QUEENSLAND PARLIAMENT
COMMITTEES

Inquiry into e-mobility safety and use in Queensland

State Development, Infrastructure and Works Committee

Report No. 21

58th Parliament, February 2026

State Development, Infrastructure and Works Committee

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Acknowledgements

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The committee would also like to extend its sincere thanks to the many individuals, organisations, and witnesses who contributed to this inquiry, whose evidence has helped shape the findings in this report.

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Chair's foreword

New technology brings new challenges, and the arrival of e-scooters and e-bikes has been no exception. These devices offer clear advantages, including ease of access and convenience, but the negative impacts have become increasingly significant.

Tackling these issues requires both breadth and depth. The recommendations in this report reflect the considerable effort the committee invested to ensure the proposed solutions for e-mobility safety are as robust, comprehensive and practical as possible.

This inquiry was deeply personal for me. During my police career as a forensic crash investigator, I witnessed many traffic fatalities – far too many. While such incidents are part of the job, they are never something one grows accustomed to.

The human cost of e-mobility incidents has also struck close to home. Close friends of mine lost their son in an e-scooter crash in early 2024, a tragedy that shook our tight-knit community. In my own electorate, we mourned the loss of a 12-year-old girl who died in an e-scooter crash in 2025. Last year in Queensland, 12 people lost their lives in e-mobility-related incidents, several of them children, and more than 6,300 people presented to emergency departments with injuries. Preventing further tragedies must remain our priority.

Hearing these stories from community members and stakeholders was both confronting and enlightening. Their experiences played a crucial role in shaping the committee's recommendations and reinforced the need for meaningful reform to make this sector safer for all.

I am immensely proud of the work the committee has undertaken. We approached this inquiry methodically and collaboratively, considering every angle, listening to key stakeholders and community voices, and acknowledging the heartbreaking experiences of those who have lost loved ones in e-mobility incidents.

It is clear that a stronger regulatory framework is essential to ensure safety and sustainability across the e-mobility sector. As a keen mountain biker, I understand the power of these devices and the responsibility riders must exercise, particularly in public spaces. Our recommendations include stricter expectations for rider behaviour, which I believe marks an important step toward reducing dangerous and anti-social conduct.

These recommendations draw on existing regulations, aligning current systems and frameworks to create a more harmonised approach. They bring together the work of multiple departments and all levels of government, each with its own role in legislating and regulating the e-mobility industry. These departments, along with local, state, and federal governments, have already invested significant effort in this sector. By aligning these regulations and integrating them into our recommendations, we can ensure greater consistency and simplicity moving forward.

This report sets out a path toward safer and more responsible e-mobility use. By implementing these reforms, we can preserve the benefits of emerging transport

technologies while protecting the wellbeing of all who share our roads and public spaces, reducing injuries and saving lives.

Jim McDonald MP
Chair

Executive summary

The use of e-mobility devices in Queensland is increasing rapidly, driven by their convenience, affordability and sustainability benefits. While these devices offer clear advantages when used safely and responsibly, rising injury rates, the prevalence of illegal and unsafe devices on Queensland's roads, and ongoing enforcement challenges identify a need to ensure that the regulatory framework is modern and fit for purpose, and emerging risks are robustly addressed.

The 28 recommendations within this report draw on submissions from over 1,200 submitters and over 140 witnesses from across the state. There was strong community sentiment that the current situation is unsustainable and that measured and practical reform is required.

A coordinated, multi-agency approach – encompassing regulatory amendments, strengthened enforcement, improved community education, and infrastructure investment – will be required to enhance public safety and mitigate the key risks associated with e-mobility use.

Safety concerns

At its core, this inquiry focussed on public safety. The safety of e-mobility riders, many of whom are children, as well as pedestrians and other road users. Queensland Health reported more than 6,300 e-mobility related emergency department presentations in the year to March 2025, a figure understood to likely underestimate the true number of incidents. Over 200 cases involved major trauma, with more than 60 requiring intensive care, predominantly for head and facial injuries. Evidence to the inquiry indicates a clear trend of severe, disabling and long-term harm associated with these incidents.

Tragically, last year in Queensland, 12 people died in e-mobility device incidents, including several children. Evidence indicates a rising number of e-mobility incidents involving children and young people. Experts advised the committee that children under 16 often lack the cognitive and motor skills required to safely operate powered devices in dynamic environments. Limited understanding of road rules further elevates their risk.

Fires linked to e-mobility batteries are also an increasing concern. The Queensland Fire Department advised that while lithium-ion batteries used in these devices are efficient and lightweight, they can become highly volatile if damaged, leading to sudden and severe fires. Since 2023, e-mobility devices have represented the largest share of lithium-ion battery fire incidents, with most cases involving e-scooters. Between March 2022 and July 2025, QFD firefighters responded to 4 fatal incidents and a number of cases of serious burns.

Queensland's response to these safety issues is critical to the effective integration of e-mobility devices into the state's transport network. The key risk factors are well established, including the widespread use of illegal and modified devices, excessive speeds, failure to wear helmets, and riding while impaired. Evidence also indicates a rising number of e-mobility incidents involving children and young people.

Achieving meaningful progress will require strong leadership from the Queensland Government and coordinated action across all levels of government and relevant agencies.

Underpinning these reforms is a need to improve data collection at both the state and national levels to better understand trends and injuries resulting from the use of e-mobility devices. This information is important to informing future regulatory settings. It is also important that state and local governments embed e-mobility into their strategic transport infrastructure planning. The Queensland Government should work with local governments to achieve greater investment and delivery of high quality, connected and separated pathway networks. The committee has recommended that the Queensland Government also advocate for local governments to provide dedicated parking for e-mobility devices in designated areas.

Regulatory reform

This report focusses its attention on several key areas of regulatory reform. A critical first step is ensuring that e-mobility devices sold and used in Queensland meet product safety standards.

The committee has recommended that the Queensland Government update state legislation to align definitions of compliant e-bikes, personal mobility devices (PMDs), and batteries with recognised product safety standards – including EN15194–*Electrically power assisted cycles* for e-bikes, and an equivalent product standard for PMDs.

The committee has also recommended that the Queensland Government continue to work with national agencies towards the implementation of mandatory national safety standards for lithium-ion batteries in e-mobility devices, to enhance consumer safety and reduce the risk of fires. The committee has recommended that the Queensland Government, in consultation with the Battery Stewardship Council, investigate and support local government and/or private waste disposal sites, and retail and point of sale disposal opportunities, to facilitate responsible battery disposal. There is also an opportunity for the Queensland Government to support and expand education campaigns focussed on e-mobility battery safety and fire risks.

It is evident that the current import settings, which were amended in 2021 by the Australian Government, have enabled large numbers of unsafe, high powered and non-compliant devices to enter Queensland. This has created significant safety risks, including battery related hazards, for riders and the wider community. Mandatory controls at the point of import are essential to improving safety outcomes.

Faster and more powerful devices undoubtedly present increased safety risks. The committee has therefore recommended a two-tiered approach to regulation with devices capable of exceeding 25km/h being subject to a more stringent regulatory framework.

The committee has recommended that law be amended to expressly provide that any device that does not meet the definition of a compliant e-bike or PMD and which exceeds a top speed of 25km/h be defined as a motorcycle, moped or other appropriate

classification. The committee has recommended that it be made clear in legislation that riders of these devices must hold an appropriate driver licence (such as a motorbike licence), devices must be registered and insured under Compulsory Third Party provisions and be compliant with Australian Design Standards. These devices should be restricted to road use only and should be sold by licensed motor dealers.

To address safety concerns, the committee has recommended that the law be amended to provide that compliant e-bikes and PMDs can only be ridden by individuals aged 16 years and over. This age requirement reflects the cognitive skills needed to assess traffic risks and reduces the likelihood of serious injuries among younger riders. Aligning age limits for both e-bikes and PMDs provides a clearer and simpler framework for implementation.

The committee has also recommended that riders of e-bikes and PMDs be required to hold at least a Queensland Class C Learner Licence which requires the completion of the PrepL learning and assessment program. The committee considers that this recommendation is important to ensuring that riders possess a sound understanding of Queensland road rules and how to operate devices safety.

Hundreds of submitters raised concerns about the safety of pedestrians. Many reported near misses and unsafe interactions, with some indicating they no longer feel safe using public pathways. These risks are heightened for older people, those with vision, hearing or cognitive impairments, and families with young children. The committee identified a real need to change the culture of riders. Accordingly, the committee has recommended that the Queensland Government amend legislation to reduce the speed limits on all footpaths, for all e-mobility devices, to a maximum of 10km/h; and that legislation be amended to prescribe an offence of riding an e-mobility device in the vicinity of a pedestrian without due care and attention.

The committee also recommends that the Queensland Government support local governments to use local laws to prohibit or set lower speed limits for high pedestrian zones and pathways. There is also opportunity for the state and local governments to improve signage relating to speed limits and requirements to give way to pedestrians.

Retail

Retailers have a clear responsibility to ensure accurate representation of the products they sell. While many businesses act responsibly, the committee received reports of traders engaging in unscrupulous conduct, including implying that illegal devices are acceptable for use on public roads or providing advice and products that enable legal devices to be modified into illegal ones. The committee is of the view that the Queensland Government should take targeted action to reduce the sale of unsafe e-mobility devices in Queensland, including that laws be amended to require that e-mobility devices sold in Queensland align with recognised safety standards such as EN15194 for e-bikes and an equivalent standard for PMDs; and that non-compliant devices sold for use on private property only, are to be clearly marked with permanent and visible markings that indicate

for consumers and enforcement officers that the device is 'for use on private property only'.

The committee has also recommended that the government introduce anti-tampering laws to prohibit the sale of and use of modification kits or assistance by retailers to increase the power and speed of devices.

There is also opportunity for the Queensland Government to support retailers to provide information and educational resources at the point of sale, including information about compliance with safety standards, road rules and penalties for non-compliance, battery safety and disposal, and the legal use of the device on public roads and pathways.

Enforcement

Effective enforcement is also vitally important. The Queensland Police Service (QPS) has reported a growing number of incidents involving unsafe and illegal e-mobility device use and dangerous riding behaviours. There was widespread support from inquiry participants for enhanced enforcement against riders who are not complying with the road rules and who are putting themselves and others at risk.

QPS adopts several enforcement approaches, which were welcomed and encouraged by inquiry stakeholders. Operation X-Ray Surety, a statewide campaign that ran from November 2025 through to the end of January 2026, focussed on reducing road trauma and improving compliance with e-mobility regulations. Over 2,000 infringement notices were issued, 120 illegal devices seized, and engagement activities took place in over 70 schools during the operation. That said, QPS reported several practical enforcement challenges, which are not unique to Queensland.

To provide the QPS with the tools it needs to take illegal devices off Queensland roads and paths, the committee has recommended that laws be amended to provide that the QPS has sufficient powers to seize and impound illegal devices on a first offence. This should include the ability of QPS to dispose of or destroy the device.

The committee has also recommended that the government consider strengthening the existing penalties associated with the most significant risk factors such as riding at excessive speeds, failure to wear a helmet, riding under the influence of alcohol or drugs, or hooning activities. The committee has also recommended that the law be amended to enable the State Penalties Enforcement Registry (SPER) to pursue 16 and 17 year old riders who breach e-bike and PMD regulations and to provide that parent/guardians can be pursued for penalties for breaches of e-mobility device regulations by children under 16 years of age.

The committee has also recommended that laws be amended to ensure that e-bike or PMD riders under the influence of alcohol or drugs can be dealt with in the same way as alcohol or drug impaired drivers of motor vehicles on roads, including undertaking Random Breath Tests.

The recommendations outlined in this report are significant. The committee encourages Queensland Police Service and the Department of Transport and Main Roads to work closely to ensure that education and enforcement are proportionate while transitioning to any new reforms.

Education

Finally, the committee has recommended that the Queensland Government implement a wide-ranging community education campaign outlining e-mobility rules, and changes to those rules in Queensland. Rider and community education is key to making devices safer. While not an exhaustive list, key themes could include what devices are legal to ride in Queensland, where and how you can ride, penalties for dangerous or illegal riding and battery charging and disposal tips. A comprehensive campaign that focusses on clear and consistent communication is essential to the success of the regulatory framework.

