two situations: when the bicycle reaches a speed of 25 km/h or when pedaling stops and the speed exceeds 6 km/h.¹⁷⁵

3.12 In contrast to e-bikes, for which state-specific permitted types were identified, no corresponding evidence was presented to the committee regarding e-scooters. This absence of information leads the committee to conclude that privately owned e-scooters (restricted to private property use) are subject to the import requirements detailed in chapter 1. Currently, only e-scooters provided through shared schemes in designated trial areas are permitted for use in public spaces.¹⁷⁶

3.13 In New South Wales, e-skateboards are generally illegal unless used as a mobility aid by individuals with a disability who meet specific usage conditions. Those that do not meet these requirements are permitted only on private property.¹⁷⁷

3.14 The committee did not receive sufficient evidence to clarify the permissibility of other e-mobility devices, such as e-unicycles and hoverboards, under existing regulations.

Rider age

3.15 In New South Wales, there are no age restrictions for riding personal e-bikes.¹⁷⁸ However, to hire a shared e-bike, users must adhere to the terms and conditions set by the shared e-bike operators, which may include age limits. For example, Lime requires riders to be at least 18 years old,¹⁷⁹ while HelloRide sets the minimum age at 16 years.¹⁸⁰

3.16 Riders must be at least 16 years old to use a shared e-scooter.¹⁸¹

¹⁷⁴ Transport for NSW, *E-bikes*, <https://www.transport.nsw.gov.au/operations/active-transport/e-bikes>.

¹⁷⁵ Transport for NSW, *E-bikes*, <https://www.transport.nsw.gov.au/operations/active-transport/e-bikes>.

¹⁷⁶ Transport for NSW, *E-scooters*, <https://www.transport.nsw.gov.au/roadsafety/road-users/e-scooters>.

¹⁷⁷ Transport for NSW, *Bikes, e-bikes and e-scooters*, https://www.transport.nsw.gov.au/system/files/media/documents/2024/crs_bikes_e-bikes_e-scooters.pdf

¹⁷⁸ Transport for NSW, *E-bikes*, <https://www.transport.nsw.gov.au/operations/active-transport/e-bikes>.

¹⁷⁹ Lime, *Sydney*, <https://www.li.me/en-au/locations/sydney>.

¹⁸⁰ Submission 314, HelloRide, p 3.

¹⁸¹ Transport for NSW, *E-scooters*, <https://www.transport.nsw.gov.au/projects/current-projects/nsw-shared-e-scooter-trial-program>; Transport for NSW, *E-bikes*, <https://www.transport.nsw.gov.au/operations/active-transport/e-bikes>.

Licence requirements

- 3.17 A licence is not required to ride an e-bike or an e-scooter.¹⁸²

Permitted paths

- 3.18 E-bikes can be ridden anywhere that conventional bikes are permitted in New South Wales:
- Footpaths: Riders under 16 years old, or those aged 16 or older supervising a child under 16, may ride on footpaths. Riders aged 16 or older who are not supervising a child are prohibited from using footpaths.
 - Shared paths: Riders are allowed on shared paths, where they must keep to the left and always give way to pedestrians.
 - Bicycle lanes: When a bicycle lane is marked with signage, riders are required to use it unless it is impracticable.
 - Transit, truck and bus lanes: Riders may use transit lanes, truck lanes and bus lanes but are prohibited from using tram-only or bus-only lanes.
 - Bus lanes: Riders must exercise caution in bus lanes, particularly near intersections where other vehicles may enter to turn left. They must obey the main traffic signals and cannot proceed on the green "B" bus signal, waiting instead for the standard green traffic light.
 - Tram-only and bus-only lanes: Riders are strictly prohibited from using tram-only or bus-only lanes, which are clearly marked with signs or lane markings indicating 'Trams Only' or 'Buses Only'.¹⁸³
- 3.19 Shared e-scooters hired from approved operators can be ridden on designated shared paths, bike lanes and roads within trial areas. However, riding on footpaths is prohibited by law.¹⁸⁴

Speed limits

- 3.20 E-bikes, following the same rules as bicycles, are subject to the same speed limits as other vehicles under the *Road Rules 2014*.¹⁸⁵
- 3.21 For e-scooters in New South Wales, the maximum speed permitted on shared paths is 10 km/h. This limit increases to 20 km/h on bicycle paths and lanes under the NSW Shared E-scooter Trial Program where the speed limit on roads is 50 km/h or less.¹⁸⁶

¹⁸² Transport for NSW, *E-scooters*, <https://www.transport.nsw.gov.au/roadsafety/road-users/e-scooters>.

¹⁸³ Transport for NSW, *E-bikes*, <https://www.transport.nsw.gov.au/operations/active-transport/e-bikes>; Transport for NSW, *Road rules for bicycle riders*, <https://www.transport.nsw.gov.au/roadsafety/bicycle-riders/road-rules-for-bicycle-riders>.

¹⁸⁴ Transport for NSW, *E-scooters*, <https://www.transport.nsw.gov.au/roadsafety/road-users/e-scooters>.

¹⁸⁵ *Road Rules 2014* Div. 15 [2] and Pt 15 [note 1]; Transport for NSW, *E-bikes*, <https://www.transport.nsw.gov.au/operations/active-transport/e-bikes>.

¹⁸⁶ Submission 153, NSW Government, p 27.

- 3.22** Shared paths in New South Wales are commonly used by both cyclists and pedestrians and often feature advisory speed markings of 10 km/h. However, the actual speed limit for bike riders is typically aligned with the speed limit of the adjoining road, which may be as high as 50 km/h – unless a lower speed limit is specifically designated for the shared path.¹⁸⁷

Helmet use and other safety gear

- 3.23** In New South Wales, both e-bike and e-scooter riders, including any passengers, must wear an approved helmet that is securely fitted and fastened at all times.¹⁸⁸
- 3.24** Helmets must comply with specific Australian or international safety standards, displaying certification marks as proof of compliance. They must also be in good condition and proper working order.¹⁸⁹
- 3.25** E-bikes are required by law to have a working horn or bell, at least one operational brake and adequate lighting and reflectors to ensure visibility and safety. This includes a white front light visible from a distance of at least 200 metres, a red rear light visible from at least 200 metres and a red rear reflector visible from 50 metres when illuminated by a vehicle's low-beam headlights. These lights must be used during night-time, between sunset and sunrise, or in poor weather conditions.¹⁹⁰
- 3.26** E-scooters must be equipped with a functional bell, horn, or other warning device. Riders are required to use the e-scooter's lights when traveling in darkness or under hazardous weather conditions to enhance safety.¹⁹¹

Riding under the influence of alcohol

- 3.27** Riding an e-bike under the influence of drugs or alcohol is illegal.¹⁹²
- 3.28** A blood alcohol concentration limit of 0.05 applies when riding an e-scooter.¹⁹³

¹⁸⁷ Submission 1, Pedestrian Council of Australia Ltd, p 1; Andrew Taylor, 'Councils want crackdown on speeding cyclists putting pedestrians at risk', *Sydney Morning Herald*, 1 October 2023, <https://www.smh.com.au/national/nsw/councils-want-crackdown-on-speeding-cyclists-putting-pedestrians-at-risk-20230927-p5e81v.html>.

¹⁸⁸ Transport for NSW, *Road rules for bicycle riders*, <https://www.transport.nsw.gov.au/roadsafety/bicycle-riders/road-rules-for-bicycle-riders>; Transport for NSW, *NSW Shared E-scooter Trail Program* (28 October 2024), <https://www.transport.nsw.gov.au/projects/current-projects/nsw-shared-e-scooter-trial-program>.

¹⁸⁹ Transport for NSW, *Road rules for bicycle riders*, <https://www.transport.nsw.gov.au/roadsafety/bicycle-riders/road-rules-for-bicycle-riders>.

¹⁹⁰ Transport for NSW, *Road rules for bicycle riders*, <https://www.transport.nsw.gov.au/roadsafety/bicycle-riders/road-rules-for-bicycle-riders>.

¹⁹¹ Transport for NSW, *E-scooters*, <https://www.transport.nsw.gov.au/roadsafety/road-users/e-scooters>.

¹⁹² *Road Rules 2014*, Pt 18, Div 1, s298-1.

¹⁹³ Transport for NSW, *E-scooters*, <https://www.transport.nsw.gov.au/roadsafety/road-users/e-scooters>.

Regulatory gaps and challenges in the e-mobility sector

- 3.29** This section explores the challenges associated with compliance and enforcement of e-mobility rules in New South Wales. It focuses on the issues raised during the inquiry regarding the practical enforcement of existing rules and regulations, as well as the behaviours contributing to non-compliance. Additionally, it considers recommendations presented to the committee, offering potential strategies to improve regulatory outcomes and enhance the safe use of e-mobility devices.
- 3.30** Evidence received during the inquiry regarding regulatory challenges heavily focused on e-bikes, reflecting their widespread use in New South Wales due to their legal allowance on public roads and shared paths, as well as the availability of shared schemes. In contrast, evidence on e-scooters was limited, as their use remains largely confined to designated trial areas.
- 3.31** Inquiry participants raised concerns about regulatory gaps in the e-mobility sector, attributing them to a lack of sufficient understanding of both the technology and its broader impact on the community. BIKEast noted that the swift development and adoption of e-mobility devices, like any new technology, brings both benefits and risks.¹⁹⁴ They explained that while 'the benefits are quickly recognised ... the unintended consequences of rapid development and uptake soon become more apparent'.¹⁹⁵
- 3.32** BIKEast stressed that 'current concerns surrounding the use of e-bikes and e-scooters stem from regulatory failures, largely due to a lack of detailed understanding of the technology and its broader impact on the community'. This issue, they stated is, 'exacerbated by the absence of regulatory coordination between Commonwealth and State Governments' and that, '[g]overnments have not provided adequate regulation or infrastructure to ensure the safe and comfortable use of e-bikes and other healthy, sustainable and efficient transport modes'.¹⁹⁶
- 3.33** When questioned about the differing e-mobility laws across jurisdictions, Dr Richard Buning, Senior Lecturer, UQ Business School, University of Queensland, noted that these inconsistencies pose significant challenges for locals, as well as interstate and international visitors, hindering seamless mobility and the broader adoption of e-mobility solutions:
- The speed limits, where you can and can't ride, varies greatly across Australia. I think it's quite a detriment to everyone. I was just at a transport conference last week and one of the speakers got a ticket for riding on the footpath in Victoria, where you can't and then you come up to Queensland where you can, so quite problematic. On another level of that, international tourists visit Australia and the places that they come from could be far more advanced in this space, in adoption of e-scooter use and where you can and can't ride—and having that confusion.¹⁹⁷
- 3.34** The City of Sydney reinforced this concern, submitting that regulatory approaches in New South Wales have focused narrowly on issues such as safety concerns and competition for space,

¹⁹⁴ Submission 193, BIKEast, p 3.

¹⁹⁵ Submission 193, BIKEast, p 3.

¹⁹⁶ Submission 193, BIKEast, p 3.

¹⁹⁷ Evidence, Dr Richard Buning, Senior Lecturer, UQ Business School, University of Queensland, 31 October 2024, p 5.

stating that '[r]ather than "designing for system success", the NSW Government appears to have been "planning for system failure"'.¹⁹⁸

3.35 Similarly, the Northern Beaches Council argued for the need for 'clear unambiguous legislation' to support enforcement, pointing out that the current laws are too 'grey' and difficult to enforce effectively.¹⁹⁹

3.36 Mr Sebastian Smyth, Executive Manager, City Access and Transport, City of Sydney highlighted that while adequate laws and regulations are in place for e-bikes, a significant gap exists in the management of shared bike systems. He emphasised that establishing a well-regulated shared e-bike system requires the involvement of the NSW Government to ensure consistency and scalability:

We already have laws and regulations in place to cover the power, speed and use of electric bicycles... The focus now should be on the necessary regulatory work around share bike systems. Share bikes are one part of the e-mobility fleet and global experience shows that share bike systems need a proper regulatory framework that allows for growth and private sector involvement and innovation. These regulations must operate over a bigger geography than a single local government area so that the system is easier to manage and administer but primarily so that people have access to more places. Only the New South Wales Government can create that framework.²⁰⁰

3.37 The implications of speed limits for e-mobility devices, a significant concern among inquiry participants, are explored in detail in chapter 6.

Helmet use

3.38 Some stakeholders highlighted what they saw as widespread non-compliance with helmet regulations among e-mobility device users.²⁰¹

3.39 Riding without a helmet incurs an on-the-spot fine of \$344 for all cyclists²⁰² and \$410 for e-scooter riders.²⁰³ However, stakeholders highlighted that these penalties are rarely enforced for users of shared e-bikes²⁰⁴ and for e-scooters operating within trial areas.²⁰⁵

3.40 Dr S. V. Soundappan, Staff Specialist Academic Surgeon and Head of Trauma at the Centre for Trauma Care, Prevention, Education and Research at Westmead Children's Hospital, emphasised that non-compliance with helmet regulations poses a significant safety risk,

¹⁹⁸ Submission 134, City of Sydney, p 15.

¹⁹⁹ Submission 141, Northern Beaches Council, p 5.

²⁰⁰ Evidence, Mr Sebastian Smyth, Executive Manager, City Access and Transport, City of Sydney, 29 October 2024, p 2.

²⁰¹ Submission 3, Name suppressed, p 1; Submission 10, Mrs Karen Crawley, p 2; Submission 22, Name suppressed, p 1; Submission 32, Name suppressed, p 1; Submission 176, Mid Coast Council, p 7.

²⁰² Submission 144, Highgate Owners Corporation SP49822, p 12.

²⁰³ Transport for NSW, *E-scooters*, <https://www.transport.nsw.gov.au/roadsafety/road-users/e-scooters>.

²⁰⁴ Submission 144, Highgate Owners Corporation SP49822, p 12.

²⁰⁵ Evidence, Dr Buning, 31 October 2024, p 56.

especially for children. He stated that this issue has been a major factor in the sharp rise in injuries involving electric mobility vehicles, noting that '[t]wo-thirds of injured children [were] not wearing helmets at the time of the incidents'.²⁰⁶ Dr Soundappan told the committee that '[w]hile most injuries involve soft tissue damage and fractures, some cases have resulted in severe head injuries, including complex skull fractures, brain bleeds and abdominal trauma requiring intensive care'.²⁰⁷

- 3.41** When questioned about varying rates of helmet use across different transport modes, Dr Richard Buning, University of Queensland, offered the committee insights into user behaviour between push bike and e-scooter riders. Dr Buning attributed the difference to factors such as user type and accessibility. He explained that e-scooters are more accessible than bikes, as they require less skill to operate and are easier to store and navigate in urban areas, making them appealing to a wider range of users.²⁰⁸
- 3.42** Dr Buning also noted that private e-scooter and bike owners usually have their own helmets, leading to high compliance rates of nearly 90 per cent. However, shared e-scooter users often lack access to personal helmets, making compliance a more significant challenge in this group.²⁰⁹
- 3.43** Other reasons for helmet non-compliance by users include hygiene concerns relating to helmets provided by shared schemes,²¹⁰ and being unaware of the legal requirement.²¹¹ Moreover, issues within shared e-mobility, such as helmets being unavailable, discarded irresponsibly or stolen, further hinder compliance.²¹²
- 3.44** A respondent to the online questionnaire added:
- Communal helmets if available are not hygienic...No one wants to wear a dirty helmet. No one carries a personal helmet around in case they want to use a bike it is a silly law for publicly shared bike services and should only be mandatory for privately owned bikes/devices.²¹³
- 3.45** Shared e-bike operators asserted that their bikes are equipped with helmets to comply with regulations and that helmet use is a condition of service.²¹⁴ For instance, Mr Lachlan McLean, Head of Business Development, HelloRide, an e-bike operator in the City of Sydney, explained '[a]t the start of the trip, there will be a helmet. Once they start the trip, they'll be prompted to

²⁰⁶ Evidence, Dr S. V. Soundappan, Staff Specialist Academic Surgeon; Head of Trauma, Centre for Trauma Care, Prevention, Education and Research at Westmead Children's Hospital, 30 October 2024, pp 2-3. In [correspondence](#) to the committee received 27 November 2024, Dr Soundappan, provided a clarification to their evidence advising that they had appeared in an individual capacity.

²⁰⁷ Evidence, Dr S. V. Soundappan, 30 October 2024, p 3.

²⁰⁸ Evidence, Dr Buning, 31 October 2024, p 6.

²⁰⁹ Evidence, Dr Buning, 31 October 2024, p 6.

²¹⁰ Submission 1, Pedestrian Council of Australia Ltd, p 5; Online questionnaire summary report, *Inquiry into use of e-scooters, e-bikes and related mobility options*, p 11.

²¹¹ Submission 182, Centre for Accident Research and Road Safety – Queensland, p 7.

²¹² Submission 144, Highgate Owners Corporation SP49822, p 6.

²¹³ Online questionnaire summary report, *Inquiry into use of e-scooters, e-bikes and related mobility options*, p 11.

²¹⁴ Evidence, Mr Lachlan McLean, Head of Business Development, HelloRide, 30 October 2024, p 53; Evidence, Mr Adam Rossetto, Country Manager, Ario, 29 October 2024, p 12.

accept the helmet; you can't start the trip without it. You put the helmet on and then you return the helmet [on completing the trip]'.²¹⁵

- 3.46** To address helmet non-compliance, Lime advised that they are actively exploring technologies designed to prevent the use of e-bikes or e-scooters if a helmet is not available or is not being worn.²¹⁶ Ario announced that it had introduced technology that detects when a helmet is not being worn and the device will stop, effectively preventing users from riding the device without a helmet.²¹⁷
- 3.47** When asked whether users could bypass user agreements by falsely claiming they are wearing a helmet when none is present, HelloRide detailed the start trip logic and helmet compliance features integrated into their EY18 and EY19 e-bikes.²¹⁸ These models include a Bluetooth-enabled helmet lock system that works through the HelloRide app. Sensors actively monitor whether the helmet is removed or reattached during or after the trip to ensure compliance.²¹⁹ HelloRide acknowledged that some riders prefer using their own helmets, with the system allowing users to confirm compliance and proceed with the trip while using a personal helmet. HelloRide maintained that this approach adequately balances accessibility with safety and regulatory adherence.²²⁰
- 3.48** Mr Adam Rossetto, Country Manager, Ario, outlined to the committee the company's approach to improving helmet compliance in their Auckland, New Zealand e-scooter operations: 'We have a RFID [Radio Frequency Identification] tag uniquely paired between the helmet and the vehicle so we know within 99 per cent accuracy – indeed, 100 per cent accuracy – whether that helmet has been returned to the vehicle'.²²¹ Mr Rossetto noted that during a three-month trial in Auckland, the technology significantly boosted helmet compliance, adding that '[i]f people don't return the helmet ... they are charged \$50'.²²²
- 3.49** Meanwhile, Mr William Peters, Senior Regional Director, Lime, highlighted the complexities involved with requiring technology to secure helmets to their devices, drawing particular attention to the financial burden. He noted that Lime has deployed approximately 30,000 helmets in Sydney alone and stated that replacing helmets has been a 'huge cost to the business'. The company is currently trialling a locking mechanism on its vehicles in collaboration with the Victorian Government, to ensure the helmets 'actually stay with the vehicles'.²²³
- 3.50** To further illustrate the scale of the issue, HelloRide has deployed 4,700 helmets across the City of Sydney to date and has confirmed plans to purchase an additional 1,000 helmets with each helmet, including logistics, costing \$11.18.²²⁴

²¹⁵ Evidence, Mr McLean, 30 October 2024, p 53.

²¹⁶ Evidence, Mr William Peters, Senior Regional Director, Lime, 29 October 2024, p 20.

²¹⁷ Evidence, Mr Trent Williams, Head of Strategic Communications, Ario, 29 October 2024, p 19.

²¹⁸ Answer to Question on Notice, HelloRide, 2 December 2024, p 6.

²¹⁹ Answer to Question on Notice, HelloRide, 2 December 2024, p 6.

²²⁰ Answer to Question on Notice, HelloRide, p 6.

²²¹ Evidence, Mr Rossetto, 29 October 2024, p 20.

²²² Evidence, Mr Rossetto, 29 October 2024, p 20.

²²³ Evidence, Mr Peters, 29 October 2024, p 20.

²²⁴ Answer to Question on Notice, HelloRide, p 5.

- 3.51** The committee heard evidence that helmet use has significant implications for insurance claims, as coverage may be denied if a helmet is not worn.²²⁵ The broader implications of non-compliance and its impact on rider safety are explored in greater detail in chapter 6.
- 3.52** Dr Richard Buning, University of Queensland, informed the committee that in Brisbane, Queensland, while helmet use is mandatory, improvements in compliance were achieved gradually over time, largely due to advancements in technology:
- Originally, when the public devices were unleashed in 2018, helmets were just hanging on the handlebars and they ended up everywhere. They were floating down the river; they were everywhere. In early 2020 they introduced a Bluetooth helmet lock, so now the helmets can lock to the devices. Those locks have even gotten better over the years. Now, the apps prompt users to use them. I believe that prompt could be pushed a little bit further and harder on users and also reminding people that, if they aren't wearing a helmet, they're breaking the law and are subject to a \$250 fine if they get caught not wearing one.²²⁶
- 3.53** While helmet use is mandatory for e-bike and e-scooter riders across all states and territories in Australia, the committee heard that other countries and regions have adopted varied approaches. The Centre for Accident Research and Road Safety – Queensland cited evidence that helmet regulations in the United States differ by jurisdiction. Some areas mandate helmets for all ages, others for specific age groups (typically under 14), while some make helmet use optional.²²⁷ In cities such as Paris [France], Madrid [Spain] and Auckland [New Zealand], helmets are not required when riding an e-scooter.²²⁸
- 3.54** However, according to one stakeholder, mandatory helmet laws led to the downfall of Melbourne Bike Share, a government-owned e-bike service that launched in 2010. Despite having 51 stations and 600 e-bikes operated by RACV throughout Melbourne's central business district, the service failed to reach its target of 25,000 monthly trips and ultimately closed in November 2019.²²⁹

Rider age

- 3.55** As noted in chapter 1, an inter-jurisdictional review of policy settings for privately-owned e-scooters conducted by the NSW Government revealed significant variation in minimum age requirements. In Australian states and territories where private e-scooter use is legal, age restrictions range from 12 to 16 years.²³⁰ Internationally, some jurisdictions impose no minimum

²²⁵ Evidence, Dr John Crozier, Committee Member, RACS NSW, Royal Australasian College of Surgeons, 30 October 2024, pp 4-5.

²²⁶ Evidence, Dr Buning, 31 October 2024, p 3.

²²⁷ Submission 182, Centre for Accident Research and Road Safety – Queensland, p 6 citing Sikka, N., Vila, C., Stratton, M., Ghassemi, M., & Pourmand, A. (2019). Sharing the sidewalk: A case of E-scooter related pedestrian injury. *The American Journal of Emergency Medicine*, 37(9), 1807.e1805-1807.e1807. <https://doi.org/https://doi.org/10.1016/j.ajem.2019.06.017>.

²²⁸ Submission 182, Centre for Accident Research and Road Safety – Queensland, p 7.

²²⁹ Submission 144, Highgate Owners Corporation SP49822, p 12.

²³⁰ Submission 153, NSW Government, p 12.

age, while others set limits between 9 and 16 years.²³¹ For e-bikes, certain international jurisdictions, such as British Columbia, Canada, enforce minimum age restrictions. However, in New South Wales and other Australian states and territories, there are no minimum age requirements for e-bike riders, provided the e-bike complies with local regulations.²³²

- 3.56** As noted at 3.15, some shared e-bike operators in New South Wales have voluntarily imposed a minimum age of 16 for users of their services. The Pedestrian Council of Australia Ltd further emphasised the enforcement challenges posed by the lack of age restrictions, noting that NSW Police cannot issue penalties or warnings to children under 16 years of age who violate e-bike and e-scooter safety rules.²³³ Compounding these challenges, other submissions contested that some riders frequently flout regulations. Risky behaviors such as carrying pillion passengers and speeding through outdoor mall areas were highlighted as significant safety concerns, particularly for pedestrians.²³⁴
- 3.57** In response to the concerns raised by their constituents, several councils and organisations called for minimum age requirements for e-mobility devices. The Northern Beaches Council recommended introducing minimum age limits based on factors such as cognitive ability, risk assessment skills and empathy to ensure riders take responsibility for the safety of others.²³⁵ Similarly, the Glebe Society advocated for consistent minimum age requirements across e-bikes and e-scooters.²³⁶
- 3.58** The Sutherland Shire Council echoed these concerns, suggesting a minimum age for carrying passengers on e-mobility devices and limiting the number of passengers to one. It highlighted complaints about young riders exceeding their capability by carrying multiple passengers and noted that similar restrictions already exist for motorbikes and personal watercraft.²³⁷
- 3.59** While some participants favoured age restrictions, Bicycle NSW proposed education campaigns targeting teenagers as a more effective approach to promoting safe e-bike use. These campaigns aim to equip young riders with the knowledge and skills needed to operate e-mobility devices responsibly.²³⁸ The role of education in improving safety is explored further in chapter 6.

Rider licensing

- 3.60** In New South Wales, as in other Australian jurisdictions, a licence is not required to ride an e-scooter or an e-bike.
- 3.61** One submission author suggested that introducing a licensing system could address multiple concerns, including ensuring compliance with minimum age requirements, improving road

²³¹ Submission 153, NSW Government, p 12.

²³² Submission 153, NSW Government, pp 12 -13.

²³³ Submission 1, Pedestrian Council of Australia Ltd, p 4.

²³⁴ Submission 8, Mr Sidney Harpley, p 1; Submission 16, Name suppressed, p 1; Submission 34, Name suppressed, p 1; Submission 218, Dr Eric Hamilton, p 1.

²³⁵ Submission 141, Northern Beaches Council, pp 2 and 6.

²³⁶ Submission 136, The Glebe Society, p 2.

²³⁷ Submission 121, Sutherland Shire Council, pp 3-4.

²³⁸ Submission 159, Bicycle NSW, p 8.

safety by certifying riders' basic knowledge of road rules and verifying both the user's and the device's roadworthiness.²³⁹

- 3.62** The Sutherland Shire Council echoed this sentiment, arguing that a licensing system could enhance enforcement and help address challenges in issuing fines to minors. The council highlighted examples of junior personal watercraft licences, obtainable at 12 years of age with restrictions for users under 16 and recreational fishing licences, which aid enforcement, but, they argued, do not assess competency.²⁴⁰
- 3.63** Despite these proposals, several respondents to the inquiry's questionnaire opposed the idea of mandatory licensing for e-scooter and e-bike riders.²⁴¹ The Insurance Council of Australia cited feedback from the consultation process for the South Australian Statutes Amendment (Personal Mobility Devices) Bill 2024, which seeks to legalise private e-scooters on public roads and footpaths. During this process, a significant majority (76 per cent) of respondents supported the continued exemption of e-scooter riders from licensing requirements.²⁴²
- 3.64** The North Cronulla Precinct Committee, however, pointed to Switzerland's regulatory framework as a potential model. In Switzerland, licensing requirements for e-bikes are tied to age and device speed. Riders aged 14 and 15 must obtain a category M licence (for motorcycles) to operate e-bikes, while riders aged 16 and older do not need a licence for slow e-bikes (pedal assistance up to 25 km/h). Fast e-bikes, with pedal assistance up to 45 km/h, require a licence for all riders, regardless of age.²⁴³
- 3.65** The committee questioned whether the absence of a licensing system for e-mobility devices contributes to recidivism, such as individuals riding while intoxicated, injuring themselves and continuing to ride without the consequences associated with losing a car licence. In response, Professor Narelle Haworth AM, Research Professor, Centre for Accident Research and Road Safety - Queensland, stated that while she was not aware of specific research addressing this directly, studies have explored alcohol use among e-scooter riders, including cases involving individuals who had already lost their car licences and transitioned to e-scooters. She also noted that some jurisdictions are considering whether offenses committed on e-scooters should be linked to car licences.²⁴⁴ Professor Haworth highlighted the United Kingdom as an example where car licences are used to address the absence of a specific licensing framework for e-mobility devices, such as e-scooters. Under this system, individuals who have lost their car licence would also be prohibited from using an e-scooter. However, she noted that the effectiveness of this approach is not yet clear.²⁴⁵

²³⁹ Submission 123, Name suppressed, p 1.

²⁴⁰ Submission 121, Sutherland Shire Council, p 3.

²⁴¹ Online questionnaire summary report, *Inquiry into use of e-scooters, e-bikes and related mobility options*, p 17.

²⁴² Submission 142, Insurance Council of Australia, p 2.

²⁴³ Submission 157, North Cronulla Precinct Committee, p 1.

²⁴⁴ Evidence, Professor Narelle Haworth AM, Research Professor, Centre for Accident Research and Road Safety – Queensland, 30 October 2024, p 36.

²⁴⁵ Evidence, Professor Haworth AM, 30 October 2024, p 36.

Registration or licensing of devices

- 3.66** The committee sought stakeholder views on whether a registration or licensing system for e-bikes and e-scooters, similar to other vehicles, could help enforce regulatory requirements.
- 3.67** Several stakeholders expressed concerns about the safety and accountability of e-mobility devices, particularly given the increasing prevalence of larger and more powerful models. Proposals put to the committee to address these issues included introducing licensing or registration systems, implementing vehicle identification measures and tailoring regulations to specific device types.
- 3.68** Dr Judy Hyde, Highgate Advocacy Representative, Highgate Owners Corporation Strata Plan 49822, told the committee that registration with visible identification, such as a number plate, could facilitate enforcement by enabling photos to be used for fines and accountability. She also emphasised that registration could ensure regular safety checks, similar to cars, to verify battery integrity and prevent the use of substandard replacements. Dr Hyde highlighted that while chargers often pose greater risks than batteries, a registration process could address both issues.²⁴⁶
- 3.69** Similarly, Ms Janet Oakley, Transport and Traffic Convenor, The Glebe Society, suggested that e-bikes be regulated like motorbikes, requiring registration, visible identification and a licence to operate them.²⁴⁷
- 3.70** Whereas Ms Marilyn Elaine Urch, President, North Cronulla Precinct Committee, argued that any registration or licensing efforts should focus on throttle-powered bikes rather than pedal-assisted e-bikes.²⁴⁸
- 3.71** The Law Society of Australia expressed concerns about the potential impact of licensing and registration requirements on demographics that heavily rely on e-scooters and e-bikes for mobility, including individuals from low socio-economic backgrounds and people with disability. They suggested that if licensing and registration were introduced, these requirements could just be applied to commercial operators. They argued that this approach would help preserve the health and mobility benefits associated with personal and recreational cycling.²⁴⁹
- 3.72** One submission author supported share-bike operator registration, noting that most operators already use unique codes on their bicycles, likely for operational reasons. This practice could significantly aid law enforcement by linking a specific bike to an offense, similar to how rental car companies redirect fines to renters. Share-bike companies could easily identify the rider responsible for offenses, such as riding on a prohibited footpath.²⁵⁰

²⁴⁶ Evidence, Dr Judy Hyde, Highgate Advocacy Representative for Highgate Owners Corporation Strata Plan 49822, 29 October 2024, p 52.

²⁴⁷ Evidence, Ms Janet Oakley, Transport and Traffic Convenor, The Glebe Society, 29 October 2024, pp 52-53.

²⁴⁸ Evidence, Ms Marilyn Elaine Urch, President, North Cronulla Precinct Committee, 29 October 2024, p 53.

²⁴⁹ Submission 133, The Law Society of NSW, p 2.

²⁵⁰ Submission 114, Mr Carl St Leon, p 18.

- 3.73** Similarly, DoorDash, a food delivery platform, argued for an exemption for e-bikes with appropriate speed and power limitations from registration, licensing and insurance requirements. They argued that such exemptions are essential for supporting businesses that rely on e-bikes, such as delivery services.²⁵¹
- 3.74** However, offering an alternative view, the Sutherland Shire Council proposed a low-cost registration system for e-bikes, coupled with an annual roadworthiness test. This test would assess critical safety aspects such as brakes and power output, helping to ensure that e-bikes meet minimum safety standards while maintaining affordability for users. The council also suggested leveraging the 'existing bicycle serial number as a unique identifier for registration'.²⁵²
- 3.75** Likewise, Local Government NSW and Bicycle NSW submitted to the committee that non-compliant e-bikes should be classed as motorbikes, requiring registration.²⁵³
- 3.76** The committee also received evidence suggesting that a conventional registration system may not be the most effective approach to ensuring the safety and well-being of both users and the public. Mr Peter Bourke, General Manager, Bicycle Industries Australia, highlighted that prior to 2021, all e-bikes imported into Australia required an import permit and proof of compliance with standards, creating a clear paper trail. He explained that this system was removed following updates to the *Road Vehicle Standards Act*, which eliminated specific vehicle categories. Mr Bourke added that currently, importers can pay \$49 for an advisory notice stating the device is 'not a motor vehicle', with no evidence of compliance required. Mr Bourke suggested that reinstating the previous system, rather than introducing registration, could enhance oversight.²⁵⁴
- 3.77** Mr Bourke stressed to the committee that registration systems for e-bikes have not been implemented anywhere globally, as they create barriers to mobility. He emphasised the importance of encouraging greater access to mobility devices without additional costs, such as registration fees. He also highlighted that the federal government already imposed a 5 per cent import tariff on e-bikes in 2018, increasing their cost. He argued that adding further barriers contradicts efforts to promote active mobility, reduce environmental impacts and improve public health. Mr Bourke noted that globally, registration systems have been consistently rejected for these reasons.²⁵⁵
- 3.78** Illawarra Ramblers Inc argued that low power power-assisted pedal cycles, which are currently legal, should not be subject to licensing and 'should continue to be treated as pedal cycles under New South Wales and Australian traffic laws'. They contended that introducing a licensing requirement for low-power pedal-assisted e-bikes would set a precedent, implying that all bicycles would also require a licence.²⁵⁶
- 3.79** When asked by the committee as to why registration on bicycles would not work, Dr Tom Watson, Group Member, Inner West Council Bicycle Working Group contended that:

²⁵¹ Submission 158, DoorDash, p 4.

²⁵² Submission 121, Sutherland Shire Council, p 3.

²⁵³ Submission 120, Local Government NSW, p 8.

²⁵⁴ Evidence, Mr Peter Bourke, General Manager, Bicycle Industries Australia, 31 October 2024, p 34.

²⁵⁵ Evidence, Mr Bourke, 31 October 2024, p 34.

²⁵⁶ Submission 172, Illawarra Ramblers Inc, p 4.

... any barriers that we put in place to prevent people from cycling or detract from cycling take-up will have worse safety outcomes, as that impresses car dependency even further. Cars are already registered and licensed and still kill 300 people a year, so anything that stops us from getting out of our cars will have a worse safety outcome.²⁵⁷

- 3.80** Supporting this perspective, Mr Sam Garrett-Jones, Member, Illawarra Ramblers Inc questioned the practicality of registering e-bikes, noting that such a proposal would logically lead to calls for registering regular pushbikes as well. He pointed out that the large number of bicycles already in use would create significant administrative challenges, making such a system difficult to implement effectively.²⁵⁸
- 3.81** Similarly, in his evidence to the committee, Mr Peter McLean, Chief Executive Officer, Bicycle NSW, noted that the NSW Government has examined the idea of registration schemes on multiple occasions. He referred to a government analysis report that concluded such schemes create significant barriers such as high administrative and operational costs, enforcement challenges and the financial burden on individuals amid rising cost-of-living pressures. He further stated that global evidence consistently shows behaviour change and education programs deliver far better outcomes than registration schemes.²⁵⁹
- 3.82** When asked about the NSW Government's stance on registration or licensing for bicycles, Ms Sally Webb, Deputy Secretary, Safety, Policy, Environment and Regulation, Transport for NSW, explained to the committee that the proposal had been reviewed during a 2015 cycling safety roundtable, which included broad sector representation. She advised that 'following a review of the evidence – the cost, the complexities – it was considered that registration outweighed any potential safety benefits.'²⁶⁰
- 3.83** Given this, Ms Webb went on to explain that licensing or registration is not currently under consideration by the government:
- As part of the work that we've done, we've been trying to explore how we can best enable and promote e-micromobility. We're very keen not to introduce red tape unless it's going to contribute to safety. There are no comparable jurisdictions across the world that require e-micromobility riders to hold a driver's licence and there are no jurisdictions in Australia that require that registration and licensing. We note that to do so would increase the administrative burden and costs for both riders and for government. That's why it's not proposed to introduce registration and licensing.²⁶¹
- 3.84** The potential need for registration as a prerequisite for insuring e-mobility devices, with particular regard to private e-mobility, is discussed in chapter 6.

²⁵⁷ Evidence, Dr Tom Watson, Group Member, Inner West Council Bicycle Working Group, 30 October 2024, p 11.

²⁵⁸ Evidence, Mr Sam Garrett-Jones, Member, Illawarra Ramblers Inc, 30 October 2024, p 9.

²⁵⁹ Evidence, Mr Peter McLean, Chief Executive Officer, Bicycle NSW, 31 October 2024, pp 30-31.

²⁶⁰ Evidence, Ms Sally Webb, Deputy Secretary, Safety, Policy, Environment and Regulation, Transport for NSW, 31 October 2024, p 45.

²⁶¹ Evidence, Ms Webb, 31 October 2024, p 44.

Power settings

3.85 Bicycle Industries Australia explained to the committee that Australian regulations for e-bikes have evolved from loosely defined rules to a unified national framework, but recent changes have created significant inconsistencies between federal and state regulations.

- Before 2012, Australian regulations for power-assisted cycles were loosely defined, with the key restriction in road legislation limiting motor power output to a maximum of 200 watts. During this time, throttle-only e-bikes were allowed throughout Australia. In May 2012, the federal Parliamentary Secretary for Transport introduced the Vehicle Standard (Australian Design Rule - Definitions and Vehicle Categories) 2005 Amendment 6. The regulation specified key requirements, including a maximum assisted speed of 25 km/h and a maximum continuous rated power of 250 watts (with a significant distinction between maximum and continuous power). Throttle-only power-assisted cycles with up to 200 watts of power remained permitted.
- To import an e-bike, Australian Border Force required confirmation from the Department of Infrastructure, Transport, Regional Development and Communications that the bike was classified as not being a road motor vehicle under the *Motor Vehicle Standards Act 1989*.
- Victoria became the first state to adopt the European standard EN15194 into road regulations in September 2012. Over the next five years, all states and territories adopted the modified Australian Design Rules (EN15194).
- In 2016, Standards Australia released AS 15194:2016, a modified adoption of the European standard EN15194:2009, which remains in use despite being 15 years old.
- By 2017, Australia imported around 9,000 power-assisted pedal cycles and power-assisted cycles, as there were negligible numbers of road-legal e-bikes manufactured domestically. By 2022, this figure had grown to nearly 200,000 units.
- The adoption of the national standard and the harmonisation of EN15194 across all states and territories provided a unified definition of power-assisted pedal cycles, streamlining the import, sale and use of e-bikes across Australia.
- However, recent developments have created inconsistencies. A 2021 update to the Motor Vehicle Standards (Road Vehicles) Amendment Determination (No. 1) 2021, without industry or state consultation, recognised two types of e-bikes permitted on road and road-related areas: power-assisted pedal cycles and electrically power-assisted cycles.
- Coinciding with these changes, in July 2021, the federal Department of Transport launched the ROVER online portal to manage vehicle imports under the Road Vehicle Standards legislation.²⁶² This system brought significant changes to e-bike import procedures.
- Previously, importing any electrically power-assisted cycle or power-assisted pedal cycles required a mandatory permit. Under ROVER, this requirement was replaced with an optional 'Advisory Notice' system. These notices were categorised under 'that a thing is not a road vehicle', despite e-bikes being classified as road vehicles under the Act.

²⁶² ROVER is the Department of Infrastructure, Transport, Regional Development, Communications and the Arts' online portal for applying and obtaining approval to import road vehicles into Australia.

- The new system's guidance stated that while importers do not need permission for non-road vehicles, they can obtain an advisory notice through ROVER for \$55. To get this notice, importers must provide manufacturer specifications and answer questions about their e-bikes.
- In March 2023, the NSW Minister for Metropolitan Roads introduced the Road Transport Legislation Amendment (electric skateboards and Bicycles) Regulation, allowing a continuous rated power limit of 500 watts for electrically power-assisted cycles. This created regulatory inconsistencies between New South Wales and the rest of Australia across multiple levels: import laws, sales regulations and road use rules.²⁶³

3.86 A recommendation was made by Mr Peter Bourke, General Manager, Bicycle Industries Australia to remove the 'power-assisted pedal cycle' category from New South Wales regulations, which defines e-bikes with a 200-watt maximum power limit requiring pedal assistance and no throttle. It was noted that the 200-watt rating refers to peak power, not continuous output, meaning such e-bikes typically operate at around 100 watts continuously. However, it was pointed out that very few, if any, road-legal bikes currently meet this definition, rendering the category effectively obsolete.²⁶⁴

3.87 Regarding the introduction of the Road Transport Legislation Amendment (electric skateboards and Bicycles) Regulation in 2023, which permitted the 500-watt continuous rated power limit, Mr Bourke, noted that the wattage increase was contrary to industry advice and has positioned New South Wales differently from other Australian jurisdictions regarding permitted road-legal e-bikes:

We were consulted as an industry in January 2021. We strongly advised against the transition because it created a grey area and it created a unique situation or a unique legislation in Australia. Obviously we've had that changed and no other State has followed.²⁶⁵

3.88 Bicycle Industries Australia also outlined the challenges caused by this inconsistency. Importers cannot legally declare 500-watt e-bikes as road-legal under federal rules, even though they are permitted for use in New South Wales. As a result, mainstream suppliers are discouraged from catering to New South Wales's unique requirements. This gap in supply has led to an influx of poor-quality, unsafe products into the market.²⁶⁶

3.89 Additionally, the confusion extends to interstate sales, as a 500-watt legal e-bike in New South Wales cannot be downgraded to 250 watts to meet road-use standards in other states, such as Victoria and Queensland. This further fragments the market and complicates compliance. The situation is compounded by tariff exemptions favouring cheaper imports, which have weakened oversight and regulatory clarity. The committee heard that enforcement agencies are also struggling to police conflicting regulations.²⁶⁷

²⁶³ Submission 151, Bicycle Industries Australia, p 6.

²⁶⁴ Evidence, Mr Bourke, 31 October 2024, p 35.

²⁶⁵ Evidence, Mr Bourke, 31 October 2024, p 35.

²⁶⁶ Submission 151, Bicycle Industries Australia, p 8.

²⁶⁷ Submission 193, BIKEast, p 6.

- 3.90** During evidence, Mr Harold Scruby, Chief Executive Officer, Pedestrian Council of Australia Ltd, highlighted a disconnect in the regulatory framework by referencing the sale of an electric scooter by an Australian e-bike business. The scooter, priced at \$5,350, boasted specifications including a top speed of 120 km/h, a range of 240 kilometres and a peak motor output of 5,000 watts.²⁶⁸
- 3.91** In response to a question from the committee, Transport for NSW confirmed that in November 2022, 'it provided advice to the then Minister for Active Transport regarding the potential to increase the maximum wattage of e-bikes in NSW from 250W to 500W'. The advice detailed the federal definition of electrically power-assisted cycles and recommended that the Minister request a review by the Australian Government. The Minister approved this request and further requested the change be implemented in New South Wales by early 2023.²⁶⁹
- 3.92** Transport for NSW also outlined that in December 2022 and January 2023, 'relevant Ministers approved regulatory changes to increase the maximum permissible continuous rated output' for electrically power-assisted cycles to 500 watts, while retaining other requirements such as the motor's progressive reduction and cut-off speed at 25 km/h. This increase was intended to enhance the utility of e-bikes for parents carrying children, riders with heavier loads and those navigating steep inclines or hilly areas.²⁷⁰
- 3.93** Furthermore, Transport for NSW noted that this adjustment could present challenges related to importation, enforcement and safety, as it diverged from the federal definition of electrically power-assisted cycles. To address these considerations, the agency conducted targeted consultations with key stakeholders, including relevant agencies and e-bike providers, in January 2023 while finalising the regulatory changes, which came into effect in February 2023.²⁷¹

Fat bikes

- 3.94** Designed with oversized tyres for off-road use, particularly on soft terrain like sand,²⁷² fat bikes are defined by their bulky frames and higher wattage capacity. As noted by submission authors, these bikes commonly feature powerful 1,500-watt (2 horsepower) motors, operate exclusively via throttle without requiring pedalling and lack speed restrictions, allowing them to reach speeds of 50 km/h or more.²⁷³ Weighing approximately 50 kg – far heavier than a standard bike (12 kg) or a compliant e-bike (25 kg) – these bikes are visibly non-compliant as their throttles remain unrestricted.²⁷⁴
- 3.95** Several stakeholders expressed concern about the rapid proliferation of these overpowered e-bikes. According to one submission, the Australian Department of Infrastructure, Transport, Regional Development, Communications and the Arts has stated that it 'only has the power to

²⁶⁸ Tabled document, E-Ozzie, *Advertisement for electric scooter Velox G5*, 31 October 2024, p 1.

²⁶⁹ Answers to questions on notice, Transport for NSW, 27 November 2024, p 3.

²⁷⁰ Answers to questions on notice, Transport for NSW, p 3.

²⁷¹ Answers to questions on notice, Transport for NSW, pp 3 – 4.

²⁷² Submission 84, Name suppressed, p 1.

²⁷³ Submission 64, Mr Ken Millar, p 1.

²⁷⁴ Submission 64, Mr Ken Millar, p 1; Submission 98, Name suppressed, p 2; Submission 179, Name suppressed, p 4.

regulate road vehicles' and does not classify overpowered e-bikes as road vehicles. As a result, the department claims it has no authority to oversee the importation of these e-bikes. This regulatory gap, according to the submission, has created an 'open slather' situation, enabling the import of any e-bike regardless of safety or compliance standards. In New South Wales, 'overpowered' refers to exceeding the legal 500-watt limit.²⁷⁵

- 3.96** Another inquiry participant referred to these bikes as 'unregistered motorcycles' or 'mopeds'. Citing advice from Transport for NSW, they explained that the continuous rated power refers specifically to the motor's technical specifications. If a motor's built-in capacity exceeds the 500-watt legal limit, the e-bike is illegal on New South Wales roads, footpaths and shared cycle paths – even if software, switches, or other mechanisms are used to restrict the power output. The submission author also revealed a concerning practice where some distributors market these e-bikes as legal when sold with restricted motors, but then provide buyers with unlock codes to access the motor's full power.²⁷⁶
- 3.97** Building on these concerns, Transport for NSW advised that it provides clear definitions for mopeds on its e-bikes webpage, distinguishing them from e-bikes. A moped is defined as a small motorcycle powered by either an internal combustion engine with a capacity not exceeding 50 ml or an electric motor. Mopeds can have two or three wheels, may be pedal-assisted and have a maximum speed of 50 km/h. To be legally used on New South Wales roads, mopeds must meet strict requirements, including registration on the Register of Approved Vehicles or an identification plate for older models, compliance with applicable vehicle standards and operation by a licensed rider.²⁷⁷
- 3.98** The distinction between e-mobility devices and motorcycles is critical, as highlighted by the Motorcycle Council of New South Wales. The Council expressed concern that powerful e-bikes and seated e-scooters are sometimes mistakenly classified as motorcycles by parts of the community. The council emphasised that for a vehicle to be legally considered a motorcycle, it must comply with the Australian Design Rules.²⁷⁸

Update to *Road Rules 2014*

- 3.99** The Committee for Sydney noted that Queensland recently updated its Road Rules to introduce stronger safety measures for cyclists and e-mobility device users. Similarly, the Australian Road Rules 14th Amendment Package recommended changes to improve protection for these road users. However, New South Wales has not yet adopted these recommendations. Consequently, the Committee for Sydney has called for significant amendments to various sections of the NSW Road Rules to enhance safety and better integrate e-mobility devices into the evolving transport system. These proposals are highlighted in Table 4.²⁷⁹

²⁷⁵ Submission 179, Name suppressed, p 2.

²⁷⁶ Submission 98, Name suppressed, p 3.

²⁷⁷ Transport for NSW, *E-bikes*, https://www.transport.nsw.gov.au/roadsafety/bicycle-riders/ebikes#Moped_laws_.

²⁷⁸ Submission 146, Motorcycle Council of NSW, p 4.

²⁷⁹ Submission 175, Committee for Sydney, pp 13-15.

Table 4 Road rules to change

Road rule number and description	What to append or remove	Why
<p>64 (Giving way at a flashing yellow traffic arrow at an intersection)</p> <p>65 (Giving way at a marked foot crossing (except at an intersection) with a flashing yellow traffic light)</p> <p>72 (Giving way at an intersection (except a T-intersection or roundabout))</p> <p>73 (Giving way at a T-intersection)</p> <p>74 (Giving way when entering a road from a road related area or adjacent land)</p> <p>75 (Giving way when entering a road related area or adjacent land from a road)</p> <p>80 (Stopping at a children's crossing)</p> <p>81 (Giving way at a pedestrian crossing)</p>	<p>Change road rules relating to give way to append 'any pedestrian' with 'or any rider of a bicycle or a personal mobility device'.</p>	<p>Essential for the safety of riders.</p>
129 (Keeping to the far left side of a road)	<p>Change road rule relating to keeping to the far left side of the road, to append '(2) this rule does not apply to the rider of a motor bike' with 'or bicycle or personal mobility device'.</p>	<p>Essential for the safety of riders.</p>
111 (Entering a roundabout from a multi-lane road or a road with 2 or more lines of traffic travelling in the same direction)	<p>Change road rule relating to entering a multi-lane roundabout by adding an exemption to subsections (2)(b), (3) and (5).</p>	<p>Essential for the safety of riders.</p>
148 (Giving way when moving from one marked lane or line of traffic to another marked lane or line of traffic)	<p>Change road rule relating to giving way when moving from one marked lane or line of traffic to another, to specifically include bike</p>	<p>Essential for the safety of riders.</p>

Road rule number and description	What to append or remove	Why
	lanes, so that it is clear drivers must give way to bicycles travelling in the bike lane they are entering.	
250-1 (NSW rule: children under 16 years not to ride on certain footpaths)	Remove road rule 'Minister can Gazette footpaths where cycling by children under 12 is prohibited'.	Essential for the safety of children. It would be unsafe to force children under 12 (such as 10 years old, or under) to cycle on the road. Transport for NSW says children under 10 are not allowed to cross the road without holding an adult's hand. Rule 252 already covers 'No bicycles' signs which have the same effect.
141 (No overtaking etc to the left of a vehicle)	Change road rule relating to passing on the left. Add new section (2)(A) '(3) A driver must not overtake a bicycle and turn left without five seconds of using the left indicator after making the pass'. This is consistent with road rule 46 which says that a driver must give a change of direction signal for long enough to give sufficient warning to other drivers and pedestrians and in 46(3) specifies 5 seconds.	Essential for safety. So, a driver about to turn left cannot pass a bicycle rider and immediately pull left.
247 (Riding in a bicycle lane on a road)	Remove road rule relating to riding in a bicycle lane.	To improve the safety of riders. The rule is impracticable and dangerous and misunderstood and misapplied even by police (they regularly apply it on a bicycle path, where it doesn't apply). It encourages riding in the door zone, the most dangerous part of the road.
48 (Giving a right change of direction signal)	Change road rule relating to giving a right change of direction signal. Append '(5) this rule does not apply to (a) the driver of a tram..., or (b) the rider of a	To improve the safety of riders. A steep downhill grade and/or uneven surface make it unsafe to take a hand off the handlebars and off the brake.

Road rule number and description	What to append or remove	Why
	bicycle making a hook turn' with 'or (c) the rider of a bicycle if the road conditions make it unsafe to indicate'.	
166 (Application of Part to bicycles)	Change road rule relating to application of [Parking] Part to bicycles to append 'This Part does not apply to a bicycle that is parked at a bicycle rail or in a bicycle rack' with 'or designated bike parking area'.	To facilitate on street bike share parking.
33 (3) (b) (turns into the left of the centre of the road the driver is entering, unless the driver is entering a one-way road)	Change road rule relating to making a right turn to append 'turns into the left of the centre of the road the driver is entering, unless the driver is entering a one-way road' with 'or unless the rider of a bicycle can safely make the turn into a bicycle path or shared path'.	To fix untenable anomaly. Currently you can only legally turn into a road, to the left of the centreline. But a rider may be turning into a nearside (right of centreline) bicycle path or shared path. Currently illegal to, for example, travel south on Kent Street cycleway and turn right into King Street cycleway, which is the design intent, or south on Belmont Street into Huntley Street cycleway.
254 (Bicycles being towed etc)	Change road rule relating to being towed to reflect the actual intent of the rule, by specifying 'motor' vehicle: '(1) A person must not ride on a bicycle that is being towed by another a motor vehicle' and (2) 'The rider of a bicycle must not hold onto a motor vehicle...'	To fix untenable anomaly. This is so that it is not illegal for a parent to tow/push their child on a bike or scooter.
All road rules in Part 15 (Additional rules for bicycle riders)	Append all road rules 'for bicycles' with 'and personal mobility devices'.	To fix anomaly. To include all personal mobility device options.
248(2) (The rider of a bicycle must not ride across a road, or part of a road, on a marked foot crossing, unless there are bicycle crossing	Change road rule to allow bicycle riders to cross a signalised crossing using the green pedestrian light if there are no bicycle crossing lights.	To save Transport for NSW money and time on the rollout of the bike network across Greater Sydney, especially for shared paths in areas of low walking

Road rule number and description	What to append or remove	Why
lights at the crossing showing a green bicycle crossing light)		and cycling.
256 (Bicycle helmets)	Change road rule so that bicycle helmets for adults are only compulsory on roads where the speed limit is 40 km/h or more, so that helmets are optional for adults on bike paths, shared paths and low speed roads. On a 2-year trial basis with a sunset clause.	<p>To reduce friction for cycling trips and build a healthier population. Cycling UK found that:</p> <ul style="list-style-type: none"> • Those who cycle regularly enjoy life expectancy two years above the average. • The government endorsed estimates that health benefits outweigh the risks of cycling on roads by a factor of 20:1. • Given the 20:1 ratio, telling people to wear helmets would result in a net increase in early deaths (due to physical inactivity etc.) if more than one person were deterred from cycling for every 20 who continue. even if helmets were 100 per cent effective at preventing all cycling injuries (i.e., not just head only injuries).

Enforcement

- 3.100** Throughout the inquiry, it became apparent that notwithstanding existing rules and regulations for e-mobility devices, enforcement remains the primary challenge. This section examines the current state of enforcement and analyses the key factors hindering effective implementation.

The enforcement challenge

- 3.101** Mr Eamon Waterford, Chief Executive Officer, Committee for Sydney, emphasised the importance of improving enforcement rather than introducing additional regulations, stating: 'What we [New South Wales] have there is not really a need, necessarily, for further regulation, but for better enforcement of the existing regulation'.²⁸⁰

²⁸⁰ Evidence, Mr Eamon Waterford, Chief Executive Officer, Committee for Sydney, 29 October 2024, p 26.

- 3.102** Similarly, Mr David Jones, Media and Policy Manager, Business Sydney, underscored the ineffectiveness of fines without enforcement, noting, '...you could triple or quadruple the fines, but if there's no enforcement of the regulations, it doesn't matter what the fine is. If there's no enforcement, it's irrelevant'.²⁸¹
- 3.103** The Pedestrian Council of Australia Ltd contested that helmet violations account for the majority of penalties issued, while other safety breaches often go unaddressed. The council advocated for treating illegal e-mobility devices as motor vehicle offences but identified critical barriers to enforcement, including the absence of specific violation codes and the inability to penalise young riders. Of particular concern to the Pedestrian Council of Australia Ltd is the widespread use of illegally modified high-speed e-bikes by food delivery riders, which persist with minimal oversight despite police having confiscation powers.²⁸²
- 3.104** The Australian College of Road Safety added to these concerns, highlighting the complexity of enforcing technical specifications such as weight, speed and wattage limits. They explained that proving such violations requires specialised equipment and inspections, which are resource-intensive and difficult to meet the legal standards of proof. To address this, the College recommended adopting more easily observable compliance criteria, such as identifying hand throttles on e-bikes, which can simplify enforcement for both law enforcement and judicial authorities. They further cautioned against over-reliance on enforcement, advocating for a system that integrates enforcement with broader compliance strategies.²⁸³
- 3.105** Beyond enforcement practicality, the College also highlighted the opportunity cost of redirecting police resources from critical areas like highway speed and alcohol enforcement to monitor e-bike and e-scooter compliance on footpaths and shared paths. They advocated for 'a system where enforcement is part of the solution, not the only solution'.²⁸⁴
- 3.106** Adding to the enforcement challenge, the growing popularity of e-mobility devices among children presents unique difficulties. Mr David Kelly, Acting Manager, Traffic and Public Domain Services, Sutherland Shire Council, noted:
- one of the struggles is from an enforcement point of view. Most of these children that are on the bikes can't be charged because they're too young anyway...they don't understand that they're illegal or they're not allowed where they're riding. The parents are unaware as well of what a legal e-bike is and what an illegal e-bike is, based on the terminology and the legislation that's currently in place.²⁸⁵
- 3.107** Several inquiry participants also raised the issue of the appropriateness of existing rules of regulate e-mobility devices.
- 3.108** Practical enforcement efforts were detailed by Ms Sally Webb, Deputy Secretary, Safety, Policy, Environment and Regulation, Transport for NSW who provided examples of NSW Police operations, including engagement with parents of 10 children riding e-scooters in Dubbo,

²⁸¹ Evidence, Mr David Jones, Media and Policy Manager, Business Sydney, 29 October 2024, p 26.

²⁸² Submission 1, Pedestrian Council of Australia Ltd, p 4.

²⁸³ Submission 137, Australian College of Road Safety, p 7.

²⁸⁴ Submission 137, Australian College of Road Safety, p 7.

²⁸⁵ Evidence, Mr David Kelly, Acting Manager of Traffic and Public Domain Services, Sutherland Shire Council, 29 October 2024, p 7.

targeted enforcement along Sydney's George Street light rail corridor resulting in 49 infringements and 36 cautions and a joint operation with Neuron in Wollongong that led to 22 cautions and 11 infringement notices after engaging with 40 users.²⁸⁶

- 3.109** In response to questions about infringement notices for the trial e-scooter sites, NSW Police stated that as of 3 December 2024, 48 infringement notices had been issued to shared e-scooter riders in designated trial sites.²⁸⁷

Enforcement responsibility

- 3.110** Addressing the question of enforcement responsibility, Mr Simon Mueller, Manager of Integrated Transport, Waverley Council, advocated for a collaborative approach between NSW Police and local councils. He noted that while the police already enforce road rules, matters concerning parking and public spaces are best handled in collaboration with councils.²⁸⁸
- 3.111** This collaborative approach was supported by Mr Sonny Suharto, Principal Professional Engineer, National Transport Research Organisation, who described a similar model implemented on the Gold Coast in Queensland. While his evidence specifically referred to skateboards, the model involved council rangers overseeing the use of devices in public spaces, with police handling enforcement issues such as speed limits. Mr Suharto noted, however, that speed enforcement posed significant challenges for police, raising questions about the applicability of such an approach to e-mobility devices like e-scooters and e-bikes.²⁸⁹
- 3.112** Councils primarily rely on the *Public Spaces (Unattended Property) Act* as their regulatory tool, which has limitations in addressing broader enforcement challenges. Recognising these constraints, Mr Simon Mueller, Waverley Council, emphasised the need for a strong foundational framework: '... a regulatory framework that is conducive to the other two is probably the very first one we want to get right because it paves the way for the other two things - the infrastructure and then the enforcement'.²⁹⁰

Compliance between shared and private e-mobility

- 3.113** Professor Narelle Haworth AM, Centre for Accident Research and Road Safety - Queensland, identified shared hire e-scooters as a 'game changer' in enforcement due to their built-in technological controls. She noted that 'they're actually the only type of vehicle where the technology can enforce the rules, thus taking away the need for the police to enforce the rules'. In contrast, she emphasised that enforcement of private devices, including e-scooters, 'is difficult and it's probably the last resort'.²⁹¹

²⁸⁶ Evidence, Ms Webb, 31 October 2024, pp 45-46.

²⁸⁷ Answers to questions on notice, NSW Police, 3 December 2024, p 1.

²⁸⁸ Evidence, Mr Simon Mueller, Manager of Integrated Transport at Waverley Council, 29 October 2024, p 35.

²⁸⁹ Evidence, Mr Sonny Suharto, Principal Professional Engineer, National Transport Research Organisation, 29 October 2024, p 40.

²⁹⁰ Evidence, Mr Mueller, 29 October 2024, p 34.

²⁹¹ Evidence, Professor Haworth AM, 30 October 2024, pp 33-34.

- 3.114** This fundamental difference between shared and private devices was echoed by Dr Richard Buning, University of Queensland who observed that while shared bikes can be technologically regulated for compliance, with private devices, 'it would be up to their own willingness to comply with the law'.²⁹²
- 3.115** Professor Haworth advocated for preventative measures, particularly at the point of import: 'With the private e-scooters, we need to minimise the enforcement problem by checking what comes into the country'. Drawing from Queensland's experience, she explained that while police enforcement primarily catches helmet violations, speeding remains prevalent despite numerous infringements being issued.²⁹³

Criticism of consultation around e-mobility policy development

- 3.116** During the inquiry, some participants expressed concerns about insufficient engagement with industry stakeholders and sector representatives, highlighting the need for broader and more inclusive consultation by governments at various levels during policy development and decision-making processes.
- 3.117** In reference to the NSW Government's announcement on 28 October 2024 – just one day before the first public hearing of this inquiry – regarding the introduction of the E-micromobility Action Plan aimed at legalising e-scooters and promoting safer use of other e-mobility devices,²⁹⁴ several participants noted that prior consultation appeared limited.²⁹⁵ For example, while shared bike providers were invited to workshops to discuss a 'holistic framework' [for e-mobility],²⁹⁶ another participant reported being asked to submit written feedback without being included in briefings.²⁹⁷ Several stakeholders stated they were not formally consulted at all.²⁹⁸
- 3.118** Concerns about the consultation process were echoed by the Pedestrian Council of Australia Ltd, which strongly criticised the engagement approach. Although invited to the Road Safety Advisory Committee, they stated the experience felt more like being 'advised' by the

²⁹² Evidence, Dr Buning, 31 October 2024, p 4.

²⁹³ Evidence, Professor Haworth AM, 30 October 2024, pp 33-34.

²⁹⁴ NSW Government, *E-scooters kick toward legalisation in NSW* (28 October 2024) <https://www.nsw.gov.au/media-releases/e-scooters-kick-toward-legalisation-nsw>.

²⁹⁵ Evidence, Mr Phillip Devon, Manager, Transport Network, Northern Beaches Council, 29 October 2024, p 4; Evidence, Mr Greg Holding, Team Leader, Traffic and Transport Services, Sutherland Shire Council, 29 October 2024, p 4.

²⁹⁶ Evidence, Mr Rossetto, 29 October 2024, p 22; Evidence, Mr Peters, 29 October 2024, p 14.

²⁹⁷ Evidence, Mr Stephen Coulter, Director, Zipidi, 29 October 2024, p 14.

²⁹⁸ Evidence, Mr David McTiernan, National Leader, Transport Safety, National Transport Research Organisation, 29 October 2024, p 43; Evidence, Dr Crozier, 30 October 2024, p 6; Evidence, Mr Harold Scruby, Chief Executive Office, Pedestrian Council of Australia Ltd, 30 October 2024, pp 17-18; Answer to question on notice, Insurance Council of Australia, 26 November 2024, pp 1-2; Evidence, Mr Concannon, 30 October 2024, p 44; Evidence, Hon. David Elliott, Chief Executive Officer, Institute of Public Works Engineering Australasia (NSW and ACT), 30 October 2024, p 48; Evidence, Mr David Reynolds, Chief Executive, Local Government NSW, 31 October 2024, p 23; Evidence, Mr Ed Morris, Chief Executive Officer, Physical Disability Council of NSW, 31 October 2024, p 16.

government rather than being genuinely consulted. They also noted that they were excluded from discussions between the release of the e-scooter advisory recommendations in 2020 and subsequent developments.²⁹⁹

- 3.119** In contrast, Transport for NSW emphasised its comprehensive and inclusive approach to consulting stakeholders on e-mobility. The agency highlighted its ongoing engagement since 2019 and its efforts leading up to the public hearings of this inquiry:

So far, in shaping our policies for e-micromobility and understanding the issues...[Transport for NSW] had two-way discussions, workshops and small group discussions and we've invited feedback through an online form and email. We've also thoroughly reviewed and assessed all the submissions made through this inquiry and we've been listening intently over the last couple of days.³⁰⁰

- 3.120** According to the NSW Government, these consultation efforts have guided key initiatives such as the Shared E-Scooter Trial Program, the development of the NSW E-micromobility Action Plan and the shaping of potential regulatory changes. Transport for NSW stated that this engagement has informed strategies for education, infrastructure development and other related areas and has involved consultations with representatives from at least 186 organisations, including:

- road user groups and organisations
- disability and vulnerable road user advocacy groups
- local government representatives, including councils from metropolitan and regional areas, Local Government NSW and the Office of Local Government
- business advocacy organisations
- active transport peak advocacy groups
- businesses providing shared e-scooters and shared e-bikes
- state government agencies, including members of the E-micromobility Interagency Group (and its predecessor, the E-scooter Oversight Group)
- targeted youth engagement with high schools on the Northern Beaches.³⁰¹

Committee comment

- 3.121** The committee has identified significant fragmentation in the regulation of e-mobility devices across Australian jurisdictions, resulting in inconsistent enforcement, oversight gaps and a lack of clarity for users. In New South Wales, the regulatory framework does not adequately address the unique challenges posed by privately owned and shared e-mobility devices. This lack of cohesion has created confusion for users, enforcement agencies and stakeholders, hindering the effective management of e-mobility.

²⁹⁹ Evidence, Mr Scruby, 30 October 2024, p 20.

³⁰⁰ Evidence, Ms Anna Bradley, Executive Director, Active Transport and Vibrancy, Transport for NSW, 31 October 2024, p 38.

³⁰¹ Tabled document, *E-micromobility engagement summary*, pp 1- 3.

- 3.122** A key concern is New South Wales' divergence from national standards, particularly regarding the maximum continuous rated power of electrically power-assisted cycles. While the Commonwealth Vehicle Standards (Australian Design Rules) specify a maximum continuous power output of 250 watts for electrically power-assisted cycles, New South Wales permits devices with 500-watt motors. This misalignment has created regulatory inconsistencies that undermine efforts to establish a cohesive national framework. These inconsistencies complicate operations for manufacturers and retailers, who must navigate differing requirements and for enforcement agencies tasked with ensuring compliance.
- 3.123** Evidence presented to the committee revealed that this regulatory divergence has led to the proliferation of non-compliant devices in the market, with retailers exploiting the gap between federal import standards and state regulations. This situation has created significant challenges for enforcement agencies and confusion among consumers about what constitutes a legal device.
- 3.124** The committee stresses the need to consider regulatory alignment with national standards to ensure consistent device specifications and safety requirements across jurisdictions. Therefore, the committee recommends that the NSW Government review its e-mobility device specifications against the national standards, including consideration of the maximum continuous rated power of electrically power-assisted cycles.

Recommendation 5

That the NSW Government review its e-mobility device specifications against the national standards, including consideration of the maximum continuous rated power of electrically power-assisted cycles.

- 3.125** The committee acknowledges the current *Road Rules 2014* predate the widespread use of e-mobility devices, resulting in regulations that fail to adequately address their unique characteristics, use environments and interactions with other road users. This has created inconsistencies with rules governing other transport modes, leading to confusion among users and enforcement agencies and ultimately undermining safety and compliance, as evidenced by submissions to the inquiry.
- 3.126** The rapid evolution of e-mobility technology has further blurred traditional distinctions between vehicle categories, underscoring the urgent need for a clear and consistent regulatory framework. Such a framework must effectively accommodate e-mobility devices while aligning with existing rules for other transport modes. Harmonising these rules is essential to promote a cohesive and equitable transport system for all road users.
- 3.127** The committee acknowledges that the Australian Road Rules 14th Amendment Package includes recommendations to update road rules with greater consideration for the safety of cyclists and e-mobility device users. However, these beneficial amendments have not yet been adopted in New South Wales. Stakeholder evidence highlights the urgent need to update the NSW Road Rules to improve safety and effectively integrate e-mobility devices and bicycles into the transport system. The committee views the detailed proposals outlined in Table 4 from the Committee for Sydney as a valuable starting point for reform. The committee recommends that the NSW Government update its *Road Rules 2014* by giving consideration to the Australian Road

Rules 14th Amendment Package, using the proposals in Table 4 as a foundation and commit to a clear timeframe for implementation to improve safety and better integrate e-mobility devices into the transport system.

Recommendation 6

That the NSW Government update its *Road Rules 2014* by giving consideration to the Australian Road Rules 14th Amendment Package, using the proposals put forward by the Committee for Sydney and commit to a clear timeframe for implementation to improve safety and better integrate e-mobility devices into the transport system.

- 3.128** The committee acknowledges that private e-mobility devices are inherently more difficult to regulate compared to shared devices. Shared devices benefit from built-in technological controls, such as geofencing, speed limiters and data tracking, which help providers to manage compliance and address safety concerns. In contrast, private devices vary widely in specifications, lack centralised oversight and are more prone to illegal modifications, posing significant challenges for enforcement.
- 3.129** The committee supports regulating the use of private e-scooters and the government's draft e-scooter rules; however, it recommends some changes. The committee emphasises the importance of carefully evaluating the potential implications and ensuring public safety, minimising enforcement burdens and maintaining consistency with shared device regulations are key priorities. The committee recommends that the NSW Government regulate the use of private e-scooters in New South Wales in close consultation with local councils, enforcement agencies, industry representatives and community groups.

Recommendation 7

That the NSW Government regulate the use of private e-scooters in New South Wales in close consultation with local councils, enforcement agencies, industry representatives and community groups.

- 3.130** The committee also recommends that the NSW Government amend its draft e-scooter rules to allow riding on footpaths and shared paths, unless otherwise stated, at a maximum speed of 15 km/h, with riders having to give way to pedestrians at all times.

Recommendation 8

That the NSW Government amend its draft e-scooter rules to allow riding on footpaths and shared paths, unless otherwise stated, at a maximum speed of 15 km/h, with riders having to give way to pedestrians at all times.

- 3.131** The committee has identified significant challenges in the enforcement of e-mobility regulations. Evidence from multiple stakeholders highlighted that current enforcement mechanisms are inadequate, with particular difficulties in verifying technical specifications of devices, addressing dangerous riding behaviour and managing devices that do not meet legal requirements.

Finding 1

The proliferation of 'fat bikes' and associated rider behaviour is raising serious safety concerns for pedestrians in several New South Wales local government areas. The committee notes the current ambiguity surrounding these bikes, including a lack of a clear definition and uncertainty regarding their permissibility, which hinders effective regulation and enforcement.

- 3.132** The committee notes that while substantial penalties exist for violations, enforcement faces practical challenges that limit its effectiveness.
- 3.133** The committee recognises that effective enforcement requires both adequate resources and comprehensive public understanding of regulations. The technical nature of e-mobility devices, combined with rapidly evolving technology, creates particular challenges for compliance verification. This underscores the need for a multi-faceted approach to enforcement.
- 3.134** Beyond on-road enforcement, a coordinated approach between relevant agencies is essential for managing e-mobility device use across diverse settings. Clear protocols, defined responsibilities and established communication channels are needed to support this interagency coordination.
- 3.135** Therefore, the committee recommends that the NSW Government:
- establish clear protocols for identifying and managing non-compliant e-mobility devices, including granting enforcement authorities the power to seize devices when necessary
 - develop clear and consistent procedures for identifying and addressing unsafe riding behaviours on roads and shared paths, ensuring the safety of all users through effective enforcement and rider accountability
 - review fines for e-mobility offences to ensure they are proportionate to the risk posed and effectively promote safer riding behaviours
 - create an accessible public reporting system that allows the public to report non-compliant devices and unsafe riding practices, enabling timely investigation and intervention
 - implement regular training programs for enforcement personnel on e-mobility device specifications and regulations to ensure consistent and effective compliance monitoring.