Recommendations

E-mobility in Queensland

That the Queensland Government continue to recognise that compliant e-mobility devices, when used safely and responsibly, form a viable and valuable component of the state's transport system by providing convenient and affordable short trip options, reducing car dependence, supporting environmental objectives, and removing mobility barriers and enhancing independence for some members of the community.

That the Queensland Government implement a coordinated, multi-agency approach – encompassing regulatory amendments, strengthened enforcement, improved community education, and infrastructure investment – to enhance public safety and mitigate the key risks associated with e-mobility use.

Safety issues associated with e-mobility use

That the Queensland Government work with relevant state and national government agencies, shared e-mobility companies, and local government, to improve the collection and sharing of data regarding incidents involving PMDs and e-bikes.

That the Queensland Government embed e-mobility into strategic transport infrastructure planning and work with local governments to achieve greater investment and delivery of high quality, connected and separated pathway networks.

That the Queensland Government advocate for local governments to provide dedicated parking for e-mobility devices in appropriate designated areas, as determined by the local government or on private property where applicable.

Risk of lithium-ion battery fires

That the Queensland Government advocate to the Australian Government for the implementation of mandatory national safety standards for lithium-ion batteries in e-mobility devices and regulation, to enhance consumer safety and reduce the risk of fires.

That the Queensland Government, in consultation with the Battery Stewardship Council, investigate and support local government and/or private waste disposal sites,

and retail and point of sale disposal opportunities, to facilitate responsible battery disposal.

That the Queensland Government continue to support and expand education campaigns focused on e-mobility battery safety and fire risks.

Suitability of regulatory frameworks

That the Queensland Government continue to advocate for stronger import controls relating to e-bikes and PMDs to be implemented nationally, and for stronger enforcement of these controls in order to prevent illegal and dangerous devices entering Queensland.

That the Queensland Government update state legislation to align definitions of compliant e-bikes, PMDs, and batteries with recognised product safety standards – including EN15194–*Electrically power assisted cycles* for e-bikes, and an equivalent product standard for PMDs, to ensure that e-mobility devices that are sold in Queensland are safe to use.

That the Queensland Government update state legislation to provide that all e-mobility devices with an electrical power source be defined as a 'motor vehicle', to simplify enforcement.

That the Queensland Government amend state legislation to expressly provide that any device that does not meet the definition of a compliant e-bike or PMD with a top speed which exceeds 25km/h, be defined as a motorcycle, moped or other appropriate classification, and make clear in the legislation that:

- riders must hold an appropriate class of driver licence, such as a motorcycle licence
- devices must be sold by a licensed motor trader
- devices must be registered, and therefore meet Australian Design Standards, have a vehicle identification number (VIN), and be covered by Compulsory Third Party insurance
- devices must only be ridden on roads, and are prohibited from being ridden on footpaths and bike paths
- riders must wear a motorcycle helmet that complies with appropriate product safety standards.

That the Queensland Government amend legislation to provide that:

- e-bikes and PMDs can only be ridden by individuals aged 16 years and over
- riders of e-bikes and PMDs be required to hold at least a Queensland Class C learner licence which requires completion of the PrepL online learning and assessment program
- this requirement does not apply to e-wheelchair and other accessibility device users.

That the Queensland Government amend legislation to reduce the speed limits on all footpaths, for all e-mobility devices, to maximum 10km/h.

That the Queensland Government amend legislation to prescribe an offence of riding an e-mobility device on a footpath in the vicinity of a pedestrian without due care and attention.

That the Queensland Government support local governments to use local laws to regulate e-mobility devices including setting lower speed limits for high pedestrian traffic zones and pathways.

That the Queensland Government and local governments increase and improve signage of speed limits on footpaths and requirements to give way to pedestrians.

That local governments stipulate that shared scheme operators use technology to prohibit the use, or limit the speed of shared devices to 10km/h or lower in identified high pedestrian zones.

Regulating the retail of e-mobility devices

That the Queensland Government amend laws to require that e-mobility devices sold in Queensland for on-road use align with recognised mechanical and electrical safety standards (such as EN15194:2017 for e-bikes and an equivalent standard for PMDs).

That non-compliant devices sold for use on private property only, are to be clearly marked with permanent and visible markings that indicate for consumers and enforcement officers that the device is ‘for use on private property only’ and that there be appropriate penalties for retailers and riders for non-compliance.

Enforcement approaches

Community awareness and education

1. Terms of reference

On 1 May 2025 the Legislative Assembly agreed to a motion *that the State Development, Infrastructure and Works Committee inquire into and report to the Legislative Assembly no later than 30 March 2026 on:*

1. *Benefits of e-mobility (including both Personal Mobility Devices (PMDs), such as e-scooters and e-skateboards, as well as e-bikes) for Queensland*
2. *Safety issues associated with e-mobility use, including increasing crashes, injuries, fatalities, and community concern*
3. *Issues associated with e-mobility ownership, such as risk of fire, storage and disposal of lithium batteries used in e-mobility, and any consideration of mitigants or controls*
4. *Suitability of current regulatory frameworks for PMDs and e-bikes, informed by approaches in Australia and internationally*
5. *Effectiveness of current enforcement approaches and powers to address dangerous riding behaviours and the use of illegal devices*
6. *Gaps between Commonwealth and Queensland laws that allow illegal devices to be imported and used*
7. *Communication and education about device requirements, rules, and consequences for unsafe use*
8. *Broad stakeholder perspectives, including from community members, road user groups, disability advocates, health and trauma experts, academia, the e-mobility industry, and all levels of government.*

2. Inquiry process

The committee considered 1,214 submissions to the inquiry. A list of submitters is provided at Appendix A.

The committee held public briefings with officials from the Department of Transport and Main Roads, Queensland Police Service, Queensland Health, Queensland Fire Department, Office of Fair Trading, and the Office of Electrical Safety (see Appendix B). The committee conducted 6 public hearings at the Parliamentary Annexe in Brisbane, and 5 regional hearings in Robina, Caloundra, Currumbin, Townsville and Cairns, hearing from 117 witnesses (see Appendix C). The committee also conducted several site and research meetings in Brisbane, Townsville, Cairns and New South Wales (see Appendix D).

All public inquiry documents are available on the inquiry webpage,[1] including submissions, transcripts, tabled papers, answers to questions taken on notice, supplementary information and briefing papers.

[1] See https://www.parliament.qld.gov.au/Work-of-Committees/Committees/Committee-Details?cid=272&id=4522.

3. E-mobility in Queensland

3.1 Introduction

The use of mobility devices such as e-bikes and e-scooters is increasing rapidly in Queensland and globally due to their convenience, affordability and sustainability benefits. However, this growth has created emerging challenges. Rising injuries, greater use of illegal and unsafe devices, and ongoing enforcement difficulties highlight the need for a modern regulatory framework that balances innovation with public safety and ensures that emerging risks are being appropriately addressed now and into the future.

This chapter provides an introductory overview of e-mobility in Queensland, including the existing policy framework, and benefits of e-mobility.

3.2 Existing policy framework

E-mobility refers to the use of electricity to power lightweight battery-powered devices for transport purposes. E-mobility sits between walking and public transport in the mobility hierarchy and in Queensland is made up of 2 distinct categories:

- Personal Mobility Devices (PMDs) - which include devices such as e-scooters and e-skateboards, and
- e-bikes.

Queensland's e-mobility regulatory framework is established under the:

- *Transport Operations (Road Use Management) Act 1995* (TORUM Act), and the
- Transport Operations (Road Use Management – Road Rules) Regulation 2009 (Queensland Road Rules).

These instruments define PMDs and e-bikes and set out rider obligations, safety requirements and penalties for non-compliance. Although both device types are regulated in similar ways, important distinctions exist due to their differing risk profiles.[2] For example, e-bikes – which are typically more stable, have broad road access and no age limits, while PMDs, which generally have smaller wheels and are more prone to tipping, are subject to stricter regulations.[3]

3.2.1 Personal Mobility Devices

A PMD is defined under the TORUM Act as a vehicle that is designed to be used by one person, and as otherwise prescribed by regulation.[4] Under the Queensland Road Rules, a vehicle is defined as a PMD if it:

(a) has 1 or more wheels, and

(b) is propelled by an electric motor, and

(c) is not more than—

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2 Department of Transport and Main Roads, public briefing transcript, Brisbane, 11 June 2025, p 2.

3 Mr Geoff Magoffin, Deputy Director-General, Customer Services, Safety and Regulation, Department of Transport and Main Roads, public briefing transcript, Brisbane, 11 June 2025, p 2.

4 *Transport Operations (Road Use Management) Act 1995*, schedule 4.

(i) 1,250mm in length by 700mm in width by 1,350mm in height; or
(ii) 700mm in length by 1,250mm in width by 1,350mm in height; and
(d) weighs 60kg or less when the vehicle is not carrying a person or other load; and
(e) is none of the following—
(i) a low powered toy scooter
(ii) a motorised mobility device
(iii) a vehicle with pedals.[5]

A wide range of devices fall within the PMD definition, with e-scooters being the most common. Other examples include e-skateboards, e-unicycles, and Segway-style devices as illustrated below.[6]

Source: Department of Transport and Main Roads, correspondence, 30 May 2025, p 4.

The Department of Transport and Main Roads (TMR) advised that the design of the PMD definition in this way ensures that it is sufficiently flexible to allow new device innovations to be accommodated without frequent legislative amendment.[7]

TMR reported that Queensland has been at the forefront of PMD regulation nationally since 2018, when the first Australian e-scooter scheme began in Brisbane. Since then, most Australian jurisdictions have adopted similar regulatory frameworks.[8] Since that time, there have been efforts to address emerging issues and community concerns. In 2022, following consultation with stakeholders, changes were made to the Queensland Road Rules to change footpath speeds to 12km/h, introduce higher penalties for dangerous riding behaviours, allow PMDs to be ridden in *some* on-road bike lanes, require riders to obey general road rules, and mandate handlebars to be fitted with bells.[9] Changes were also made to protect PMD riders. However, despite these efforts, TMR acknowledged that injuries and fatalities involving PMDs are increasing at an unacceptable rate, as discussed in the next chapter.

5 Transport Operations (Road Use Management – Road Rules) Regulation 2009, s 15A.
6 Department of Transport and Main Roads, correspondence, 30 May 2025, p 4.
7 Department of Transport and Main Roads, public briefing transcript, Brisbane, 11 June 2025, p 2.
8 Mr Geoff Magoffin, Deputy Director-General, Customer Services, Safety and Regulation, Department of Transport and Main Roads, public briefing transcript, Brisbane, 11 June 2025, p 2
9 Department of Transport and Main Roads, public briefing transcript, Brisbane, 11 June 2025, p 2.

3.2.2 E-bikes

Under the TORUM Act, e-bikes are classified as a type of bicycle and are defined as a power-assisted bicycle, meaning they may have one or more auxiliary motors but must rely primarily on pedal power rather than the motor for propulsion.[10] In other words, this means that the motor(s) *cannot* be the primary source of power and the device *must* be predominantly pedal-powered by a rider.[11]

Further definitions and specifications for power-assisted bicycles are provided in section 353B of the Queensland Road Rules. This section defines 2 types of power-assisted bicycles:

- Electrically Power Assisted Cycles (EPACs), and
- 200-watt devices which are a legacy e-bike definition that predates the approval of EPACs.[12]

Examples of e-bikes compliant with these definitions are shown below.

Source: Department of Transport and Main Roads, correspondence,30 May 2025, p 4.

The most common type of power-assisted bicycle is the EPAC. The definition of an EPAC is set out in the Commonwealth *Road Vehicle Standards (Classes of Vehicles that are not Road Vehicles) Determination 2021* (the Determination).[13] Under the Determination, an EPAC can have a motor with a Maximum Continuous Rated Power (MCRP) of 250 watts, which is defined as the maximum power that the motor can deliver continuously without overheating or suffering damage.