Recommendation 9

That the NSW Government:

- establish clear protocols for identifying and managing non-compliant e-mobility devices, including granting enforcement authorities the power to seize devices when necessary
 - develop clear and consistent procedures for identifying and addressing unsafe riding behaviours on roads and shared paths, ensuring the safety of all users through effective enforcement and rider accountability
 - review fines for e-mobility offences to ensure they are proportionate to the risk posed and effectively promote safer riding behaviours
 - create an accessible public reporting system that allows the public to report non-compliant devices and unsafe riding practices, enabling timely investigation and intervention
 - implement regular training programs for enforcement personnel on e-mobility device specifications and regulations to ensure consistent and effective compliance monitoring.
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- 3.136** Regarding rider safety, the committee acknowledges the importance of helmet use. However, mandating helmets for shared e-mobility schemes presents practical challenges, particularly regarding availability and hygiene. Furthermore, the committee received insufficient evidence to assess the impact of such a requirement on service uptake and notes that many comparable international jurisdictions do not require helmet use for e-bikes or e-scooters. Therefore, the committee makes no recommendation regarding mandatory helmet use for shared e-mobility schemes at this time.
- 3.137** The committee acknowledges the complexities involved in registering and identifying e-mobility devices. While some stakeholders supported comprehensive registration systems similar to those for motor vehicles, we find that applying such a system to both private and shared e-mobility devices would be impractical and counterproductive. Shared e-mobility schemes offer more effective mechanisms for identifying devices and riders, but the same level of oversight is not feasible for private devices. It is also noted that no such registration requirement exists for conventional bicycles.
- 3.138** Evidence presented to the committee highlighted significant enforcement challenges, particularly in identifying non-compliant or illegally modified devices. However, the committee finds that implementing a bureaucratic registration system could create barriers to adoption and limit accessibility of e-mobility devices, especially for low-income users.
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Finding 2

That implementing a bureaucratic registration system could create barriers to adoption and limit accessibility of e-mobility devices, especially for low-income users.

Chapter 4 Battery safety

This chapter investigates the risks posed by lithium-ion batteries in e-mobility devices. It explores these risks across the battery lifecycle, from use to disposal and recycling. A key focus is the challenge of responding to lithium-ion battery fires and the chapter assesses regulatory and other strategies for mitigating these risks.

- 4.1** The safety of lithium-ion batteries in e-mobility devices emerged as a central concern throughout the inquiry, with numerous inquiry participants highlighting significant fire risks. This section examines these safety hazards, reviews current battery management practices and explores proposed measures to enhance safety, recycling and sustainable battery stewardship.

Fire risk of lithium-ion batteries

- 4.2** Mr Jeremy Fewtrell, AFSM, Commissioner, Fire and Rescue NSW, Australasian Fire and Emergency Service Authorities Council, provided evidence to the committee of the dangers associated with lithium-ion batteries.

- Fire and Rescue NSW responded to 240 lithium-ion battery incidents between January and October 2024, with 71 incidents specifically involving e-mobility devices.
- These emergencies forced 721 people to evacuate their premises, of which 326 evacuations were directly caused by e-mobility device fires.
- Among these incidents, 22 people were injured in lithium-ion battery-related fires, with 10 injuries directly linked to e-mobility devices.
- Fires involving e-mobility devices resulted in two fatalities.
- Lithium-ion battery fires pose a significantly higher injury risk than other fire types, with 11.4 persons injured per 100 incidents compared to 2.8 persons per 100 incidents for other fires.³⁰²

- 4.3** Mr Fewtrell also spoke of a dramatic 66 per cent year-on-year increase in lithium-ion battery incidents. Analysing incidents between 2002 and 2023, he noted, '72 per cent of e-micromobility incidents occurred in a residential or accommodation setting, 8 per cent occurred in a commercial setting and 12 per cent occurred on a public roadway or open space'.³⁰³

- 4.4** In their submission, the Australasian Fire and Emergency Service Authorities Council outlined how lithium-ion battery failures pose serious challenges for emergency responders. A major risk is thermal runaway, 'an exothermic chemical reaction involving intense, uncontrollable heating, often followed by the violent release of highly toxic, corrosive, flammable and potentially explosive vapours and intense, directional, jet-like flames'. This dangerous reaction can be triggered by various factors, including electrical issues like overcharging or using incompatible

³⁰² Evidence, Mr Jeremy Fewtrell, AFSM, Commissioner, Fire and Rescue NSW, Australasian Fire and Emergency Service Authorities Council, 31 October 2024, p 10.

³⁰³ Evidence, Mr Fewtrell, 31 October 2024, p 10.

chargers, physical damage such as impacts or crushing in a crash, exposure to external heat or fire, or internal defects within the battery.³⁰⁴

- 4.5 Building on these inherent risks, Mr Fewtrell explained that lithium-ion battery fires are particularly challenging for firefighters due to their rapid development and intense heat generation. For example, these fires can quickly compromise evacuation routes, often necessitating rescue operations and their aggressive spread makes containment to the room of origin especially difficult.³⁰⁵ He added that these batteries tend to reignite, requiring specific tactics such as complete water immersion for extinguishment. Firefighters must also contend with the risk of individual battery cells exploding and scattering during the fire, creating multiple points of danger.³⁰⁶
- 4.6 In terms of the costs imposed on Fire and Rescue NSW in responding to these fires, particularly on personal protective clothing, Mr Fewtrell stated that the organisation was looking 'at the nature of the contamination that comes out of these batteries and what decontamination and cleaning is required and what's the impact on a life cycle of our protective clothing'. This was in addition to general clean-up of 'some very nasty chemicals that come out of those batteries' with Mr Fewtrell noting the importance of 'occupants and building owners properly cleaning and decontaminating the buildings before they're reoccupied'.³⁰⁷
- 4.7 Mr Fewtrell emphasised the inherent risks of the technology itself, stating that 'there is an inherent issue with the chemistry of a lithium-ion battery that it is prone to combustion', regardless of usage patterns. While he acknowledged that risk mitigation is possible through 'choosing reputable brands and good quality products', he stressed that the risk can never be completely eliminated.³⁰⁸
- 4.8 Significant safety concerns about e-mobility devices have emerged due to market pressures compromising product quality. Mr Guido Verbist, General Manager of Revolve ReCYCLING, told the committee of 'alarming evidence that the usage, collection, storing and recycling of e-bike batteries is dominated by irresponsible and unsafe practice'. He directly linked the rise in lithium-ion battery fires to competitive pressures, explaining that 'the battle for market share pushes the manufacturers to introduce substandard quality e-bikes and batteries specifically'.³⁰⁹
- 4.9 Bicycle NSW's evidence reinforced these concerns about manufacturing quality with the organisation advising that:

low-quality lithium-ion batteries may contain defects, inadequate safety provisioning and contamination during manufacture. This can lead to short circuiting, battery cell malfunctions or system faults'. Overcharging or use of non-complaint charging equipment creates additional risks.³¹⁰

³⁰⁴ Submission 140, Australasian Fire and Emergency Service Authorities Council (AFAC), p 7.

³⁰⁵ Evidence, Mr Fewtrell, 31 October 2024, p 11.

³⁰⁶ Evidence, Mr Fewtrell, 31 October 2024, pp 11-12.

³⁰⁷ Evidence, Mr Fewtrell, 31 October 2024, p12.

³⁰⁸ Evidence, Mr Fewtrell, 31 October 2024, p 11.

³⁰⁹ Evidence, Mr Guido Verbist, General Manager of Revolve ReCYCLING, 31 October 2024, p 9.

³¹⁰ Submission 159, Bicycle NSW, p 9.

Battery safety in multi-unit dwellings

- 4.10** In their submission, the Australasian Fire and Emergency Service Authorities Council acknowledged that many residential buildings lack dedicated spaces to safely store and charge e-mobility devices, that are well-ventilated and, separate from living spaces and evacuation routes. As a result, many residents must charge their devices within their apartments, where 'devastating fires have occurred'. They also noted that this creates a particular dilemma for mobility-impaired users who require ready access to their devices but have limited options for safe charging locations.³¹¹
- 4.11** Inquiry participants further observed that safety is also compromised when residents resort to storing and charging e-mobility devices in corridors and fire exit paths.³¹² This practice creates serious risks during emergencies, as a battery fire in these critical evacuation routes could trap residents through both toxic fumes and physical obstruction of escape paths.³¹³
- 4.12** The Owners Corporation Network of Australia (OCN), representing residential strata owners and residents, highlighted challenges in safely storing e-mobility devices:
- absence of established standards for battery storage boxes and fire-safe solutions
 - lack of storage facilities for devices in medium to large buildings, similar to bicycle storage
 - lack of clear design guidelines for safe charging infrastructure, including dedicated storage and charging rooms.³¹⁴
- 4.13** However, OCN cautioned against disproportionate responses to these safety concerns, stating that 'sensationalist media and advised opinion is overstating the fire risk of lithium-ion batteries'. They maintain that the danger lies not in the batteries themselves but in their misuse.³¹⁵ OCN argued some strata committees have implemented blanket bans on e-mobility devices and electric vehicle charging based on personal biases rather than evidence.³¹⁶ Mr Fred Tuckwell, Chair, OCN told the committee that 'Fire and Rescue NSW data shows that battery fires are far less frequent than other fires. In 2023 there were 4,500 household fires from about 3.5 million households and just 285 lithium-ion battery fires from about 35 million devices, which is a very conservative estimate'.³¹⁷

Managing battery safety risks effectively

- 4.14** In its submission, the NSW Government acknowledged the risks associated with lithium-ion batteries in e-mobility devices and outlined the following areas that require consideration:
- device standards for import, sale and use
 - the storage and charging of devices in occupied buildings

³¹¹ Submission 140, Australasian Fire and Emergency Service Authorities Council, p 9.

³¹² Submission 183, Owners Corporation Network of Australia Ltd, p 5.

³¹³ Submission 178, Name suppressed, p 5.

³¹⁴ Submission 183, Owners Corporation Network of Australia Ltd, p 5.

³¹⁵ Evidence, Mr Fred Tuckwell, Chair, Owners Corporation Network of Australia, 31 October 2024, p 8.

³¹⁶ Submission 183, Owners Corporation Network of Australia Ltd, pp 3 – 7.

³¹⁷ Evidence, Mr Tuckwell, 31 October 2024, p 8.

- bulk storage of lithium-ion batteries and devices
- whether planning controls and building standards are required
- the carriage of e-micromobility devices on public transport
- the selling of aftermarket and second-life batteries and faulty devices online
- the disposal of e-micromobility devices and batteries
- training and education of consumers, employers and retailers and industries
- relevant to e-micromobility to support risk mitigation
- provision of appropriate education, training and equipment to Fire and Rescue NSW and the NSW Rural Fire Service to support emergency response.³¹⁸

- 4.15** Both Bicycle NSW and NRMA called for a national regulatory framework that would ensure 'battery product standards, testing protocols and certification requirements',³¹⁹ as well as 'clear requirements for ... labelling, transportation, storage, recycling and disposal'.³²⁰
- 4.16** Bicycle NSW also stressed that evidence-based policies, informed by accurate fire incident data, are crucial to avoid unintended consequences affecting accessibility, equity and tourism.³²¹
- 4.17** Bicycle Industries Australia echoed this call for evidence-based planning, highlighting the current lack of comprehensive data. They recommended collecting detailed information about lithium-ion battery fires, including:
- the frequency of incidents
 - the type of vehicle involved (e-bike, scooter, or hoverboard)
 - the condition and history of the battery, system and charger
 - the brand of the system
 - any modifications made
 - the vehicle's road-legal status
 - other factors contributing to overheating.³²²
- 4.18** While the Australian bicycle industry has developed safety guidelines for battery handling, storage, transport and recycling according to BIKEast, damaged and end-of-life batteries pose ongoing challenges. Many retailers refuse to collect these batteries, leading to unsafe disposal in general waste.³²³
- 4.19** To mitigate these risks, BIKEast advocated for government support of local battery collection initiatives and the establishment of an Australia-wide agency to monitor lithium-ion battery incidents, including fire causes, modifications and compliance issues.³²⁴

³¹⁸ Submission 153, NSW Government, pp 13-14.

³¹⁹ Submission 155, NRMA, p 3.

³²⁰ Submission 159, Bicycle NSW, p 9.

³²¹ Submission 159, Bicycle NSW, p 9.

³²² Submission 151, Bicycle Industries Australia, pp 15 and 29.

³²³ Submission 193, BIKEast, p 4.

³²⁴ Submission 193, BIKEast, p 4.

- 4.20** Progress toward these goals has begun, with the NSW Government reporting that Environment Ministers across Australia agreed on 21 June 2024 to expedite product stewardship arrangements for all batteries, aiming to minimise health, safety and environmental impacts throughout a product's lifecycle.³²⁵ Legislation for mandatory battery product stewardship will be introduced in 2025.³²⁶
- 4.21** In addition, the NSW Government advised of a collaborative effort led by New South Wales, Victoria and Queensland to produce a draft Regulatory Impact Statement that proposes reforms to improve the design, packaging, import, storage and disposal of all batteries, including those used in e-mobility devices. Expected in 2025, these reforms will focus on preventing batteries from entering kerbside bins, waste trucks, resource recovery facilities and landfills to ensure safe disposal. These measures aim to support an effective product stewardship framework.³²⁷
- 4.22** Stakeholders proposed a range of solutions to address these emerging challenges in New South Wales. Their recommendations encompassed regulatory reforms, technical standards development, infrastructure improvements, safety education programs and battery stewardship initiatives, which are examined in the following sections.

Regulatory approaches

- 4.23** Bicycle NSW advocated for Australia to adopt the EU Battery Regulation 2023/1542, considered the global 'gold standard'. This comprehensive framework establishes requirements for safety, carbon footprint measurement, labelling and recycling, with the 'extensive and detailed requirements' increasing every year to 2030. Bicycle NSW argued that its adoption would help prevent Australia from becoming a 'dumping ground' for substandard products.³²⁸
- 4.24** In contrast, the Inner West Council Bicycle Working Group cautioned against over-regulation, arguing that existing state regulations for consumer lithium-ion batteries are sufficient. They warned that imposing stricter requirements specifically on e-mobility device batteries could create unnecessary barriers to transport mode switch and potentially compromise safety outcomes.³²⁹
- 4.25** Meanwhile, OCN welcomed NSW Fair Trading's new safety standards for lithium-ion batteries commencing February 2025, but did identify some crucial regulatory gaps, such as the lack of regulations addressing 'do-it-yourself' modifications. To address this, OCN recommended new

³²⁵ Submission 153, NSW Government, p 16.

³²⁶ Media release, Hon Penny Sharpe MLC, Minister for Environment and Heritage, 'NSW leads the charge of mandatory battery safety', 10 December 2024, <https://www.nsw.gov.au/ministerial-releases/nsw-leads-charge-on-mandatory-battery-safety#:~:text=The%20NSW%20Government%20will%20take,product%20stewardship%20of%20their%20products.>

³²⁷ Submission 153, NSW Government, p 16; Media release, Hon Penny Sharpe MLC, Minister for Environment and Heritage, 'NSW leads the charge of mandatory battery safety', 10 December 2024, <https://www.nsw.gov.au/ministerial-releases/nsw-leads-charge-on-mandatory-battery-safety#:~:text=The%20NSW%20Government%20will%20take,product%20stewardship%20of%20their%20products.>

³²⁸ Submission 159, Bicycle NSW, p 9.

³²⁹ Submission 171, Inner West Council Bicycle Working Group, p 4.

regulations to prohibit unauthorised alterations to motors, batteries and chargers, with penalties for modifications that result in fires or damage. Despite potential enforcement challenges, OCN stressed that such targeted regulations would both deter unsafe practices and strengthen broader fire safety education initiatives.³³⁰

4.26 The Australasian Fire and Emergency Service Authorities Council also identified several priority areas requiring regulatory attention:

- legislative controls over bulk battery storage, noting the absence of adequate hazardous materials regulations for storage facilities and maintenance sites
- carrying devices in confined spaces like buses and trains, citing incidents such as the 2021 Parsons Green e-scooter fire in London
- stricter oversight of aftermarket and second-life batteries, suggesting Australia adopt New York City's approach of banning reconditioned batteries and implementing tighter controls on online sales.³³¹

Technical standards and infrastructure

4.27 To enhance safety and convenience, Bicycle NSW recommended standardising e-bike charging plugs. Drawing from the successful adoption of standard EV plugs in Australia since May 2019, this standardisation would ensure proper regulation of battery parameters and reduce risks from mismatched products.³³²

4.28 Taking inspiration from New York City, Bicycle NSW also proposed installing public 'e-bike battery swapping and charging cabinets on sidewalks' to support safe charging infrastructure.³³³ This infrastructure would particularly benefit food delivery riders, who often face charging challenges during their shifts. Bicycle Industries Australia noted that without access to charging facilities, these riders may feel 'forced to purchase a second battery which is often of 'inferior' quality' to maintain continuous operation. They contended that a centralised network of safe charging and battery-swapping stations would help ensure riders can access quality batteries throughout their workday.³³⁴

Education and safety guidance

4.29 Bicycle NSW emphasised the need for comprehensive, government-backed safety guidance targeting all stakeholders - from consumers, manufacturers, retailers, repairers, fleet businesses to emergency services. This should cover safe selection, use, storage and disposal of batteries, along with practical risk mitigation strategies.³³⁵ Proposed initiatives include school programs,

³³⁰ Submission 183, Owners Corporation Network of Australia Ltd, pp 6-7.

³³¹ Submission 140, Australasian Fire and Emergency Service Authorities Council (AFAC), pp 9 – 10.

³³² Submission 159, Bicycle NSW, p 11.

³³³ Submission 159, Bicycle NSW, p 14.

³³⁴ Submission 151, Bicycle Industries Australia, p 22.

³³⁵ Submission 159, Bicycle NSW, p 14.

multilingual infographics and strata committee information campaigns, potentially modelled on successful public health messages like Slip, Slop, Slap.³³⁶

End-of-life battery management

- 4.30** The Australian Council of Recycling (ACOR), the peak body for resource recovery and recycling, identified that the 'scale of the batteries in the community' presents significant safety risks, especially at their end-of-life. These batteries, whether loose or embedded, constitute major hazards in both kerbside and commercial waste streams.³³⁷
- 4.31** Research by ACOR and the Waste Contractors and Recyclers Association revealed the scale of this problem, documenting 'between 10,000 and 12,000 fires and heat events a year across Australia's waste and recycling system'.³³⁸ Similarly, the Australasian Fire and Emergency Service Authorities Council referred to a March 2024 incident in Silverwater, NSW, where over 150 improperly discarded e-bike batteries ignited a waste truck fire.³³⁹
- 4.32** ACOR observed that the safe disposal of e-bikes is complicated by many used e-bikes being in poor condition with unsafe modifications and collection infrastructure remains limited to only 15 of approximately 200 New South Wales bike shops.³⁴⁰
- 4.33** Furthermore, the Australasian Fire and Emergency Service Authorities Council, noted that e-mobility batteries fall outside accredited stewardship schemes like B-cycle,³⁴¹ — a national Australian Government-backed scheme, run by the Battery Stewardship Council, that facilitates safe and accessible battery recycling,³⁴² — which ACOR reported is collecting just 14 per cent of eligible batteries due to inadequate infrastructure and incentives.³⁴³
- 4.34** The financial barriers to effective battery recycling were emphasised by Mr Guido Verbist, Revolve ReCYCLING who highlighted these challenges, stating

Most manufacturers ... refuse to contribute to a recycling scheme, let alone invest in reusable batteries. B-cycle ... is not equipped to collect the volume of e-bikes and definitely not the heavy, above-five-kilo batteries nor those that are non-removable from the bikes. The price of private companies ... which charge to collect batteries, is very high and beyond what bike shops and bike owners want to pay.³⁴⁴

³³⁶ Submission 159, Bicycle NSW, p 14.

³³⁷ Evidence, Ms Aziza Kuypers, Policy Adviser, Australian Council of Recycling, 31 October 2024, pp 8 and 13.

³³⁸ Submission 131, Australian Council of Recycling, pp 1-2.

³³⁹ Submission 140, Australasian Fire and Emergency Service Authorities Council, p 11.

³⁴⁰ Submission 131, Australian Council of Recycling, pp 1-2.

³⁴¹ Submission 140, Australasian Fire and Emergency Service Authorities Council (AFAC), pp 10-11.

³⁴² B-cycle battery recycling, *About B-cycle*, <https://bcycle.com.au/about/>

³⁴³ Submission 131, Australian Council of Recycling, p2.

³⁴⁴ Evidence, Mr Verbist, 31 October 2024, p 9.

- 4.35** Mr Verbist added that 'the cost to do it [battery recycling] in a safe and responsible way makes it a very expensive exercise and therefore it's not easy to turn that into a financially sustainable model'.³⁴⁵
- 4.36** ACOR proposed several solutions to address these challenges, including:
- expanding infrastructure to enable more bike shops, particularly in regional areas, to safely collect used batteries
 - introducing extended producer responsibility regulations that would require manufacturers and brand owners to fully fund the collection, reuse and recycling of e-mobility batteries, including those sold online
 - implementing a deposit scheme similar to container deposit systems, where consumers would receive a refund for returning batteries
 - making improvements to the B-cycle program, including developing a detailed delivery plan with targeted collection rates and enhanced infrastructure in consultation with waste and recycling sectors.³⁴⁶
- 4.37** As Ms Aziza Kuypers, Policy Adviser, ACOR explained to the committee, 'the costs of collecting, transporting and processing e-mobility batteries are significant. Product stewardships arrangements often lack incentives for consumers to return items to away-from-home collection points that often result in poor recovery rates'.³⁴⁷

Committee comment

- 4.38** The committee is concerned by the increasing number of lithium-ion battery incidents reported by Fire and Rescue NSW. These fires, which pose significantly greater risks of injury compared to other types of fires, have resulted in multiple injuries and evacuations, underscoring the urgent need for stronger safety measures.
- 4.39** Battery safety challenges affect a wide range of environments, including residential buildings, commercial spaces, public transport and waste management facilities. Evidence presented to the inquiry revealed critical gaps in battery storage standards and fire-safe solutions across these settings, highlighting the pressing need for targeted improvements.
- 4.40** The committee recognises that current safety protocols and standards are insufficient to address the growing adoption of e-mobility devices. The lack of designated charging and storage facilities has led to unsafe practices, such as charging in evacuation routes, which significantly compromise safety in both residential and commercial buildings.
- 4.41** Evidence to the committee confirmed that while proper practices and high-quality products can mitigate lithium-ion battery risks, their chemical properties mean some inherent danger persists. This reinforces the need for comprehensive safety measures that address battery risks throughout their lifecycle, from manufacture to disposal.

³⁴⁵ Evidence, Mr Verbist, 31 October 2024, p 13.

³⁴⁶ Submission 131, Australian Council of Recycling, pp 1-2.

³⁴⁷ Evidence, Ms Kuypers, 31 October 2024, p 9.

- 4.42** The committee notes that NSW Fair Trading's designation of e-mobility devices, batteries and chargers as declared electrical articles under the *Gas and Electricity (Consumer Safety) Act 2017*, with updated standards effective from February 2025, is a positive step forward. However, additional measures, such as robust enforcement and industry collaboration, are essential to ensure compliance and maximise the impact of these regulations.
- 4.43** The committee is particularly concerned about the inadequate end-of-life management of e-mobility devices and batteries. Current product stewardship arrangements fail to meet the demands of a rapidly growing sector, particularly in regional areas, where a lack of collection infrastructure creates significant barriers to safe disposal and recycling. Many retailers refuse to accept used batteries, leading to unsafe disposal in general waste, further exacerbating the risks.
- 4.44** The committee notes the draft Regulatory Impact Statement, which seeks to improve battery design, packaging, import, storage and disposal as part of broader product stewardship efforts. These reforms have the potential to strengthen battery management across Australia. However, the committee stresses the need for practical and targeted measures to ensure these initiatives result in safe, effective and accessible recycling pathways, particularly in underserved regions.
- 4.45** Given this, the committee recommends that the NSW Government:
- establishes safety standards and protocols for the use, storage and charging of e-mobility device batteries across all relevant settings
 - develops emergency response protocols for managing battery-related incidents in various environments
 - implements education campaigns to inform the public about safe battery usage, storage and disposal practices.

Recommendation 10

That the NSW Government:

- establish safety standards and protocols for the use, storage and charging of e-mobility device batteries across all relevant settings
 - develop emergency response protocols for managing battery-related incidents in various environments
 - implement education campaigns to inform the public about safe battery usage, storage and disposal practices.
-

- 4.46** The committee is concerned that the current system for recycling e-bike batteries lacks sufficient financial backing, leading to low participation from resellers and consumers. B-cycle, Australia's national battery stewardship scheme, is currently ill-equipped to handle the volume and complexity of heavy e-mobility batteries, particularly non-removable ones. Stakeholders have highlighted that manufacturers are reluctant to contribute to recycling efforts and private battery collection services are too expensive for many small businesses. Without intervention, these financial barriers will continue to limit recycling rates, posing long-term environmental and safety risks. Therefore, the committee recommends that the NSW Government:

- implement extended producer responsibility regulations, requiring manufacturers and retailers to fully fund battery collection, recycling and reuse programs
- introduce a deposit-refund scheme for e-mobility batteries, incentivising consumers to return used batteries for safe recycling
- strengthen the B-cycle stewardship program by setting specific collection and recycling targets, enhancing infrastructure and collaborating with industry stakeholders to improve battery recovery rates
- provide government subsidies or tax incentives to support businesses and local governments in covering the costs of battery collection and recycling
- promote innovation in reusable and recyclable battery design through grants and research and development incentives to reduce the financial burden of disposal.

Recommendation 11

That the NSW Government:

- implement extended producer responsibility regulations, requiring manufacturers and retailers to fully fund battery collection, recycling and reuse programs
 - introduce a deposit-refund scheme for e-mobility batteries, incentivising consumers to return used batteries for safe recycling
 - strengthen the B-cycle stewardship program by setting specific collection and recycling targets, enhancing infrastructure and collaborating with industry stakeholders to improve battery recovery rates
 - provide government subsidies or tax incentives to support businesses and local governments in covering the costs of battery collection and recycling
 - promote innovation in reusable and recyclable battery design through grants and research and development incentives to reduce the financial burden of disposal.
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4.47 The committee recognises the critical role gig workers, particularly those in food delivery and courier services, play in the growing e-mobility landscape. These workers rely heavily on e-bikes for continuous operation, often facing challenges related to limited battery life and inadequate access to safe charging options. Without sufficient infrastructure, gig workers are frequently forced to purchase secondary batteries, which are often of inferior quality and pose heightened safety risks. Establishing a network of battery-swapping stations could alleviate this burden, reduce downtime and enhance operational efficiency while ensuring that workers use high-quality, regulated batteries. Moreover, such infrastructure would reduce the risks of fire and other hazards stemming from the improper charging and storage of spare batteries. The committee acknowledges that a coordinated effort between government, industry stakeholders and local authorities is necessary to ensure the successful implementation of this initiative. Therefore, the committee recommends that the NSW Government:

- develop and implement a state-wide strategy to establish a network of battery-swapping stations, prioritising high-demand areas such as urban centres and delivery hotspots.

- collaborate with industry stakeholders, including e-mobility manufacturers, delivery platforms and local governments, to fund, build and maintain the infrastructure.
- ensure that battery-swapping facilities adhere to safety standards for battery handling, storage and charging to minimise safety risks.

Recommendation 12

That the NSW Government:

- develop and implement a state-wide strategy to establish a network of battery-swapping stations, prioritising high-demand areas such as urban centres and delivery hotspots
 - collaborate with industry stakeholders, including e-mobility manufacturers, delivery platforms and local governments, to fund, build and maintain the infrastructure
 - ensure that battery-swapping facilities adhere to safety standards for battery handling, storage and charging to minimise safety risks.
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Chapter 5 Infrastructure planning and delivery

This chapter examines the demand for new or enhanced infrastructure to ensure the safe and effective integration of e-mobility into the transport network and community. First, it examines the key measures and considerations necessary to ensure existing or new infrastructure safely accommodates e-mobility, including dedicated and connected cycleways, roads or zones, parking areas, allocation of road user space and access to businesses. Next, it discusses the level of investment and funding required from different levels of government to deliver this infrastructure. Lastly, it outlines the benefits of implementing mode-shift targets at different levels of government.

Need for e-mobility infrastructure planning and delivery

5.1 As noted in chapter 1, there are several policies in place and programs underway by the NSW Government to create a network of dedicated, safe and connected active transport and e-mobility infrastructure. In its submission, the Government highlighted the following plans and programs:

- E-micromobility Action Plan, which includes 58 targeted actions by the NSW Government to support the integration of e-micromobility. Relevant to this chapter, is actions by the NSW Government to 'provide strong policy settings to enable the delivery of active transport infrastructure' and 'deliver new transport infrastructure to service the needs of e-micromobility users'. This includes:
 - provisioning for active transport infrastructure in urban renewal areas
 - encouraging new major projects being delivered by the NSW Government to deliver active transport infrastructure using NSW guidelines
 - improving standards for active transport infrastructure, including charging equipment, parking and bicycle paths
 - developing parking guidelines for both shared and private e-micromobility
 - reforming delegations to streamline approvals for active transport infrastructure
 - delivering the Get NSW Active grants program which provides funding to local councils for projects that create safe, easy and enjoyable active transport trips
 - planning for the Strategic Cycleways Corridors program
 - piloting demarcated share bike parking at selected Sydney Trains stations.³⁴⁸
- Strategic Cycleways Corridors program, provides a framework for safe and accessible cycleways across the Greater Sydney's six region cities.³⁴⁹
- Road User Space Allocation Policy outlines the mandatory principles and requirements Transport for NSW staff must follow when allocating road user space safely. It prioritises

³⁴⁸ Transport for NSW, *E-micromobility Action Plan*, <https://www.transport.nsw.gov.au/system/files/media/documents/2024/NSW-E-micromobility-Action-Plan-October-2024.pdf>, October 2024, pp 13 and 17.

³⁴⁹ Transport for NSW, *Strategic Cycleways Corridors Program*, <https://www.transport.nsw.gov.au/operations/walking-and-bike-riding/strategic-cycleway-corridors>.

allocating road user space to walking and cycling before public transport, freight, point to point transport and general traffic.³⁵⁰

- 5.2 The following section examines these policies, plans and programs alongside inquiry participants views about the various measures needed to ensure the safe integration of e-mobility into the transport network and community, including:
- dedicated and connected cycleway infrastructure
 - parking areas
 - allocation of road user space
 - ensuring access to businesses.

Dedicated and connected cycleway infrastructure

- 5.3 Many inquiry participants emphasised a lack of dedicated and safe cycling infrastructure available to support e-mobility and its growth.³⁵¹ For example, Randwick City Council, told the committee that some residents believe that current infrastructure for cycling as 'inadequate to address the growing number and type of e-mobility users'.³⁵²
- 5.4 Many inquiry participants also argued that increased investment and delivery of dedicated cycleways from all levels of government is critical to ensure the safe integration of e-mobility into the transport network and community.³⁵³
- 5.5 Bicycle NSW, whilst acknowledging 'shared paths are an appropriate solution in some circumstances', advocated for local and state governments to focus on the delivery of separated cycleways, 'reallocating road space as required'. In providing dedicated cycling infrastructure, Bicycle NSW asserted riders of 'traditional bikes and e-bikes benefit from dedicated infrastructure, as do pedestrians ... riders are less likely to use the footpath and amenity is improved for everyone'.³⁵⁴
- 5.6 Similarly, Mr William Peters, Senior Regional Director, Lime argued dedicated active transport infrastructure 'significantly improves rider safety and encourages a mode shift from cars'.³⁵⁵ To ensure the delivery of such dedicated cycleway infrastructure, Mr Peters advocated for 'all levels

³⁵⁰ Transport for NSW, *Road User Space Allocation Policy*, https://www.transport.nsw.gov.au/system/files/media/documents/2024/road-user-space-allocation-policy_july-2024.pdf, p 2.

³⁵¹ Submission 134, City of Sydney, p 24; Submission 141, Northern Beaches Council, p 7; Submission 144, Highgate Owners Corporation SP49822, pp 11-12; Submission 160, Kobi Shetty MP, p 4; Submission 314, HelloRide, p 5.

³⁵² Submission 164, Randwick City Council, p 2.

³⁵³ Submission 119, North Sydney Council, p 4; Submission 141, Northern Beaches Council, p 7; Submission 171, Inner West Council Bicycle Working Group, p 1; Submission 172, Illawarra Ramblers Inc, p 1; Submission 175, Committee for Sydney, p 6.

³⁵⁴ Submission 159, Bicycle NSW, p 4.

³⁵⁵ Evidence, Mr William Peters, Senior Regional Director, Lime, 29 October 2024, p 12.

of government [to] support the expansion of separate active transport corridors through funding and delivery'.³⁵⁶

- 5.7** Beam Mobility, a provider participating in the NSW Shared E-scooter Trial Program, expressed a similar view, stating for cycling and e-mobility to be considered a 'viable alternative to other forms of transport, it is important that the [NSW] Government prioritises dedicated active transport lanes rather than shared paths'.³⁵⁷

- 5.8** Community organisations, such as Illawarra Ramblers Inc. and Inner West Council Bicycle Working Group also expressed a preference for dedicated cycleway infrastructure in certain circumstances and where feasible.³⁵⁸ For example, Mr Sam Garrett-Jones, Member, Illawarra Ramblers Inc., recognising the limitations of councils to provide dedicated cycling pathways, nonetheless advocated for separation between cyclists, including e-mobility users and pedestrians:

We're certainly of the view that, wherever feasible, cyclists and pedestrians should have dedicated paths or tracks. It's safer for both cyclists and walkers. We are a walking, cycling and kayaking club, so we've got lots of walkers there. We've heard from some of our members feeling unsafe on some of the paths. We also recognise that local councils are pretty short of funds for these sorts of things. Looking at a couple of the submissions, Shoalhaven City Council, for example, reports a backlog of over \$235 million on paths and crossings. It's not an easy solution, but we would like to see more dedicated cycleways.³⁵⁹

- 5.9** Turning to the specific safety and compliance benefits of dedicated cycleway infrastructure for e-mobility usage, Dr Richard Buning, Senior Lecturer, UQ Business School, University of Queensland, referred to research commissioned by the Queensland Department of Transport and Main Roads into e-scooter behaviours and road rules compliance which found separated cycling infrastructure resulted in road rules compliance:

When riders had the choice between a footpath, a bike lane or a cycle track, fewer riders chose the footpath and were more likely to comply with the speed limit. In fact, 87 per cent of the public e-scooter users were on the footpath when no cycling infrastructure was present...but when a cycle track was present, only 14.9 per cent of e-scooter riders were on the footpath.³⁶⁰

- 5.10** There was also support amongst local councils for increased dedicated cycling infrastructure to support e-mobility.³⁶¹ For example, Inner West Council called for a 'safe dedicated

³⁵⁶ Evidence, Mr Peters, 29 October 2024, p 12.

³⁵⁷ Submission 170, Beam Mobility, p 12.

³⁵⁸ Evidence, Mr John Groom, President, Illawarra Ramblers Inc., 30 October 2024, p 12; Evidence, Dr Tom Watson, Group Member, Inner West Council Bicycle Working Group, 30 October 2024, p 12; Evidence Mr Sam Garrett-Jones, Member, Illawarra Ramblers Inc., 30 October 2024, p 12.

³⁵⁹ Evidence Mr Garrett-Jones, 30 October 2024, p 12.

³⁶⁰ Evidence, Dr Richard Buning, Senior Lecturer, UQ Business School, University of Queensland, 31 October 2024, p 2.

³⁶¹ Submission 134, City of Sydney, p 16; Submission 150, Wollondilly Shire Council, p 50; Submission 154, Liverpool City Council, p 5; Submission 100, Willoughby City Council, p 1; Submission 141, Northern Beaches Council, p 7.

micromobility network, separated from cars and pedestrians'.³⁶² City of Sydney, who also called for the delivery of a dedicated cycleways network for e-mobility and other active transport, espoused its benefits: 'improving access, offering low-cost transport choices for a broad section of the community, reducing traffic congestion, [and] improving the efficiency of deliveries'.³⁶³

- 5.11** However, some local councils raised barriers to achieving a network of dedicated cycling infrastructure. In particular, Mr Campbell Pfeiffer, Director, Transport and Assets, Northern Beaches Council, whilst supportive of separated cycleways for e-mobility devices, explained there are challenges impeding the council's ability to deliver this infrastructure in the short-term:

The infrastructure that's in place on the northern beaches is not comprehensive. The ability to actually put in place separated cycleways, which is the best practice—because you want mode separation between pedestrians, cars and bicycles—will take years and years. What we have now is we have an immediate problem. While Transport for NSW is working with us to provide funding, there's also a capacity issue for councils to deliver it in the short period of time. I would say that it's a challenge, from a council point of view, where you have shared cycleways; it's a challenge where you only have footpaths. I think it's a challenge that we're not going to resolve in the short term.³⁶⁴

- 5.12** Sutherland Shire Council highlighted similar barriers for its local government area, which relies predominately on shared paths for its riders and footpaths for its younger riders. Mr David Kelly, Acting Manager, Traffic and Public Domain Services, Sutherland Shire Council, stated 'significant investment is required to provide dedicated cycleways ... whilst this may be achievable in time, the present circumstances of infrastructure could not support an outright ban on e-bikes using footpaths and shared paths'. Mr Kelly added that 'the road reserve area has many competing priorities and a variety of hazards are evident within these corridors' and called for the NSW Government to investigate 'other land options...such as exiting railway, metro and motorway corridors, to deliver dedicated cycle highways'.³⁶⁵

Strategic Cycleways Corridors Program

- 5.13** Inquiry participants also discussed the NSW Government's Strategic Cycleways Corridors Program, with some recognising its potential to accommodate the rise of e-mobility. However, there was criticism amongst inquiry participants at the lack of commitment from the NSW Government to fund and deliver the program.³⁶⁶
- 5.14** For example, Beam Mobility whilst encouraged by the program, highlighted that there is 'no specific indication on when [the network] will collectively be delivered'.³⁶⁷ Similarly, Committee for Sydney, who acknowledged the benefits of the program, called for its prioritisation and delivery. They recognised that whilst its delivery will require a 'coordinated approach with local

³⁶² Submission 180, Inner West Council, p 3.

³⁶³ Submission 134, City of Sydney, p 16.

³⁶⁴ Evidence, Mr Campbell Pfeiffer, Director, Transport and Assets, Northern Beaches Council, 29 October 2024, p 5.

³⁶⁵ Evidence, Mr David Kelly, Acting Manager, Traffic and Public Domain Services, Sutherland Shire Council, 29 October 2024, p 3.

³⁶⁶ Submission 159, Bicycle NSW, p 4; Submission 170, Beam Mobility, p 12; Submission 175, Committee for Sydney, p 7.

³⁶⁷ Submission 170, Beam Mobility, p 12.

council', the NSW Government 'needs to take the lead and deliver cycling infrastructure on key state roads'.³⁶⁸

- 5.15** Bicycle NSW also reflected on the program, stating 'little has been delivered on the ground'. For Bicycle NSW 'projects such as Oxford Street East and Sydney Park Junction will provide compelling evidence of the benefits for all road users. When they happen'. They urged the NSW Government to accelerate delivery of 100 kilometres of strategic cycleways by 2028, as promised in the NSW Active Transport Strategy.³⁶⁹
- 5.16** In answers to questions on notice, Transport for NSW advised that planning for the Strategic Cycleway Corridors Program is 'ongoing', with a business case being developed to 'continue to help inform future investment decisions, which will be subject to Government consideration'.³⁷⁰

Parking areas

- 5.17** The lack of and need for, designated parking infrastructure, including docking stations or parking bays for e-scooters and e-bikes, was highlighted by many stakeholders. Further, some inquiry participants argued that as a result of limited designated parking areas for e-mobility devices, access to footpaths and amenity is obstructed and safety for road users and pedestrians is impacted. This was particularly the case for shared e-mobility schemes.³⁷¹
- 5.18** City of Sydney, for example, emphasised that the 'clutter' on the footpath as a result of shared e-bikes being parked anywhere was, in part, a result of 'the lack of on-street spaces dedicated to bike parking, compared to other vehicles'.³⁷²
- 5.19** Vision Australia, in their submission referred to research by the Monash University's Accident Research Centre into the impact of electric/hybrid vehicles and bicycles on the safety of pedestrians who are blind or have low vision. The research identified 'e-scooters that are not parked in designated parking zones but left dumped on the footpath or blocking pedestrian crossings' as a 'serious trip hazard' for pedestrians who are blind or have low vision.³⁷³ These impacts will be examined in more detail in chapter 6.
- 5.20** Shared e-mobility companies acknowledged the concerns raised around parking and its impact on the community. To this issue, Lime and Ario advised there are technologies such as geo-fencing, cameras and depth sensors, being utilised to improve compliance with parking restrictions.³⁷⁴ Other inquiry participants, such as Vision Australia, also acknowledged the

³⁶⁸ Submission 175, Committee for Sydney, p 7.

³⁶⁹ Submission 159, Bicycle NSW, p 4.

³⁷⁰ Answers to questions on notice, Transport for NSW, 27 November 2024 p 8.

³⁷¹ Submission 111, Name suppressed, pp 1-2; Submission 119, North Sydney Council, p 3, Submission 134, City of Sydney, p 4; Submission 144, Highgate Owners Corporation SP49822, pp 10-11; Submission 152, Waverley Council, p 3.

³⁷² Submission 134, City of Sydney, p 4.

³⁷³ Submission 196, Vision Australia, p 11.

³⁷⁴ Evidence, Mr Adam Rosetto, Country Manager, Ario, 29 October 2024, p 17; Evidence, Mr Peters, 29 October 2024, pp 17-18.

benefits of these technologies and advocated for them to be a requirement for e-scooters permitted on pedestrian infrastructure.³⁷⁵

5.21 Notwithstanding these advancements in technology, Mr Stephen Coulter, Director of Zipidi, a consultancy and risk management company for the micromobility industry, expressed that these technological innovations 'need to be supplemented by council and government infrastructure'.³⁷⁶

5.22 Likewise, shared e-mobility companies such as Lime and HelloRide expressed that in conjunction with this technology, parking infrastructure is required to facilitate the safe integration of e-mobility into the transport network and mitigate the concerns raised by the community.³⁷⁷ In this regard, Lime, Ario, HelloRide and Zipidi made various suggestions that could be implemented to alleviate the issue of parking for shared e-mobility, including:

- e-mobility vehicle parking on all resurfacing or other road construction projects
- dedicated parking locations no more than 200 metres apart in high density areas
- free-floating parking outside of central city districts and other high use/density areas
- designated e-mobility parking in areas next to intersections where car parking is prohibited due to sightlines, unless the council can prove that a particular zone is unable to be used for micromobility parking. In the event that the zone is proven to be unsuitable, the council must designate an alternate location for e-mobility parking within 200 metres
- designated parking at all transport stations
- allocating existing car spaces for e-mobility parking.³⁷⁸

5.23 There was support from other inquiry participants for some of these suggestions, in particular, ensuring dedicated parking in high density areas and around transport hubs and allocating existing car spaces for e-mobility.³⁷⁹ For example, Mr Paul Nicolaou, Executive Director, Business Sydney called for the NSW Government and councils to ensure the delivery of dedicated parking infrastructure alongside the funding and delivery of cycleway infrastructure:

My view is that the Government and the councils are already building these bike lanes. Let's ensure that we have parking spots or places where bikes can be parked appropriately when building the bike lanes. We have a bike lane down Pitt Street and there is nowhere to park the bikes. So the bikes are just dumped on the footpath or dumped on the side of a building or dumped on the kerb, or they are just left at the traffic lights and stopping people from moving along Pitt Street.³⁸⁰

³⁷⁵ Submission 196, Vision Australia, p 11.

³⁷⁶ Evidence, Mr Rosetto, 29 October 2024, p 17; Evidence, Mr Peters, 29 October 2024, pp 17-18.

³⁷⁷ Evidence, Mr Peters, 29 October 2024, pp 17-18; Evidence, Mr Lachlan McLean, Head of Business Development, HelloRide, 29 October 2024, p 51.

³⁷⁸ Evidence, Mr Stephen Coulter, Director, Zipidi, 29 October 2024, p 18; Submission 314, HelloRide, p 2; Submission 163, Lime, p 5; Evidence, Mr Rosetto, 29 October 2024, p 18.

³⁷⁹ Submission 157, North Cronulla Precinct Committee, pp 4-5; Submission 160, Kobi Shetty MP, p 160; Submission 161, Centre for Trauma Care, Prevention, Education and Research at Westmead Children's Hospital p 4; Submission 175, Committee for Sydney, p 11.

³⁸⁰ Evidence, Mr Paul Nicolaou, Executive Director, Business Sydney, 29 October 2024, p 28.

- 5.24** Ms Harri Bancroft, Policy Manager – Policy, Committee for Sydney voiced her support for dedicating car parking space for shared e-mobility schemes, stating that 'one parking space for a car will generally fit up to about 12 bikes, maybe a little bit more—that can reduce clutter on the footpath'.³⁸¹
- 5.25** Committee for Sydney elaborated on this approach in their submission, advocating for on-street parking in the kerb supported by technical guidance from the NSW Government outlining 'desirable locations for shared mobility parking' that prioritises 'locations that are well-lit, on active streets and close to public transport'.³⁸²
- 5.26** In response to concerns raised about parking, in particular for shared e-mobility, Ms Anna Bradley, Executive Director Active Transport, Transport for NSW advised that a pilot program has commenced where 'decals' or 'stickers' are used 'on the pavement outside of eight of our busiest train stations'. Ms Bradley explained that 'they're specifically for the parking of e-micromobility devices in an attempt to reduce that street clutter and the amenity issues, but of course the impacts on access to the footpath as well, particularly for the more vulnerable road users'.³⁸³

Provision and allocation of dedicated parking for shared e-mobility schemes

- 5.27** Amongst the calls for dedicated parking infrastructure for shared e-mobility schemes, the committee heard opposing views about who should be responsible for the allocation of this infrastructure.
- 5.28** Lime, in highlighting the issue of various policies and rules across local government areas and its impact on ensuring access to shared mobility, contended Transport for NSW were best placed to plan, fund and construct riding and parking infrastructure. Lime argued individual councils 'do not have the authority, budget, or expertise to implement connected and consistent infrastructure across Sydney'. Lime was of the view local councils should be responsible for 'submitting parking locations' to Transport for NSW.³⁸⁴ In evidence, Mr William Peters, Senior Regional Director, Lime added there should be a State environmental planning policy for dedicated e-mobility parking.³⁸⁵
- 5.29** On the other hand, Ms Harri Bancroft, Committee for Sydney, stated it was 'critical' for local councils to be providing parking space, similar to what occurs for share car schemes currently: 'There's an application process. They pay the equivalent that a resident would pay for a resident parking permit for that space and then it goes to community consultation'.³⁸⁶
- 5.30** Ms Bancroft explained 'technical direction and guidance from the NSW Government' would be 'helpful' for local councils when implementing dedicated parking infrastructure. She added that development of any technical direction or guidance should be in consultation with shared

³⁸¹ Evidence, Ms Harri Bancroft, Policy Manager – Mobility, Committee for Sydney, 29 October 2024, p 23.

³⁸² Submission 175, Committee for Sydney, p 12.

³⁸³ Evidence, Ms Anne Bradley, Executive Director Active Transport, Transport for NSW, 31 October 2024, p 51.

³⁸⁴ Submission 163, Lime, pp 1-3.

³⁸⁵ Evidence, Mr Peters, 29 October 2024, p 13.

³⁸⁶ Evidence, Ms Bancroft, 29 October 2024, p 27.

scheme operators and local councils to ensure 'uniformity' and 'each local council is able to make it work for them and their community'.³⁸⁷

5.31 Similarly, Mr Ed Morris, Chief Executive Officer, Physical Disability Council of Australia urged for local government to be 'granted clear jurisdiction over implementing and regulating where shared e-micromobility devices can be parked' to ensure 'these devices do not impact accessible public spaces'.³⁸⁸

5.32 Whilst Mr Morris acknowledged the NSW Government's plans to look into the issue of parking for these devices, he also highlighted there has been no plan for consultation with the disability community. To this issue, he called for this consultation to occur to ensure the safety of the disability community and all other residents in New South Wales:

I think it's really important that there is representative consultation, particularly across the four key disability cohorts, to safeguard not only the safety of the disability community but all people living in New South Wales.³⁸⁹

5.33 As an example of state-level guidance, with local councils responsible for the allocation of dedicated car share parking, GoGet, a car share company operating in New South Wales, detailed the current regulatory framework and process involved to provide dedicated parking to their users.

- NSW Government technical direction for on-street car share space to allow councils to allocate dedicated parking.
- GoGet identifies car space location and applies to council, with justification. This includes how the nearest cars are doing, what the resident uptake is and what the change in car ownership is. In some instances, councils identify locations they'd like to prioritise.
- Council consults with the community regarding the application and installs that space if it meets their guidelines.
- For car spaces at or near transport hubs, such as metro stations, GoGet applies for those locations with the council, who then have to speak to Transport for NSW and residents to get those spots.³⁹⁰

5.34 Dr Christopher Vanesste, Head of Space, GoGet recognised difficulties in this regulatory approach for not only parking infrastructure but more broadly, the industry as a whole:

I think the biggest struggle we have as an operator is every council has its own policy and its own restrictions and guidelines. Katya has got a spreadsheet to try to keep us within policy for every different council. That's not only a barrier for us and our growth but also a barrier for our members, especially when they live on those council borders. If you use a car on this side of the street, you have to do one thing; if you cross the

³⁸⁷ Evidence, Ms Bancroft, 29 October 2024, p 27.

³⁸⁸ Evidence, Mr Ed Morris, Chief Executive Officer, Physical Disability Council of NSW, 31 October 2024, p 16.

³⁸⁹ Evidence, Mr Morris, 31 October 2024, p 16.

³⁹⁰ Evidence, Dr Chris Vanneste, Head of Space, GoGet, 29 October 2024, pp 48-49.

street and you're in the neighbouring council boundary, it's a different experience. I think some uniform guidance would definitely help the industry as a whole.³⁹¹

- 5.35** Broadly, Mr David Reynolds, Local Government NSW, recognised there is 'quite a deal of differentiation across a lot of different councils' which means 'different practical outcomes for how schemes run'. Further, he agreed there needs to be improvement in the provision of parking infrastructure for e-mobility devices.³⁹²
- 5.36** In response to questions about who should be responsible for improving the provision of parking infrastructure for shared e-mobility, Mr Reynolds expressed 'that is a conversation that a council could have with a commercial provider around, perhaps, the leasing or licensing of a space that supports a scheme in their area'. He argued this approach is due to the fact that 'councils are being asked to provide space for commercial operations' and shared operators are 'generating an income out of the use of these devices'.³⁹³
- 5.37** For private devices, Mr Reynolds, suggested 'proper collection of funding through infrastructure contributions or usage charges for proper end-of-trip facilities, or proper storage and charging facilities, to make sure that utilisation stays safe and effective'.³⁹⁴
- 5.38** In answers to questions on notice, Transport for NSW elaborated on its E-micromobility Action Plan released in October 2024, advising that updated guidance for e-mobility parking will be developed in 2025.³⁹⁵

Allocation of road user space

- 5.39** As noted previously, the Road User Space Allocation Policy prioritises walking and cycling users in the allocation of road space.
- 5.40** There was support for the policy amongst inquiry participants.³⁹⁶ For Lime, the policy 'aligns well with shared micromobility' with its principles to prioritise walking and cycling providing a 'supportive framework for integrating micromobility into the broader transport network'.³⁹⁷
- 5.41** However, there was commentary from inquiry participants that notwithstanding this and other related policies, road space for private vehicle use continues to be prioritised over active transport. Newtown Climate, for example, contended that the 'current allocation of road space in Sydney appears, with very limited exception, to prioritise private motor vehicles and private vehicle parking over all other uses'.³⁹⁸

³⁹¹ Evidence, Dr Vanneste, 29 October 2024, p 45.

³⁹² Evidence, Mr David Reynolds, Chief Executive, Local Government NSW, 31 October 2024, pp 26-27.

³⁹³ Evidence, Mr Reynolds, 31 October 2024, pp 26-27.

³⁹⁴ Evidence, Mr Reynolds, 31 October 2024, pp 26-27.

³⁹⁵ Answers to questions on notice, Transport for NSW, pp 3 and 8.

³⁹⁶ Submission 159, Bicycle NSW, p 5; Submission 134, City of Sydney, p 26; Submission 163, Lime, p 10.

³⁹⁷ Submission 163, Lime, p 10.

³⁹⁸ Submission 156, Newtown Climate, p 4.

- 5.42** In addition, some inquiry participants highlighted a lack of, or inconsistency in application of the policy by the NSW Government.³⁹⁹ For example, City of Sydney referred to a recent Ministerial Review of the policy, which determined the policy is not being implemented and governance of road space on state and local streets was not fit for purpose.⁴⁰⁰
- 5.43** With the advent of e-mobility, some called for better implementation of the policy, an issue that will be discussed further in chapter 6.

Ensuring access to businesses

- 5.44** Inquiry participants highlighted another key consideration necessary in the planning and delivery of infrastructure for e-mobility and broader active transport use – car and pedestrian access to businesses.
- 5.45** While the economic benefits of e-mobility were noted in chapter 2, in contrast Mr Paul Nicolaou, Executive Director and Mr David Jones, Media and Policy Manager, Business Sydney reported businesses in Sydney's Central Business District had been financially impacted by the construction of bike lanes limiting vehicle access to their business. Mr Nicolaou explained for the Fullerton Hotel, 'all they want is a bus to park by the side of the road because they're landlocked...it's very difficult and they're losing business. It's a six star hotel'.⁴⁰¹
- 5.46** Noting these impacts, Mr Jones and Mr Nicolaou both emphasised the need for better consultation with businesses when planning for e-mobility infrastructure. For the businesses already impacted by the current cycling infrastructure, Mr Nicolaou believed the NSW Government should work collaboratively with business owners to 'find solutions'.⁴⁰²

Funding needs and options

- 5.47** Funding for the delivery of active transport infrastructure, including e-mobility, is achieved across different levels of government:
- Local councils are responsible for delivering local infrastructure that accommodates e-mobility options.⁴⁰³ They allocate funds to the delivery and maintenance of local active transport infrastructure, including cycleways, bike lanes and footpaths.
 - The NSW Government is responsible for the delivery of active transport infrastructure on state owned-and-managed roads. They allocate funds to active transport infrastructure in their budget, which includes funding for grants and programs and the delivery of active transport in major transport projects. The NSW Government provides funding to local councils for walking and cycling infrastructure through the Get NSW Active program and

³⁹⁹ Submission 159, Bicycle NSW, p 5; Submission 134, City of Sydney, p 26; Submission 163, Lime, p 10; Submission 180, Inner West Council, p 4.

⁴⁰⁰ Submission 134, City of Sydney, p 26.

⁴⁰¹ Evidence, Mr Nicolaou, 29 October 2024, pp 28-29; Evidence, Mr David Jones, Media and Policy Manager, Business Sydney, p 29.

⁴⁰² Evidence, Mr Nicolaou, 29 October 2024, pp 28-29; Mr Jones, Media and Policy Manager, Business Sydney, p 29.

⁴⁰³ Submission 120, Local Government NSW, pp 5 – 6.

jointly with the Australian Government, the Road Safety Program 2023/2024-2025/2026.⁴⁰⁴

- The Australian Government provides funding to state and local governments to build active transport infrastructure. For example, the Active Transport Fund, which commenced on 31 October 2024, provides \$100 million in funding from 2024/2025 to 2028/2029 to state and local governments for the design and construction of new or existing bicycle and walking pathways.⁴⁰⁵

5.48 The following section examines inquiry participants views on the current level of investment in active transport infrastructure by different levels of government and the need to increase funding to ensure active transport infrastructure keeps pace with the growth of e-mobility.

Local government funding constraints

5.49 Alongside evidence about the need for active transport infrastructure that safely accommodates the rise in e-mobility usage, inquiry participants called for increased funding and investment in infrastructure from different levels of government.⁴⁰⁶

5.50 Some councils highlighted an infrastructure and maintenance backlog in their local government area. Shoalhaven City Council, for example, reported a backlog of \$235 million for paths and crossing infrastructure.⁴⁰⁷ Many local councils advised that they are experiencing similar funding constraints and therefore argued that the rise in e-mobility requires continued financial support from the NSW Government to ensure the provision of infrastructure keeps pace with the growth of e-mobility.⁴⁰⁸

5.51 For example, Local Government NSW, who reported an 'infrastructure backlog [for local councils] estimated at \$5.6 billion in [the] 2021-2022 period', argued that these 'substantial figures clearly indicate a financial sustainability problem for local government in New South Wales'. Local Government NSW were of the view that 'councils will require grant funding and investment from the NSW Government for the development of active transport infrastructure' in order to accommodate demands for e-mobility in communities.⁴⁰⁹

5.52 Lake Macquarie City Council – HRMC NSW, highlighted that their 'current infrastructure was not designed or built to accommodate the higher speeds and increasing usage' from e-mobility.

⁴⁰⁴ Transport for NSW, *Road Safety Program 2023/24-2025/26* (2 December 2024), <https://www.transport.nsw.gov.au/projects/programs/road-safety-program-202324-202526>.

⁴⁰⁵ Australian Government, Department of Infrastructure, Transport, Regional Development, Communications and the Arts, *Active Transport Fund*, <https://investment.infrastructure.gov.au/about/local-initiatives/active-transport-fund>.

⁴⁰⁶ Submission 156, Newtown Climate, p 1-2; Submission 159, Bicycle NSW, p 4; Submission 160, Kobi Shetty MP, p 3; Submission 164, Submission 172, Randwick City Council, p 3, Illawarra Ramblers, p 1; Submission 175, Committee for Sydney, pp 5-6.

⁴⁰⁷ Submission 143, Shoalhaven City Council, p 1.

⁴⁰⁸ Evidence, Mr Reynolds, 31 October 2024, p 22; Submission 152, Waverly Council, p 3; Submission 119, North Sydney Council, p 1; Submission 120, Local Government NSW, p 9; Submission 121, Sutherland Shire Council, p 2.

⁴⁰⁹ Submission 120, Local Government NSW, p 6.

For Lake Macquarie City Council – HRMC NSW, with an area that has '1450km of roads but only 470 km of footpath and 105 km of shared path', continued financial support from the NSW Government is 'critical to improving local infrastructure' and integrating e-mobility usage.⁴¹⁰

- 5.53** Other inquiry participants also acknowledged the budgetary constraints of local councils and the infrastructure backlog. In this regard, there were calls for significant increases in financial support from both the state and federal government to ensure the timely delivery of safe infrastructure for e-mobility and other modes of active transport.⁴¹¹

Need to increase state and federal investment in active transport

- 5.54** The following section examines the various calls for increased investment in active transport infrastructure by the state and federal governments in order to accommodate e-mobility.

Get NSW Active program

- 5.55** According to the NSW Government's E-micromobility Action Plan, the Get NSW Active program is central to the delivery of active transport infrastructure that services the needs of e-mobility.⁴¹²
- 5.56** The NSW Government's Get NSW Active program provides funding to councils for projects that create safe, easy and enjoyable walking bike riding trips. In the 2025/2026 financial year, \$60 million in total grant funding was made available to councils, with \$10 million allocated to projects that enable walking or riding to school and the remainder allocated to broader active transport projects.⁴¹³
- 5.57** Ms Anne Bradley, Executive Director - Active Transport, Transport for NSW advised 'there are 88 projects in this year that are delivering immediate benefits for communities to walk and cycle. Another layer to that is Get Kids Active, so 30 projects this year around schools to help kids walk and cycle to school'.⁴¹⁴
- 5.58** City of Sydney expressed criticism at the level of funding available to local councils through the program. Mr Sebastian Smyth, Executive Manager, City Access and Transport, City of Sydney argued that the fund is 'massively oversubscribed' with around 'three-quarters or five-eighths' of the applications to the program 'unfunded'.⁴¹⁵ In their submission, City of Sydney elaborated

⁴¹⁰ Submission 162, Lake Macquarie City Council – HRMC NSW, pp 2 and 4.

⁴¹¹ Evidence, Dr Megan Finne, Board Director, Institute of Public Works Engineering Australasia (NSW & ACT) 30 October 2024, p 48; Evidence, Mr Eamon Waterford, Chief Executive Officer, Committee for Sydney, 29 October 2024, p 28; Evidence, Mr Sebastian Smyth, Executive Manager, City Access and Transport, City of Sydney, 29 October 2024, p 7.

⁴¹² NSW Government, *E-micromobility Action Plan* (October 2024), p 17, <https://www.transport.nsw.gov.au/system/files/media/documents/2024/NSW-E-micromobility-Action-Plan-October-2024.pdf>.

⁴¹³ NSW Government, *Get NSW Active* (3 December 2024), <https://www.transport.nsw.gov.au/projects/programs/get-nsw-active>.

⁴¹⁴ Evidence, Ms Bradley, 31 October 2024, p 48.

⁴¹⁵ Evidence, Mr Smyth, 29 October 2024, p 7.

on the program's impact, stating that 'astoundingly the Get NSW Active funded projects completed in the first half of 2024 included just 50 metres of separated cycleway across the entire state and just under 10 kilometres of shared path'.⁴¹⁶

- 5.59** Bicycle NSW echoed similar sentiments, noting that funding under the program 'has been stagnant for several years', with 'only 21 per cent of applications made by councils... funded' in 2023/2024. Bicycle NSW argued that funds to the Get NSW Active program should be doubled, 'with clear commitments in each and every NSW Budget'.⁴¹⁷

Active transport funding allocations

- 5.60** More broadly, there was commentary amongst inquiry participants about the total funds allocated to active transport in the New South Wales transport budget. Some inquiry participants referred to the United Nations recommendation to allocate 20 per cent of transport budgets to walking and cycling, noting that the New South Wales transport budget for 2023/2024 and 2024/2024 only allocated 0.13 per cent and 0.2 per cent to active transport, respectively.⁴¹⁸ With this in mind, there were various calls to increase the New South Wales transport budget to better align with the United Nations recommendation of 20 per cent.⁴¹⁹
- 5.61** For example, Ashfield Bicycle Users Group advocated for the active transport budget to increase to 5 per cent of the transport budget whereas Bicycle NSW called for active transport to be allocated 10 per cent of the transport budget over the next four years, with a 'view to reach 20 per cent as capability to deliver increases'.⁴²⁰
- 5.62** Turning to the federal budget for active transport, there was discussion amongst inquiry participants that funding for active transport infrastructure also needs to be increased in order to support the safe use of e-mobility. For example, North Shore Council advocated for federal funding of infrastructure for e-mobility devices, included separated cycleways and expanded bike parking.⁴²¹
- 5.63** In evidence, Mr Eamon Waterford, Chief Executive Officer, Committee for Sydney commented on the proportion of funds allocated to active transport infrastructure by both the state and federal governments, asserting 'they put a lower proportion into active transport funding than the proportion of trips that are taken by active transport currently'. To remedy this, Mr Waterford advocated 'for aligning the amount that's spent on active transport, whether it's cycleways, whether it's pedestrian spaces as well, to align with the proportion of trips that are taken by that at a minimum'. For Mr Waterford, who acknowledged the budgetary constraints

⁴¹⁶ Submission 134, City of Sydney, p 16.

⁴¹⁷ Submission 159, Bicycle NSW, p 4.

⁴¹⁸ Submission 134, City of Sydney, p 5 and 16; Submission 159, Bicycle NSW, p 4; Submission 119, North Sydney Council, p 2; Submission 160, Kobi Shetty MP, p 3; Submission 156, Newtown Climate, p 1.

⁴¹⁹ Submission 134, City of Sydney, p 5 and 16; Submission 159, Bicycle NSW, p 4; Submission, North Sydney Council, p 2; Submission 160, Kobi Shetty MP, p 3; Submission 171, Inner West Council Bicycle Working Group, p 4; Submission 174, Ashfield Bicycle Users Group (ASHBUG), p 2.

⁴²⁰ Submission 159, Bicycle NSW, p 4; Submission 174, Ashfield Bicycle Users Group (ASHBUG), p 2.

⁴²¹ Submission 141, Northern Beaches Council, p 6.

of all levels of government, investment in active transport infrastructure is a 'relatively modest cost' compared to major transport projects.⁴²²

Other potential funding options and considerations

5.64 Inquiry participants raised other potential funding options available and considerations necessary to fund and deliver active transport infrastructure that supports e-mobility. For example, shared e-mobility operators Lime and Ario both advised they would contribute financially to the delivery of parking infrastructure.⁴²³

5.65 There was also support amongst inquiry participants for contributions from developers and ensuring the contribution framework was considered to ensure the delivery of active transport infrastructure that accommodates e-mobility. In particular, Mr David McTiernan, National Leader, Transport Safety, National Transport Research Organisation, who was in support of 'off-road facilities' for e-bikes and e-scooters, highlighted the need for funding support from the NSW Government and potential opportunity for developers to play a role in the provision of this infrastructure:

I think it's undoubtedly that that is going to be a council responsibility and there's no way that they're going to be able to afford that—not in playing catch-up. I do think, though, in terms of providing infrastructure, there is an opportunity—it's almost a unique opportunity—to incorporate this mode of transport into our planning processes, so that developers can ultimately be providing the infrastructure as a part of new developments coming out. And, indeed, like they do with other infrastructure, so they contribute to the connection of their communities to other communities. I think there is a bit of a split there, but it's certainly going to have to rely upon State funding support.⁴²⁴

5.66 Mr David Reynolds, Chief Executive, Local Government NSW, expressed that there needed to be consideration by the NSW Government as to how an integrated system for e-mobility works safely across state and local roads, alongside proactive consideration by councils on how the local contributions framework collects for the type of investment needed for e-mobility. Mr Reynolds contended that consideration by the different levels of government should focus on the following:

- In greenfield release areas:⁴²⁵ Are the Government's policy settings and are the council's discussions with IPART capturing this type of infrastructure spend that might need to be factored into contributions plans?
- Transport Oriented Development:⁴²⁶ Are the infrastructure settings capturing enough support for the type of on-road infrastructure and end-of-trip facilities required?⁴²⁷

⁴²² Evidence, Mr Waterford, 29 October 2024, p 28.

⁴²³ Evidence, Mr Peters, 29 October 2024, p 15; Evidence, Mr Rosetto, 29 October 2024, p 15.

⁴²⁴ Evidence, Mr David McTiernan, National Leader, Transport Safety, National Transport Research Organisation, 29 October 2024, p 40.

⁴²⁵ Greenfield areas is land that is undeveloped and can be used for residential or commercial purposes.

⁴²⁶ Transport Oriented Development is a land use planning approach that encourages sustainable and mixed use development around transport.

⁴²⁷ Evidence, Mr Reynolds, 31 October 2024, p 24.

- 5.67** To ensure the correct level of investment in e-mobility, the Institute of Public Works Engineering Australasia (NSW & ACT), submitted there needed be an 'audit' of state-owned and council roads. Ms Megan Finne, Board Director of the institute argued such an audit should include an assessment of the current active transport infrastructure network to understand 'where the gaps are'.⁴²⁸
- 5.68** Under the new Housing and Productivity Contributions introduced in October 2023, development charges are applied to new housing and productivity developments to 'help fund the delivery of state infrastructure in high growth areas of NSW'. These contributions replace the previous Special Infrastructure Contributions provisions in the *Environmental Planning and Assessment Act 1979*.⁴²⁹ Within these contributions is a 'transport project component which is an additional contribution for new development on land near significant transport infrastructure investment that increases development potential'.⁴³⁰ This could include major roads or public transport infrastructure.⁴³¹

Encouraging mode shift

- 5.69** Mode shift targets are goals that can be set by governments to encourage a shift from private vehicle use towards more sustainable and efficient modes of transport, such as walking, cycling and e-mobility.
- 5.70** Some inquiry participants advocated for such mode shift targets to be set by either the state or federal governments. For example, Dr Christopher Vanneste, Head of Space, GoGet, submitted these targets should be implemented state-wide, with it being applied to each local government area:

I think statewide should have a target, but there will definitely be some local government areas that are never going to meet that target—there's not public and active transport in those areas that can meet it. So it definitely would be statewide and then down to a local context of where it can be implemented and actually actioned.⁴³²

- 5.71** GoGet argued that a mode shift target would 'set a clear direction for the state government and guide local councils to promote and invest in more sustainable transport options' and would

⁴²⁸ Evidence, Hon. David Elliott, Chief Executive Officer, Institute of Public Works Engineering Australasia (NSW & ACT), 30 October 2024, p 50; Evidence, Ms Megan Finne, Board Director, Institute of Public Works Engineering Australasia (NSW & ACT), 30 October 2024, p 50.

⁴²⁹ Department of Planning, Housing and Infrastructure, *Housing and Productivity Contributions, Guide to the Ministerial Planning Order*, July 2024, p 4, <https://www.planning.nsw.gov.au/sites/default/files/2024-07/housing-and-productivity-contributions-guide-to-the-ministerial-planning-order.pdf>

⁴³⁰ Department of Planning, Housing and Infrastructure, *Housing and Productivity Contributions, Guide to the Ministerial Planning Order*, July 2024, p 11, <https://www.planning.nsw.gov.au/sites/default/files/2024-07/housing-and-productivity-contributions-guide-to-the-ministerial-planning-order.pdf>

⁴³¹ NSW Government, *Improving the infrastructure contributions system*, <https://www.planning.nsw.gov.au/policy-and-legislation/infrastructure/infrastructure-funding/improving-the-infrastructure-contributions-system>

⁴³² Evidence, Dr Vanneste, 29 October 2024, p 47.

help 'reduce traffic congestion, lower greenhouse gas emissions and improve public health by encouraging more active transport'.⁴³³

5.72 In evidence, Dr Vanneste elaborated on the benefits of a state-wide mode shift target:

[O]ne of the big issues we have with councils is they'll have a policy, they'll implement car share, we'll get uptake of car share, but then we get over-saturated and aren't growing the service to meet that demand. Having that State mode share shift targets and kind of pushing councils to keep expanding things that are doing the goals of the council, the goals of the State, is an important factor. With some councils we've got 300 or 400 per cent membership growth but we haven't had a new spot since 2014, so then we have to find floating spots and unrestricted parking just to try to meet that demand and keep people car-free.⁴³⁴

5.73 To further support this recommendation, GoGet provided examples of mode shift targets in international jurisdictions. For example, Wales has a mode shift target for 45 per cent of all journeys to be public or active transport by 2040.⁴³⁵

5.74 Committee for Sydney also argued for mode shift targets to be implemented. However, they asserted these targets should be set a federal level in the first instance, with two distinct targets – 'one for metropolitan areas and one for regional and remote areas'. They argued that such targets would 'encourage state and territory governments to invest in better active public transport infrastructure and services'.⁴³⁶

5.75 In the absence of federal mode shift targets, Committee for Sydney supported the NSW Government to legislate targets, 'to incentivise Transport for NSW and the Department of Planning, Housing and Infrastructure to enable and encourage a greater share of trips to be taken by active or public transport'.⁴³⁷

Committee comment

5.76 Throughout this inquiry, the committee heard that for e-mobility to safely integrate into the transport network and community, there needs to be significant enhancements to existing infrastructure. It is clear from the evidence received, that existing active transport infrastructure, roads and footpaths were not designed to accommodate the rise of e-mobility as a legitimate transport option for people to get to work, school, public transport and other services, as well as a significant new entrant in the courier and freight industry. The committee sees merit in the NSW Government exploring a variety of measures proposed by inquiry participants to ensure the planning and delivery of new or enhanced infrastructure that accommodates e-mobility.

5.77 Turning to the specific needs for infrastructure, it is clear to the committee that the lack of dedicated cycleways is a significant barrier to safe and effective use of e-mobility. Currently, many residents rely on shared paths, footpaths and roads for cycling infrastructure. Without

⁴³³ Submission 192, GoGet, p 2.

⁴³⁴ Evidence, Dr Vanneste, 29 October 2024, p 49.

⁴³⁵ Answers to questions on notice, GoGet, 27 November 2024, p 3.

⁴³⁶ Submission 175, Committee for Sydney, p 5.

⁴³⁷ Submission 175, Committee for Sydney, p 6.

dedicated infrastructure, users of e-mobility, pedestrians and other road users are exposed to safety risks. It is clear from the evidence that dedicated cycleways would alleviate these risks.