TMR advised that the MCRP rating is determined by the manufacturer according to the motor's design and cannot be altered.[14] This means that software limits or locks that reduce a motor's output do not make the device compliant as they do not alter the MCRP.[15] For example, an e-bike with an MCRP of 500 watts with a software restriction to reduce

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10 *Transport Operations (Road Use Management) Act 1995*, schedule 4.
11 Department of Transport and Main Roads, correspondence, 30 May 2025, p 4.
12 Department of Transport and Main Roads, correspondence, 30 May 2025, p 4.
13 Road Vehicle Standards (Classes of Vehicles that are not Road Vehicles) Determination 2021, https://www.legislation.gov.au/F2021L00956/asmade/text.
14 Department of Transport and Main Roads, correspondence, 30 May 2025, p 5; Road Vehicle Standards (Classes of Vehicles that are not Road Vehicles) Determination 2021, https://www.legislation.gov.au/F2021L00956/latest/text.
15 Department of Transport and Main Roads, correspondence, 30 May 2025, p 5.

the motor's output to 250 watts is *not* a compliant EPAC even if software restricts its output to 250 watts.[16]

The Determination also stipulates that the motor's output must be:

- progressively reduced as speed increases above 6km/h
- cut off, where:
  - speed reaches 25km/h or
  - the cyclist is not pedalling and speed exceeds 6km/h.[17]

TMR advised that the Determination is intended to allow e-bikes which comply with the European Standard for Electrically Power Assisted Cycles (EN15194) to be imported into Australia without further assessment under motor vehicle standards or the Australian Design Rules.[18]

The second category of power-assisted bicycle under the Queensland Road Rules is a device fitted with one or more auxiliary electric motors with a combined maximum power output of no more than 200 watts.[19] TMR advised that this is a legacy e-bike definition that pre-dates the approval of EPACs (formerly known as pedelecs), and aside from the maximum motor output, there is minimal difference between a 200-watt device and an EPAC.[20]

The regulatory framework for legal e-bikes in Queensland has remained relatively unchanged for over 10 years. E-bikes, like all bicycles, do not require registration or a driver's licence and riders must comply with all general road rules and the specific requirements that apply to bicycle riders.[21]

3.2.3 What is not a power-assisted bicycle

Under the Queensland Road Rules, certain vehicles are expressly excluded from being classified as power-assisted bicycles.[22] A device is not a power-assisted bicycle if:

- the vehicle has an internal combustion engine, or
- either or both of the following apply to the vehicle –
  - when propelled only by the motor or motors, the vehicle is capable of going faster than 6km/h
  - the motor or motors of the vehicle are capable of operating when the vehicle is going faster than 25km/h.[23]

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16 Department of Transport and Main Roads, correspondence, 30 May 2025, p 5.
17 Department of Transport and Main Roads, correspondence, 30 May 2025, p 5; Road Vehicle Standards (Classes of Vehicles that are not Road Vehicles) Determination 2021, https://www.legislation.gov.au/F2021L00956/latest/text.
18 Department of Transport and Main Roads, correspondence, 30 May 2025, p 5.
19 Transport Operations (Road Use Management—Road Rules) Regulation 2009, s 353B(2).
20 Department of Transport and Main Roads, correspondence, 30 May 2025, p 5.
21 Queensland Government, Bicycle road rules and safety, https://www.qld.gov.au/transport/safety/rules/wheeled-devices/bicycle.
22 Transport Operations (Road Use Management—Road Rules) Regulation 2009**,** s 353B.
23 Transport Operations (Road Use Management—Road Rules) Regulation 2009, s 353B(3).

TMR advised that this means that any device capable of throttle-only operation or travelling faster than 25km/h under motor power is considered illegal for use in public spaces, regardless of its stated motor output.[24]

3.2.4 Registerable and recreational vehicles

It is important to clarify the definitions of registerable and recreational vehicles, as some devices are wrongly described, marketed or understood as 'e-bikes'. Devices often referred to as e-bikes can include certain electric motorcycles which, under existing legislation, can be registered, require Compulsory Third Party insurance, and must be operated by a rider holding the appropriate class of driver licence. These vehicles have no pedals, are capable of higher speeds, and typically resemble mopeds, dirt bikes, or touring motorcycles, as illustrated below.[25]

Source: Department of Transport and Main Roads, correspondence, 30 May 2025, p 6.

TMR advised that some of these vehicles meet Australian Design Rules and are eligible for full registration, while others may qualify for conditional registration for limited operational use, such as when loading and unloading from a trailer.[26]

3.2.5 Illegal and non-compliant devices

Inquiry participants identified the growing use of illegal or non-compliant devices as one of the most significant issues facing the e-mobility sector in Queensland. The Queensland Police Service told the committee that 'there are many high-powered or modified devices in the community which are illegal on public roads and footpaths'.[27] These devices fall outside of the above definitions of PMDs and e-bikes and present significant safety risks.[28]

In terms of bikes, devices that are capable of throttle-only operation without pedalling, exceed speeds of 25km/h, or contain motors rated above 250 watts MCRP are illegal.[29] TMR advised that although some of these devices have pedals and are marketed as

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24 Department of Transport and Main Roads, correspondence, 30 May 2025, p 5.
25 Department of Transport and Main Roads, correspondence, 30 May 2025, p 6.
26 Department of Transport and Main Roads, correspondence, 30 May 2025, p 6.
27 Deputy Commissioner Cameron Harsley APM, Queensland Police Service, public briefing transcript, Brisbane, 25 August 2025, p 3.
28 Department of Transport and Main Roads, correspondence, 30 May 2025, p 6. See for example RACQ, submission 1091; Motor Trades Association of Queensland, submission 1197.
29 Department of Transport and Main Roads, correspondence, 30 May 2025, p 6.

e-bikes, they are *not* legally classified as bicycles or e-bikes. Instead, they are considered illegal electric motorcycles (unless they meet the requirements for registration) and are prohibited from use in all public spaces in Queensland, including roads and paths.[30] TMR advised of its strong concerns about the safety of these devices and acknowledged that there is considerable confusion in the community about the term 'e-bike' and which e-bikes are legal for use in Queensland.[31]

Examples of non-compliant devices include:

Source: Department of Transport and Main Roads, correspondence, 30 May 2025, p 6.

Issues relating to non-compliant PMDs were also identified, and primarily related to the speed at which such devices can travel. Stakeholders highlighted the prevalence of non-compliant PMDs, that are sold without speed restriction and can be modified after purchase to deliberately exceed the regulated maximum speed limit. Concerns related to these devices travelling at high speeds on footpaths and roads, close to pedestrians and other vehicles, and sometimes being ridden recklessly or with little control.[32]

3.2.6 Existing rules for riders of e-bikes and PMDs

The Queensland Road Rules set out the requirements for riders of e-bikes and PMDs. While riders of both types of devices share several obligations, TMR advised that differences are applied due to their distinct risk profiles.[33] Key differences relate to rider age, road access and speed thresholds. The table below sets out key rules for riders of e-bikes and PMDs and current penalties for non-compliance.[34]

30 Department of Transport and Main Roads, correspondence, 30 May 2025, p 6.
31 Department of Transport and Main Roads, correspondence, 30 May 2025, p 6.
32 See for example submissions 468, 645, 696; Dr David Lockwood, Queensland Trauma Clinical Network, Queensland Health, public briefing transcript, Brisbane, 22 July 2025; Mr Joel Tucker, Road Safety and Technical Manager, RACQ, public hearing transcript, Brisbane, 22 July 2025.
33 Department of Transport and Main Roads, public briefing transcript, Brisbane, 11 June 2025, p 2.
34 Department of Transport and Main Roads, correspondence, 30 May 2025, pp 10-11. Transport Operations (Road Use Management—Road Rules) Regulation 2009, Part 16 Rules for persons travelling in or on vehicles.

Rule	E-bike rider	Personal Mobility Device rider
Rider age	• No age limit	• Must be at least 16 years of age, or • Must be at least 12 years of age and supervised by an adult *Penalty: $166.90 (1 PU)*
Helmets	• Approved bicycle helmet *Penalty: $166.90 (1 PU)*	• Approved bicycle or motorcycle helmet securely fitted and fastened unless exempt[35] *Penalty: $166.90 (1 PU)*
Speed limits	• 25km/h under motor assistance, otherwise • The speed indicated on speed signs *Penalty: $333.80 (2 PU) to $1919.35 (11½ PU) depending on speed over the limit (same as for all vehicles)*	• 12km/h on footpaths and shared paths • 25km/h elsewhere • Speed signs also apply *Penalty: $166.90 (1 PU) to $667.60 (4 PU) depending on speed over the limit*
Passengers	• Allowed if device designed to carry passengers • Passengers must wear a helmet *Penalty: $166.90 (1 PU)*	• Prohibited *Penalty: $166.90 (1 PU)*
Access / where allowed to ride	• All paths and roads (excluding motorways) *Penalty $200.28 (1 1/5 PU)* • Prohibited in areas with no bicycle signs *Penalty: $166.90 (1 PU)*	• All paths • Local streets (50km/h with no dividing line) • Bicycle lanes that are physically separated *Penalty: $200.28 (1 1/5 PU)* • Prohibited in areas with no PMD signs *Penalty: $166.90 (1 PU)*
Mobile phone use	• Prohibited unless cradled *Penalty: $1251.75 (7½ PU)*	
Pedestrian protections	• Must give way to pedestrians on footpaths and shared paths • Must not travel on the pedestrian side of a separated path *Penalty: $166.90 (1 PU)*	
Safety equipment	• At least one effective brake • Fitted with bell (only for PMDs with handlebars) • Lights and reflectors for night use *Penalty: $166.90 (1 PU)*	
Alcohol and drugs	• Cannot ride under the influence of alcohol or drugs • Cannot ride while drinking alcohol *Court-imposed penalty: $2258 - $4516 depending on severity*	
General road rules	• Must comply will all general road rules such as traffic lights, stop and give way signs, and give way rules. *Penalty: $500.70 (3 PU) to $667.60 (4 PU) depending on offence*	
Post crash duties	• Must stop, provide assistance to the injured, and exchange details. *Court-imposed penalty: up to $18,576*	

Source: Department of Transport and Main Roads, correspondence, 30 May 2025, p 6; Personal mobility device riding rules and fines, Queensland Government; Bicycle riding rules and fines, Queensland Government.

[35] Note some exceptions apply – for example, for medical or religious reasons.

TMR advised that currently no demerit points apply to users of legal e-mobility devices. However, demerit points may apply to users of illegal devices that are regulated under motorcycle laws.[36]

3.2.7 Rules for motor vehicle drivers to protect riders

The Queensland Road Rules also impose specific obligations on motor vehicle drivers to support the safety of bicycle (including e-bikes) and PMD riders, which are set out in the table below.

Rule	Driver
Minimum passing distances	• Minimum passing distances: - 1 metre on roads with a speed limit of 60km/h or less. - 1.5 metres on roads with a speed limit of more than 60km/h. *Penalty: $483 and 3 demerit points*
Give way to riders	• Give way to riders - on or crossing the road a driver is turning into at an intersection. - on a footpath when a driver is entering or exiting a driveway. - crossing slip lanes. - on or entering a pedestrian crossing. *Penalty $483 and 3 demerit points*

Source: Department of Transport and Main Roads, correspondence, 30 May 2025, p 12.

3.3 Who is responsible for regulating the use of e-mobility devices

The e-mobility sector is regulated by a mix of government bodies at state, federal and local government levels. A summary of the key roles and responsibilities is set out below.

3.3.1 Australian Government

Device importation

The Australian Government sets and enforces national standards for vehicle importation, a responsibility shared by the Department of Infrastructure, Transport, Regional Development, Communications, Sport and the Arts (DITRDSCA) and the Australian Border Force.[37]

Since 2021, PMDs and e-bikes that meet the specifications in the Commonwealth Road Vehicle Standards (Classes of Vehicles that are not Road Vehicles) Determination 2021 may be imported as 'vehicles that are not road vehicles'. This Determination effectively distinguishes these devices from road vehicles for import purposes and exempts them from complying with motor vehicle standards and the Australian Design Rules. [38]

Import issues raised by inquiry stakeholders are discussed in chapter 6 of this report.

[36] Department of Transport and Main Roads, correspondence, 30 May 2025, p 11.
[37] Department of Transport and Main Roads, correspondence, 30 May 2025, p 7.
[38] Department of Transport and Main Roads, correspondence, 30 May 2025, p 7.

3.3.2 Queensland Government

Sale of devices

If a device has been imported which exceeds Queensland's regulated specifications, retailers may still supply the device to consumers for use on private property only.[39]

The Office of Fair Trading (OFT) within the Department of Justice is responsible for the administration of consumer law in Queensland, investigation of consumer complaints, and enforcement of the law when retailers are found to be supplying goods under false or misleading claims.[40]

Retail issues raised by inquiry stakeholders are discussed further in chapter 7.