- 5.78** The committee acknowledges that significant time and investment is required to achieve a network of dedicated cycleway infrastructure, like that outlined in the Strategic Cycleways Corridors Program. The committee notes Transport for NSW's advice that planning is ongoing for the delivery of this network, with a business case being developed to inform future investment decisions. The committee agrees with the views of stakeholders however, that given the rise of e-mobility, its associated safety risks and the NSW Government's plans to encourage sustainable transport options, there needs to be clear commitment and timeframe from the NSW Government to prioritise and fund the delivery of this network. As such, the committee recommends that the NSW Government prioritise and fund the delivery of the Strategic Cycleways Corridors Program with a target to deliver 100 kilometres of this network by 2028, with an ultimate goal of 1,000 kilometres, as outlined in the Active Transport Strategy.

Recommendation 13

That the NSW Government prioritise and fund the delivery of the Strategic Cycleways Corridors Program as outlined in the Active Transport Strategy.

- 5.79** While dedicated cycling infrastructure remains the ideal solution, the committee agrees that interim safety and accessibility measures on shared pathways, roads and zones must be implemented to address the immediate risks associated with e-mobility usage. Reduced car speed limits, narrowing traffic lanes, clear signage and other traffic calming measures are all relatively inexpensive improvements that can be delivered in the short-term and alongside the prioritisation and funding of the longer-term network of dedicated cycleway infrastructure. We also acknowledge policies, such as the Road User Space Allocation Policy are positive steps by the NSW Government to prioritise allocating road space to walking, cycling and e-mobility use. However, we note the various criticisms about the lack of, or inconsistent application of the policy across governments and calls for better implementation. Recommendations to address both of these issues will be made in chapter 6.
- 5.80** The committee notes that a key concern amongst inquiry participants was the safety risks associated with the lack of dedicated parking infrastructure for e-mobility, particularly for shared devices. The committee shares these concerns and believes dedicated parking infrastructure must be a priority for governments and shared mobility operators to ensure the safety of mobility users, pedestrians and other road users.

Finding 3

Shared e-bike operators claim to have the technology and adequate staffing to manage parking and pathway obstruction issues. However, the committee finds that these problems persist and are increasingly impacting public amenity and safety, demonstrating a disconnect between operator claims and the reality on the ground.

- 5.81** The committee notes the success of shared e-bike and e-scooters schemes in other jurisdictions is almost always associated with dedicated parking infrastructure. The committee supports

Lime's recommendation for parking infrastructure to be provided at approximately every 200 m in high-density areas.

- 5.82** We acknowledge there are now technologies available to shared e-mobility operators to improve compliance with parking restrictions. These are necessary measures to mitigate the safety risks associated with improper parking of shared devices. The NSW Government should consider these developments when reviewing the regulatory framework. However, we agree with evidence that these developments need to be supported by adequate funding and delivery of parking infrastructure by state and local governments.
- 5.83** In terms of who should be responsible for the provision and allocation of this infrastructure, we note the opposing views. For some shared e-mobility operators, the inconsistent provision and allocation of this infrastructure council-by-council has impacted the growth and efficacy of the service. Others argued local councils were best placed to allocate and provide this infrastructure, with the NSW Government providing technical direction and guidance to local councils to apply in the provision and allocation of space for parking.
- 5.84** We note this framework has worked quite well for car share services. However, the committee recognises the broader difficulties for operators and users of e-mobility having different rules and policies across local government areas. With this in mind, we support the calls for technical direction or guidance from the NSW Government, developed in close consultation with key stakeholders (for example, local councils, shared scheme operators and the disability community). We note the NSW Government plans to release guidance for e-mobility parking in 2025. The committee, therefore, recommends that the NSW Government develop a plan for the provision of parking infrastructure for shared e-bikes and e-scooters in cities and key regional centres, in collaboration with local councils and in consultation with shared scheme operators and disability community representatives and that this plan includes:
- e-mobility vehicle parking on all resurfacing or other road construction projects
 - dedicated parking locations, ideally no more than 200 m apart in high-density areas
 - exploring the feasibility of designated e-mobility parking in areas next to intersections where car parking is prohibited due to sightlines
 - designated parking at all public transport stations
 - allocating existing car spaces for e-mobility parking, where practicable.

Recommendation 14

That the NSW Government develop a plan for the provision of parking infrastructure for shared e-bikes and e-scooters in cities and key regional centres, in collaboration with local councils and in consultation with shared scheme operators and disability community representatives and that this plan includes:

- e-mobility vehicle parking on all resurfacing or other road construction projects
 - dedicated parking locations, ideally no more than 200 m apart in high-density areas
 - exploring the feasibility of designated e-mobility parking in areas next to intersections where car parking is prohibited due to sightlines
 - designated parking at all public transport stations
 - allocating existing car spaces for e-mobility parking, where practicable.
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- 5.85** In addition, the committee recognises that local councils should not be solely responsible for the provision of active transport infrastructure, including parking and dedicated cycling pathways in new housing development areas. We note that for the extensive housing development taking place across the state in key growth areas there is no requirement under the Housing and Productivity Contributions for active transport infrastructure to be provided or integrated. This is a critical shortcoming. Therefore, the committee recommends that the NSW Government review the Housing and Productivity Contributions framework to require contributions from new developments for integrated active transport infrastructure, including parking and dedicated cycling pathways.
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Recommendation 15

That the NSW Government review the Housing and Productivity Contributions framework to require contributions from new developments for integrated active transport infrastructure, including parking and dedicated cycling pathways.

- 5.86** The committee understands increasing demand for infrastructure to support e-mobility requires significant investment from different levels of government. We note evidence from many stakeholders that due to budgetary constraints and infrastructure backlogs of local governments, increased funding and investment from state and federal governments will be necessary to ensure the infrastructure demands for e-mobility are met.
- 5.87** The committee notes the various calls for federal and state funding for active transport to align with the United Nations recommendation that active transport funding be allocated 20 per cent of transport budgets. It is disappointing to hear that the NSW Government in the past two budgets have provided 0.13 and 0.2 per cent to active transport, respectively. We note the various suggestions to better align this allocation with the United Nations recommendation.
- 5.88** The committee highlights the substantial social, health and economic benefits of investing in active transport infrastructure over traditional road expansion. Active transport promotes physical activity while fostering more connected communities. Economically, it decreases long-term healthcare costs, lowers road maintenance and boosts local businesses through increased foot traffic. Reduced car dependence also lessens congestion, vehicle accidents and emissions, improving air quality and sustainability. This investment supports healthier, more liveable and
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economically resilient urban areas, delivering lasting benefits beyond immediate infrastructure costs.

- 5.89** Further, we note with concern evidence that current federal and state funding for active transport is not proportionate to the number of trips taken. It is clear there is scope for both levels of government to assess their funding allocations for active transport, particularly with rise of e-mobility and demand for safe and dedicated infrastructure to support its use. Whilst it is not in our remit to make recommendations to the federal government, we believe the NSW Government should be taking these factors into consideration when allocating funds for active transport. We therefore recommend that the NSW Government, in allocating funds to active transport in the NSW Budget, ensure better alignment with the proportion of active transport trips taken and United Nations recommendation for active transport to be allocated 20 per cent of transport budgets.

Recommendation 16

That the NSW Government, in allocating funds to active transport in the NSW Budget, ensure better alignment with the proportion of active transport trips taken and the United Nations recommendation for active transport to be allocated 20 per cent of transport budgets.

- 5.90** With regard to the NSW Government's Get NSW Active program, we acknowledge this is an important grants program for local councils to be able to provide the necessary walking and cycling infrastructure in their communities. We heard that this program is oversubscribed, with many projects unfunded. With the advent of e-mobility, it is absolutely crucial for grant programs, such as the Get NSW Active program to be adequately funded by the NSW Government. We support the calls for funds in this program to be increased and recommend that the NSW Government increase the allocation of funds in the Get NSW Active program to ensure the delivery of infrastructure that supports e-mobility.

Recommendation 17

That the NSW Government substantially increase the allocation of funds in the Get NSW Active program to ensure the delivery of infrastructure that supports e-mobility.

- 5.91** Lastly, the committee heard about the benefits of state and/or federal mode shift targets. The committee acknowledges the critical importance of mode-shift in reducing car dependency, alleviating congestion and lowering carbon emissions. Mode shift targets incentivise investment in active transport. However, achieving a meaningful transition requires coordinated action across all levels of government. In the absence of a federal target, we believe the NSW Government should set a mode-shift target to active transport, to be applied to local government areas taking into their consideration their local context. The committee therefore recommends that the NSW Government set a mode shift target to transition a percentage of trips from private vehicle use to more sustainable modes of transport, such as public transport, cycling, walking, car sharing and e-mobility.

Recommendation 18

That the NSW Government set an ambitious mode shift target to drive policies, programs and funding that will transition trips away from private vehicle use to a far greater percentage of trips taken by public transport, cycling, walking, car sharing and e-mobility.

Chapter 6 User behaviour and safety

This chapter examines issues relating to safe use of e-mobility devices and their impacts on users and pedestrians. This comprises topics including the safety of vulnerable groups such as people with a disability and the elderly, in particular those who are mobility impaired or vision impaired and the availability of data concerning accidents and injuries where e-transport is a factor. The chapter goes on to examine options to address these issues, including decreasing speed limits for cars, adjusting traffic signal phasing, reviewing the *Roads Act 1993* to reflect the principles outlined in the Road User Space Allocation policy, as well as options for public education. Finally, this chapter investigates issues associated with insurance and liability of e-mobility device users.

Increased risk of injury to riders and pedestrians

- 6.1** This section discusses safe use of e-mobility devices. It discusses the risk of injury from the perspective of pedestrians, including those who are elderly, or have a disability, then examines the safety of users of e-bike and e-scooters.
- 6.2** As noted in previous chapters of this report, key features of e-mobility devices which potentially increase the risk of injury to pedestrians and users include the following:
- shared scheme e-mobility devices are often left parked or abandoned on paths creating obstruction and potential trip hazards for pedestrians⁴³⁸
 - an increase in use by those under 16 years and associated lack of knowledge of road rules and safe riding increases the risk of collisions and harm to riders and pedestrians⁴³⁹
 - increased speed capability and weight of e-bikes potentially increases the severity of injury to pedestrians or riders in the event of a collision or accident⁴⁴⁰
 - a lack of separated cycling infrastructure means some people find the safer option to ride on the footpath.⁴⁴¹

Safety risks for pedestrians

- 6.3** The inquiry received a high volume of evidence outlining the concerns of those on foot, whether due to the hazards imposed by parked or discarded rental devices or dangerous interactions with e-bikes or e-scooters in action.

⁴³⁸ Submission 19, Mr Adam Worling, p 1.

⁴³⁹ Submission 124, Dr Marjorie O'Neill MP, Member for Coogee, p 7- 8.

⁴⁴⁰ Submission 121, Sutherland Shire Council, pp 3- 4.

⁴⁴¹ Submission 134, City of Sydney, p 31.

Parked or abandoned shared scheme e-mobility devices

6.4 Some submission authors expressed concerns about the hazards associated with inappropriately parked or abandoned shared e-mobility devices.⁴⁴² For example, the following concerns were expressed about parked or abandoned shared e-mobility devices.

- 'They leave these bikes in the most inconvenient and dangerous locations, blocking entrances and exits to buildings, fire exits, shop doorways and blocking footpaths and if one is left on the floor a danger to anybody walking along, especially if one is visually impaired, which I am!'⁴⁴³
- '... people with physical disabilities in New South Wales are being forced into dangerous situations due to e-bikes and e-scooters abandoned on pedestrian pathways. I'd like you to picture this: a wheelchair user having to navigate into a busy roadway where cars may not see them, having to risk their safety simply because the footpath is blocked'.⁴⁴⁴
- 'Consideration needs to be made for the elderly ... leaving bikes in the middle of a pedestrian thoroughfare disadvantages these groups of people'.⁴⁴⁵
- '... a pedestrian tripped on abandoned bikes as he walked along the footpath in front of our building and this resulted in him being hospitalised'.⁴⁴⁶

E-mobility devices being ridden on footpaths and shared paths

6.5 Noting that riding on footpaths is only legal for those aged under 16 years (or those in the company of those aged under 16) many inquiry participants raised instances of unsafe travel on footpaths or shared spaces,⁴⁴⁷ with the strongest concerns being expressed about young people on high powered e-bikes.

- 'A young boy on the ... footpath moving far too quickly past the Surfhouse cafe. A child or someone moving quickly and it would probably be a broken leg at least ... As I'm sure you are aware, these bikes are much heavier than your foot pedal bikes...'.⁴⁴⁸
- 'I have seen children as young as 10 with a pillion passenger travelling at top speed, young girls tripling on these bikes at night, bikes weaving between pedestrians at speed it is only a matter of time before someone is severely injured or killed'.⁴⁴⁹

6.6 The Pedestrian Council of Australia Ltd was scathing of the lack of enforcement of rules regarding e-mobility devices on footpaths and shared paths, particularly due to the increased weight and speed of these devices.

⁴⁴² Submission 120, Local Government NSW, p 6; Submission 169, Millers Point Community Resident Action Group, p 3; Submission 202, Name suppressed, p 2.

⁴⁴³ Submission 88, John Summers, p 7.

⁴⁴⁴ Evidence, Mr Ed Morris, Chief Executive Officer, Physical Disability Council of NSW, 31 October 2024, p 16.

⁴⁴⁵ Submission 19, Mr Adam Worling, p 1.

⁴⁴⁶ Submission 93, Mrs Helene Atkinson, p 1.

⁴⁴⁷ Submission 203, Mr Paul Hooper, p 1; Submission 126, Mr Christina Ritchie, p 1.

⁴⁴⁸ Submission 76, Mr Stephen Daley, p 1.

⁴⁴⁹ Submission 85, Name suppressed, p 1.

The idea that riders can now ride on footpaths and shared paths on vehicles weighing as much as 60 kgs, with little or no enforcement and at the same speed limit as the adjacent road defies imagination.⁴⁵⁰

6.7 With the ability to travel at a greater speed, combined with the greater weight of e-bikes and e-scooters there is potential for increased injuries to pedestrians in the event of a collision. For example, an individual described their life-threatening injuries and ongoing health problems as the result of being hit by a speeding e-bike on a city footpath.

- 'I ... was flung into the air ...[then] speared headfirst into the pavement I regained consciousness ... my spectacles and hearing aids found some distance away.'
- After three days in hospital he was discharged, then nearly two weeks later he collapsed and was ultimately transferred by helicopter to RPA.
- He underwent emergency surgery to remove fluid from between his brain and skull and was told by the surgeon 'they almost lost me twice during the operation'.
- He suffers ongoing weary spells and concentration issues and has been forced into retirement six months earlier than planned.⁴⁵¹

6.8 However, Transport for NSW Open Data reveals people on footpaths are far more likely to be hit by a car (6 times more likely) or truck than a bicycle, e-scooter or e-bike.⁴⁵² Similarly, City of Sydney crash data shows the incidence of a car hitting a pedestrian (over 100 cases, 10 fatal from 2018 to 2022) or hitting a bicycle (51-100 cases from 2018 to 2022), is much higher than the incidence of a bicycle hitting a pedestrian (6-10 cases from 2018 to 2022).⁴⁵³ A bicycle riding on a footpath is likely to add negligible risk to pedestrians but significantly reduce their own risk.⁴⁵⁴

Vulnerable pedestrians

6.9 The silence and the ease of travelling at speed on electrically powered devices are the key factors which increase the risk to pedestrians; this is compounded by factors such as ignorance of road rules or additional weight due to passengers.⁴⁵⁵ Of particular concern was the potential impact of e-mobility devices on vulnerable pedestrians, including elderly people and people with a disability, as discussed below.

6.10 In their submission, Vision Australia related findings of a survey of 121 individuals in the blind and low vision community about the risks posed by e-scooters; including that 63 per cent had tripped over an e-scooter left on a footpath. The submission also relayed an example of an individual who said their Seeing Eye dog was forced onto the road to get around parked

⁴⁵⁰ Submission 1, Pedestrian Council of Australia Ltd, p 4.

⁴⁵¹ Submission 99, Name suppressed, p 1.

⁴⁵² Submission 175, Committee for Sydney, p 4.

⁴⁵³ Submission 134, City of Sydney, p 29.

⁴⁵⁴ Submission 134, City of Sydney, p 29.

⁴⁵⁵ Submission 124, Dr Majorie O'Neill MP, Member for Coogee, p 5.

devices.⁴⁵⁶ The silent nature of these vehicles is of particular concern for people who are blind or low vision, or those who are hard of hearing.⁴⁵⁷

- 6.11** Mr Bruce Maguire, Lead Policy Advisor, Vision Australia, emphasised the need for e-mobility devices to be 'equipped with technology that allows them, for example, to detect pedestrians and that limits their speed when they do detect pedestrians'.⁴⁵⁸
- 6.12** Mr Maguire also stressed for shared pathways, there needs to be consideration of how people who are blind or low vision 'can distinguish whether they're on a shared-use path or a regular footpath', for example:
- a change in surface in the shared-use path or a physical barrier where possible
 - adequate signage so that people are never in doubt as to what kind of footpaths they're on at any particular time.⁴⁵⁹
- 6.13** Likewise, both Illawarra Ramblers and Inner West Council Bicycle Working Group highlighted the need for clear signage on shared paths and footpaths.⁴⁶⁰ In particular, Mr Sam Garrett-Jones, Member, Illawarra Ramblers, identified for many places 'it's rather unclear where a share path and cycleway has ended and a pedestrian footpath has commenced'. Mr Garrett-Jones called for 'much greater use of clear signs, showing whether bikes are permitted or not'.⁴⁶¹
- 6.14** Common themes in submissions included that elderly persons are vulnerable to fast moving e-bikes and e-scooters, particularly on footpaths, but also on shared pathways.⁴⁶² Mr Harold Scruby, Chief Executive Officer, Pedestrian Council of Australia Ltd, quoted advice that indicated that doubling rider speed from 10 to 20 km/h increased the risk of injury to pedestrians by a factor of five.⁴⁶³
- 6.15** Small children are also vulnerable, with at least one witness describing a three year old child who was severely injured: '... [he was] hit by an electric bike while on a footpath with his mother. ... he has years of therapy ahead because one leg is shorter than the other'.⁴⁶⁴
- 6.16** Mr Trevor Mudge, Representative, Traffic Sub Committee, Millers Point Community Resident Action Group, who is also a wheelchair user said '[t]he problems of getting around Sydney are

⁴⁵⁶ Submission 196, Vision Australia, pp 6-8.

⁴⁵⁷ Evidence, Mr Bruce Maguire, Lead Policy Advisor, Vision Australia, 31 October 2024, pp 19-20; Evidence, Mrs Leanne Farmer, Community Advocate, The North Cronulla Precinct Committee, 29 October 2024, p 55.

⁴⁵⁸ Evidence, Mr Maguire, 31 October 2024, p 18.

⁴⁵⁹ Evidence, Mr Maguire, 31 October 2024, p 18.

⁴⁶⁰ Evidence, Mr John Groom, President Illawarra Ramblers, 30 October 2024, p 13; Evidence Mr Sam Garrett-Jones, Member, Illawarra Ramblers; 30 October 2024, p 13; Evidence, Dr Tom Watson, Group Member, Inner West Council Working Bicycle Group, 30 October 2024, p 13.

⁴⁶¹ Evidence, Mr Garrett-Jones, 30 October 2024, p 13.

⁴⁶² Submission 1, Pedestrian Council, p 4; Submission 4, Name suppressed, p 1; Submission 53, Mr Ross Langford-Brown, p 1.

⁴⁶³ Evidence, Mr Harold Scruby, Chief Executive Officer, Pedestrian Council of Australia Ltd, 30 October 2024, p 17.

⁴⁶⁴ Evidence, Mrs Farmer, 29 October 2024, p 51.

quite significant, especially with bikes strewn all over the footpaths'.⁴⁶⁵ This issue was echoed by the Physical Disability Council of New South Wales, the Justice and Equity Centre and in submissions from a number of individuals.⁴⁶⁶

- 6.17** A number of stakeholders advocated for better regulation of parking of shared e-bikes and e-scooters in line with accessibility requirements for people with disability. This is discussed in detail in chapter 5 on infrastructure.
- 6.18** To safely accommodate e-mobility, inquiry participants raised other traffic calming and design considerations for shared roads and paths, for example:
- delivering more wombat crossings [raised pedestrian crossings]
 - removing roundabouts⁴⁶⁷
 - wider and better-separated shared pathways
 - better separation at key intersections⁴⁶⁸
 - narrower traffic lanes through planter boxers or markings.⁴⁶⁹

Safety risks for e-mobility device riders

- 6.19** As foreshadowed above and discussed in detail in chapter 3, a number of factors influence whether e-mobility devices are being safely used, including speed, the age of the rider, helmet use, knowledge of road rules,⁴⁷⁰ and whether they are on a footpath, shared pathway or road.⁴⁷¹
- 6.20** The committee was provided with evidence about injuries in children due to accidents involving electric scooters and bikes. In particular, the Centre for Trauma Care, Prevention, Education and Research at Westmead Children's Hospital observed a 'steady increase' in injuries since 2020, including that:
- ages ranged from 5 to 15 years old, with 13 years old and above accounting for 64 per cent of injuries.
 - e-scooters were responsible for 70 per cent of injuries.
 - in more than 70 per cent of cases those injured were not wearing protective equipment.⁴⁷²

⁴⁶⁵ Evidence, Mr Trevor Mudge, Representative, Traffic Sub Committee, Millers Point Community Resident Action Group, 29 October 2024, p 51.

⁴⁶⁶ Evidence, Mr Ed Morris, Chief Executive Officer, Physical Disability Council of NSW, 31 October 2024, p 16; Submission 166, Justice and Equity Centre, p 2; Submission 42, Name suppressed, p 1; Submission 74, Ms Abigail Sheppard, p 2; Submission 111, Name suppressed, p 1.

⁴⁶⁷ Submission 175, Committee for Sydney, p 10.

⁴⁶⁸ Submission 150, Wollondilly Shire Council, p 2.

⁴⁶⁹ Evidence, Dr Tom Watson, Group Member, Inner West Council Bicycle Working Group, 30 October, p 13.

⁴⁷⁰ Note that licensing requirements for e-mobility users are discussed in depth in Chapter 3.

⁴⁷¹ Evidence, Mr David Reynolds, Chief Executive, Local Government NSW, 31 October 2024, p 22.

⁴⁷² Submission 161, Centre for Trauma Care, Prevention, Education and Research at Westmead Children's Hospital, p 1.

- 6.21** Dr S. V. Soundappan, Staff Specialist Academic Surgeon, Head of Trauma, Centre for Trauma Care, Prevention, Education and Research at Westmead Children's Hospital, expanded on this.
- There has been an increasing number of children presenting to the emergency department with injuries related to electric mobility vehicles in the last five years.
 - There has been a sharp increase in the number of injuries in the last year.
 - Two-thirds of the injured children are not wearing helmets.
 - Accidents include children colliding with stationary or moving vehicles and pedestrian children being injured by electric mobility vehicles.
 - The majority of injuries are soft tissue and fractures.
 - There have also been significant head injuries, with complex fractures and bleeds into the brain and internal organ injuries in the abdomen, which require admission to the intensive care unit.⁴⁷³
- 6.22** Other evidence to the committee highlighted the disproportionate level of injuries associated with e-scooter use compared to e-bikes. In particular, data collected in Brisbane and Melbourne was sufficient to raise concerns about safety of e-scooter rental schemes in those cities and led to the rental operator being required to improve its management of the scheme in Brisbane and an outright ban in Melbourne.⁴⁷⁴
- 6.23** The City of Sydney noted the injuries experienced by food delivery riders:
- Unsafe riding conditions may apply particularly to food delivery riders, who often operate at night and to customer expectations around delivery times. Between 2018 and 2022, 18 food delivery riders on pedal cycles were injured on City of Sydney LGA roads, with 8 seriously injured and one rider killed.⁴⁷⁵

Safety issues due to rider behaviour/characteristics

- 6.24** Dr John Crozier, Committee Member, Royal Australasian College of Surgeons NSW, advised the committee of the link between alcohol use and e-scooter injuries.
- In Brisbane, alcohol was a factor in over 40 per cent of cases.
 - In Melbourne, alcohol was present in 43 per cent of instances.
 - In Sweden, alcohol was a component in 40 per cent of injuries.
 - Internationally, alcohol is a factor in 'disproportionately more' of those who have injuries requiring hospitalisation and surgery.⁴⁷⁶

⁴⁷³ Evidence, Dr S. V. Soundappan, Staff Specialist Academic Surgeon, Head of Trauma, Centre for Trauma Care, Prevention, Education and Research at Westmead Children's Hospital, 30 October 2024, pp 2-3.

⁴⁷⁴ Evidence, Dr John Crozier, Committee Member, RACS NSW, Royal Australasian College of Surgeons, 30 October 2024, p 4.

⁴⁷⁵ Submission 134, City of Sydney, p 16.

⁴⁷⁶ Evidence, Dr Crozier, 30 October 2024, p 4.

- 6.25** Dr Crozier also noted that e-scooters are inherently unstable and impact at low speeds, even at 10 kilometres per hour or less, 'can deliver very devastating injuries. Humans are not good at judging risks and we are very fragile creatures'.⁴⁷⁷
- 6.26** Dr Soundappan advised that their data showed that 'non-compliance' for helmets is lower on bicycles (25 to 30 per cent of children) than e-scooters and 'e-mobility vehicles' (70 per cent), although he noted that non-compliance was also high for 'push scooters' (non-electric scooters).⁴⁷⁸
- 6.27** Both Dr Crozier and Dr Soundappan noted other aspects of e-scooters which increased the likelihood of a more serious injury compared to e-bikes.
- 'Face plants' are more likely, with increased chance of injury to the face and head.⁴⁷⁹
 - Riders hitting a kerb often instinctively retain their hold on the handlebars, with insufficient time to react to prevent the face hitting the kerb.⁴⁸⁰
 - Even at 10 kilometres per hour the impact on the face is enormous; 'three times the threshold where traumatic brain injury is probable'.⁴⁸¹
 - At 25 kilometres per hour the rider is also thrown, an additional impact on the rider's body.⁴⁸²
 - Helmets are not designed to take impacts from the front or side, only impacts from the top.⁴⁸³
- 6.28** In their submission, the Centre for Trauma Care, Prevention Education and Research at Westmead Hospital advocated for the following interventions for e-mobility devices to decrease injuries in children:
- enforcement of the use of correctly fitted helmets, with consideration of the need for wrist guard and knee pads
 - age restrictions, prohibiting use by children under 12 years and enforcement of 'one person per device'
 - speed limiting of devices, especially those marketed to children, with use of geofencing for shared schemes
 - creation of infrastructure to separate transport modes, crucial for reducing collisions involving children
 - mandatory safety features for all devices, including bells and lights.⁴⁸⁴

⁴⁷⁷ Evidence, Dr Crozier, 30 October 2024, p 6.

⁴⁷⁸ Evidence, Dr S. V. Soundappan, 30 October 2024, p 7.

⁴⁷⁹ Evidence, Dr S. V. Soundappan, 30 October 2024, p 7.

⁴⁸⁰ Evidence, Dr John Crozier, 30 October 2024, p 7.

⁴⁸¹ Evidence, Dr Crozier, 30 October 2024, p 7.

⁴⁸² Evidence, Dr Crozier, 30 October 2024, p 7.

⁴⁸³ Evidence, Dr Crozier, 30 October 2024, p 8.

⁴⁸⁴ Submission 161, Centre for Trauma Care, Prevention Education and Research at Westmead Hospital, pp 3-4.

Traffic management considerations

Speed limits for e-scooters on shared paths

- 6.29** The e-scooter shared scheme trials impose 10 km/h speed limits on shared paths. The NSW Government indicated that feedback on the current trials showed that this speed is considered slow by some users and might 'incentivise users to ride their e-scooters on road, which is less safe'.⁴⁸⁵
- 6.30** On 28 October 2024⁴⁸⁶ Transport for NSW released 'Draft key e-scooter rules' ('draft rules') informed in part by the NSW Shared e-scooter Trial Program and other states and jurisdictions where it is legal for people to ride e-scooters. In particular, the draft rules propose that private e-scooter use be legalised in public spaces, with 20 km/h speed limits for e-scooters on shared paths, (this is in contrast to the 10 km/h limit currently imposed for the shared e-scooter trials).⁴⁸⁷ The draft rules note:
- the proposed speed limit is consistent with proposed allowable speeds on roads and bike paths/lanes.
 - the proposed speed limit is consistent with speeds in Victoria and lower than the limits of 25 km/h in the ACT, Tasmania and Western Australia.
 - lower speeds can be imposed in specific areas, such as around playgrounds or health facilities.
 - the draft rules differ from the rules for e-bikes, which may travel at the speed of the adjacent road, or as signposted.⁴⁸⁸
- 6.31** Dr Crozier of the Royal Australasian College of Surgeons NSW was of the view that the limit for e-scooters should remain 10 km/h on shared paths.⁴⁸⁹ Similar concerns were expressed by Mr Scruby, of the Pedestrian Council of Australia Ltd, as previously outlined in paragraph 6.14 above and the Australian College of Road Safety.⁴⁹⁰

⁴⁸⁵ Submission 153, NSW Government, p 11.

⁴⁸⁶ NSW Government, Transport for NSW, *Draft key e-scooter rules*, October 2024, <https://www.transport.nsw.gov.au/system/files/media/documents/2024/Draft-key-e-scooter-rules-October-2024.pdf>

⁴⁸⁷ NSW Government, Transport for NSW, *Draft key e-scooter rules*, October 2024, p 3, <https://www.transport.nsw.gov.au/system/files/media/documents/2024/Draft-key-e-scooter-rules-October-2024.pdf>

⁴⁸⁸ NSW Government, Transport for NSW, *Draft key e-scooter rules*, October 2024, p 3, <https://www.transport.nsw.gov.au/system/files/media/documents/2024/Draft-key-e-scooter-rules-October-2024.pdf>

⁴⁸⁹ Evidence, Dr Crozier, 30 October 2024, p 5.

⁴⁹⁰ Evidence, Mr Michael Timms, Chair, NSW Chapter, Australasian College of Road Safety, 30 October 2024, p 31.

- 6.32** On the other hand, Mr Stephen Coulter, Director of Zipidi and the head of eMobility Australia, supported the draft rules.⁴⁹¹
- 6.33** Shared bike operators informed the committee about the innovative technologies they are deploying to address speed-related concerns in their usage.
- Mr William Peters, representing Lime, emphasised the advantages of shared fleets over private devices, stating: 'Unlike private devices, shared fleets operate within strict parameters. Speed limits are hardwired in and managed through geofencing technology'.⁴⁹²
 - Ario highlighted the advanced safety features of its devices, which are equipped with four cameras and depth sensors. These sensors can detect when a vehicle is being ridden on a footpath and identify pedestrians in the vicinity. The technology automatically slows the vehicle to a stop or a reduced speed and alerts both the rider and pedestrians to ensure safety.⁴⁹³

Travel on roads

- 6.34** There was also discussion around the risk to e-mobility device users (and conventional bicycle riders) posed by motor vehicles when they shared roadways. Two specific issues were raised by stakeholders that could improve the safety for e-mobility device users – traffic signal phasing⁴⁹⁴ and reduced car speeds on certain roads, discussed below.

Changes to traffic signal phasing

- 6.35** The City of Sydney advocated for changes to traffic signal phasing, which dictates the wait time for all users at signalised intersections and noted the following:
- most signals prioritise vehicle movement 'often to the detriment of safety and convenience for people walking or riding'
 - a cycleway on a specific street has users spending up to 70 per cent of their travel time waiting at signals, even in the absence of vehicles on the street
 - Other jurisdictions have maximum wait times of 30-45 seconds, whereas Sydney intersections can have wait times of up to 90 seconds.⁴⁹⁵
- 6.36** Bicycle NSW explicitly stated that prioritising people walking and cycling in traffic signal phasing will improve safety: 'Research has shown a delay of more than 30 seconds at a signalised crossing will tempt pedestrians to cross against the "red man". Across NSW, 120 second waits are very common'. While they acknowledge that resourcing issues make it difficult to adjust phasing on

⁴⁹¹ Evidence, Mr Stephen Coulter, Director, Zipidi and Head of eMobility Australia, 29 October 2024, p 14.

⁴⁹² Evidence, Mr William Peters, Senior Regional Director, Lime, 29 October 2024, p 14.

⁴⁹³ Evidence. Mr Adam Rossetto, Country Manager, Ario, 29 October 2024, p 17.

⁴⁹⁴ Traffic signal phasing dictates the wait time for all users (vehicles and pedestrians) at signalised intersections. See Submission 134, City of Sydney, p 27.

⁴⁹⁵ Submission 134, City of Sydney, p 27.

signalised intersections, they recommended the model in London, where phasing of traffic lights is reviewed every 5 years.⁴⁹⁶

Reduced speed limits for cars

- 6.37** The NSW Government indicated that 'safe mobility ... for vulnerable road users can be improved through the implementation of low on-road speed limits, where appropriate ...'.⁴⁹⁷ In concurrence with this, a number of stakeholders supported decreased speed limits for cars where there are likely to be bike riders and e-mobility device users, as discussed below. The NSW Government already provides for 30 and 40 km/h zones to be imposed where appropriate, via the new NSW Speed Zoning Standard.⁴⁹⁸
- 6.38** At least one stakeholder also noted that e-mobility users often only rode on footpaths when they felt unsafe on roads.⁴⁹⁹
- 6.39** Professor Narelle Haworth AM, Research Professor, Centre for Accident Research and Road Safety - Queensland, indicated that at '30 kilometres per hour or below ... the risk of a collision and the outcome of a collision with an unprotected road user—whether they be a pedestrian or on any sort of two-wheeled device—is much better'.⁵⁰⁰
- 6.40** Mr Sebastian Smyth, Executive Manager, City Access and Transport representing the City of Sydney, stated, 'the City's standing position is that reducing speeds on roads benefits the safety and amenity of all people'. The council highlighted that most micromobility trips require using streets without separated cycleways, a reality unlikely to change in the near term. High speed limits on many roads were identified as a barrier to increasing micromobility usage and safety.⁵⁰¹
- 6.41** The City of Sydney proposed that Transport for NSW implement the following reduced speed limits in their Local Government Area to provide safe roads for e-mobility device users:
- 30 km/h speed limits in the city centre, high streets, around schools, around childcare centres, around universities and health care centres
 - 40 km/h speed limits in all other areas
 - reduction of speed limits in neighbouring council areas.⁵⁰²
- 6.42** Both Bicycle NSW and Bicycle Industries Australia agreed that cars should be limited to 30 km/h on roads which are likely to be used by e-mobility devices, in particular in built up areas.⁵⁰³

⁴⁹⁶ Submission 159, Bicycle NSW, p 6.

⁴⁹⁷ Submission 153, NSW Government, p 11.

⁴⁹⁸ Submission 153, NSW Government, p 12.

⁴⁹⁹ Evidence, Mr Sam Garrett-Jones, Member, Illawarra Ramblers, 30 October 2024, p 13.

⁵⁰⁰ Evidence, Professor Narelle Haworth AM, Research Professor, Centre for Accident Research and Road Safety - Queensland, 30 October 2024, p 32.

⁵⁰¹ Evidence, Mr Sebastian Smyth, Executive Manager, City Access and Transport, City of Sydney, 29 October 2024, p 11.

⁵⁰² Submission 134, City of Sydney, p 6.

⁵⁰³ Evidence, Mr Peter Bourke, General Manager, Bicycle Industries Australia, 31 October, p 31; Evidence, Mr Peter McLean, Chief Executive Officer, Bicycle NSW, 31 October, p 32.