Use of e-mobility devices in Queensland

TMR regulates the use of e-mobility devices in Queensland and the penalties for non-compliance through the Queensland Road Rules, as outlined in the section 3.2 above. The TORUM Act sets out more serious offences associated with drink and drug riding, careless riding, and post-crash obligations.[41] TMR does not directly regulate shared schemes or their providers.

TMR also implements a range of educational activities. These include clarifying legal definitions for e-bikes and PMDs, distributing educational materials to schools, retailers, police, and other stakeholders, and collaborating with agencies such as Queensland Police Service (QPS), OFT, and the Department of Education, to tackle issues like retail enforcement and school policies.[42]

Issues relating to the use of e-mobility devices in Queensland are discussed throughout this report in chapters 3, 4, 5, and 6.

Enforcement

The QPS is responsible for the enforcement of the road rules. QPS adopts several enforcement approaches including issuing infringement notices for offences, impounding non-compliant devices and investigating serious incidents involving injury or reckless conduct. QPS also undertakes education activities.

Issues relating to the enforcement of e-mobility rules are discussed in chapter 8.

Electrical safety

Electrical safety is regulated by the Electrical Safety Office within the Office of Industrial Relations, Department of State Development, Infrastructure and Planning. Under current legislation, e-mobility devices and their lithium-ion batteries are *not* covered by the electrical safety framework, however their chargers are.

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39 Department of Transport and Main Roads, correspondence, 30 May 2025, p 8.
40 Department of Transport and Main Roads, correspondence, 30 May 2025, p 8.
41 Department of Transport and Main Roads, correspondence, 30 May 2025, p 8.
42 Department of Transport and Main Roads, correspondence, 30 May 2025, p 17.

Issues relating to electrical safety of e-mobility devices are discussed in chapter 5.

3.3.3 Local Government

Shared schemes

In Queensland, responsibility for shared e-mobility device schemes primarily rests with local governments, as the devices operate on and are generally stored within local government infrastructure. Shared e-scooter and e-bike schemes operate across Queensland, including in Brisbane, the Gold Coast (e-bikes only), Logan, Ipswich, the Sunshine Coast, Hervey Bay, Bundaberg, Yeppoon, Rockhampton, Townsville and Cairns.[43]

Local governments have agreements with providers that include caps on the number of devices, safety rules such as geofenced no parking and go-slow zones, a requirement to provide a helmet with each device, and minimum standards to ensure providers move badly parked devices quickly. TMR advised that permitting local governments to manage these schemes allows for appropriate decisions to be made based on the needs of each community.[44]

Local laws and signs

Local governments can make local laws regulating the use of vehicles, including e-mobility devices, on footpaths and shared paths. These laws can establish prohibitions, restricted areas, speed limits and parking requirements. Local governments may also install official signs that have regulatory effect under the Queensland Road Rules.[45]

Issues relating to shared schemes and local laws are discussed in chapters 4 and 6.

3.4 How does Queensland compare to other jurisdictions

3.4.1 PMD rules

Existing PMD rules in Australian states and territories are summarised in the table below.[46]

As outlined below, key points of difference relate to:

- **Age requirements** – Most states and territories require riders to be at least 16 years old except Queensland and Australian Capital Territory (ACT), which allow supervised riders aged 12-15, and the Northern Territory (NT) which sets a minimum age of 18 years.
- **Privately owned devices** – Several states have taken steps to prohibit the use of privately owned PMDs including in NT, South Australia (SA) and New South Wales (NSW).

43 Department of Transport and Main Roads, correspondence, 30 May 2025, p 9.
44 Department of Transport and Main Roads, correspondence, 30 May 2025, p 9.
45 Department of Transport and Main Roads, correspondence, 30 May 2025, p 9.
46 Department of Transport and Main Roads, public briefing transcript, Brisbane, 11 June 2025, p 2.

- **Road and path access, including speed limits** – rules differ, with footpath rules aligning with bicycles. Maximum speeds range from 15 to 25km/h, with 10 to 15km/h limits in pedestrian areas.[47]

No state or territory requires registration, licensing or mandatory insurance to ride a PMD.[48]

[47] Department of Transport and Main Roads, correspondence, 30 May 2025, p 12.
[48] Department of Transport and Main Roads, correspondence, 30 May 2025, p 12.

PMD rules in Australian states and territories

State-by-state comparison	Australian Road Rules (ARR)	Queensland	Tasmania	Victoria	Northern Territory	South Australia	Western Australia	Australian Capital Territory	New South Wales
Governing legislation	Australian Road Rules	Transport Operations (Road Use Management—Road Rules) Regulation 2009	Road Rules 2019	Road Safety Road Rules 2017	Traffic Regulations 1999 & Australian Road Rules	Awaiting introduction of regulatory framework.	Road Traffic Code 2000	Road Transport (Road Rules) Regulation 2017	Road Rules 2014
Relevant terminology	Personal Mobility Device	Personal Mobility Device	Personal Mobility Device	Electric Personal Transporter	E-scooter	Not prescribed	Electric Rideable Device	Personal Mobility Device	Electric scooter
Definition	PMDs have at least one wheel, is designed to be used by one person, is propelled by an electric motor/s, does not include a bicycle, motorised scooter/wheelchair, or wheeled recreational device. *Within ARR, e-scooters are considered pedestrians.*	PMDs are legal vehicles and must follow the QRRs, including specified PMD sections. PMDs are not vehicles with pedals, motorised mobility devices nor wheeled recreational devices.	Electrically powered & has at least one wheel. Designed for use by one person. PMD riders are considered pedestrians.	Transports one standing or seated person, has two wheels (one in front of the other), footboard, steered by a handlebar.	E-scooters provided by Beam Mobility Australia.	Not prescribed. Regulations expected to be introduced in mid-2025.	A device that; has one or more wheels, is designed for one person.	Device propelled by an electric motor, designed for use for one person, 1 or more wheels, and with a brake system. *That is not a motorised wheelchair.	Defined as a vehicle, borrowed or hired through a share scheme.
Age rules	16+	12-15 supervised by adult. 16+ unsupervised.	16+	16+	18+	Not prescribed	16+	<12 requires adult supervision	16+

State-by-state comparison	Australian Road Rules (ARR)	Queensland	Tasmania	Victoria	Northern Territory	South Australia	Western Australia	Australian Capital Territory	New South Wales
Dimensions	No more than 1250mm long, 700mm wide & 1350mm high; OR No more than 700mm long, 1250mm wide & 1350mm high.	No more than 1250mm long, 700mm wide & 1350mm high; OR No more than 700mm long, 1250mm wide & 1350mm high.	No more than 1250mm long, 700mm wide & 1350mm high; OR No more than 700mm long, 1250mm wide & 1350mm high.	Not prescribed	Not prescribed	Not prescribed	No more than 1250mm long, 700mm wide & 1350mm high; OR No more than 700mm long, 1250mm wide & 1350mm high.	No more than 1250mm long, 700mm wide & 1350mm high; OR No more than 700mm long, 1250mm wide & 1350mm high.	Not prescribed
Weight (when not carrying person or other load)	Less than 60kg	Less than 60kg	Less than 45kg	Less than 45kg	Not prescribed	Not prescribed	Less than 25kg	Less than 60kg	Not prescribed
Privately owned devices	✓	✓	✓	✓	⊘	⊘	✓	✓	⊘
Shared or hire devices	✓	✓	✓	✓	✓	Permitted in trial areas only.	✓	✓	Permitted in trial areas.
Helmet rules	Approved bicycle helmet.	Approved bicycle or motorbike helmet.	Approved bicycle helmet.	Approved bicycle helmet.	Approved bicycle helmet.	Not prescribed	Approved bicycle, skateboard or motorcycle helmet.	Approved bicycle helmet.	Approved bicycle helmet.
Warning device required	✓	✓	✓	✓	✓	Not prescribed	✓	✓	✓
Brakes required	✓	✓	✓	✓	✓	Not prescribed	✓	✓	✓

State-by-state comparison	Australian Road Rules (ARR)	Queensland	Tasmania	Victoria	Northern Territory	South Australia	Western Australia	Australian Capital Territory	New South Wales
"Doubling"						Not prescribed			
Road permitted	Not prescribed	Permitted on local streets with 50km/h or less posted speed limit, and no dividing lines. 25km/h maximum.	Permitted on roads that have posted limits of 50km/h or less, no dividing lines or median strip, and no multiple lanes if a one-way road. 25km/h maximum.	Permitted on roads with posted limits of up to 60km/h.	Only for up to 50m when there is an obstruction on a path, or it is impracticable to travel on adjacent area.	Not prescribed	Permitted, where speed limit is no more than 50km/h and no dividing lines. 25km/h maximum. "Where safe".	Prohibited unless crossing by shortest, safest route.	Permitted in trial areas, where the posted speed limit is under 50km/h. Under 20km/h.
Shared path permitted		Permitted. 12km/h maximum, unless signed otherwise.	Permitted. 25km/h maximum.			Not prescribed	Permitted. 25km/h maximum. "Where safe".	Permitted. 25km/h maximum.	Permitted in trial areas. Under 10km/h.
Bicycle paths/lanes permitted	Cycle paths – permitted.	Permitted. 25km/h maximum. Bike lanes on roads with speed limit of 50km/h or less, OR where the bike lanes are physically separated. Also applies to separated paths (unless signed otherwise).	Permitted on bicycle paths - 25km/h maximum.	Permitted on bicycle paths.		Not prescribed	Permitted. 25km/h speed limited. "Where safe" Bicycle lanes where speed limit is no more than 50km/h.	Permitted for bicycle paths only. Prohibited on bicycle lanes, on roads. 25km/h speed limit.	Permitted in trial areas. Under 20km/h.
Footpath permitted	Not prescribed					Not prescribed			
Maximum permitted speed	25km/h	25km/h	25km/h	25km/h on level ground	15km/h	Not prescribed	25km/h	25km/h	Not prescribed

State-by-state comparison	Australian Road Rules (ARR)	Queensland	Tasmania	Victoria	Northern Territory	South Australia	Western Australia	Australian Capital Territory	New South Wales
Footpath speed	Not prescribed	12km/h	15km/h	Not allowed on footpaths	15km/h	Not prescribed	10km/h	15km/h	10km/h
Pedestrian crossing	Not prescribed	Permitted, when stopping prior to the crossing, ride safely and give way to pedestrians. 12km/h maximum.			Not prescribed	Not prescribed	Permitted. 10km/h maximum.	Slow down to 10km/h when using a crossing.	
Mobile phone use	Not in hand while riding.	Illegal unless stationary on paths, or mounted for navigation or speed monitoring.				Not prescribed	Permitted when mounted or attached to riders arm for calls, navigation or speed monitoring.		
Alcohol/drugs	Not prescribed	No alcohol or drug riding.	No alcohol or drug riding.	No alcohol or drug riding. *Positive test may result in loss of driver licence.*	0.05 BAC limit.	Not prescribed	0.05 BAC limit. No drug riding.	No alcohol or drug riding.	0.05 BAC limit. No drug riding. *Positive test may result in loss of driver licence.*
Night riding	Permitted with lights.	Permitted with lights.	Permitted with lights.	Permitted with lights.	Permitted with lights.	Not prescribed	Permitted with lights.	Permitted with lights.	Permitted with lights.
Registration	Not required	Not required	Not required	Not required	Not required	Not prescribed	Not required	Not required	Not required
Licencing	Not required	Not required	Not required	Not required	Not required	Not prescribed	Not required	Not required	Not required
Mandatory insurance	Not required	Not required	Not required	Not required	Not required	Not prescribed	Not required	Not required	Not required

Source: Department of Transport and Main Roads, correspondence, 30 May 2025, Appendix 2.

3.4.2 E-bike rules

E-bike rules for Australian states and territories are set out in the table below. Variations exist in relation to power and speed limits, age restrictions and access requirements. Key points of difference relate to:

- **Power and speed limits of e-bikes** – Generally consistent across Australia except in NSW which allows EPACs up to 500 watts. Recent reports indicate that the NSW Government is considering reducing this.
- **Age requirements** – Victoria and Western Australia require e-bike riders to be 16 years of age, and NSW requires e-bike riders seeking to hire a device be 14 years old. No age requirements in other states and territories.
- **Access limits** – Most states and territories permit the use of e-bikes on footpaths. However, some limit this to young people and accompanying adults only. NSW limits e-bike use on footpaths to children under 16 years old with accompanying adults, and Victoria permits children under 13 years old and accompanied by adults.[49]

Other rules relating to device weight, access to shared paths, bicycle lanes, roads and safety requirements are generally consistent. No state or territory requires e-bike riders to register, licence or insure their devices.[50]

[49] Department of Transport and Main Roads, correspondence, 30 May 2025, p 12.
[50] Department of Transport and Main Roads, correspondence, 30 May 2025, p 12.

E-bike rules in Australian states and territories

State-by-state comparison	Australian Road Rules (ARR)	Queensland	Victoria	Tasmania	Northern Territory	South Australia	Western Australia	Australian Capital Territory	New South Wales
Motor assistance speed limit	25km/h	25km/h	25km/h	25km/h	25km/h	25km/h	25km/h	-	25km/h
Power restriction (watts)	200 watts for power assisted pedal cycles & 250 watts for EPAC.	Adopts ARR	Adopts ARR	Adopts ARR	Adopts ARR	Adopts ARR	Adopts ARR	Adopts ARR	200 watts for power assisted pedal cycles and 500 watts for EPAC.
Weight restriction	For 200 watts Power Assisted Pedal Cycle: Weighs less than 50kg (including batteries)	Not prescribed	Not prescribed	Not prescribed	Not prescribed	For 200 watts Power Assisted Pedal Cycle: Weighs less than 50kg (including batteries)	Not prescribed	Not prescribed	Weighs less than 50kg (including batteries)
Age restriction	Not prescribed	Not prescribed	16 years	Not prescribed	Not prescribed	Not prescribed	16 years	Not prescribed	No age restrictions to ride own e-bike, but must be at least 14 years old to hire
Safety requirements	• approved helmet, except in Northern Territory where adults over 17 years old are not required to wear a helmet unless riding on the road • working brakes • bell/warning device • rear facing red reflector • white light at front and red light at rear at night								
Footpaths	✓	✓	Permitted unless: under 13 years old and unaccompanied by an adult	✓	✓	✓	✓	✓	Children under 16 years old and accompanying adults can ride on footpaths People over 16 years old cannot ride on footpaths

State-by-state comparison	Australian Road Rules (ARR)	Queensland	Victoria	Tasmania	Northern Territory	South Australia	Western Australia	Australian Capital Territory	New South Wales
Shared Paths	✓	✓	✓	✓	✓	✓	✓	✓	✓
Bicycle Paths	✓	✓	✓	✓	✓	✓	✓	✓	✓
Bicycle Lanes	✓	✓	✓	✓	✓	✓	✓	✓	✓
Roads	✓	✓	✓	✓	✓	✓	✓	✓	✓
Registration	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Licensing	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Mandatory insurance	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required

Source: Department of Transport and Main Roads, correspondence, 30 May 2025, Appendix 2.

3.5 Benefits of e-mobility

People across the community in Queensland and around the world use e-mobility devices occasionally or have integrated them into their daily routine - using them to commute to work, to travel to and from school and university, as transport around their local communities for errands and short trips, and for getting around as visitors and tourists. E-bikes and PMDs are also used to earn a living by thousands of delivery workers, and as alternative to other means of transport by people who choose not to or are unable to drive or obtain a driver's licence, including people with disabilities.

Stakeholders highlighted a variety of benefits of using e-mobility, as outlined below.

3.5.1 Practical and efficient transport option

A major reason e-bikes and PMDs are valued as a transport option is their convenience and efficiency for short trips. These devices can save money on fuel and vehicle transport costs, save journey time, are usually free to park, enable travel at times when public transport or other transport options are not available, and can fill the gap between the first and last few kilometres to and from a public transport stop and a destination.[51]

Rental e-mobility devices have added to the transport mix in South-East Queensland and some regional coastal cities in the state, being accessible at any time of the day and night for residents and visitors to make short trips, or as a way to connect with public transport. According to Neuron Mobility, an operator of rental e-scooters and e-bikes around Queensland, while the reasons for using rental e-scooters vary from city to city, rider surveys show that the main reasons for using them are:

- leisure and recreation, exploring cafes, restaurants and the city (60% – 75%),
- commuting to work or study (25% – 60%)
- running errands (25% – 50%).[52]

Neuron's rider surveys also indicate that between 12% – 26% of riders use rental e-scooters to connect to public transport.[53]

RACQ's 2025 Two Wheel Survey of e-scooter and e-bike riders indicated that use of the devices in rural areas increased from 2.8% in 2022 to 22.5% in 2025, providing a viable alternative where public transport may not be readily available.[54] The 2025 Two Wheel Survey also showed that those who use mobility devices are doing so more frequently, with 92% of respondents using a device once or more a week, an increase from 38% of users 3 years ago. RACQ considers this can be attributed to e-mobility providing an

51 Council on the Ageing Queensland, submission 665, p 24; Brisbane Central Business District Bicycle User Group, submission 407, p 6; RACQ, submission 1091, p 7.
52 Submission 1019, p 2.
53 Submission 1019, p 2.
54 RACQ, submission 1091, p 8.

affordable and viable option for an increasing number of Queenslanders, particularly those that live in urban areas within relative proximity to their place of work or education.[55]

Transport to and from school

Many submitters told the committee that they use e-bikes and electric cargo bikes to travel with children to school, 'transporting an adult rider and 2 child passengers as well as a day's essentials for all three people',[56] with these door-to-door trips 'eliminating two or more peak-hour vehicle movements'.[57]

Others supported the use of e-bikes and PMDs by children to travel independently to school, easing the transport burden for parents, and facilitating travel to activities outside school hours which children would not otherwise be able to access because of parents' work schedules.[58] While encouraging independence like other forms of independent travel such a riding a traditional bicycle or walking, stakeholders were concerned about safety. Issues included safety of children riding on busy roads where there is no separate cycling infrastructure,[59] and of pedestrians and other footpath and road users as a result of the riding behaviour of some children using e-mobility devices.[60]

Effective substitute for car travel

Some submitters have been able to greatly reduce and even eliminate their use of a car by using e-bikes for transport, with significant financial and time savings, as well as flexibility, convenience and health benefits as a result.[61]

3.5.2 Access to transport enabling independence and autonomy

E-mobility devices enable greater independence and autonomy for people who have limited access to other transport, who cannot or prefer not to drive, who cannot afford to use other modes of private transport, and for people for whom traditional cycling is too physically demanding.

Vital accessibility tool

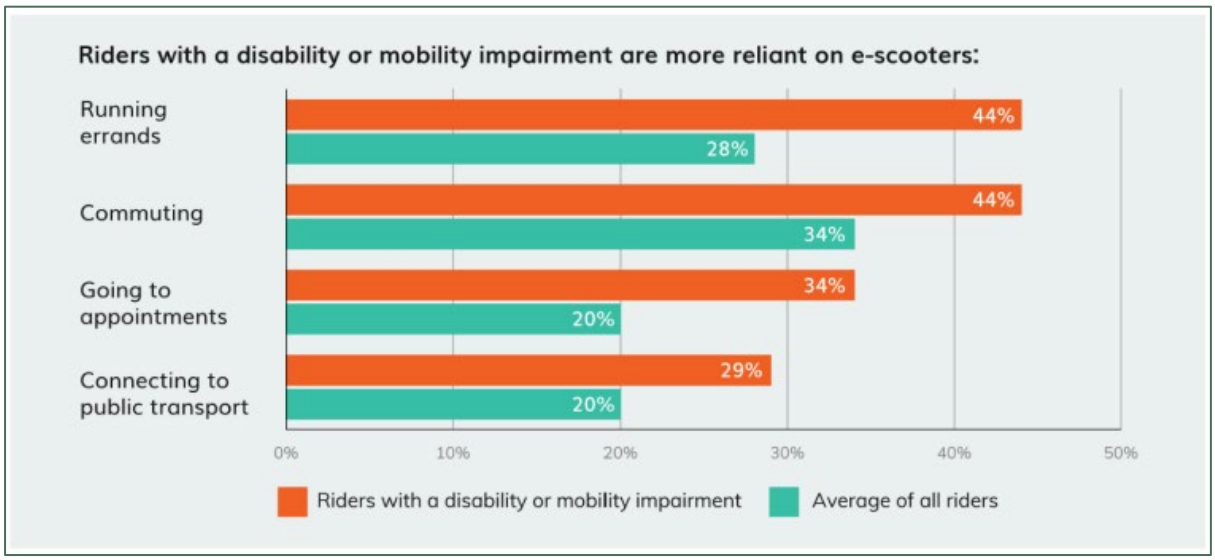
Queensland Disability Network (QDN) submitted that e-mobility offers people with a disability greater independence and access to essential services and employment and enables them to participate in social activities. QDN explained that e-mobility devices are particularly valuable to individuals who may be unable to obtain a driver's licence, enabling equitable participation in economic and community life.[62] QDN emphasised the importance of device and infrastructure design for accessibility and inclusion, to ensure

55 Submission 1091, p 7.
56 Submission 1051, p 1; see also submissions 635, 770, 936, 1118.
57 Submission 1181, p 1.
58 See for example submissions 301, 820, 1010; see also private hearing transcript (authorised for publication), Palm Beach, 23 July 2025, p 12.
59 See for example submissions 1051, 1155.
60 See for example submissions 643, 735, 761, 772, 847, 899, 945.
61 See for example submission 770, 1051, 1100.
62 Submission 1076, p 6; see also submissions 739, 1051, 1166.

safe and equitable transport options for riders of all abilities, and ensuring regulation does not limit the benefits of e-mobility for people with a disability.[63]

As Ms Helen Reed told the committee in Cairns, it is important that people who are physically disabled can opt for e-mobility: 'An e-bike has been a great advantage for me to be able to get around and do things I would not have physically done otherwise. For people's mental health and for people who are physically impaired, the ability to jump on an e-bike or a scooter is just the best thing. It gives you that sense of personal freedom'.[64]

Neuron Mobility provided the following data published in 2023[65] on e-scooter use by people with disability or mobility issues:



Source: Neuron Mobility (Australia) Pty Ltd, submission 1019, p 5.

Reducing financial barriers to mobility

Being a lower cost transport solution which is accessible at all times, e-mobility also reduces financial barriers to mobility for low-income earners.[66] Pricing of devices also makes them more accessible than a motor vehicle for private ownership. Get Around Caboolture told the committee that e-mobility 'is essential in low-income outer suburbs like Caboolture, where public transport is limited and car ownership is often out of reach' and 'offers dignity to people doing it tough'.[67]

Queensland University of Technology (QUT) noted that a recent review which examined the extent to which shared micromobility programs in the US included equity requirements (such as reduced rates for disadvantaged groups, multilingual services, adaptive vehicles for users with disabilities, and requirements to service disadvantaged areas) recommended inclusion of equity requirements in operating agreements between shared

63 Submission 1076, p 7.
64 Public hearing transcript, Cairns, 8 October 2025, p 8.
65 Neuron Mobility, submission 1019, p 5; see also https://www.rideneuron.com/neuron-research-highlights-the-positive-impact-on-riders-with-disabilities-or-mobility-impairments/.
66 See for example submissions 665, 997, 1076, 1169.
67 Submission 731, pp 1, 2.

e-scooter companies and local governments, incentives for companies to attain specified equity outcomes, and pilot programs.[68]

Assisted mobility

Many submitters highlighted the significant benefits of e-bikes for people with physical limitations, and noted that PMDs provide a low-impact alternative,[69] for example:

> For people who may find traditional cycling physically demanding, such as older adults, those recovering from injury, or those with chronic conditions, the pedal-assist feature of electric bikes makes cycling feasible and enjoyable. This enables continued participation in community life and physical activity that might otherwise be inaccessible.[70]

In addition, the added assistance from an e-bike makes journeys over hills or more challenging terrain or longer distances more achievable than on a traditional bike, enabling a wider range of people to participate in active transport.[71]

RACQ and other submitters supported the view that e-mobility devices provide significant benefits and enable older members of the community to maintain an independent and active lifestyle without being reliant on driving.[72]

3.5.3 Health and fitness

Many stakeholders reflected on the health benefits offered by e-mobility devices, including improvements to physical activity and mental health, and improved air quality. Most also acknowledged safety risks associated with riding e-bikes and PMDs, which are discussed in the next chapter of this report.