- 6.43** Ms Harri Bancroft, Policy Manager – Mobility, Committee for Sydney, reflected on the success of similar measures in London, where reduced speed limits have encouraged greater cycling uptake. She stated reducing the speed limit to 30 km/h from 50 km/h reduces the risk of death in a collision and 'makes people feel a lot safer to be cycling on the road and sharing that space on the road'.⁵⁰⁴
- 6.44** Mr Simon Mueller, Manager, Integrated Transport, Waverley Council advocated for granting local councils more autonomy to set speed limits in their areas, suggesting that councils are best placed to respond to local conditions. He proposed, '...providing that regulatory framework that allows councils to, in line with State guidelines, potentially move forward on those items in some ways more independently or as they see fit, given that each council within the State has very different... urban conditions and the like'.⁵⁰⁵
- 6.45** Mr David McTiernan, National Leader, Transport Safety, National Transport Research Organisation supported tailoring speed limits to the specific context and function of roads, a concept he described as 'the right speed for the right road'. He explained that the road environment must support the intended speed limit, ensuring both compliance and safety. 'Clearly, in our neighbourhoods, where we live and where we shop, we want lower speed limits because of the interaction with vulnerable road users such as pedestrians, cyclists and delivery riders', he said. 'I would certainly be advocating for lower speed limits in those environments where we see that vehicle and pedestrian or vulnerable road user interaction'.⁵⁰⁶
- 6.46** More broadly, some stakeholders suggested the above issues relating to road use could be addressed by better implementation of the Road User Space Allocation Policy. The Committee for Sydney recommended that the *Roads Act 1993* and the *Road Transport Act 2013* should be amended, in particular to better meet the needs of all road users and in particular prioritise pedestrian and riders of bicycles and e-mobility devices.⁵⁰⁷
- 6.47** Advice from the NSW Government notes that:
- an update of the Road User Space Allocation Policy was completed in 2024
 - an update to the Road User Space Allocation Procedure will be completed in 2025
 - Transport for NSW is currently investigating the scope for a review of the *Roads Act 1993* and the broader legislative framework, in line with the recommendations arising from the update of the Road User Space Allocation Policy.⁵⁰⁸

⁵⁰⁴ Evidence, Ms Harri Bancroft, Policy Manager – Mobility, Committee for Sydney, 29 October 2024, p 25.

⁵⁰⁵ Evidence, Mr Simon Mueller, Manager, Integrated Transport, Waverley Council, 29 October 2024, p 32.

⁵⁰⁶ Evidence, Mr David McTiernan, National Leader, Transport Safety, National Transport Research Organisation, 29 October 2024, p 44.

⁵⁰⁷ Submission 175, Committee for Sydney, p 6.

⁵⁰⁸ Answers to questions on notice, NSW Government, received 27 November 2024, Appendix A - NSW E-micromobility Action Plan, pp 1-2.

Data collections

- 6.48** Analysis of data on accidents is an important element for understanding risks and making recommendations for regulation and safety of e-mobility devices. There are still gaps in the way data is recorded in New South Wales regarding injuries associated with e-mobility devices, which is covered in the section below.

Injury data

- 6.49** Data on significant injuries is submitted to the State Trauma Registry, maintained by the NSW Institute of Trauma and Injury Management.⁵⁰⁹ However, a number of stakeholders raised concerns about the lack of data on injuries or fatalities involving e-mobility devices.⁵¹⁰
- 6.50** It became apparent to the committee that while information is collected on whether an electric bike or scooter was involved in an incident, it is not coded in a way for easy collation of the data.⁵¹¹ In her evidence, Dr Wei He, Trauma Data and Research Manager, Centre for Trauma Care, Prevention, Education and Research at Westmead Children's Hospital, outlined limitations of the data which they had provided in their submission:
- ... [it is] based on the data collected within the major paediatric trauma service at the Children's Hospital at Westmead. We maintain this data on a daily basis to monitor injury patterns closely. However, we recognise that the numerical data alone... may not fully capture the range and depth of [e-mobility devices]-related injuries, especially given the lack of consistent coding schemes in the trauma registry so far. A more comprehensive understanding often requires a variety of data collection and analysis methods to present the full picture.⁵¹²
- 6.51** Dr S. V. Soundappan, Staff Specialist Academic Surgeon, Head of Trauma, Centre for Trauma Care, Prevention, Education and Research, Westmead Children's Hospital, also noted that the data presented in their submission is based on children seen through the trauma team at the hospital and does not capture all presentations to the emergency department.⁵¹³
- 6.52** Dr John Crozier, Committee Member, NSW Royal Australasian College of Surgeons NSW, noted that in the last five years in New South Wales there have been 53 cyclist fatalities and 9,536 hospitalisations.⁵¹⁴ However, due to current data recording practices, it is not clear how many of these are electric bikes or conventional bicycles. He advised that Liverpool Hospital has used artificial intelligence to interrogate its emergency data records. This allowed the hospital to determine if a patient was injured as a result of an incident involving an electric mobility device, as a pedestrian 'strike-by', rider or pillion passenger, as currently the data coding system

⁵⁰⁹ Evidence, Dr S. V. Soundappan, 30 October 2024, p 3.

⁵¹⁰ Submission 117, Mrs Anne Smith, p 2; Submission 120, Local Government NSW, p 8; Submission 132, National Transport Research Organisation, p 3.

⁵¹¹ Evidence, Dr Wei He, Trauma Data and Research Manager, Centre for Trauma Care, Prevention, Education and Research at Westmead Children's Hospital, 30 October 2024, p 2.

⁵¹² Evidence, Dr He, 30 October 2024, p 2.

⁵¹³ Evidence, Dr Soundappan, 30 October 2024, p 3.

⁵¹⁴ Evidence, Dr Crozier, 30 October 2024, pp 3-4.

does not capture this information. He advised that numbers have been 'growing exponentially'.⁵¹⁵

- 6.53** Dr Wei He, Trauma Data and Research Manager, Centre for Trauma Care, Prevention, Education and Research, Westmead Children's Hospital, confirmed that the issue with data on these incidents relates to the coding of the data, not the quality of the data. She indicated that currently only free text notes capture the information so the data would have to be collated manually.⁵¹⁶
- 6.54** Dr He advised there has now been agreement by the NSW Institute of Trauma and Injury Management⁵¹⁷ on how to capture data relating electric mobility device injuries in New South Wales hospitals.⁵¹⁸
- 6.55** The Centre for Trauma Care, Prevention, Education and Research called for 'Nationally Recognised Data Recording ... standardised injury surveillance approaches to accurately capture [e-mobility related] traumas in paediatric health systems, facilitating better tracking and analysis of injury patterns'.⁵¹⁹

Accident data

- 6.56** The NSW Government E-micromobility Action Plan indicated that while data is available for e-scooters, this is not the case for e-bikes: 'In NSW, between 2020-2023, there were 124 e-scooter police reported crashes, resulting in 3 fatalities and 116 injuries including 40 serious injuries. Collecting data on safety incidents involving e-bikes is challenging, because they are not currently considered separately from conventional bikes'.⁵²⁰
- 6.57** The National Transport Research Organisation underlined the same issue with data collections in other jurisdictions: 'generally state and territories are not collecting data specific to mobility device users, including e-scooter and e-bikes' with the exception of the Queensland Department of Transport and Main Roads which has collected e-mobility device fatalities as a separate category since 2022. They also advised that 'Brisbane City Council ... have "contracted in" the release of data sets from each of the e-scooter providers to the Council. ... Council can map the more than one million trips each year and ascertain the speed, location and crash history for the fleet of e-scooters in operation'.⁵²¹
- 6.58** The Australasian College of Road Safety advised that due to the separate reporting category in Queensland, data has shown that more people have been killed on e-mobility devices in the

⁵¹⁵ Evidence, Dr Crozier, 30 October 2024, pp 3-4.

⁵¹⁶ Evidence, Dr He, 30 October 2024, p 8.

⁵¹⁷ NSW Government, Institute of Trauma and Injury Management, *Trauma data requirements in NSW*, <https://aci.health.nsw.gov.au/networks/trauma/data/requirements>

⁵¹⁸ Evidence, Dr He, 30 October 2024, p 8.

⁵¹⁹ Submission 161, Centre for Trauma Care, Prevention, Education and Research, p 4.

⁵²⁰ NSW Government, *E-micromobility Action Plan*, October 2024, <https://www.transport.nsw.gov.au/system/files/media/documents/2024/NSW-E-micromobility-Action-Plan-October-2024.pdf>, p 6.

⁵²¹ Submission 132, National Transport Research Organisation, pp 3 and 4.

period January to October 2024 than on bicycles and that hospitalisation for e-scooter riders is greater than for bicycle riders.⁵²²

- 6.59** The National Transport Research Organisation recommended that there should be a nationally standardised crash database and noted the establishment of the federal Road Safety Data Hub as a first step towards this goal.⁵²³ Other stakeholders echoed these concerns about the lack of a consistent national database on accidents.⁵²⁴

Education, engagement and improving community knowledge

- 6.60** During the inquiry it became apparent that better knowledge and understanding in the community could improve safety for all users of roads and pathways. A strong consensus emerged among inquiry participants that effective compliance requires both enforcement and education working in tandem.⁵²⁵
- 6.61** The 'very significant' role of education in driving compliance was emphasised by Mr Tim Concannon, Chair of the Injury Compensation Committee at the Law Society of New South Wales. He highlighted Northern Beaches Council's simple code of conduct for e-bikes in schools, suggesting that 'public education could be real ground down into that school scenario...'.⁵²⁶ The work of Northern Beaches Council in this space is outlined in a case study on pages 114-115.
- 6.62** In her media release announcing the E-mobility Action Plan, the Minister for Transport, the Hon Jo Haylen MP, noted only 22 per cent of people know it is illegal to ride e-scooters on roads in New South Wales.⁵²⁷
- 6.63** The NSW Government advised it is currently conducting a number of education and engagement strategies to improve safe use of e-mobility devices, including:
- providing information on the shared e-scooter trial, safe road user behaviours and road rules relating to permitted e-bikes and illegal and legal uses of e-scooters.
 - supporting NSW councils to promote safe behaviours in shared e-scooter trial sites.
 - delivering the 'Share the road' campaign.

⁵²² Evidence, Dr Tasha Prabhakar, Deputy Chair, NSW Chapter, Australasian College of Road Safety, 30 October 2024, p 30.

⁵²³ Submission 132, National Transport Research Organisation, p 4.

⁵²⁴ Submission 133, The Law Society of NSW, p 2; Submission 137, Australasian College of Road Safety, p 3.

⁵²⁵ Evidence, Mr Richard Wheatley, Team Leader, Transport, Mid Coast Council, 29 October 2024, p 33; Evidence, Ms Genevieve Henderson, President, NSW Branch Committee, Australian Lawyers Alliance, 30 October 2024, p41; Evidence, Mr Tim Concannon, Chair, Injury Compensation Committee, Law Society of New South Wales, 30 October 2024, p41; Evidence, Mr Eamon Waterford, Chief Executive Officer, Committee for Sydney, 29 October 2024, pp 28-29.

⁵²⁶ Evidence, Mr Tim Concannon, Chair, Injury Compensation Committee, the Law Society of New South Wales, 30 October 2024, p 41.

⁵²⁷ Media Release, Hon Jo Haylen, Minister for Transport, 'E-scooters kick toward legalisation in NSW', 28 October 2024.

- Educating the community about permitted e-bikes and e-bike safety.⁵²⁸

6.64 The NSW Government also provides the Road Safety Education Program for children and young people, including:

- a partnership between Transport for NSW and the government and non-government school sectors and the Childhood Road Safety Education Program at Macquarie University
- support for early childhood educators and schoolteachers to deliver road safety education programs to early childhood centres and schools across New South Wales
- curriculum content designed to be developmentally appropriate.
- incorporation of road safety in the NSW Personal Development, Health and Physical Education Kindergarten to Year 10 syllabus.⁵²⁹

6.65 Additionally, Transport for NSW has recently completed initial engagement with select high schools to better understand students' 'e-bike use, behaviours, drivers and perceptions', with further research and engagement planned for 2025.⁵³⁰

6.66 Ms Sally Webb, Deputy Secretary, Safety, Policy, Environment and Regulation, Transport for NSW, added that looking ahead to the implementation of the New South Wales E-micromobility Action Plan, the government would continue this educational focus, noting that 'our intention is to provide considerable community education and information to enable people to ride safely and comply with the rules'.⁵³¹

6.67 Many stakeholders supported some form of public education campaign.⁵³² The sections below outline examples of campaigns.

Younger road users

6.68 The evidence in this section will focus on the education on the use of e-bikes by younger riders. Evidence showed significant uptake by young people of e-bikes, particularly in beachside areas.⁵³³ This was a particular focus of many stakeholders due to risky riding, particularly on footpaths and shared paths, compounded by the style of e-bike favoured by this group. As described in chapter 3, e-bikes can be used the same as conventional bicycles, by people of all

⁵²⁸ Submission 153, NSW Government, pp 22-23.

⁵²⁹ Answers to Questions on Notice, NSW Government, received 27 November 2024, pp 7-8.

⁵³⁰ Answers to questions on notice, NSW Government, received 27 November 2024, Appendix A - NSW E-micromobility Action Plan, p 11.

⁵³¹ Evidence, Ms Sally Webb, Deputy Secretary, Safety, Policy, Environment and Regulation, Transport for NSW, 31 October 2024, p 46.

⁵³² Submission 155, NRMA, p3; Evidence, Mr David Reynolds, Chief Executive, Local Government NSW, 31 October 2024, p 22; Submission 161, Centre for Trauma Care, Prevention, Education and Research at Westmead Children's Hospital, p 4.

⁵³³ Submission 23, Name suppressed, p 1; Submission 32, Name suppressed, p 1; Submission 175, Committee for Sydney, p 2; Submission 1, Pedestrian Council of Australia Ltd, p 85.

ages on roads, shared paths, bike paths and separated paths. Children under the age of 16 are also allowed to ride on footpaths.⁵³⁴

- 6.69** Areas with high pedestrian activities, including malls and foreshore shared paths were particular areas where young riders of e-bikes are seen as being in conflict with pedestrians, for example Cronulla.⁵³⁵
- 6.70** The need to educate young riders of e-bikes on safe riding was a common theme in evidence to the inquiry.
- 'Young riders particularly need more education about both the road rules and how to ride respectfully on shared paths'.⁵³⁶
 - 'The rules are blatantly and dangerously flouted by young people riding what are in fact illegal motorcycles'.⁵³⁷
- 6.71** Mr David McTiernan, National Leader for Transport Safety at the National Transport Research Organisation, identified a critical gap in road safety education for young drivers. He noted: 'You could have late teenagers becoming food delivery riders before they even have a driver licence. There is no exposure to road rules for them, specifically'. In response to this concern, he advocated for incorporating road safety education into school curricula through community engagement programs.⁵³⁸
- 6.72** Likewise, Mr Campbell Pfeiffer, Director, Transport and Assets, Northern Beaches Council, commented that many teenagers begin driving with little to no understanding of road rules, particularly if they have had limited exposure prior to obtaining their licence.⁵³⁹
- 6.73** The Northern Beaches Council acknowledged the growth in e-bike usage by young people and the great benefits it brings to the cohort. It has grappled with the risks of increased bicycle activity at higher speed on footpaths and worked on solutions, including education of young riders, as outlined in the case study below.

Case study: Northern Beaches Council and young riders on e-bikes⁵⁴⁰

Some revealing findings and innovative solutions are illustrated in this case study from the Northern Beaches Council.

Northern Beaches Council noted the impact of the rapid growth of young people under 16 years riding e-bikes, particularly the 'fat tyre' model, on footpaths. They had concerns for the safety of both

⁵³⁴ Submission 153, NSW Government, p 10.

⁵³⁵ Submission 34, Name suppressed, p 1; Submission 49, Mr Stephen Newell, p 1.

⁵³⁶ Submission 2, Mark Harwood, p 1.

⁵³⁷ Submission 27, Name suppressed, p 1.

⁵³⁸ Evidence, Mr David McTiernan, National Leader, Transport Safety, National Transport Research Organisation, 29 October 2024, p 43.

⁵³⁹ Evidence, Mr Campbell Pfeiffer, Director, Transport and Assets, Northern Beaches Council, 29 October 2024, p 10.

⁵⁴⁰ Submission 141, Northern Beaches Council, pp 2-5. This case study is based on the content of the submission.

pedestrians and riders 'due to the speed, size and quietness of these devices' and noted some riders were as young as 10 years old, with limited knowledge or understanding of road rules who may also lack 'cognitive ability or empathy to appropriately evaluate and manage risks ...'. Other concerns the Council had with young people using these e-bikes included:

- the tendency to travel above 40 km/h
- the removal of warning bells, which are required by law
- riders not wearing helmets
- pillion/additional passengers.

Council reported that community members felt vulnerable: 'in particular members who have experienced a near miss, who have a trauma history or who are particularly frail ... a psychological impact from not feeling safe using our footpaths with some reporting that they are re-considering their ability to walk as a transport option, impacting physical health and social inclusion outcomes'.

Research conducted by the Council with focus groups with 14 year-olds and their parents made some interesting findings:

- while young people had a strong awareness of personal safety requirements, there was a lower awareness of responsibilities towards other users of the shared space
- young people believed that the speed limit on footpaths is 25 km/h
- young people were frustrated with the lack of clear information on rules
- young people felt they were in a 'no win' situation, with aggression from drivers when riding on the road and verbal abuse from older pedestrians when they used the footpath
- parents believed schools were providing e-bike training and safety information
- many local schools indicated they were 'grappling with this issue'.

Northern Beaches Council devised an education campaign using behavioural economics insights, based on the research above. A short and simple code was devised, similar to the 'surfers code':

'Slow down to walking pace when others are on the path

Ring your bell and call 'on your right' to let others know you're approaching

Be ready for sudden changes – people, pets and prams can be unpredictable'.

6.74 Many stakeholders called for better education of young people, for example:

- educational messaging through 'diverse channels' with input from young people, giving them 'a sense of ownership of some of the content' so as to improve the relevance, distribution and acceptance of the messaging⁵⁴¹
- 'an upmarket video, with youth community leaders and prominent people from sporting and entertainment, which can be played at high schools and on social media platforms will ensure the best outcome'⁵⁴²

⁵⁴¹ Submission 97, City of Newcastle, p 3.

⁵⁴² Evidence, Ms Leanne Farmer, Community Advocate, The North Cronulla Precinct, 29 October 2024, p 51.

- including e-bike safety education alongside Driver Safety education in schools.⁵⁴³

6.75 Sutherland Shire Council described its role in road safety education and the limited scope of bike and e-bike education:

... road safety education is currently undertaken through a partnership with Transport for NSW, under their Local Government Road Safety Program. This provides joint funding for a road safety officer to run community campaigns and events aimed at reducing crashes in Sutherland Shire, based on crash statistics. There is, however, little scope to include bike and e-bike education as part of this funding arrangement due to: (a) capacity for Council's Road Safety Officer to deliver additional programs; and (b) Transport for NSW's Local Government Road Safety Program being limited to addressing road crash statistics, rather than emerging issues.⁵⁴⁴

6.76 Interestingly, Mr Phillip Devon, Manager, Transport Network of Northern Beaches Council said that some of the schools in the Northern Beaches Council area require students to sit the NSW Driver Knowledge Test online⁵⁴⁵ in order to be allowed to ride their e-bike to school.⁵⁴⁶ Building on this approach, Mr Michael Timms, Chair, NSW Chapter, Australasian College of Road Safety, suggested that the Driver Knowledge Test could be adapted to incorporate knowledge of rules for e-mobility devices.⁵⁴⁷ Dr Majorie O'Neill MP, Member for Coogee, proposed a similar solution, but that the test should be adapted specifically for e-bikes.⁵⁴⁸

Food delivery drivers

6.77 In addition to young users of e-bikes, a number of submissions raised concerns about food delivery e-bike riders illegally riding, riding recklessly and often at high speeds on footpaths.⁵⁴⁹ It was also observed that riders are frequently distracted by mobile phones used for navigation, creating serious safety risks for pedestrians.⁵⁵⁰

6.78 Ms Kobi Shetty MP, Member for Balmain, noted that gig economy riders, often working on piecemeal incomes under pressure to find the fastest routes, sometimes engage in unsafe practices, such as excessive speeds in pedestrian areas, posing risks to vulnerable road users. As a result, Ms Shetty MP stressed the need to 'find a careful balance between improving rider conduct and maintaining the shift away from cars as local and short-trip delivery vehicles'.⁵⁵¹

⁵⁴³ Submission 75, Name suppressed, p 1.

⁵⁴⁴ Submission 121, Sutherland Shire Council, p 2.

⁵⁴⁵ NSW Government, Service NSW, *Do your Driver Knowledge Test Online*, 17 December 2024, <https://www.service.nsw.gov.au/transaction/driver-knowledge-test-online>.

⁵⁴⁶ Evidence, Mr Phillip Devon, Manager, Transport Network, Northern Beaches Council, 29 October 2024, p 10.

⁵⁴⁷ Evidence, Mr Michael Timms, Chair, NSW Chapter, Australasian College of Road Safety, 30 October 2024, p 34.

⁵⁴⁸ Submission 124, Dr Marjorie O'Neill MP, Member for Coogee, p 6.

⁵⁴⁹ Submission 119, North Sydney Council, p 2; Submission 94, Name suppressed, p 1; Submission 107, Name suppressed, p 1; Submission 63, Mr Ross Attrill, p 1; Submission 74, Ms Abigail Sheppard, p 2; Submission 114, Mr Carl St Leon, p 12.

⁵⁵⁰ Submission 60, Name suppressed, p 2.

⁵⁵¹ Submission 160, Kobi Shetty, p 5.

- 6.79** Mr Sebastian Smyth, Executive Manager of City Access and Transport, City of Sydney, highlighted the critical need for appropriate regulation and fair working conditions to protect the safety and well-being of gig economy workers, including food delivery riders. He noted, 'There is an increasing number of transport workers using bikes to serve the community's growing demand for and reliance on deliveries and people working as delivery riders have the right to appropriate regulation and working conditions to keep them safe at work'.⁵⁵²
- 6.80** As noted in chapter 2, DoorDash is a food delivery company with couriers working with the DoorDash platform to deliver meals to platform users. DoorDash noted that regulatory requirements from 2022 in New South Wales mean that e-bike couriers must complete their safety course before joining the platform and DoorDash must provide high-visibility equipment to its riders. DoorDash advised that it has gone beyond these requirements and provided additional safety measures such as free or discounted safety equipment and a reduction in the number of notifications a rider may receive while making a delivery.⁵⁵³
- 6.81** The National Transport Research Organisation advised that it developed a training program in both English and Mandarin in 2021 for a major food delivery company and noted that '[i]n developing this training module, it has become evident that there are major gaps in road safety leadership and organisational safety culture across this industry. This engagement has made clear there is little to no technical guidance with respect to the apparel or equipment used by food delivery riders during their work'.⁵⁵⁴
- 6.82** Transurban, an operator of motorways in Sydney, Melbourne, Brisbane and overseas, recognised that those working in these roles are often overseas students for whom English is not their first language. They observed that this can lead to safety issues and suggested the need for 'symbolic signage, which can be easily understood regardless of language and for ongoing education due to the itinerant nature of this workforce'.⁵⁵⁵
- 6.83** As a solution, Transurban recommended replacing the text-based R6-13 sign (No pedestrians, bicycles, animals, agricultural machinery beyond this point), mandated by Transport for NSW, with the symbolic R6-10-3 sign (bicycles prohibited sign), which is universally understood. Additionally, Transurban suggested, 'increased use of pavement marking[s], to ensure the symbols are prominent for riders ... who may not be looking in the direction of roadside signs'.⁵⁵⁶
- 6.84** In particular, Transurban recommended that food delivery companies:
- Provide suitable on-boarding education clarifying how cyclists can safely choose routes to navigate the road network and advise on sections of the network that are prohibited or unsafe to access.
 - Provide in-app navigation suitable for cyclists to ensure clear, safe directions for cyclists [to] navigate away from sections of the road network that are prohibited or unsafe for cyclists.

⁵⁵² Evidence, Mr Sebastian Smyth, Executive Manager of City Access and Transport, City of Sydney, 29 October 2024, p 2.

⁵⁵³ Submission 158, DoorDash, p 2.

⁵⁵⁴ Submission 132, National Transport Research Organisation, p 4.

⁵⁵⁵ Submission 129, Transurban, p 2.

⁵⁵⁶ Submission 129, Transurban, p 4.

- Provide GPS monitoring of cyclists that includes alerts should they try and access sections of the road network that are prohibited or unsafe for cyclists.⁵⁵⁷

Improved road signage

6.85 Stakeholders agreed that appropriate and simple signage helped device users travel more safely, including signage for speed limits or permitted use of pathways.⁵⁵⁸

6.86 The Hon David Elliott, Chief Executive Officer, Institute of Public Works Engineering Australasia pointed to the need for better signage and other infrastructure to increase safe use of e-mobility devices:

Signage is important and people need to know that they are in a shared space because you're more situationally aware when you've been given that warning ... the surface of that road can be changed to assist. If you've got pedestrians there and you're also going to have vehicles going potentially 20 kilometres per hour, then you could put road humps in there or you could put those lights that are a lump there, which will deliberately slow e-bikes and e-scooters down.⁵⁵⁹

6.87 Dr Richard Buning, Senior Lecturer, UQ Business School, University of Queensland, advocated for the importance of signage in educating users, over and above knowledge of road rules:

We need to really make the education for this quite basic, simple and really easy. If we make it difficult or you need to go onto a transport website and read several bullet points, that's just really never going to reach most users. ... Adding some layer where they have to go onto a website that they don't even know exists and the first point is to read really complicated road rules, is really difficult. The simplest ways we can educate users is through signage.⁵⁶⁰

6.88 Ms Genevieve Henderson, President, NSW Branch Committee, Australian Lawyers Alliance, reiterated this, arguing signs should be prominently displayed 'in the spaces where families are walking along with babies and prams and these very fast-moving vehicles are coming past. That should be front and centre of what the regulations are. Regulations that nobody knows about are not effective regulations'.⁵⁶¹

⁵⁵⁷ Submission 129, Transurban, pp 4-5.

⁵⁵⁸ Evidence, Mr David Reynolds, Chief Executive, Local Government NSW, 31 October 2024, p 28; Evidence, Mr Bruce Maguire, Lead Policy Advisor, Vision Australia, 31 October 2024, p 18; Evidence, Mr Sonny Suharto, Principal Professional Engineer, National Transport Research Organisation, 29 October 2024, p 39.

⁵⁵⁹ Evidence, Hon David Elliott, Chief Executive Officer, Institute of Public Works Engineering Australasia, 30 October 2024, p 50.

⁵⁶⁰ Evidence, Dr Richard Buning, Senior Lecturer, University of Queensland Business School, 31 October 2024, p 6.

⁵⁶¹ Evidence, Ms Genevieve Henderson, President, NSW Branch Committee, Australian Lawyers Alliance, 30 October 2024, p 41.

Education of shared scheme users

- 6.89** Stakeholders raised concerns about the poor compliance with road rules by users of shared scheme e-bikes and scooters.⁵⁶²
- 6.90** Ario, operator of shared e-bike and e-scooter schemes, advised that it is introducing a code of conduct at the point of signing up on the app for their scheme. Users are required to check off the items in the code of conduct, before accessing the device.⁵⁶³
- 6.91** Mr Lachlan McLean, Head of Business Development, HelloRide, described their approach to rider education as 'massive'. He detailed their comprehensive process:

When they [the rider] sign up, it [the mobile application] runs them through these rules. They have the ability and we will push them to other locations [within the app] to read these rules. From there, we have numerous contact points with these users following their first ride or other rides in regard to the riding rules, educating them on safety et cetera.⁵⁶⁴

- 6.92** Chapter 3 contains details of technological solutions to safety issues such as non-compliance with helmet requirements or unsafe speeds near pedestrians, which are being implemented by shared scheme operators.

Retailers of e-mobility devices

- 6.93** Point of sale was considered a good opportunity to educate users about safe use and permitted devices. Dr Richard Buning, University of Queensland noted the importance of education of the customer by the retailer at the point of purchase, whether that be safe use or legal use of the device.⁵⁶⁵
- 6.94** Mr Carl St Leon noted the absence of point-of-sale education for e-scooters and argued that retailers have a responsibility to advise customers of legality of devices:

... a prominent Sydney retailer of e-bikes and e-scooters publishes the following notice in small print at the bottom of its advertising materials for e-scooters: "Please be aware of local laws regarding scooter usage on public lands and roads. Be safe by making sure you're protected with appropriate protective gear." Surely it is incumbent upon a Sydney-based retailer of e-scooters to make it unambiguously clear to prospective purchasers that ... operating an e-scooter on a public road or footpath in New South Wales is illegal.⁵⁶⁶

- 6.95** Northern Beaches Council reflected on this issue from a slightly different perspective, noting that the point of sale may be the only opportunity to educate users:

⁵⁶² Submission 65, Business Sydney, pp 1-2; Submission 214, Mr Paul Gilchrist, pp 1-2.

⁵⁶³ Evidence, Mr Trent Williams, Head of Strategic Communications, Ario, 29 October 2024, p 18.

⁵⁶⁴ Evidence, Mr Lachlan McLean, Head of Business Development, HelloRide, 30 October 2024, p 53.

⁵⁶⁵ Evidence, Dr Richard Buning, Senior Lecturer, University of Queensland Business School, 31 October 2024, pp 4 and 6.

⁵⁶⁶ Submission 114, Mr Carl St Leon, p 17.

Bike shops and online retailers may be the only authority touchpoint in the purchase process for both parents and young people. Regulatory requirements for bike retailers to provide appropriate information could be a powerful way to reach the target audience and inform them of their responsibilities.⁵⁶⁷

- 6.96** Mr Peter Bourke, General Manager, Bicycle Industries Australia, while supportive of education at point of sale, noted that some non-specialised retailers, for example Aldi, may not be best placed to educate purchasers on e-bike safety at the point of purchase.⁵⁶⁸

Insurance and liability considerations

- 6.97** This section discusses the limited availability of insurance for users of e-mobility devices, which can result in a lack of compensation for those injured in a crash involving a device and liability issues where the rider is under the age of 18 years.
- 6.98** Operators of shared e-scooter trials in New South Wales must have public liability, third-party property damage and personal accident insurance.⁵⁶⁹ Lime advised that they have comprehensive insurance for riders and the public.⁵⁷⁰ HelloRide advised that they have private and third-party insurance and only those over 18 years are eligible to hire their e-bikes.⁵⁷¹
- 6.99** While shared schemes are required to provide insurance for their users, there are limited insurance products for personal protection and third-party liability for private riders of e-bikes and e-scooters.
- 6.100** In particular, the NSW Government advised that the NSW Compulsory Third Party insurance scheme, 'is not designed or priced to respond to injuries or death sustained through use of [e-mobility] devices'. This is due to the fact that these devices are exempt from vehicle registration so cannot be insured via the scheme.⁵⁷²
- 6.101** While the NSW Government notes 'there are limited private insurance options' available for some devices,⁵⁷³ Bicycle NSW, the peak bicycle advocacy group in New South Wales, advised that it provides insurance coverage to its members. This covers all legal devices, whether they be conventional bicycles or e-mobility devices. This coverage comprises:
- healthcare expenses for personal accidents
 - income protection in the event of an accident

⁵⁶⁷ Submission 141, Northern Beaches Council, p 6.

⁵⁶⁸ Evidence, Mr Peter Bourke, General Manager, Bicycle Industries Australia, 31 October 2024, pp 34-35.

⁵⁶⁹ Submission 153, NSW Government, p 19.

⁵⁷⁰ Evidence, Mr William Peters, Senior Regional Director, Lime, 29 October 2024, p 14

⁵⁷¹ Answers to questions on notice, HelloRide, 2 December 2024, p 8; Evidence, Mr Lachlan McLean, Head of Business Development, HelloRide, 30 October 2024, p 52.

⁵⁷² Submission 153, NSW Government, p 19

⁵⁷³ Submission 153, NSW Government, p 19.

- public liability insurance in the event of rider negligence in how and where they are riding and they are shown to have caused injury and harm to property or a person.⁵⁷⁴

6.102 The Insurance Council of Australia advised that for 'riders of personal e-scooters, public liability insurance may be available under a home and contents policy if it is listed as a portable item'.⁵⁷⁵ Outside of these two options presented by Bicycle NSW and the Insurance Council of Australia, there appear to be no insurance products available for riders of e-mobility devices.

6.103 In their submission, the Australian Lawyers Alliance noted that 'regulations, registration and insurance requirements' are not keeping up with the growth in numbers and use of e-mobility devices and that 'case law has also not been able to provide certainty about what protections e-mobility device riders or those involved in an accident with an e-mobility device can expect in NSW'.⁵⁷⁶ The Law Council of Australia referred to two recent legal cases where it was held that the e-bikes in question were not vehicles for the purpose of the *Motor Accident Injuries Act 2017* and the *Road Transport Act 2013*, respectively.⁵⁷⁷

6.104 The Australia Law Alliance went on to state that users are likely ignorant they may be liable to pay compensation if they injure or kill someone while riding:

Many who use e-mobility devices are probably unaware that they put their own assets, including their home, on the line if they cause injury to someone else while using an e-mobility device. ... Similarly, those who are run down by e-mobility devices could suffer serious injury and be left to meet their own lost wages and medical bills.⁵⁷⁸

6.105 Mr Andrew Irvine, who operates a tourist adventure company Khancoban Adventures, indicated that he no longer hired out e-bikes to visitors as he was struggling to obtain affordable insurance.⁵⁷⁹ Ms Alexandra Hordern, General Manager, Regulatory and Consumer Policy, Insurance Council of Australia advised that this was probably due to civil liability insurance in general becoming more expensive as insurers were paying more out in claims than they were taking in premiums, with payouts and size of claims increasing.⁵⁸⁰

6.106 Other issues raised affecting insurance coverage and liability relate to riders voiding insurance in shared schemes due to not wearing helmets or being intoxicated.⁵⁸¹

6.107 The age of the rider and their legal responsibility was also raised in the event of them being responsible for injuring someone in an accident. In response to a hypothetical question

⁵⁷⁴ Evidence, Mr Peter McLean, Chief Executive Officer, Bicycle NSW, 31 October 2024, p 31.

⁵⁷⁵ Answer to question on notice, Insurance Council of Australia, received 26 November 2024, p 3.

⁵⁷⁶ Submission 128, Australia Lawyers Alliance, p 6.

⁵⁷⁷ Submission 133, The Law Society of NSW, pp 1-2.

⁵⁷⁸ Evidence, Ms Genevieve Henderson, President, NSW Branch Committee, Australian Lawyers Alliance, 30 October 2024, p 37.

⁵⁷⁹ Evidence, Mr Andrew Irvine, Director, Khancoban Adventures Pty Ltd, 30 October 2024, p 21.

⁵⁸⁰ Evidence, Ms Alexandra Hordern, General Manager, Regulatory and Consumer Policy, Insurance Council of Australia, 30 October 2024, p 25.

⁵⁸¹ Evidence, Mr Lachlan McLean, Head of Business Development, HelloRide, 30 October 2024, p 53; Evidence, Dr John Crozier, Committee Member, Royal Australasian College of Surgeons NSW, 30 October 2024, p 5; Evidence, Ms Alexandra Hordern, General Manager, Regulatory and Consumer Policy, Insurance Council of Australia, 30 October 2024, p 27.

concerning who would be liable if a 12-year-old riding an e-bike causes injury to a pedestrian under current law, Ms Genevieve Henderson President, NSW Branch Committee, of the Australian Lawyers Alliance responded that the parent could be held responsible:

I think a claimant lawyer would be looking at the parent. We'd be searching for other people that might be responsible if you can't blame the child. ... I'd be looking at the child, but, you're right, the age is very relevant. How much responsibility can you attach to a child? The next step would be to look at the parent to see what responsibility they have.⁵⁸²

6.108 Stakeholders had varying views as to whether insurance should be linked to registration,⁵⁸³ whether CTP should be extended to provide coverage, or separate liability insurance should be mandated,⁵⁸⁴ as discussed further below.

6.109 The Insurance Council of Australia did not support inclusion of these devices in the CTP scheme:

... we don't believe this should be provided through the CTP scheme, given the lack of registration and premium collection requirements. We expect that insurance products for e-scooters and similar devices will become available in time. Were e-scooters to be incorporated now into the New South Wales CTP scheme, a mechanism would need to be established for premiums to be collected.⁵⁸⁵

6.110 The committee also heard evidence about including claims against e-mobility devices in the Nominal Defendant Scheme (available where the at fault driver could not be identified for CTP purposes). The Insurance Council noted problems if devices were included but were not required to contribute premium payments to the scheme:

If we add a whole lot of potential risks into the fund but we don't fund it, then that obviously will eventually challenge scheme viability—if we just keep adding risks in but don't provide the funding for it. We don't think it would be sensible just to put them all into the scheme without some sort of registration and payment to go into it.⁵⁸⁶

6.111 The Australian Lawyers Alliance was supportive of extending coverage through the nominal defendant scheme, however, the Law Society noted that it would need to be funded in some way and legislative change would be needed to extend the scheme.⁵⁸⁷

⁵⁸² Evidence, Ms Genevieve Henderson, President, NSW Branch Committee, Australian Lawyers Alliance, 30 October 2024, p 40.

⁵⁸³ Evidence, Ms Marilyn Elaine Urch, President, the North Cronulla Precinct Committee, 29 October 2024, p 53.

⁵⁸⁴ Submission 128, Australian Lawyers Alliance, p 7.

⁵⁸⁵ Evidence, Ms Alix Pearce, General Manager, Climate, Social Policy and International Engagement, Insurance Council of Australia, 30 October 2024, p 24.

⁵⁸⁶ Evidence, Ms Alexandra Hordern, General Manager, Regulatory and Consumer Policy, Insurance Council of Australia, 30 October 2024, p 26.

⁵⁸⁷ Evidence, Mr Tim Concannon, Chair, Injury Compensation Committee, The Law Society of NSW, 30 October 2024, p 38; Evidence, Ms Genevieve Henderson, President, NSW Branch Committee, Australian Lawyers Alliance, 30 October 2024, p 38.

- 6.112** Ms Alix Pearce, General Manager, Climate, Social Policy and International Engagement, Insurance Council of Australia, noted that in South Australia, the opposition has sought to amend a bill legalising e-scooters to allow people injured in accidents involving these devices to make a third-party claim against the Nominal Defendant.⁵⁸⁸
- 6.113** The Australian Lawyers Alliance advocated that the NSW Government should mandate insurance, including third-party insurance, for private owners of all e-mobility devices.⁵⁸⁹
- 6.114** Similarly, Ms Krystyna Weston, Director, Zipidi, suggested that mandatory insurance was the only way forward to encourage insurers to provide a suitable product: 'we know from our conversations with underwriters that it would need to be compulsory in nature for anybody to even take a look at this market and want to insure it'.⁵⁹⁰
- 6.115** The Law Society of NSW believed there needs to be appropriate regulatory settings 'to achieve appropriate and proportionate regulatory settings to respond to serious accidents involving riders of e-scooters/e-bikes and/or any injured third party' and their needs to be extensive consultation due to wide ranging implications, including financial implications for users. Insurance needs to cover both first party and third party injury and property damage.⁵⁹¹
- 6.116** With regard to insurance for children under 18, Mr Concannon of the Law Society was of the view that parents would have to participate in a compulsory insurance scheme.⁵⁹²

Committee comment

- 6.117** The evidence in this chapter focusses on personal safety and potential injuries associated with e-mobility device use. Regardless of legal settings and regulatory frameworks, safe use depends on the knowledge and understanding of the users. The importance of understanding how to safely use these devices is heightened due to the potential for e-mobility devices to inflict greater injuries on pedestrians and users compared to conventional bicycles and non-motorised scooters.
- 6.118** Particular concerns about the potential for injury arising from e-scooters and e-bikes is due to a number of factors, including increased number of users, speed and unsafe behaviour, coupled with an increase in young and inexperienced users with little knowledge of road rules or road sense.
- 6.119** The committee was concerned by the large volume of submissions from individuals outlining their fears for their own safety when going about their day-to-day business, due to the proliferation of e-mobility devices being ridden or left on footpaths. This behaviour puts at risk some of the most vulnerable people in our community, including those with disability and elderly people. While the committee notes that some of these issues may be resolved by

⁵⁸⁸ Evidence, Ms Alix Pearce, General Manager, Climate, Social Policy and International Engagement, Insurance Council of Australia, 30 October 2024, p 25.

⁵⁸⁹ Submission 128, Australian Lawyers Alliance, p 7.

⁵⁹⁰ Evidence, Ms Krystyna Weston, Director, Zipidi, 29 October 2024, p 21.

⁵⁹¹ Evidence, Mr Tim Concannon, Chair, Injury Compensation Committee, The Law Society of NSW, 30 October 2024, p 38.

⁵⁹² Evidence, Mr Concannon, 30 October 2024, p 42.

improved infrastructure, considered elsewhere in this report, a number of these risks could be decreased by better education and improved safety considerations.

- 6.120** The committee also heard evidence from a number of stakeholders about the vulnerability of e-mobility device users when they travel on roads. The committee recognises that with the lack of infrastructure such as shared pathways and sufficient signage in our towns and cities, it is inevitable that e-mobility users will ride on roads.
- 6.121** The committee also recognises that due to the lack of separated cycling infrastructure in our towns and cities, many cyclists feel they have no choice but to ride on footpaths if they are to remain safe. As long as there is insufficient infrastructure for cyclists and e-mobility users, then cyclists should be able to use footpaths, with strict speed limits, in a carefully regulated way. Therefore, the committee is supportive of recommendations to improve safety of pedestrians, cyclists and e-bike users by changing traffic signal phasing and reducing speed limits in built up urban areas. To that end, the committee recommends that the NSW Government optimise traffic signal phasing to prioritise pedestrians and cyclists and e-mobility users in appropriate locations and that local government authorities be provided with the resources to implement these changes.

Recommendation 19

That the NSW Government:

- optimise traffic signal phasing to prioritise pedestrians and cyclists and e-mobility users in appropriate locations
 - ensure local government authorities are provided with the resources to implement these changes.
-

- 6.122** Similarly, the committee recommends that the NSW Government reduce on-road speed limits. In particular, these limits be reduced in the appropriate local government areas, providing for:
- 30 km/h speed limits in the city centres, high streets, around schools, around childcare centres and playgrounds, around universities and health care centres
 - 40 km/h speed limits in all other areas.
-

Recommendation 20

That the NSW Government reduce on-road speed limits in the appropriate local government areas, providing for:

- 30 km/h speed limits in the city centres, high streets, around schools, around childcare centres and playgrounds, around universities and health care centres
 - 40 km/h speed limits in all other areas.
-

- 6.123** More broadly, the committee acknowledges evidence from stakeholders, including the NSW Government that the *Roads Act 1993* needs reviewing, particularly with regard to road user space

allocation policy. Therefore, the committee recommends that the NSW Government prioritise the review of the *Roads Act 1993*, within the broader legislative framework review, in line with the recommendations arising from the update of the Road User Space Allocation Policy.

Recommendation 21

That the NSW Government prioritise the review of the *Roads Act 1993*, within the broader legislative framework review, in line with the recommendations arising from the update of the Road User Space Allocation Policy.

- 6.124** The committee acknowledges concerns raised by stakeholders regarding the NSW Government's proposal to allow e-scooters to travel at 20 km/h on shared paths. However, it is noted that this speed limit aligns with practices in several other jurisdictions across Australia. The committee emphasises that appropriate speed is crucial for ensuring both the safe operation of e-scooters and increasing public confidence in their uptake. To mitigate potential risks, a combination of improved enforcement, rider education and clear speed regulations is essential. The committee recommends that the NSW Government institute a 15 km/h speed limit for e-mobility devices on shared paths and implement complementary measures, including enhanced enforcement and rider education programs, to ensure safe and responsible e-mobility use.

Recommendation 22

That the NSW Government institute a 15 km/h speed limit for e-mobility devices on shared paths and implement complementary measures, including enhanced enforcement and rider education programs, to ensure safe and responsible e-mobility use.

- 6.125** In addition, the committee recommends that the *Roads Rules 2014* be amended to allow e-mobility devices and bike riding on footpaths, unless otherwise stated, at a maximum speed of 15 km/h, with riders having to give way to pedestrians at all times.

Recommendation 23

That the NSW Government amend the *Road Rules 2014* to allow e-mobility devices and bike riding on footpaths, unless otherwise stated, at a maximum speed of 15 km/h, with riders having to give way to pedestrians at all times.

- 6.126** In order to make recommendations for government action, the committee acknowledges it would be useful to have base data on the current level of accidents/incidents or injuries in which an e-mobility device played a part. Unfortunately, evidence put to the committee has shown this is currently not easily accessed due to the way data is coded in the State Trauma Registry. The committee notes the work done by NSW Institute of Trauma and Injury Management to introduce coding so that data can be easily extracted.
- 6.127** In terms of road fatality data, there is also a lack of information at both the state and national level. The committee notes the work in Queensland to collect this information. that the

committee believes it would be valuable for New South Wales accident data to make the distinction between electric and pedal powered devices. Therefore, the committee recommends that the NSW Government collect data on e-mobility devices separately to that of conventional bicycles and work with other jurisdictions to establish a nationally standardised crash database.

Recommendation 24

That the NSW Government collect data on e-mobility devices separately to that of conventional bicycles and work with other jurisdictions to establish a nationally standardised crash database.

- 6.128** The committee also understands that shared scheme operators are likely to have extensive data on any incidents their shared e-mobility devices were involved in. Based on evidence to the committee, it is apparent there are no mechanisms or requirements for private companies to share this data with government authorities in New South Wales. Food delivery platforms may also hold data about accidents and incidents involving their couriers. Given the ongoing expansion of commercial uses of e-mobility devices and the extensive data held by operators, the committee is of the view that this would assist understanding safety issues and implementing policies to ensure safety where appropriate. Therefore, the committee recommends that the NSW Government explore options for requiring shared scheme operators and food delivery platforms to share data on incidents involving e-mobility devices.
-

Recommendation 25

That the NSW Government explore options for requiring shared scheme operators and food delivery platforms to share data on incidents involving e-mobility devices.

- 6.129** The key to improving outcomes for all users is education. Due to the rapid evolution of e-mobility devices, different regulatory requirements depending on the device and the range of users, there is confusion and misinformation about road rules and safe use. It is vital that the government educates users, separate to any regulatory changes or increased enforcement.
- 6.130** The committee was convinced by the evidence before it that there needs to be targeted education for young people who ride e-bikes, concurrent with any regulation of illegal and illegally modified bicycles (covered in a separate chapter and recommendations of this report).
- 6.131** The committee praises the initiatives of councils such as the Northern Beaches Council in working with young people, their parents and other stakeholders to provide messaging to young people about safe riding.
- 6.132** Two particular approaches caught the eye of the committee as having potential merit:
- Using research into behaviours of young people to help inform an education campaign and the use of behavioural insights to change behaviour.
 - Leveraging the online Driver Knowledge Test to educate young people about road safety rules.
-

- 6.133** The committee acknowledges that schools already have the responsibility of educating their students in various 'life skills' including respectful relationships, drug and alcohol safety and road safety relating to cars. While the committee is reluctant to increase this load, we encourage the NSW Government to invest in a statewide social media campaign targeted at young people about safe and responsible use of e-mobility devices.

Recommendation 26

That the NSW Government invest in a statewide social media campaign targeted at young people about safe and responsible use of e-mobility devices.

- 6.134** The safety and riding habits of food delivery drivers on e-bikes was also raised, including concerns around the general level of knowledge of road rules. Despite mandatory safety training requirements being introduced from 2022 in New South Wales the committee is concerned that safety and knowledge of road rules is an ongoing issue for this cohort. The NSW Government, to enhance rider and public safety, should mandate ongoing safety training for food delivery platform riders, enforce compliance through regular audits and penalties and ensure all riders, particularly those using e-mobility devices, adhere to road rules and safe riding practices.

Recommendation 27

That the NSW Government, to enhance rider and public safety, mandate ongoing safety training for food delivery platform riders, enforce compliance through regular audits and penalties and ensure all riders, particularly those using e-mobility devices, adhere to road rules and safe riding practices.

- 6.135** Given the concerns above about the knowledge and understanding of road rules by young people and food delivery drivers, the committee recommends that the NSW Government, after the *Road Rules 2014* have been updated regarding e-mobility devices, adapt the Driver Knowledge Test to include elements relating to e-mobility device use and explore options for making this test mandatory for all e-mobility device users over the age of 16, including food delivery platform riders.

Recommendation 28

That, after the *Road Rules 2014* have been updated regarding e-mobility devices, the NSW Government:

- adapt the Driver Knowledge Test to include elements relating to e-mobility device use
 - explore options for making this test mandatory for all e-mobility device users over the age of 16, including food delivery platform riders.
-

- 6.136** We acknowledge that a number of key stakeholders recommended that use of these devices be restricted to those aged above 12 years, in particular due to their speed, a child's lack of understanding of safe riding and the type of injuries seen. The 'Draft key e-scooter rules' recently released by the NSW Government propose that the minimum age requirement for e-scooter

use will be 16 years, consistent with the current rules for the NSW Shared E-scooter Trial Program. The committee supports this proposal.

- 6.137** With respect to e-bikes, advice was less clear cut about age limits. Given that conventional bicycles are not age limited, it is difficult to envisage separate rules. With relation to e-bikes, it is more pressing that children are using them in accordance with the road rules, particularly at the mandated speed. These problems can be addressed through better education of parents and continued road safety education targeted at all school students. However, the committee also notes that the online Driver Knowledge Test has potential to be adapted specifically to target those under the age of 16 years about road rules and e-mobility device safety. Therefore, we recommend that the NSW Government explore options for an online road rules and safety knowledge test for e-mobility device users targeted at those under the age of 16 years.

Recommendation 29

That the NSW Government explore options for an online road rules and safety knowledge test for e-mobility device users targeted at those under the age of 16 years.

- 6.138** The committee agrees that clear, up to date and easy to understand signage will assist in making up for lack of knowledge of road rules for e-mobility device users. Therefore, the committee recommends that the NSW Government establish and regulate consistent, statewide standards for clear, up-to-date and easily understood signage about road rules for e-mobility device users and provide targeted funding to local governments for the installation and maintenance of this signage on road and path infrastructure.

Recommendation 30

That the NSW Government establish and regulate consistent, statewide standards for clear, up-to-date and easily understood signage about road rules for e-mobility device users and provide targeted funding to local governments for the installation and maintenance of this signage on road and path infrastructure.

- 6.139** The committee is concerned that there are no standardised requirements for operators of shared schemes to educate users about basic safety requirements and road rules. The committee acknowledges improvements in technology to prevent devices from being used if a helmet is not worn, or the device is being ridden above speed limits or in a dangerous manner close to pedestrians. However, technology should never be a substitute for knowledge and understanding of safe use and agreement from users to follow road rules. Therefore, the committee recommends that the NSW Government implement a requirement that all shared scheme operators ensure that users are aware of basic road rules and safe riding practices.

Recommendation 31

That the NSW Government implement a requirement that all shared scheme operators ensure that users are aware of basic road rules and safe riding practices.

- 6.140** The committee agrees that distributors and retailers have a role to play in ensuring that customers purchasing their devices are aware of safe and responsible riding. Retailers should be mandated to advise purchasers about where devices can be legally used and of mandatory requirements such as bells, lights, helmets, speed limiters and basic road rules. Therefore, the committee recommends that the NSW Government mandate retailers to provide necessary advice on safety and legal use of e-mobility devices, at the point of sale, including online sales.

Recommendation 32

That the NSW Government mandate retailers to provide necessary advice on safety and legal use of e-mobility devices at the point of sale, including online sales.

- 6.141** The committee is concerned by the evidence which shows an increase in the number and severity of injuries or even deaths associated with e-mobility devices and the lack of insurance to cover compensation for death or injuries. The committee learned that insurance coverage, for both personal and third party injury and property damage, was almost impossible to access for private users of e-mobility devices. It understands limited coverage is available through cycling clubs and potentially home contents insurance.
- 6.142** Based on the evidence before it, the committee does not consider that the Compulsory Third Party scheme could or should be extended, especially in the absence of licensing and registration for e-mobility devices. Evidence from insurance industry stakeholders indicated, however, that in the absence of a compulsory insurance scheme it is unlikely that insurers will develop a suitable product.
- 6.143** Based on evidence put to this inquiry it is clear that there needs to be consideration of settings to create a viable model for first and third party insurance. Currently, at fault riders (or potentially parents of those under 18 years) could be found personally liable for injuring someone and risk losing all their assets, including their home to pay compensation to the injured party.
- 6.144** The committee recommends the NSW Government investigate, as a matter of urgency, potential settings to create a viable model for e-mobility insurance, including compulsory insurance for owners/riders and refer the potential settings and government position to Portfolio Committee No. 6 - Transport and the Arts for further public consultation.

Recommendation 33

That the NSW Government investigate, as a matter of urgency, potential settings to create a viable model for e-mobility insurance, including compulsory insurance for owners/riders.

Recommendation 34

That the NSW Government refer the potential settings of a viable model for e-mobility insurance and government position on the issue to Portfolio Committee No. 6 - Transport and the Arts for further public consultation.

Appendix 1 Submissions

No.	Author
1	Pedestrian Council of Australia Ltd
1a	Pedestrian Council of Australia Ltd
2	Mr Mark Harwood
3	Name suppressed
4	Name suppressed
5	Name suppressed
6	Name suppressed
7	Name suppressed
8	Mr Sidney Harpley
9	Name suppressed
10	Mrs Karen Crawley
11	Name suppressed
12	Mr James Brookes
13	Mr Mark Eckermann
14	Name suppressed
15	Name suppressed
16	Name suppressed
17	Name suppressed
18	Name suppressed
19	Mr Adam Worling
20	Mr Jean Christophe Diomard Arrazau
21	Name suppressed
22	Name suppressed
23	Name suppressed
24	Mr Lachlan Littlemore
25	Name suppressed
26	Confidential
27	Name suppressed
28	Mr Simon Campbell
29	Name suppressed
30	Mr Scott Brossmann
31	Mr Cassedy Huynh

No.	Author
32	Name suppressed
33	Name suppressed
34	Name suppressed
35	Confidential
36	Name suppressed
37	Mr Clinton Reilly
38	Name suppressed
39	Mr Michael Stern
40	Name suppressed
41	Name suppressed
42	Name suppressed
43	Name suppressed
44	Name suppressed
45	Confidential
46	Ms Yvette Slomovits
47	Mrs Merryn Sterling
48	Ms Sandra Alexander
49	Mr Stephen Newell
50	Ms Jodi Smedley
51	Zipidi
52	Mr Richard Green
53	Mr Ross Langford-Brown
54	Dr Jeffrey Hoffmann
55	Miss Pawinee EaimSaad
56	Mr James Xu
57	Bolzzen Pty Ltd
58	Mr Stephen Hopkin
59	Confidential
60	Name suppressed
61	Name suppressed
62	Name suppressed
63	Mr Ross Attrill
64	Mr Ken Millar
65	Business Sydney
66	Ms Anne Robinson

No.	Author
67	Mr Alan Yang
68	Name suppressed
69	Name suppressed
70	Name suppressed
71	Mr MaCson Queiroz
72	Mr Hendrik Zeeman
73	Name suppressed
74	Ms Abigail Sheppard
75	Name suppressed
76	Mr Stephen Daley
77	Khancoban Adventures Pty ltd
78	Name suppressed
79	Mr Barry Taylor
80	Name suppressed
81	Pymont Action Inc
82	Mr Stuart Ecob
83	Mr Roger Graham
84	Name suppressed
85	Name suppressed
86	Name suppressed
87	Opera Residence Building
88	John Summers
89	Name suppressed
90	Name suppressed
91	Name suppressed
92	Name suppressed
93	Mrs Helene Atkinson
94	Name suppressed
95	Mr Robert Carrick
96	Mr Tony Renshaw
97	City of Newcastle
98	Name suppressed
99	Name suppressed
100	Willoughby City Council
101	Mr Richard Lewis

No.	Author
102	Ms Louisa Veidelis
103	Robert McLellan
104	Name suppressed
105	Ms Catherine Dwyer
106	Institute of Public Works Engineering Australasia (NSW & ACT)
107	Name suppressed
108	Name suppressed
108a	Name suppressed
109	Bernard Dryden
110	Mr Michael Paine
111	Name suppressed
112	Mr Joseph Waller
113	Mr Nikolai Zaitzieff
114	Mr Carl St Leon
115	Name suppressed
116	Name suppressed
117	Mrs Anne Smith
118	Mr Robert Neale
119	North Sydney Council
120	Local Government NSW
121	Sutherland Shire Council
122	Dr Sam Garrett-Jones
123	Name suppressed
124	Dr Marjorie O'Neill MP, Member for Coogee
125	Name suppressed
126	Ms Christina Ritchie
127	Mr Stephen McRoberts
128	Australian Lawyers Alliance (ALA) NSW
129	Transurban
130	National Heart Foundation of Australia
131	Australian Council of Recycling
132	National Transport Research Organisation (NTRO)
133	The Law Society of NSW
134	City of Sydney
135	Woollahra Municipal Council

No.	Author
136	The Glebe Society Incorporated
137	Australasian College of Road Safety
138	Name suppressed
139	NSW Productivity and Equality Commission
140	Australasian Fire and Emergency Service Authorities Council (AFAC)
141	Northern Beaches Council
142	Insurance Council of Australia
143	Shoalhaven City Council
144	Highgate Owners Corporation SP49822
145	Blind Citizens Australia
146	Motorcycle Council of NSW
147	Narrabri Shire Council
148	Royal Australasian College of Surgeons NSW branch
149	Physical Disability Council of NSW
150	Wollondilly Shire Council
151	Bicycle Industries Australia
152	Waverley Council
153	NSW Government
154	Liverpool City Council
155	NRMA
156	Newtown Climate
157	North Cronulla Precinct Committee
158	Doordash
159	Bicycle NSW
160	Kobi Shetty
161	Centre for Trauma Care, Prevention, Education and Research at Westmead Children's Hospital
162	Lake Macquarie City Council - HRMC, NSW
163	Lime
164	Randwick City Council
165	The Paddington Society
166	Justice and Equity Centre
167	National Parks Association of NSW
168	Name suppressed
169	Millers Point Community Resident Action Group

No.	Author
170	Beam Mobility
171	Inner West Council Bicycle Working Group
172	Illawarra Ramblers Inc
173	Ario Australia
174	Ashfield Bicycle Users Group (AshBUG)
175	Committee for Sydney
176	MidCoast Council
177	Name suppressed
178	Name suppressed
179	Name suppressed
179a	Name suppressed
180	Inner West Council
181	Name suppressed
182	Centre for Accident Research and Road Safety – Queensland
183	Owners Corporation Network of Australia Ltd
184	Ms Therese Taylor
185	Confidential
186	Mr Stephen Newell
187	Name suppressed
188	Name suppressed
189	Name suppressed
190	Name suppressed
191	Mr Simon Kennedy MP
192	GoGet
193	BIKEast
194	Mr Robert Johnston
195	Royal Australasian College of Surgeons (RACS)
196	Vision Australia
197	Name suppressed
198	Professor Stephen Greaves
199	Confidential
200	Guide Dogs NSW
201	Jullietta Jung
202	Name suppressed
203	Mr Paul Hooper

No.	Author
204	Name suppressed
205	Name suppressed
206	Name suppressed
207	Mrs Fiona Campbell
208	Mr Michael Waterhouse
209	Mr Jim Donovan
210	Name suppressed
211	Dr Richard Buning
212	City of Coffs Harbour
213	Central Coast Council
214	Mr Paul Gilchrist
215	Name suppressed
216	Mr Ross Levinsohn
217	Name suppressed
218	Dr Eric Hamilton
219	Name suppressed
220	Mr Mark Rainey
221	Mr Greg Ainsworth
222	Name suppressed
223	Name suppressed
224	Ms Sarah Nolan
225	Henry Stannard
226	Mr Warwick Grimes
227	Mr John White
228	Mr Michael Faulkner
229	Miss Sharlee Wood
230	Mr Som One
231	Mr Dennis Newsome
232	Mr Jay Adams
233	Mr Chris Carson
234	Mr Sasha Blazquez
235	Mr Nathan Harman
236	Mr Luke Renton
237	Mr Mark Trenery
238	Mr Roberto Soares

No.	Author
239	Mr Som One
240	Mr Cameron Eccles
241	Mrs Jennifer Stuart
242	Deirdre Duchesne
243	Mr Maxwell Campbell
244	Miss Susan Clemow
245	Zandra Stanton
246	Mr Pat Daley
247	Mr Stewart Marsden
248	Mr Eric Tierney
249	Mr Neil Richards
250	Mr Mark Berriman
251	Mr Raoul Davie
252	Mrs Janet Donald
253	Mr Warren Raynor
255	Mr Angus Laing
256	Mr Ames Muller
257	Ms Catherine Jones
258	Name suppressed
259	Name suppressed
260	Name suppressed
261	Name suppressed
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263	Name suppressed
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306	Name suppressed
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308	Name suppressed
309	Name suppressed

No.	Author
310	Name suppressed
311	Name suppressed
312	Name suppressed
313	Name suppressed
314	Hello Ride
315	Confidential
316	Confidential
317	Confidential
318	Confidential
319	Confidential
320	Confidential
321	Confidential
322	Confidential

Appendix 2 Witnesses

Date	Name	Position and Organisation
Tuesday 29 October 2024 Jubilee Room Parliament House	Mr Sebastian Smyth	Executive Manager, City Access and Transport, City of Sydney
	Mr Peter Warrington	Manager, Transport Policy, City of Sydney
	Mr Campbell Pfeffer	Director, Transport and Assets, Northern Beaches Council
	Mr Phillip Devon	Manager, Transport Network, Northern Beaches Council
	Mr David Kelly	Acting Manager, Traffic and Public Domain Services, Sutherland Shire Council
	Mr Greg Holding	Team Leader, Traffic and Transport Services, Sutherland Shire Council
	Mr William Peters	Senior Regional Director, Lime
	Mr Adam Rosetto	Country Manager, Ario Australia
	Mr Trent Williams	Head of Strategic Communications, Ario Australia
	Mr Stephen Coulter (via videoconference)	Director, Zipidi
	Ms Krystyna Weston (via videoconference)	Director, Zipidi
	Mr Paul Nicolaou	Executive Director, Business Sydney
	Mr David Jones	Media and Policy Manager, Business Sydney
	Mr Eamon Waterford	Chief Executive Officer, Committee for Sydney
	Ms Harri Bancroft	Policy Manager, Mobility, Committee for Sydney

Date	Name	Position and Organisation
	Mr Adrian Panuccio <i>(via videoconference)</i>	General Manager, MidCoast Council
	Mr Richard Wheatley <i>(via videoconference)</i>	Team Leader, Transport, MidCoast Council
	Mr Simon Mueller	Manager, Integrated Transport, Waverly Council
	Ms Carolyn New	Transport Policy and Programs, Waverly Council
	Mr Sonny Suharto <i>(via videoconference)</i>	Principal Professional Engineer, National Transport Research Organisation
	Mr David McTiernan	National Leader, Transport Safety, National Transport Research Organisation
	Dr Christopher Vanneste	Head of Space, GoGet
	Ms Katya Eagles	Council Policy Liaison, GoGet
	Dr Trevor Mudge	MPCRAG Representative, Traffic Sub Committee, Millers Point Community Resident Action Group
	Mrs Marilyn Elaine Urch	President, The North Cronulla Precinct Committee
	Mrs Leanne Farmer	Community Advocate, The North Cronulla Precinct Committee
	Ms Janet Oakley	Transport and Traffic Convenor, The Glebe Society Inc.
	Dr Judy Hyde	Highgate Advocacy Representative, Highgate Owners Corporation Strata Plan 49822
	Mr Paul Upham	Highgate Building Manager, Highgate Owners Corporation Strata Plan 49822

Date	Name	Position and Organisation
Wednesday 30 October 2024 Jubilee Room Parliament House	Dr Vikram Puttaswamy	RACS NSW Trauma Chair, Royal Australasian College of Surgeons
	Dr John Crozier	RACS NSW Committee Member, Royal Australasian College of Surgeons
	Dr S V Soundappan	Staff Specialist Academic Surgeon, Head of Trauma, Centre for Trauma Care, Prevention, Education and Research at Westmead Children's Hospital
	Dr Wei He	Trauma Data and Research Manager, Centre for Trauma Care, Prevention, Education and Research at Westmead Children's Hospital
	Dr Tom Watson	Group Member, Inner West Council Bicycle Working Group
	Mr John Groom	President, Illawarra Ramblers Inc.
	Mr Sam Garrett-Jones	Member, Illawarra Ramblers Inc.
	Mr Harold Scruby	Chief Executive Officer, Pedestrian Council of Australia Ltd.
	Mr Andrew Irvine (via videoconference)	Director, Khancoban Adventures Pty Ltd
	Ms Alix Pearce	General Manager, Climate, Social Policy and International Engagement, Insurance Council of Australia
	Ms Alexandra Hordern	General Manager, Regulatory and Consumer Policy, Insurance Council of Australia
	Mr Michael Timms	Chair, ACRS NSW Chapter, Australasian College of Road Safety

Date	Name	Position and Organisation
	Dr Tasha Prabhakar	Deputy Chair, ACRS NSW Chapter, Australasian College of Road Safety
	Professor Narelle Haworth AM (<i>via videoconference</i>)	Research Professor, Centre for Accident Research and Road Safety – Queensland
	Ms Genevieve Henderson	President, NSW Branch Committee, Australian Lawyers Alliance
	Mr Tim Concannon	Chair, Injury Compensation Committee, The Law Society of NSW
	Mr Leigh Davidson	Deputy Chair, Injury Compensation Committee, The Law Society of NSW
	Hon David Elliott	Chief Executive Officer, Institute of Public Works Engineering Australasia (NSW & ACT)
	Dr Megan Finnie	Board Director, Institute of Public Works Engineering Australasia (NSW & ACT)
	Mr Lachlan McLean	Head of Business Development, HelloRide
	Mr Simon Wang	Head of Global Expansion, HelloRide.
Thursday, 31 October 2024 Jubilee Room Parliament House, Sydney	Dr Richard J. Buning	Senior Lecturer, UQ Business School, The University of Queensland
	Mr Jeremy Fewtrell AFSM	Commissioner Fire and Rescue NSW, Australasian Fire and Emergency Service Authorities Council
	Ms Aziza Kuypers	Policy Adviser, Australian Council of Recycling
	Mr Guido Verbist	General Manager, Revolve ReCYCLING

Date	Name	Position and Organisation
	Mr Fred Tuckwell <i>(via videoconference)</i>	Chair, Owners Corporation Network of Australia Ltd
	Mr David Glover	Board member, Owners Corporation Network of Australia Ltd
	Mr Ed Morris	Chief Executive Officer, Physical Disability Council of NSW
	Ms Alice Batchelor	Senior Systemic Advocacy Officer, Physical Disability Council of NSW
	Ms Sheetal Balakrishnan	Senior Solicitor, Justice and Equity Centre
	Ms Ellen Tilbury	Principal Solicitor, Justice and Equity Centre
	Mr Bruce Maguire <i>(via videoconference)</i>	Lead Policy Advisor, Vision Australia
	Mr David Reynolds	Chief Executive, Local Government NSW
	Mr Shaun McBride	Chief Economist, Local Government NSW
	Mr Peter Bourke	General Manager, Bicycle Industries Australia
	Mr Peter McLean	Chief Executive Officer, Bicycle NSW
	Mr Peter Achterstraat AM	Commissioner, NSW Productivity and Equality Commission
	Mr Thomas Carr	Acting Director, Competition and Regulatory Policy, NSW Productivity and Equality Commission
	Ms Sally Webb	Deputy Secretary Safety, Policy, Environment and Regulation, Transport for NSW
	Ms Anna Bradley	Executive Director, Active Transport, Transport for NSW

Appendix 3 Minutes

Minutes no. 23

Monday 24 June 2024

Portfolio Committee No. 6 – Transport and the Arts

Room 1136, Parliament House, Sydney, 10.30 am

1. Members present

Ms Faehrmann, *Chair* (via videoconference)

Mr Farraway, *Deputy Chair* (via videoconference)

Mr Banasiak (via videoconference)

Mr Nanva (via videoconference)

2. Apologies

Dr Kaine

Mrs Ward

3. Previous minutes

Resolved, on the motion of Mr Farraway: That draft minutes nos. 15 and 16 be confirmed.

4. Correspondence

The committee noted the following items of correspondence:

Received

- 6 March 2024 – Email from Mr John Atkinson to the Chair, referencing statements made during the Portfolio Committee No. 6 Budget Estimates Special Minister of State, Roads, Arts, Music and the Night-time Economy, Jobs and Tourism hearing on 5 March 2024
- 7 March 2024 – Email from Mr John Atkinson to the secretariat, attaching correspondence sent to the Chair and requesting that correspondence be treated as a transcript clarification to the Portfolio Committee No. 6 Budget Estimates Special Minister of State, Roads, Arts, Music and the Night-time Economy, Jobs and Tourism hearing on 5 March 2024
- 22 March 2024 – Email from the Office of the Hon Jo Haylen MP, requesting clarifications to supplementary questions from the initial Budget Estimates Transport hearing on 7 November 2023.

Sent

- 29 February 2024 - Email from Budget Estimates secretariat to the Hon Jo Haylen MP, issuing uncorrected transcript, questions on notice, and supplementary questions from the hearing on 23 February 2024
- 6 March 2024 – Email from Budget Estimates secretariat to the Hon Jenny Aitchison MP, issuing uncorrected transcript, questions on notice, and supplementary questions from the hearing on 29 February 2024
- 7 March 2024 – Email from Budget Estimates secretariat to the Hon Jenny Aitchison MP, attaching documents tabled by Mr Farraway and agreed by the committee to be sent to the Minister's Office to support answering questions on notice in relation to the Budget Estimates Regional Transport and Roads hearing on 29 February 2024
- 11 March 2024 – Email from Budget Estimates secretariat to the Hon John Graham MLC, issuing uncorrected transcript, questions on notice, and supplementary questions from the hearing on 5 March 2024.

As previously agreed via email, the committee noted that:

- the correspondence from the Office of the Hon Jo Haylen MP, Minister for Transport, providing clarifications to supplementary questions arising from the Portfolio Committee No.6 Transport hearing on 7 November 2023 has been published
- footnotes at the relevant points in the answers to supplementary questions arising from the hearing on 7 November 2023 have been inserted noting that correspondence clarifying the answers had been received and providing a hyperlink to the published correspondence.

5. Inquiry into Budget Estimates 2023-2024

5.1 Answers to questions on notice and supplementary questions – additional hearings

The committee noted the following answers to questions on notice and supplementary questions were published by the committee clerk under the authorisation of the resolution appointing the committee:

- answers to questions on notice and supplementary questions from the Hon Jo Haylen MP, Minister for Transport, received 21 March 2024
- answers to questions on notice and supplementary questions from the Hon Jenny Aitchison MP, Minister for Regional Transport and Roads, received 27 March 2024 and 3 April 2024
- answers to questions on notice and supplementary questions from the Hon John Graham MLC, Special Minister of State, Minister for Roads, Minister for the Arts, Minister for Music and the Night-time Economy, and Minister for Jobs and Tourism, received 2 April 2024
- attachments to answers to questions on notice from the Hon John Graham MLC, Special Minister of State, Minister for Roads, Minister for the Arts, Minister for Music and the Night-time Economy, and Minister for Jobs and Tourism, received 3 April 2024
- attachment to answers to supplementary questions from the Hon John Graham MLC, Special Minister of State, Minister for Roads, Minister for the Arts, Minister for Music and the Night-time Economy, and Minister for Jobs and Tourism, received 4 April 2024.

5.2 Consideration of Chair's draft report

The Chair submitted her draft report entitled *Budget Estimates 2023-2024*, which, having been previously circulated, was taken as being read.

Resolved, on the motion of Mr Banasiak: That:

The draft report be the report of the committee and that the committee present the report to the House;

The transcripts of evidence, tabled documents, correspondence and answers to questions taken on notice and supplementary questions relating to the inquiry be tabled in the House with the report;

Upon tabling, all unpublished transcripts of evidence, tabled documents, correspondence and answers to questions taken on notice and supplementary questions related to the inquiry be published by the committee, except for those documents kept confidential by resolution of the committee;

The committee secretariat correct any typographical, grammatical and formatting errors prior to tabling;

The secretariat is tabling the report at 2.00 pm on Thursday 27 June 2024;

The Chair to advise the secretariat and members if they intend to hold a press conference, and if so, the date and time.

6. Inquiry into the use of e-scooters, e-bikes and related mobility options

6.1 Terms of reference

Committee to note the following terms of reference referred by the House on Thursday 6 June 2024:

That Portfolio Committee No. 6 - Transport and the Arts inquire into and report on the use of e scooters, e-bikes (including shared schemes), related mobility options, and in particular:

- (a) the current and anticipated role of all three levels of government in enabling and encouraging safe electrified active transport options

- (b) opportunities to reform the regulatory framework to achieve better and safe outcomes for riders and the community
- (c) local council, industry and stakeholder perspectives on the utilisation and impact of e-mobility devices in the community
- (d) opportunities to improve mobility, the customer experience, safety for users and the community
- (e) the potential benefits and risks of existing regulatory and policy settings, including the Roads Act 1993, Road Rules and Road User Space Allocation Policy and other related legislation regarding safety, traffic, and personal convenience
- (f) the extent that e-mobility devices have positive community benefits such as encouraging mode shift, relieving congestion, addressing social disadvantage and tourism
- (g) opportunities across government to improve outcomes in regard to e-scooters, e-bikes, and related mobility options
- (h) best practice in other Australian and international jurisdictions
- (i) the economic analysis of e-mobility contribution to safe transport at night for shift workers and women, to mode shift and to first and last mile transport, and
- (j) any other related matters.