Benefits of active transport

E-bikes encourage physical activity, involving pedalling, balancing, handling and control, and also promote the mental health benefits of being active. As powered devices which assist the rider, using an e-bike has been shown to provide roughly half the physical activity of riding a conventional bicycle, but still provides health benefits, albeit at a reduced rate.[73]

The Royal Australian College of General Practitioners (RACGP) advised that spending time outdoors is beneficial to good health and exposure to sunlight assists in the reduction of stress, anxiety, and depression. It also supports the body's production of vitamin D, essential for bone health and immune function, cardiovascular health, and can improve mood and self-esteem. RACGP submitted that e-mobility devices can contribute to the

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68 Submission 954, p 4; refers to Brown, A. & Howell, A. (2024). *Mobility for the people: Equity requirements in US shared micromobility programs*, Journal of Cycling and Micromobility Research, 2, 100020, https://doi.org/10.1016/j.jcmr.2024.100020.

69 See for example submissions 630, 936, 970, 1100, 1181.

70 Submission 1181, p 2.

71 See for example submissions 407, 630, 970, 1100.

72 See for example RACQ, submission 1091, p 7; Brisbane West Bicycle User Group, submission 944, pp 3-4.

73 Queensland University of Technology, submission 954, p 3.

benefits of spending time outdoors by placing less physical strain on the body, making them a more accessible option for seniors and individuals with chronic conditions.[74] They can also reduce the time spent in hot weather, lowering the risk of heat exhaustion or dehydration, an important advantage for vulnerable populations.[75]

The Heart Foundation submitted that encouraging people to replace car trips with more active modes of transport, such as e-bikes, has the potential to help people to increase their physical activity levels as well as to reduce transport emissions, both of which can have a positive effect on cardiovascular health.[76]

E-scooters have been criticised for requiring little or no physical effort and for replacing walking, as well as cycling.[77] However, while limited, the physical activity associated with riding an e-scooter may benefit, particularly if this activity replaces sedentary behaviour such as driving a car.[78] Neuron Mobility submitted that some critics focus on e-scooter trips that replace walking, while a large number of Neuron e-scooter trips directly replace car journeys, suggesting that the 'majority of e-scooter trips actually complement walking rather than replace it'.[79]

Supporting social connections

Many submitters identified social connection as a benefit of using of e-mobility. Everybody eBikes, for example, submitted that their clients frequently provide feedback that their bikes support social inclusion, reduce loneliness, and improve engagement with family, friends and community.[80] Similarly, Mr Stephen Hanley, active travel coordinator for the parents and citizens association of his children's school and administrator of the 'Cycling Parents and Cargo Bike Riders in Brisbane' Facebook group, stated that his family enjoy a stronger connection with nature and community when riding which allows them 'to enjoy the outdoors, stop and observe our surroundings, and share the experience' with their children: 'Unlike car travel, we can stop to talk to neighbours who are walking or riding. Random encounters, even at traffic lights, foster community ties in ways that driving does not'.[81]

3.5.4 Economic benefits

E-mobility has had a positive effect on the economy, through lower transport costs for individuals and households, lower costs and increased productivity for business resulting from reduced congestion, job creation in the e-mobility sector including employment

74 Submission 599, pp 1-2.
75 Submission 599, pp 1-2.
76 Submission 1108, p 2.
77 Queensland University of Technology, submission 954, p 3; Heart Foundation, submission 1108, p 3.
78 Queensland Nurses and Midwives' Union, submission 951, p 4.
79 Submission 1019, p 2.
80 Submission 739, p 1.
81 Submission 770, p 5.

generated by shared scheme operators and in the retail and servicing of e-mobility devices, and retail and tourism income.

According to We Ride Australia (We Ride), in 2022 the bicycle sector contributed $16.9 billion to the Australian economy in direct and indirect output from sector expenditure, including an estimated $728 million in direct and indirect output from e-scooter expenditure.[82] Cycling related tourism and services (mainly to regional economies) amounted to $1.9 billion in 2022.[83] We Ride's 2023 Report identified that cycling contributed $3 billion to the Queensland economy while contributing over 10,500 jobs (FTE) servicing the sector across the state.[84]

Studies in Queensland have found a positive effect of e-mobility on user spending. In 2022, Neuron Mobility commissioned Queensland Economic Advocacy Solutions (QEAS) to estimate the total value that Neuron rental e-scooters generate in Brisbane on an annual basis. QEAS concluded that Neuron e-scooters and e-bikes 'deliver a direct, indirect and enabled economic impact in the range of $117 million annually'.[85]

Brisbane City Council noted that a study of shopping and travel patterns of tourists in Townsville in 2020 and 2021 by the Griffith University Cities Research Institute and Neuron Mobility found that the visitors who rode e-scooters the most spent more money in Townsville each day. The top third e-scooter users (by distance travelled) spent 41% more per day than those in the bottom third for use.[86]

Bicycle Industries Australia reflected on the potential for e-mobility use to address cost of living pressures, noting recent research from the NRMA that indicated that transport accounts for up to 17% of total household income or around $22,000 per household per year. Bicycle Industries Australia submitted that with around 50% of all trips in metropolitan areas being 5km or less, and 50% of trips in regional cities being 4.5km or less, distances which could be easily covered by light electric vehicles, transition to active and sustainable transport would have significant effect on household spending.[87]

Some stakeholders noted that injuries to e-mobility users and other path users have become a significant and rising cost for the Queensland health system, and are offsetting these economic benefits.[88] Queensland Health estimated that direct healthcare costs

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82 We Ride Australia, *The Australian Cycling and E-Scooter Economy in 2022*, November 2023 Report, https://www.weride.org.au/wp-content/uploads/2023/11/The_Australian_Cycling_and_e-scooter_Economy_in_2022_WeRide_and_EY_2023_Report_Final_web.pdf.

83 Bicycle Industries Australia, submission 1017, p 1; see also We Ride Australia, *The Australian Cycling and E-Scooter Economy in 2022, November 2023 Report*, p 11.

84 We Ride Australia, *The Australian Cycling and E-Scooter Economy in 2022*, November 2023 Report, p 11; see also Bicycle Industries Australia, submission 1017, p 8; (FTE = Full Time Equivalent).

85 Submission 1019, p 4.

86 Submission 882, p 10.

87 Submission 1017, p 8.

88 See for example submissions 21, 182, 351, 695, 824,925, 991.

(excludes outpatient and rehabilitation costs) exceeded $15 million in the period 1 April 2024 to 31 March 2025.[89] (See also section 4.2 of this report.)

3.5.5 Tourism and recreation

The Queensland Tourism Industry Council (QTIC) told the committee that e-mobility, including e-scooters and e-bikes, in Queensland 'is a legitimate, sustainable transport mode that supports everyday mobility, enhances tourism and will be critical to moving visitors around efficiently during the 2032 games', noting that:

- Griffith University research found that tourists who use e-scooters and e-bikes visit more attractions and spend significantly more than other visitors—in some cases up to 40% more
- The University of Queensland's Micromobility Research Cluster found that around one-third of shared micromobility users are visitors
- tourists consistently describe e-scooters as the highlight of their trip, as they can see more and do more, accessing authentic neighbourhoods and local businesses
- 80% of the visitors to Brisbane who use e-scooters and e-bikes say it enhances their view of the city as a vibrant, cultural and active green space.[90]

The QTIC submitted that solutions needed to safely and successfully integrate e-mobility in Queensland are:

- investment in connected, separated pathways around major attractions and games venues – separation between pedestrian pathways and 'any sort of moving vehicle' being a critical issue
- roll out of designated parking and geofenced no-ride, no-park zones in high-use precincts
- provision of simple, tourist-orientated education through hire apps, clearly signed walking and riding routes and information at visitor touchpoints such as airports, cruise terminals and other main entry points statewide
- focusing enforcement on illegal high-powered devices and unsafe behaviour, not tourists who overwhelmingly use compliant hire e-mobility fleets.[91]

Brisbane Central Business District Bicycle User Group also noted the University of Queensland research which found that many visitors find rideshare e-scooters more convenient than public transport and cars, and which highlighted the need for e-mobility to be considered for transport and tourism planning and management, especially in anticipation of visitor numbers for the Brisbane 2032 Olympic and Paralympic Games.[92]

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89 Additional medical costs and lost productivity likely mean the total cost is much greater; see submission 824, p 3.

90 Ms Melanie Anderson, Queensland Tourism Industry Council, public hearing transcript, Brisbane, 2 October 2025, p 10.

91 Ms Melanie Anderson, Queensland Tourism Industry Council, public hearing transcript, Brisbane, 2 October 2025, pp 10-12.

92 Submission 407, p 6.

Brisbane West Bicycle User Group also raised the potential of bicycle tourism opportunities for Queensland's economy, particularly with the Olympics coming to Queensland in 2032. The group noted that e-bikes and PMDs enable 'more organic exploration of the city while enabling greater distances to be covered than by walking' and suggested that 'a stable, consistent and supported environment for e-bikes and e-mobility will enable tourists to better explore Queensland's towns, cities, beachside and outback communities alike'.[93]

The Brisbane City Council further noted that research by Griffith University and the University of Queensland has demonstrated that the adoption of e-mobility has increased spending by tourists and positive perceptions of Queensland cities.[94]

Lime advised that trips taken on shared devices surge during major events such as Brisbane Lions games and State of Origin games and other events at the Gabba and Suncorp Stadiums in Brisbane, and during the Gold Coast Marathon. Shared device operators have programs in place to ensure they can cater for the extra demand during event times.[95]

In addition to the benefits for Queensland tourism, many stakeholders highlighted the simple fun and enjoyment they experience from riding e-mobility devices as a recreational activity or as part of their daily travel. For example, as one submitter stated about riding an e-bike 'when I have access to a separated path, riding becomes not just a mode of transport, but ... a genuinely joyful way to move through the city'.[96] Similarly many respondents to surveys conducted by Council on the Ageing Queensland in 2025 found PMDs to be enjoyable and fun to use: 'The experience itself of riding can be recreational, adding an element of enjoyment to commutes or outings'.[97]

3.5.6 Reduced traffic and traffic congestion

As noted by submitters, the way Queenslanders travel is still dominated by private motor vehicles. According to the Queensland Household Travel Survey, between 2021 and 2024 more than 84% of all trips taken in Queensland were in a car. In the Brisbane local government area where public transport and active transport options are more available, 80% of all trips were taken by car.[98]

However e-mobility devices have begun to play an increasingly important role in replacing short car trips, first- and last-mile trips for public transport users, saving travel time in peak periods, and integrating different modes of transport. Offering an effective solution for short-distance travel and bridging the gap between public transport and final destinations, particularly in urban or suburban areas, e-mobility devices help to alleviate traffic

93 Submission 944, p 6.
94 Submission 882, p 10.
95 Mr William Peters, Head of Asia-Pacific, Lime, public hearing transcript, Brisbane, 22 July 2025, p 15.
96 Name withheld, submission 1100, p 1.
97 Submission 665, p 25.
98 Brisbane West Bicycle User Group, submission 944, p 2.

congestion. As the Spring Hill Community Group, Queensland Nurses and Midwives' Union and others submitted, in bridging transport connectivity gaps, e-mobility contributes to a more efficient and user-friendly overall transport network.[99]

RACQ submitted that a shift towards active transport, e-mobility, and public transport could substantially reduce reliance on private vehicles and improve urban mobility.[100] The Brisbane City Council stated that in providing an alternative and convenient transport mode, e-mobility devices have helped to ease congestion, particularly in the inner city where e-mobility use is concentrated.[101]

E-mobility devices are also a highly space efficient option for moving people compared to private motor vehicles and represent an opportunity to grow transport capacity and reduce pressure on road infrastructure.[102] Further, submitters observed that the cost of building e-mobility infrastructure is a fraction of the cost required to build new roads, new tunnels, extra lanes and dedicated public transport infrastructure like rail, light rail and bus ways.[103]

3.5.7 Environmental benefits

By replacing journeys made with vehicles with internal combustion engines, e-mobility devices are a low emission transport option, producing far less emissions than a car in their manufacture and disposal and when batteries are charged using renewable energy sources,[104] and zero emissions while in operation. According to the We Ride 2023 Report,[105] by replacing alternative emission-producing transport like cars, taxis and bus rides, the cycling sector contributed to the avoidance of 514,096 tonnes of carbon dioxide (tCO2e) emissions in 2022 (the equivalent of taking 207,000 cars off the road for a year).[106]

The Brisbane City Council advised that the Council's shared e-mobility partners are carbon neutral, or moving towards carbon-neutral/carbon-positive operations providing additional benefits beyond the replacement of car journeys, saving approximately 438.5 tonnes of CO2 in 2023-24.[107]

Many submitters supported the role of e-bikes and PMDs in reducing greenhouse gas emissions.[108] The Heart Foundation and others also highlighted the potential to reduce

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99 See for example submissions 726, 951.
100 Submission 1091, p 7.
101 Submission 882, p 10.
102 Submissions 407, 1001.
103 See submissions 758, 944.
104 Brisbane Central Business District Bicycle User Group, submission 407, p 6; Spring Hill Community Group, submission 726, p 18.
105 We Ride Australia, *The Australian Cycling and E-Scooter Economy in 2022*, November 2023 Report, https://www.weride.org.au/wp-content/uploads/2023/11/The_Australian_Cycling_and_e-scooter_Economy_in_2022_WeRide_and_EY_2023_Report_Final_web.pdf.
106 Bicycle Industries Australia, submission 1017, p 1.
107 Submission 882, p 10. Note – Brisbane City Council calculation is based on: CO2 avoidance formula = km travelled by e-scooter/e-bike x car substitution rate of 46% (rider surveys) x 160 grams (CO2 emissions from 1km vehicle travel) / 1,000 to convert to kg.
108 See for example submissions 726, 944, 951, 1019, 1199.

the impacts of climate change, and the associated adverse impacts climate change has on cardiovascular health.[109]

Further, Bicycle Industries Australia submitted that 'emissions from the last-mile delivery can account for as much as 50% of total delivery carbon emissions' and that 'electric cargo bikes deliver approximately 60% faster than vans in city centres':[110]

> Research has found that bikes had a higher average speed and dropped off 10 parcels an hour, compared with six for vans. The bikes also cut carbon emissions by 90% compared with diesel vans, and by a third compared with electric vans.[111]

Brisbane Central Business District Bicycle User Group also noted that shared e-scooter and e-bike schemes form part of the circular economy, with people renting devices instead of individual ownership meaning that the devices are used intensively instead of being unused most of the time.[112]

Committee comment

Queensland is a growing, dynamic state with an ambitious future. As both a major population centre and a leading tourism destination, a safe, reliable and efficient transport network is essential.

The use of e-scooters and e-bikes is increasing as Queenslanders use them for commuting, education, and social connection. When used safely and responsibly, these devices offer clear benefits, providing a convenient and affordable option for short trips, reducing reliance on cars, and supporting health and environmental goals. Importantly, they can also enhance mobility outcomes and independence for a wide range of users in our communities.

However, with this increased uptake comes a pressing need to ensure that public safety is maintained, the regulatory framework is modern and fit for purpose, and emerging risks are robustly addressed in a measured and practical way.

It is also important to distinguish between compliant and non-compliant PMDs and e-bikes. The increasing use of illegal devices on public roads and footpaths is a significant concern. Many of these devices can reach high speeds and are frequently used by children and young people. These devices are creating an unacceptable safety risk on Queensland's roads and paths. These risks are further compounded by unsafe riding behaviours, including speeding, riding without helmets, carrying passengers, and riding under the influence. A change in riding culture is required. Enforcement challenges also persist, and while police require appropriate tools to address

109 Submission 1108, p 2.
110 Submission 1017, p 9.
111 Bicycle Industries Australia, submission 1017, p 9.
112 Submission 407, p 6.

these issues, responsibility for improving safety must be shared across agencies and stakeholders, not placed solely on law enforcement.

A coordinated, multi-agency approach by the Queensland Government is essential to improving safety outcomes and appropriately balancing the benefits and risks of e-mobility.

Evidence from more than 1,200 submitters and 144 witnesses has informed the comprehensive reforms that are explored throughout this report.

Achieving meaningful progress will require strong leadership from the Queensland Government and action across all levels of government and key agencies. Queensland is well positioned to lead nationally on e-mobility regulation and should take advantage of this opportunity.

Recommendation 1

That the Queensland Government continue to recognise that compliant e-mobility devices, when used safely and responsibly, form a viable and valuable component of the state's transport system by providing convenient and affordable short trip options, reducing car dependence, supporting environmental objectives, and removing mobility barriers and enhancing independence for some members of the community.

Recommendation 2

That the Queensland Government implement a coordinated, multi-agency approach – encompassing regulatory amendments, strengthened enforcement, improved community education, and infrastructure investment – to enhance public safety and mitigate the key risks associated with e-mobility use.

4. Safety issues associated with e-mobility use

4.1 Introduction

This chapter outlines key safety issues associated with e-mobility use. Health data shows a rising number of injuries, with speed, lack of helmet use, and risk-taking behaviours including riding under the influence of alcohol or drugs identified as major contributing factors. Stakeholders also raised significant concerns about the high proportion of young people and children involved in accidents. Numerous submissions highlighted risks to both riders and pedestrians, as well as the growing prevalence of illegal, high-speed and high-powered devices on Queensland's roads and paths. Stakeholders broadly agreed that improving safety required a multifaceted approach, with suggestions for reform explored throughout this chapter and the report.

4.2 Injury data

Data contained in this section was drawn from submissions received from the Queensland Trauma Clinical Network, Jamieson Trauma Institute, and some individual hospital and health services. The data provides valuable insights into key trends and primary risk factors as they relate to traumatic injuries sustained through e-mobility use. It is important to acknowledge at the outset however, that there are certain limitations to the data, particularly in relation to its completeness and how it relates to compliant e-bikes and illegal devices.

4.2.1 Number of incidents

The Queensland Trauma Clinical Network are multidisciplinary groups of expert clinicians from across Queensland who manage patients each day with traumatic injuries from the use of e-mobility devices.[113] Dr David Lockwood, Co-chair of the Network, trauma surgeon and Director of the trauma service at the Princess Alexandra Hospital, advised of:

- a significant and rapidly rising injury burden from e-mobility use, including in one year (March 2024 to March 2025) 6,342 e-mobility device presentations to Queensland Health facilities[114]
- 60 admissions to intensive care
- a notable trend of severe, disabling and life-long injuries
- 7 people lost their lives to mobility device related accidents, with the average age of mortality 34 years, with the youngest being just 13 years old.[115]

Dr Lockwood advised that this was certainly an underestimate of the scale of the problem, as another 25,000 presentations involving bikes, scooters and skateboards were recorded during the period which could not be confirmed as being electronic, but many of them may have been.[116]

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113 Queensland Trauma Clinical Network, Queensland Health, submission 824, p 1.
114 Dr David Lockwood, public briefing transcript, Brisbane, 22 July 2025, p 3.
115 Queensland Trauma Clinical Network, Queensland Health, submission 824, p 3.
116 Dr David Lockwood, public briefing transcript, Brisbane, 22 July 2025, p 3.

Providing an update in January 2026, Dr Lockwood advised that for the year ended June 2025:

- 235 major trauma cases were recorded across the state, which were dominated by head injuries (55%), facial injuries (21%) and abdominal injuries (21%)[117]
- helmet use could only be confirmed in 40% of the cases
- in that 12-month period, there were 7 deaths in people aged between 15 and 45. [118]

The Queensland Trauma Clinical Network reported that the rapid increase in e-scooter use has been accompanied by a substantial rise in related injuries and corresponding pressure on the health system. Direct healthcare costs alone (emergency department, admitted hospital care, intensive care unit) are estimated to exceed $15 million, excluding rehabilitation, outpatient services, residential care, and lost productivity, meaning the full societal cost is likely far higher.[119] General practitioners have also noted a marked increase in PMD-related injuries, particularly as these devices become more common in urban areas.[120]

4.2.2 Nature of injuries

Dr Gary Mitchell, Staff Specialist in the Emergency and Trauma Centre at the Royal Brisbane and Women's Hospital and Clinical Lead of the E-mobility Research Program at the Jamieson Trauma Institute, outlined the high-acuity and resource-intensive nature of e-mobility related injuries. He advised that his hospital has had to introduce specific criteria to ensure these patients are managed by appropriately skilled teams, similar to the protocols used for high-velocity trauma such as motor vehicle crashes and penetrating injuries.[121]

Dr Mitchell advised that:

- approximately 30% of patients are triaged as Category 2, requiring a medical response within 10 minutes
- one in five patients is admitted to short stay or inpatient wards, and 72% of those admitted require outpatient follow-up
- fractures represent around 40% of presentations, with injuries most commonly affecting the head and face (25%), upper extremities (22%), and upper limbs (12%)
- one in 10 patients requiring CT imaging is found to have an intracranial bleed, often necessitating ICU care and potentially long-term rehabilitation
- significant head, face and neck trauma remains common with facial fractures, particularly nasal, dental and auxiliary, frequently associated with forward-impact mechanisms.[122]

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117 Dr David Lockwood, public briefing transcript, Brisbane, 20 January 2026, p 2.
118 Dr David Lockwood, public briefing transcript, Brisbane, 20 January 2026, p 2.
119 Queensland Trauma Clinical Network, Queensland Health, submission 824, p 3.
120 Royal Australian College of General Practitioners, submission 599, p 1.
121 Dr Gary Mitchell, public briefing transcript, Brisbane, 20 January 2026, p 3.
122 Dr Gary Mitchell, public briefing transcript, Brisbane, 20 January 2026, p 3.

Dr Mitchell also noted the substantial resource demand on emergency services, with approximately 90% of patients requiring imaging and 50% needing a CT scan. Patients who undergo CT average 2.8 studies each, reflecting the high-energy nature of these injuries. He further advised of growing concerns about increasing presentations of both fatal and non-fatal burns linked to lithium-ion battery failures, with up to 9 associated deaths reported in the past year.[123]

4.2.3 Injury patterns

Dr Lockwood advised that e-mobility incidents arise from a wide range of mechanisms, resulting in diverse injury patterns. These include low- to moderate-speed falls, collisions with stationary objects, falls from stairs or heights, and impacts involving pedestrians, cars, or other vehicles. Incidents occur across various environments, including roads of differing speed limits, road shoulders, parks, and shared paths.[124]

At the lower end of the injury spectrum patients typically present with uncomplicated fractures that do not require prolonged hospitalisation but still result in significant impacts, including lost work time and ongoing disability. He noted that the primary issue for this group is the sheer volume of emergency department presentations, citing an interstate study where paediatric presentations increased fourfold in 12 months. He further observed that it remains unclear when these injury rates will stabilise in Queensland.[125]

Dr Lockwood estimated the cost of these so-called minor cases at more than $4.5 million over a 12 month period and emphasised that the greater concern is the strain they place on emergency departments and operating theatres, contributing to ambulance ramping and the cancellation of surgeries, including elective procedures.[126]

Serious injuries

Dr Lockwood advised that although severe e-mobility injuries are less common, their consequences are significantly more serious. Incidents involving mechanisms beyond low-velocity falls frequently result in major facial, head, and spinal trauma.[127]

He further noted that these cases present substantial clinical challenges, requiring coordinated management from paramedics through to emergency departments, intensive care, multiple surgical teams, and extended inpatient care. Even with rehabilitation, many patients experience long-term impacts on their daily functioning, with some unable to return home independently or re-enter the workforce. A proportion will require lifelong support due to ongoing and complex health needs. [128]

123 Dr Gary Mitchell, public briefing transcript, Brisbane, 20 January 2026, p 3.
124 Dr David Lockwood, public briefing transcript, Brisbane, 22 July 2025, p 3.
125 Dr David Lockwood, public briefing transcript, Brisbane, 22 July 2025, p 3.
126 Dr David Lockwood, public briefing transcript, Brisbane, 22 July 2025, p 3.
127 Dr David Lockwood, public briefing transcript, Brisbane, 22 July 2025, p 3.
128 Dr David Lockwood, public briefing transcript, Brisbane, 22 July 2025, p 3.