6.2 Closing date for submissions

Resolved, on the motion of Mr Nanva: That the closing date for submissions be 18 August 2024.

6.3 Stakeholder list

Resolved, on the motion of Mr Faraway: That:

- members have two days from today's meeting to make amendments or nominate additional stakeholders
- the committee agree to the stakeholder list by email, unless a meeting of the committee is required to resolve any disagreement.

6.4 Approach to submissions

Resolved, on the motion of Mr Banasiak: That, to enable significant efficiencies for members and the secretariat while maintaining the integrity of how submissions are treated, in the event that 50 or more individual submissions are received, the committee may adopt the following approach to processing short submissions:

- All submissions from individuals 250 words or less in length will:
 - have an individual submission number, and be published with the author's name or as name suppressed, or kept confidential, according to the author's request
 - be reviewed by the secretariat for adverse mention and sensitive/identifying information, in accordance with practice
 - be channelled into one single document to be published on the inquiry website
- All other submissions will be processed and published as normal.

6.5 Online questionnaire

Resolved, on the motion of Mr Nanva: That the committee use an online questionnaire to capture individuals' views, and that the draft questions be circulated to the committee for comment, with a meeting on request from any committee member if there is disagreement on the questions.

Resolved, on the motion of Mr Nanva: That:

- the committee not accept proformas
- the media release announcing the establishment of the inquiry and emails to stakeholders note that there will be an online questionnaire to capture individuals' views
- the closing date for the online questionnaire be 18 August 2024
- the following wording be included on the committee's website:

- **Online questionnaire**

Contributions to the inquiry may be made via the submissions tab below. The closing date for submissions is 18 August 2024.

Individual contributors may prefer to complete an online questionnaire rather than make a submission [insert link to online questionnaire]. The closing date for the online questionnaire is 18 August 2024.

Resolved, on the motion of Mr Nanva: That the secretariat prepare a summary report of responses to the online questionnaire for publication on the website and use in the report, and that:

- the committee agree to publication of the report via email, unless a member raises any concerns
- individual responses be kept confidential on tabling.

6.6 Hearing dates

Resolved, on the motion of Mr Farraway: That the committee hold 2½ days of hearings on the following dates:

- Tuesday 29 October 2024
- Wednesday 30 October 2024
- Thursday 31 October 2024.

6.7 Reporting date

Resolved, on the motion of Mr Farraway: That the committee report on Thursday 13 February 2025.

7. Adjournment

The committee adjourned at 10.37 am, until 1.00 pm on Friday 5 July 2024 (report deliberative – Inquiry into the impact of the Rozelle Interchange).

Kara McKee
Committee Clerk

Minutes no. 30

Tuesday, 29 October 2024

Portfolio Committee No. 6 – Transport and the Arts

Jubilee Room, Parliament House, 9.03 am

1. Members present

Ms Faehrmann, *Chair*

Mr Banasiak

Mr D'Adam

Mr Fang (substituting for Mr Farraway for the meetings on 29, 30 and 31 October 2024) (via videoconference)

Dr Kaine (from 1.00 pm)

Mrs Ward

2. Apologies

Mr Nanva

3. Election of Deputy Chair

The Chair noted the substitution of Mr Farraway, Deputy Chair, for the duration of the meetings on 29, 30 and 31 October 2024.

Mrs Ward moved: That Mr Banasiak be elected Deputy Chair for the purposes of the three meetings.

There being no further nominations, the Chair declared Mr Banasiak Deputy Chair for the purposes of the meetings on 29, 30 and 31 October 2024.

4. Draft minutes

Resolved, on the motion of Mr D'Adam: That draft minutes no. 24 and 29 be confirmed.

5. Correspondence

The committee noted the following items of correspondence:

Received

- 10 July 2024 – Email from Mr Keith Stallard to the secretariat, with attachment, providing information about the Department of Planning's Conditions of Approval in relation to the Rozelle Interchange
- 11 July 2024 – Email from Australian Medical Association (AMA) to the secretariat, referring the committee to note the 2023 AMA Position Statement on Road User Safety
- 15 July 2024 – Email from Mr Mike Kelly to the Chair, responding to the release of the Impact of the Rozelle Interchange report
- 15 July 2024 – Email from Mr Sergio Puente to the Chair, responding to the release of the Impact of the Rozelle Interchange report
- 16 July 2024 – Email from Mr Nathan English to the Chair, responding to the release of the Impact of the Rozelle Interchange report
- 9 August 2024 – Email from Mr Keith Stallard to Minister Haylen and Portfolio Committee No. 6, attaching a letter outlining concerns in relation to active and public transport contained in the Impact of the Rozelle Interchange report
- 19 August 2024 – Email from Mr Phil Todd to the secretariat, sharing photographs in relation to the e-mobility inquiry
- 3 October 2024 – Email from the Office of the Opposition Whip to the secretariat, advising the substitution of Hon. Wes Fang MLC for the Hon. Sam Faraway MLC for the three hearings of the e-mobility inquiry on 29, 30 and 31 October
- 4 October 2024 – Email from NRMA to the secretariat, declining the invitation to participate at the hearing on 30 October 2024 for the e-mobility inquiry
- 8 October 2024 – Email from Narrabri Shire Council to the secretariat, declining the invitation to participate at the hearing on 29 October 2024 for the e-mobility inquiry
- 11 October 2024 – Email from Lake Macquarie City Council Staff to the secretariat, declining the invitation to participate at the hearing on 29 October 2024 for the e-mobility inquiry
- 14 October 2024 – Email from Transurban to the secretariat, declining the invitation to participate at the hearing on 30 October 2024 for the e-mobility inquiry
- 15 October 2024 – Letter from the Hon John Graham MLC, Special Minister of State, Minister for Roads, Minister for the Arts, Minister for Music and the Night-time Economy, Minister for Jobs and Tourism, to the Clerk of the Parliaments, attaching the NSW Government's response to the Impact of the Rozelle Interchange report
- 21 October 2024 – Email from Wollondilly Shire Council to secretariat, declining the invitation to participate at the hearing on 29 October 2024 for the e-mobility inquiry
- 21 October 2024 – Email from DoorDash to the secretariat, declining the invitation to participate at the hearing on 29 October 2024 for the e-mobility inquiry
- 22 October 2024 – Email from BIKEast to the secretariat, declining the invitation to participate at the hearing on 30 October 2024 for the e-mobility inquiry
- 24 October 2024 – Email from Richard Buning to the Chair, requesting an invitation to participate at the hearing for the e-mobility inquiry
- 25 October 2024 - Email from Beam Mobility to the secretariat, declining the invitation to participate at the hearing on 29 October 2024 for the e-mobility inquiry
- 25 October 2024 – Email from Ario Australia to the Chair and the committee, providing supplementary information prior to their appearance at the hearing on 29 October 2024 for the e-mobility inquiry.

6. Inquiry into the use of e-scooters, e-bikes and related mobility options

6.1 Public submissions

The committee noted that the following submissions were published by the committee clerk under the authorisation of the resolution appointing the committee: submissions nos 1, 2, 8, 10, 12-13, 19-20, 24, 28, 30-31, 37, 39, 46-58, 63-67, 71-72, 74-77, 79, 82-83, 87-88, 93, 95-97, 100-103, 105-106, 109-110, 112-114, 117-122, 124, 126-137, 139-150, 151-167, 169-176, 180, 182-184, 186, 191-198, 200-201, 203, 207-209, 211-214, 216, 218, 220-221, 224-253, 255-257 and 314.

6.2 Partially confidential submissions

Resolved on the motion of Mr Banasiak: That the committee keep the following information confidential, as per the request of the author: names and identifying information in submissions nos. 3-7, 9, 11, 14-18, 21-23, 25, 27, 29, 32-34, 36, 38, 40-44, 60-62, 68-70, 73, 78, 80, 84-86, 89-92, 94, 98-99, 104, 107-108a, 111, 115-116, 123, 125, 138, 168, 177-179, 179a, 181, 187-190, 202, 204-206, 210, 215, 217, 219, 222-223, 258 and 313.

6.3 Confidential submissions

Resolved on the motion of Ms Ward: That the committee keep submission nos. 26, 35, 45, 59, 81, 185, 199 and 314-322 confidential, as per the request of the author, as they contain identifying and/or sensitive information.

6.4 Public hearing – sequence of questions

Resolved, on the motion of Mr Banasiak: That the allocation of questions to be asked at the hearing be left in the hands of the Chair.

6.5 Public hearing

Witnesses, the public and the media were admitted.

The Chair made an opening statement regarding the broadcasting of proceedings and other matters.

The following witnesses were sworn and examined:

- Mr Sebastian Smyth, Executive Manager, City Access and Transport, City of Sydney
- Mr Peter Warrington, Manager, Transport Policy, City of Sydney
- Mr Campbell Pfeiffer, Director, Transport and Assets, Northern Beaches Council
- Mr Phillip Devon, Manager, Transport Network, Northern Beaches Council
- Mr David Kelly, Acting Manager, Traffic and Public Domain Services, Sutherland Shire Council
- Mr Greg Holding, Team Leader, Traffic and Transport Services, Sutherland Shire Council

The evidence concluded and the witnesses withdrew.

The following witnesses were sworn and examined:

- Mr William Peters, Senior Regional Director, Lime
- Mr Adam Rosetto, Country Manager, Ario Australia
- Mr Trent Williams, Head of Strategic Communications, Ario Australia
- Mr Stephen Coulter, Director, Zipidi (via videoconference)
- Ms Krystyna Weston, Director, Zipidi (via videoconference)

The evidence concluded and the witnesses withdrew.

The following witnesses were sworn and examined:

- Mr Paul Nicolaou, Executive Director, Business Sydney
- Mr David Jones, Media and Policy Manager, Business Sydney
- Mr Eamon Waterford, Chief Executive Officer, Committee for Sydney
- Ms Harri Bancroft, Policy Manager, Mobility, Committee for Sydney

The evidence concluded and the witnesses withdrew.

The following witnesses were sworn and examined:

- Mr Adrian Panuccio, General Manager, MidCoast Council (via videoconference)
- Mr Richard Wheatley, Team Leader, Transport, MidCoast Council (via videoconference)
- Mr Simon Mueller, Manager, Integrated Transport, Waverly Council
- Ms Carolyn New, Transport Policy and Programs, Waverly Council

The evidence concluded and the witnesses withdrew.

The following witnesses were sworn and examined:

- Mr David McTiernan, National Leader, Transport Safety, National Transport Research Organisation
- Mr Sonny Suharto, Principal Professional Engineer, National Transport Research Organisation (via videoconference)

The evidence concluded and the witnesses withdrew.

The following witnesses were sworn and examined:

- Dr Christopher Vanneste, Head of Space, GoGet
- Ms Katya Eagles, Council Policy Liaison, GoGet

The evidence concluded and the witnesses withdrew.

The following witnesses were sworn and examined:

- Dr Trevor Mudge, MPCRAG Representative, Traffic Sub Committee, Millers Point Community Resident Action Group
- Mrs Marilyn Elaine Urch, President, The North Cronulla Precinct Committee
- Mrs Leanne Farmer, Community Advocate, The North Cronulla Precinct Committee
- Ms Janet Oakley, Transport and Traffic Convenor, The Glebe Society Inc.
- Dr Judy Hyde, Highgate Advocacy Representative, Highgate Owners Corporation Strata Plan 49822
- Mr Paul Upham, Highgate Building Manager, Highgate Owners Corporation Strata Plan 49822

The evidence concluded and the witnesses withdrew.

The public hearing concluded at 3.50 pm.

7. Adjournment

The committee adjourned at 3.56 pm until 9.15 am, Wednesday 30 October 2024 (Inquiry into the use of e-scooters, e-bikes and related mobility options – public hearing).

Rasika Somaweera
Committee Clerk

Minutes no. 31

Wednesday, 30 October 2024

Portfolio Committee No. 6 – Transport and the Arts

Jubilee Room, Parliament House, 9.12 am

1. Members present

Ms Faehrmann, *Chair*

Mr Banasiak, *Acting Deputy Chair*

Mr D'Adam

Mr Fang (substituting for Mr Faraway for the meetings 29, 30, 31 October 2024 via videoconference)

Dr Kaine (until 12.30 pm)

Mrs Ward

2. Apologies

Mr Nanva

3. Inquiry into the use of e-scooters, e-bikes and related mobility options

3.1 Public hearing – sequence of questions

Resolved, on the motion of Mr Banasiak: That the allocation of questions to be asked at the hearing be left in the hands of the Chair.

3.2 Additional witness – NSW Police Force

Resolved, on the motion of Mr Banasiak: That the NSW Police Force be invited to give evidence at the hearing on 31 October 2024.

3.3 Public hearing

Witnesses, the public and the media were admitted.

The Chair made an opening statement regarding the broadcasting of proceedings and other matters.

The following witnesses were sworn and examined:

- Dr Vikram Puttaswamy, RACS NSW Trauma Chair, Royal Australasian College of Surgeons
- Dr John Crozier, RACS NSW Committee Member, Royal Australasian College of Surgeons
- Dr S V Soundappan, Staff Specialist Academic Surgeon, Head of Trauma, Centre for Trauma Care, Prevention, Education and Research at Westmead Children's Hospital
- Dr Wei He, Trauma Data and Research Manager, Centre for Trauma Care, Prevention, Education and Research at Westmead Children's Hospital

The evidence concluded and the witnesses withdrew.

The following witnesses were sworn and examined:

- Dr Tom Watson, Group Member, Inner West Council Bicycle Working Group
- Mr John Groom, President, Illawarra Ramblers Inc.
- Mr Sam Garrett-Jones, Member, Illawarra Ramblers Inc.

The evidence concluded and the witnesses withdrew.

The following witness was sworn and examined:

- Mr Harold Scruby, Chief Executive Officer, Pedestrian Council of Australia.

Mr Scruby tendered the following documents:

- Advertisement for Electric Scooter Veloz G5
- Document entitled 'Ten Questions for Minister Haylen Re: e-Rideables'
- Transport for NSW, Report entitled 'ESA Working Group – Electric Scooter Trial Recommendations Report', March 2020
- Letter from Mr Paul Forward, RTA, to Mr Harold Scruby, Pedestrian Council of Australia, dated 15 July 2003
- Document entitled 'Road Safety Advisory Council Briefing Paper', dated 11 September 2024

The evidence concluded and the witness withdrew.

The following witness was sworn and examined:

- Mr Andrew Irvine, Director, Khancoban Adventures Pty Ltd (via videoconference)

The evidence concluded and the witness withdrew.

The following witnesses were sworn and examined:

- Ms Alix Pearce, General Manager, Climate, Social Policy and International Engagement, Insurance Council of Australia
- Ms Alexandra Hordern, General Manager, Regulatory and Consumer Policy, Insurance Council of Australia

The evidence concluded and the witnesses withdrew.

The following witnesses were sworn and examined:

- Mr Michael Timms, Chair, ACRS NSW Chapter, Australasian College of Road Safety
- Dr Tasha Prabhakar, Deputy Chair, ACRS NSW Chapter, Australasian College of Road Safety
- Professor Narelle Haworth AM, Research Professor, Centre for Accident Research and Road Safety – Queensland (via videoconference)

The evidence concluded and the witnesses withdrew.

The following witnesses were sworn and examined:

- Ms Genevieve Henderson, President, NSW Branch Committee, Australian Lawyers Alliance
- Mr Tim Concannon, Chair, Injury Compensation Committee, The Law Society of NSW
- Mr Leigh Davidson Deputy Chair, Injury Compensation Committee, The Law Society of NSW

The evidence concluded and the witnesses withdrew.

The following witnesses were sworn and examined:

- Hon David Elliott, Chief Executive Officer, Institute of Public Works Engineering Australasia (NSW & ACT)
- Dr Megan Finnie, Board Director, Institute of Public Works Engineering Australasia (NSW & ACT)

The evidence concluded and the witnesses withdrew.

The following witnesses were sworn and examined:

- Mr Lachlan McLean, Head of Business Development, HelloRide
- Mr Simon Wang, Head of Global Expansion, HelloRide.

The evidence concluded and the witnesses withdrew.

The public hearing concluded at 3.58 pm.

3.4 Tendered documents

Resolved, on the motion of Mr Banasiak: That the committee accept and publish the following document tendered during the hearing:

- Advertisement for Electric Scooter Veloz G5
- Document entitled 'Ten Questions for Minister Haylen Re: e-Rideables'
- Transport for NSW, Report entitled 'ESA Working Group – Electric Scooter Trial Recommendations Report', March 2020
- Letter from Mr Paul Forward, RTA, to Mr Harold Scruby, Pedestrian Council of Australia, dated 15 July 2003
- Document entitled 'Road Safety Advisory Council Briefing Paper', dated 11 September 2024.

3.5 Correspondence from NSW Police Force

The committee noted the following correspondence received:

- 30 October 2024 - Ms Patricia Wild, Manager, Ministerial and Executive Services, Office of the Commissioner, NSW Police Force, to the secretariat, declining the committee's invitation to attend the hearing on 31 October 2024 due to prior commitments but offering to answer written questions from the committee.

Resolved, on the motion of Mrs Ward: That:

- written questions for the NSW Police Force be lodged with the Committee Clerk within two business days following the circulation of the transcript of the hearing held on 31 October 2024
- any written questions be circulated to the committee prior to being sent to the NSW Police Force
- the NSW Police Force be requested to return answers to the written questions within 21 calendar days of the date on which questions are forwarded.

4. **Adjournment**

The committee adjourned at 4.00 pm until 8.40 am, Thursday 31 October 2024 (Inquiry into the use of e-scooters, e-bikes and related mobility options –public hearing).

Frances Arguelles

Committee Clerk

Minutes no. 32

Wednesday, 31 October 2024

Portfolio Committee No. 6 – Transport and the Arts

Jubilee Room, Parliament House, 8.39 am

1. **Members present**

Ms Faehrmann, *Chair* (from 8.52 am)

Mr Banasiak, *Acting Deputy Chair*

Mr D'Adam (from 8.42 am)

Mr Fang (substituting for Mr Faraway for the meetings on 29, 30 and 31 October 2024) (via videoconference)

Dr Kaine (until 12.30 pm)

Mrs Ward (via video conference) (from 8.46 am)

2. **Apologies**

Mr Nanva

3. **Inquiry into the use of e-scooters, e-bikes and related mobility options**

3.1 Public hearing – sequence of questions

Resolved, on the motion of Mr Fang: That the allocation of questions to be asked at the hearing be left in the hands of the Chair.

3.2 Public hearing

Witnesses, the public and the media were admitted.

The Acting Deputy Chair made an opening statement regarding the broadcasting of proceedings and other matters.

The following witness was sworn and examined:

- Dr Richard J. Buning, Senior Lecturer, UQ Business School, The University of Queensland

The evidence concluded and the witness withdrew.

The following witnesses were sworn and examined:

- Mr Jeremy Fewtrell AFSM, Commissioner Fire and Rescue NSW, Australasian Fire and Emergency Service Authorities Council
- Ms Aziza Kuypers, Policy Adviser, Australian Council of Recycling
- Mr Guido Verbist, General Manager, Revolve ReCYCLING

- Mr Fred Tuckwell, Chair, Owners Corporation Network of Australia Ltd (via videoconference)
- Mr David Glover, Board member, Owners Corporation Network of Australia Ltd

The evidence concluded and the witnesses withdrew.

The following witnesses were sworn and examined:

- Mr Ed Morris, Chief Executive Officer, Physical Disability Council of NSW
- Ms Alice Batchelor, Senior Systemic Advocacy Officer, Physical Disability Council of NSW
- Ms Sheetal Balakrishnan, Senior Solicitor, Justice and Equity Centre
- Ms Ellen Tilbury, Principal Solicitor, Justice and Equity Centre
- Mr Bruce Maguire, Lead Policy Advisor, Vision Australia (via videoconference)

The evidence concluded and the witness withdrew.

The following witnesses were sworn and examined:

- Mr David Reynolds, Chief Executive, Local Government NSW
- Mr Shaun McBride, Chief Economist, Local Government NSW

The evidence concluded and the witnesses withdrew.

The following witnesses were sworn and examined:

- Mr Peter Bourke, General Manager, Bicycle Industries Australia
- Mr Peter McLean, Chief Executive Officer, Bicycle NSW

The evidence concluded and the witnesses withdrew.

The following witnesses were sworn and examined:

- Mr Peter Achterstraat AM, Commissioner, NSW Productivity and Equality Commission
- Mr Thomas Carr, Acting Director, Competition and Regulatory Policy, NSW Productivity and Equality Commission
- Ms Sally Webb, Deputy Secretary Safety, Policy, Environment and Regulation, Transport for NSW
- Ms Anna Bradley, Executive Director, Active Transport, Transport for NSW

Ms Anna Bradley tendered the following document:

- E-micromobility engagement summary

The evidence concluded and the witnesses withdrew.

The public hearing concluded at 3.00 pm.

3.3 Tendered documents

Resolved, on the motion of Mr Banasiak: That the committee accept and publish the following document tendered during the hearing:

- E-micromobility engagement summary.

4. Adjournment

The committee adjourned at 3.02 pm, *sine die*.

Frances Arguelles
Committee Clerk

Draft minutes no. 33

Tuesday 10 February 2025

Portfolio Committee No. 6 – Transport and the Arts

Room 1043, Parliament House, Sydney, 10.01 am

1. Members presentMs Faehrmann, *Chair*

Mr Banasiak

Mr D'Adam

Mr Fang (via videoconference)

Dr Kaine (via videoconference)

Mr Nanva (via videoconference)

Mrs Ward

2. Previous minutes

Resolved, on the motion of Mr D'Adam: That draft minutes nos. 30, 31 and 32 be confirmed.

3. Correspondence

The committee noted the following items of correspondence:

Received

- 12 November 2024 – Email from Dr John Crozier, Royal Australasian College of Surgeons, to the committee, clarifying his evidence at the hearing on 30 October 2024
- 15 November 2024 – Email from Mr Ken Loudon, Deputy Convenor, Pymont Action Inc, to the secretariat, raising community concerns about shared e-bikes and e-scooters
- 15 November 2024 – Email from Mr Cameron Baker, to the committee, regarding an incident involving a family member and an e-bike
- 27 November 2024 – Letter from Dr S.V. Soundappan, to the committee, clarifying capacity in which he gave evidence at the hearing on 30 October 2024
- 6 January 2025 – Email from Mr Greg Cameron, to the Chair, requesting to consider their correspondence to the Premier, the Hon Chris Minns MP, in relation to the Port Commitment Deeds for Port Botany and Port Kembla being unlawful under section 6 of the Ports Assets (Authorised Transactions) Act 2012
- 7 January 2025 – Letter from Mr Adam Rosetto, General Manager, Australia and New Zealand, Ario, to the committee, explaining their service launch and offering to do a demonstration
- 29 January 2025 – Email from Bola Oyetunji, NSW Auditor-General to Chair, providing copies of the report 'Bus contracts in metropolitan Sydney'.

Resolved, on the motion of Mrs Ward: That the committee keep the correspondence from Mr Greg Cameron, regarding Port Commitment Deeds for Port Botany and Port Kembla being unlawful under section 6 of the Ports Assets (Authorised Transactions) Act 2012, dated 6 January 2025, confidential, as per the recommendation of the secretariat, as it does not relate to an inquiry.

4. Inquiry into the use of e-scooters, e-bikes and related mobility options**4.1 Answers to questions on notice and additional information**

The committee noted the following answers to questions on notice and additional information were published by the committee clerk under the authorisation of the resolution appointing the committee:

- answers to questions on notice from Institute of Public Works Engineering Australasia (NSW & ACT), received 12 November 2024
- answers to questions on notice from Royal Australasian College of Surgeons, received 12 November 2024

- answers to questions on notice from National Transport Research Organisation, received 15 November 2024
- answers to questions on notice from Australian Council of Recycling, received 21 November 2024
- answers to questions on notice from Justice and Equity Centre, received 21 November 2024
- answers to questions on notice from Physical Disability Council of NSW, received 25 November 2024
- answers to questions on notice from Vision Australia, received 25 November 2024
- answers to questions on notice from Committee for Sydney, received 25 November 2024
- answers to questions on notice from Owners Corporation Network of Australia Ltd, received 26 November 2024
- answers to questions on notice from Insurance Council of Australia, received 26 November 2024
- answers to questions on notice from The Law Society of NSW, received 27 November 2024
- answers to questions on notice from Local Government NSW, received 27 November 2024
- answers to questions on notice from NSW Government, received 27 November 2024
- answers to questions on notice from Lime, received 27 November 2024
- answers to questions on notice from GoGet, received 27 November 2024
- answers to questions on notice from Hello Ride, received 2 December 2024
- answers to questions on notice from NSW Police, received 16 December 2024
- additional information from Fire and Rescue NSW, received 26 November 2024
- additional information from Inner West Council Bicycle Working Group, received 23 November 2024

Resolved, on the motion of Mr Banasiak: That the committee authorise the publication of the following answers to questions on notice and additional information:

- additional information from ACRS NSW Chapter, Australasian College of Road Safety, received 11 November 2024
- additional information from NSW Productivity and Equality Commissioner, received 12 November 2024.

4.2 Clarification to transcript of evidence, 30 October 2024

Resolved, on the motion of Mr Banasiak: That the committee:

- publish the correspondence from Dr Soundappan on the inquiry website
- include a clarification in the first footnote where Dr Soundappan is mentioned in the report, specifying that he wrote to the committee to clarify the capacity in which he gave evidence
- include a footnote on the relevant page of the transcript of evidence specify that he wrote to the committee to clarify the capacity in which he gave evidence.

Resolved, on the motion of Mr Banasiak: That committee:

- publish the correspondence from Dr John Crozier, Australasian Royal College of Surgeons on the inquiry website
- include a footnote on the relevant page of the transcript of evidence that he wrote to the committee to make a factual correction.

4.3 Consideration of Chair's draft report

The Chair submitted her draft report entitled 'Use of e-scooters, e-bikes and related mobility options', which, having been previously circulated, was taken as being read.

Resolved, on the motion of Mr Banasiak: That Recommendation 2 be amended by inserting at the end: 'in close consultation with councils.'

Mr Banasiak moved: That Recommendation 3 be omitted.

Question put and negatived.

Resolved, on the motion of Mr D'Adam: That paragraph 3.124 and Recommendation 5 be omitted:

‘The committee stresses the urgent need for regulatory alignment with national standards to ensure consistent device specifications and safety requirements across jurisdictions. Achieving this harmonisation is critical for effective enforcement, consumer protection and fostering the growth of a sustainable e-mobility sector. Therefore, the committee recommends that the NSW Government align its e-mobility device specifications with national standards, specifically by reducing the maximum continuous rated power of electrically power-assisted cycles to 250 watts, to ensure jurisdictional consistency and enhance safety.’

Recommendation 5

That the NSW Government align its e-mobility device specifications with national standards, specifically by reducing the maximum continuous rated power of electrically power-assisted cycles to 250 watts, to ensure jurisdictional consistency and enhance safety.’

and the following new paragraph and recommendation be inserted instead:

‘The committee stresses the need to consider regulatory alignment with national standards to ensure consistent device specifications and safety requirements across jurisdictions. Therefore, the committee recommends that the NSW Government review its e-mobility device specifications against the national standards, including consideration of the maximum continuous rated power of electrically power-assisted cycles.’

Recommendation X

That the NSW Government review its e-mobility device specifications against the national standards, including consideration of the maximum continuous rated power of electrically power-assisted cycles.’

Resolved, on the motion of Mrs Ward: That Recommendation 6 be amended by omitting ‘adopting key amendments from’ and inserting instead ‘giving consideration to’.

Mr Banasiak moved: That Recommendation 8 be amended by omitting ‘footpaths and’.

Question put and negatived.

Resolved, on the motion of Mr D’Adam: That paragraph 3.21 be amended by omitting ‘This limit increases to 20 km/h on roads and bicycle lanes and roads where the speed limit is 50 km/h or less. However on roads the maximum speed for e-scooters is capped at 20 km/h.’ and inserting instead ‘This limit increases to 20 km/h on bicycle paths and lanes under the NSW Shared E-scooter Trial Program where the speed limit on roads is 50 km/h or less.’

Resolved, on the motion of Mr Banasiak: That:

- paragraph 5.78 be amended by omitting ‘with a target to deliver 1,000 kilometres of this network by 2028’ and inserting instead ‘with a target to deliver 100 kilometres of the network by 2028, with an ultimate goal of 1,000 kilometres’.
- Recommendation 13 be amended by omitting ‘with a target to deliver 1,000 kilometres of this network by 2028’.

Resolved, on the motion of Mr Banasiak: That Recommendation 14 be amended by inserting ‘where practicable,’ after ‘allocating existing car spaces for e-mobility parking’.

Mrs Ward moved: That Recommendation 15 be omitted: ‘That the NSW Government review the Housing and Productivity Contributions framework to require contributions from new developments for integrated active transport infrastructure, including parking and dedicated cycling pathways.’

Question put.

The committee divided.

Ayes: Mr Banasiak, Mr Fang, Mrs Ward.

Noes: Mr D’Adam, Ms Faehrmann, Dr Kaine, Mr Nanva.

Question resolved in the negative.

Mr Banasiak moved: That Recommendation 16 be omitted: ‘That the NSW Government, in allocating funds to active transport in the NSW Budget, ensure better alignment with proportion of active transport trips taken and the United Nations recommendation for active transport to be allocated 20 per cent of transport budgets.’

Question put.

The committee divided.

Ayes: Mr Banasiak, Mr Fang, Mrs Ward.

Noes: Mr D’Adam, Ms Faehrmann, Dr Kaine, Mr Nanva.

Question resolved in the negative.

Mr Banasiak moved: That Recommendation 18 be amended by omitting ‘transition trips away from private vehicle use to a far greater percentage’ and inserting instead ‘encourage uptake’.

Question put.

The committee divided.

Ayes: Mr Banasiak, Mr Fang, Mrs Ward.

Noes: Mr D’Adam, Ms Faehrmann, Dr Kaine, Mr Nanva.

Question resolved in the negative.

Mrs Ward moved: That Recommendation 20 be omitted:

‘That the NSW Government reduce on-road speed limits in the appropriate local government areas, providing for:

- 30 km/h speed limits in the city centres, high streets, around schools, around childcare centres and playgrounds, around universities and health care centres
- 40 km/h speed limits in all other areas.’

Question put.

The committee divided.

Ayes: Mr Banasiak, Mr Fang, Mrs Ward.

Noes: Mr D’Adam, Ms Faehrmann, Dr Kaine, Mr Nanva.

Question resolved in the negative.

Resolved, on the motion of Mr Banasiak: That Recommendation 22 be amended by:

- omitting ‘20 km/h’ and inserting instead ‘15km/h’
- omitting ‘e-scooters’ and inserting instead ‘e-mobility devices’.

Resolved, on the motion of Mr Banasiak: That Recommendation 26 be amended by omitting ‘e-bike and e-scooter’ and inserting instead ‘e-mobility devices’.

Resolved, on the motion of Mr Banasiak: That Recommendation 28 be amended by omitting ‘That the NSW Government’ and inserting instead ‘That, after the Road Rules 2014 have been updated regarding the e-mobility devices, the NSW Government.’.

Mrs Ward moved: That Recommendation 28 be amended by inserting ‘consider’ after ‘That, after the Road Rules 2014 have been updated regarding the e-mobility devices, the NSW Government.’

Question put.

The committee divided.

Ayes: Mr Banasiak, Mr Fang, Mrs Ward.

Noes: Mr D'Adam, Ms Faehrmann, Dr Kaine, Mr Nanva.

Question resolved in the negative.

Resolved, on the motion of Mr Banasiak: That Recommendation 32 be amended by inserting at the end: 'including online sales'.

Mrs Ward moved: That the following new recommendation be inserted after Recommendation 33:

'Recommendation X:

That the NSW Government refer the potential settings of a viable model for e-mobility insurance and Government position to Portfolio Committee No. 6 – Transport and the Arts for further public consultation.'

Question put.

The committee divided.

Ayes: Mr Banasiak, Ms Faehrmann, Mr Fang, Mrs Ward.

Noes: Mr D'Adam, Dr Kaine, Mr Nanva.

Question resolved in the affirmative.

Mrs Ward moved: That the following new recommendation be inserted after Recommendation 33:

'Recommendation X:

That the NSW Government report back to Portfolio Committee No. 6 – Transport and the Arts by 1 March 2026, on the outcomes and steps taken since this report was tabled in Parliament, to enable further refinement and consultation on Government policy and e-mobility devices.'

Question put.

The committee divided.

Ayes: Mr Fang, Mrs Ward.

Noes: Mr Banasiak, Mr D'Adam, Ms Faehrmann, Dr Kaine, Mr Nanva.

Question resolved in the negative.

Mrs Ward moved: That Finding 2 be omitted: 'That implementing a bureaucratic registration system could create barriers to adoption and limit accessibility of e-mobility devices, especially for low-income users.'

Question put.

The committee divided.

Ayes: Mr Banasiak, Mr Fang, Mrs Ward.

Noes: Mr D'Adam, Ms Faehrmann, Dr Kaine, Mr Nanva.

Question resolved in the negative.

Resolved, on the motion of Mr D'Adam: That the draft report, as amended, be the report of the committee and that the committee present the report to the House;

The transcripts of evidence, tabled documents, submissions, correspondence, responses and summary report to the online questionnaire and answers to questions taken on notice and supplementary questions relating to the inquiry be tabled in the House with the report;

Upon tabling, all unpublished attachments to submissions and individual responses to the online questionnaire be kept confidential by the committee;

Upon tabling, all unpublished transcripts of evidence, tabled documents, submissions, correspondence, responses and summary report to the online questionnaire and answers to questions taken on notice and supplementary questions related to the inquiry be published by the committee, except for those documents kept confidential by resolution of the committee;

The committee secretariat correct any typographical, grammatical and formatting errors prior to tabling;

The committee secretariat be authorised to update any committee comments where necessary to reflect changes to recommendations or new recommendations resolved by the committee;

Dissenting statements be provided to the secretariat within 24 hours after receipt of the draft minutes of the meeting;

The secretariat is tabling the report on Thursday 13 February 2025.

The Chair will liaise with members about holding a press conference on tabling.

5. Adjournment

The committee adjourned at 11.10 am, *sine die*.

Lauren Evans and Rasika Somaweera
Committee Clerks

Appendix 4 Dissenting statement

Hon Natalie Ward MLC, Liberal Party

Hon Wes Fang MLC, Nationals

We would firstly like to thank Committee Chair Cate Faehrmann MLC, the Government and crossbench members for supporting my work to establish this inquiry. The committee worked collaboratively to understand the complex issues surrounding e-mobility devices, namely e-bikes, e-scooters, shared mobility providers and private devices used across the community.

E-mobility devices have the potential to improve connectivity and connection in our suburbs, cities and regions. However, the report's recommendations do not adequately address the very real concerns raised throughout the inquiry.

We have no doubt that how the Government responds and addresses the vast questions concerning the introduction of these devices will provoke different responses by stakeholders. That is a natural part of public policy decision making. However, the current regulatory settings are not adequately addressing the lived experience of pedestrians, police, medical professionals, Local Councils or the wider community nor does this report seek to address them in a substantive way.

In regard to the enforcement of road rules, community standards and safe behaviour practices the NSW Police play a critical role, however clearly the current regulatory scheme does not support that endeavour. With resources strained, in my view it is unacceptable to suggest or expect the Police Force to effectively respond to the issue currently, nor is it acceptable to ignore the problem.

Like any transport mode, there is a natural balance between freedom of movement and a blending of education and regulation to enable safe and acceptable behaviour for users and the wider community.

In the Opposition's view the Government needs to take more responsibility to achieve this balance.

The Opposition members await the Government's response to the inquiry and encourages it to take a more proactive approach to the issues raised in order to provide clarity, safety, certainty, resourcing, education and amenity across the community.