Single device incidents

Dr Ruth Barker, Director of the Queensland Injury Surveillance Unit, advised that the majority of e-scooter and similar device incidents are single-vehicle events, where riders simply fall rather than collide with another object. She explained that rapid acceleration, uneven or unpredictable infrastructure, and the small wheel size of these devices make them inherently unstable. Striking even a minor surface irregularity can cause the front wheel to rotate sharply, resulting in the handlebars twisting and the rider being thrown forward. This mechanism frequently leads to handlebar-related injuries, particularly in children. Injury descriptions consistently refer to hazards such as potholes and kerbs, while only a small proportion of cases involve collisions with a vehicle, though these tend to result in more severe or fatal injuries. [129]

4.2.4 Who is presenting, where and when

Dr Lockwood advised that e-mobility trauma disproportionately affects young adults. Amongst severely injured patients, the average age is just 29.[130]

Data collected by the Queensland Injury Surveillance Unit and Jamieson Trauma Institute indicates an increase in younger riders presenting to emergency departments across Queensland with PMD related injuries, with the proportion of children under 16 years of age rising over the last 5 years to account for around 26% of all presentations.[131] The Queensland's Children's Hospital has also recorded an escalation in the numbers of children under 16 years old sustaining severe injuries.[132]

Dr Lockwood referred to early data collected from Gold Coast University Hospital that shows that, in the first 18 days of 2026, the emergency department recorded more than 2 e-mobility presentations per day, with the majority – 26 of 37 presentations – involving patients under 16 years of age.[133]

Professor Kirsten Vallmuur, Chair of Trauma Surveillance and Data Analytics at the Jamieson Trauma Institute, also noted a growing proportion of cases among people over 35 years of age who experience higher injury severity and admission rates – approximately 19%, compared with 13–15% in younger groups. These injuries are more commonly associated with private device use and work-related commuting.[134]

Data from the Queensland Trauma Clinical Network shows the regional distribution of e-mobility injuries presenting to Queensland emergency departments between April 2024 and March 2025.[135] Most presentations occurred in South East Queensland, with Metro North Hospital and Health Service accounting for 19% of cases, followed by Metro South

129 Dr Ruth Barker, public briefing transcript, Brisbane, 20 January 2026, p 4.
130 Dr David Lockwood, public briefing transcript, Brisbane, 22 July 2025, p 3.
131 Dr Ruth Barker, public briefing, 20 January 2025, tabled paper, p 2.
132 Dr David Lockwood, public briefing transcript, Brisbane, 22 July 2025, p 3.
133 Dr David Lockwood, public briefing transcript, Brisbane, 20 January 2026, p 2.
134 Public briefing transcript, 20 January 2026, p 4.
135 Queensland Trauma Clinical Network, correspondence, 6 August 2025, p 1.

and Gold Coast Hospital and Health Services at 14% each. Collectively, these regions represented 46% of all statewide presentations.[136]

HHS	E-Bike	E-Scooter	E-Skate board	Total	%
Metro North (MNHHS)	164	997	22	1183	18.7%
Metro South (MSHHS)	172	677	21	870	13.7%
Gold Coast (GCHHS)	342	490	28	860	13.6%
Sunshine Coast (SCHHS)	170	422	9	601	9.5%
Townsville (THHS)	37	542	4	583	9.2%
Central Queensland (CQHHS)	53	389	6	448	7.1%
Cairns & Hinterland (CHHHS)	65	333	9	407	6.4%
Wide Bay (WBHHS)	46	345	6	397	6.3%
Mackay (MHHS)	49	309	7	365	5.8%
Darling Downs (DDHHS)	60	161	0	221	3.5%
West Moreton (WMHHS)	37	116	3	156	2.5%
Children's Health (QCHHS)	36	116	0	152	2.4%
Torres & Cape (TCHHS)	5	32	0	37	0.6%
North West (NWHHS)	18	29	0	47	0.7%
Central West (CWHHS)	4	5	0	9	0.1%
South West (SWHHS)	6	0	0	6	0.1%
Queensland total	**1264**	**4963**	**115**	**6342**	**100.0%**

Data source: Queensland Trauma Data Collection Emergency Department Presentations, Clinical Business Intelligence Unit, e-Health, Queensland Health extracted July 2025.

4.2.5 Injuries from lithium-ion batteries

Stakeholders reported that injuries caused by lithium-ion battery fires in e-mobility devices are an emerging and significant safety concern. Queensland Health reports a growing number of serious burns and other injuries linked to battery failures, particularly in e-scooters. Current injury and registry systems lack detailed product-specific data, limiting effective monitoring and response.[137]

Severe cases primarily affect males aged 18 to 44 and commonly involve lower limb burns and inhalation injuries. E-scooter battery explosions, which frequently result in structural fires, pose particular risks and can cause deep burns, permanent scarring, and in some instances, fatalities.[138]

A recently published study in the Australian and New Zealand Journal of Surgery, *Lithium-ion battery related burns and emerging trends: a retrospective case series and data analysis of emergency presentations,* authored by specialists from the Royal Brisbane and Women's Hospital, the Queensland Injury Surveillance Unit and the Jamieson Trauma Institute, highlighted concerning trends in lithium-ion battery–related injuries in Queensland. The review examined 14 patients admitted with lithium-ion battery burns between 2014 and 2023. Key findings included:

136 Queensland Trauma Clinical Network, correspondence, 6 August 2025, p 1.
137 Queensland Trauma Clinical Network, Queensland Health, submission 824, p 7; see also public briefing transcript, Brisbane, 20 January 2026.
138 Queensland Trauma Clinical Network, Queensland Health, submission 824, p 7.

- E-scooters were the leading device associated with inpatient lithium-ion battery burn injuries (57.1%).
- Injuries were severe, with e-scooter incidents resulting in higher median total body surface area (TBSA) burns (12%) than other devices.
- More than 85% of cases involved flame burns, several of which caused house or structural fires.
- One patient died from burns covering more than 90% TBSA following an e-scooter battery fire.
- A parallel QISU review identified 76 emergency presentations over the same period, with a strong male predominance (87%).[139]

Further information about issues associated with the risk of fires is discussed in the next chapter.

4.3 Significant risk factors

Inquiry participants identified several key risk factors, with some noting that Queensland's experience is broadly consistent with global trends.[140]

4.3.1 Speed

The Queensland Trauma Clinical Network advised that as for any road trauma, speed is a major determinant of the outcomes and the severity of injury and risk of death correlate directly with speed.[141] Dr Lockwood noted that the physical speed limiting of devices undoubtedly reduces the injury potential but speed can be exceeded in certain situations and most notably limiting can be bypassed in either imported devices or privately modified devices.[142]

Data collected in emergency departments in hospitals in Queensland by the Jamieson Trauma Institute showed that a third of private e-scooter riders admitted they were speeding over 25km/h at the time of the incident, and that the injuries sustained were more severe than injuries of riders using share scheme e-scooters which are speed limited.[143]

The QPS observed that safe riding is essential not only for the well-being of the rider but also for the safety of everyone sharing public spaces, and noted that a crash using an e-mobility device at high speed can be fatal. QPS advised that front line police officers are regularly confronted with e-mobility riders and others suffering trauma as a result of crashes which frequently involve speeding and dangerous behaviour.[144]

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139 Queensland Trauma Clinical Network, Queensland Health, submission 824, p 8.
140 Dr David Lockwood, public briefing transcript, Brisbane, 22 July 2025, p 3.
141 Dr David Lockwood, public briefing transcript, Brisbane, 22 July 2025, p 3.
142 Dr David Lockwood, public briefing transcript, Brisbane, 20 January 2026, p 5.
143 Professor Kirsten Vallmuur, public briefing transcript, Brisbane, 20 January 2026, p 5.
144 Deputy Commissioner Cameron Harsley APM, Queensland Police Service, public briefing transcript, Brisbane 25 August 2025, p 3.

4.3.2 Riding under the influence of alcohol or other substances

Dr Lockwood advised that alcohol and other drugs represent a major risk factor in e-mobility incidents, contributing significantly to emergency department presentations. Impaired coordination and poor decision-making, such as failing to wear a helmet, are common in these cases. Riders under the influence are more likely to engage in risky behaviours, including travelling at higher speeds and exercising reduced judgment.[145]

The Centre for Accident Research & Road Safety – Queensland (CARRS-Q) PMD Evaluation, referring to hospital studies worldwide, reported that between 10% and 50% of injured PMD riders had consumed alcohol prior to riding, noting this is likely an underestimate. They noted that similar patterns have been observed in Australian hospital data, where alcohol use is more frequently associated with serious e-scooter injuries. One study also reported that alcohol-related cases were disproportionately recorded on Friday and Saturday nights, with 74% occurring between 10 pm and 6 am.[146]

4.3.3 Absence of helmets

Queensland Trauma Clinical Network confirmed that the absence of a helmet predictably increases the risk of serious head injuries.[147] Dr Lockwood advised that for the year ended June 2025, there were 235 major trauma cases across Queensland. More than half of these cases (55%) were head injuries, and 21% each were facial injuries and abdominal injuries. Dr Lockwood noted that 'importantly in that data, use of helmets were only confirmed in 40 per cent of cases, so less than half'.[148]

RACQ also raised concerns about helmet adequacy, suggesting that standard open face bicycle helmets may not provide sufficient protection against facial injuries.[149] RACQ and others have advocated for stronger safety reforms to address the life-altering facial and head injuries suffered by both private and hired e-scooter riders.

4.3.4 Private vs shared schemes

Dr Lockwood advised that anecdotally the most severe injuries are predominantly associated with privately owned devices, noting that these are often modified to reach higher speeds. While commercial devices contribute a high number of presentations due to their widespread use, the injury severity per vehicle is greater among private devices.[150]

Professor Vallmuur noted that data collected by the Jamieson Trauma Institute also indicates more severe injuries among private e-scooter riders. In a study of 250 patients in emergency departments of 4 hospitals across Queensland, approximately two-thirds of

145 Dr David Lockwood, public briefing transcript, Brisbane, 22 July 2025, p 3.
146 Not published, Centre for Accident Research & Road Safety - Queensland, *Evaluation of the Regulation of Personal Mobility Devices (PMDs) in Queensland, Final Report*, August 2025, p 140.
147 Dr David Lockwood, public briefing transcript, Brisbane, 22 July 2025, p 3.
148 Dr David Lockwood, public briefing transcript, Brisbane, 20 January 2026, p 2.
149 RACQ, submission 1091, p 11.
150 Dr David Lockwood, public briefing transcript, Brisbane, 22 July 2025, p 4.

whom were riding private e-scooters, almost twice as many private e-scooter riders than shared scheme riders required admission to hospital.[151]

Professor Vallmuur explained that analysis of the data shows clear differences between private and shared scheme riders. Private device users were generally more experienced, with 70% riding at least 4 days per week. Helmet compliance was higher in this group (around 80%) and 94% reported not consuming alcohol before their incident. Almost half were travelling for work purposes and 55% of incidents occurred on the road. One-third of private users admitted to travelling above 25km/h at the time of the incident. These riders also sustained more severe injuries, with fractures recorded in approximately 60% of cases compared with 39% of shared scheme users, and 37% required hospital admission compared with about 20% of shared scheme riders.[152]

The Jamieson Trauma Institute found that shared scheme users have a distinct profile. They are typically novice riders, with 30% reporting that the incident occurred during their first time using an e-scooter. Approximately one-third had consumed alcohol and a similar proportion were not wearing a helmet. Most were travelling below 25km/h, consistent with device speed limits. Presentations occurred predominantly at night—between 6 pm and the early hours of the morning. Around 60% reported riding on the footpath at the time of the incident. [153]

4.3.5 Illegal devices

Many stakeholders expressed concern about the risks associated with illegal, non-compliant devices.

RACQ submitted that illegal devices used on roads pose an unacceptable threat, greatly increasing the risk of severe injury or death. RACQ called for the removal of high-powered electric motorbikes from footpaths and roads as vehicles that endanger all road users. The issue of tampering with legally purchased e-scooters to reach illegal speeds was also highlighted by RACQ as further compromising rider safety and public well-being. [154]

4.4 Need for comprehensive data collection

Submitters from across academia, government agencies and interest groups emphasised the need for improved data collection to support more detailed analysis of e-mobility incidents and better inform policy development. Many organisations advocated for more comprehensive hospital and injury data, including clearer information on device types, particularly e-bikes, device legality, and demographic factors. Several stakeholders acknowledged recent progress in data capture, especially for PMDs.

Dr Lockwood outlined current data collection practices in emergency departments, noting limitations that arise when patients are intoxicated and unable to recall events accurately

151 Professor Kirsten Vallmuur, public briefing transcript, Brisbane, 20 January 2026, p 5.
152 Professor Kirsten Vallmuur, public briefing transcript, Brisbane, 20 January 2026, p 5.
153 Professor Kirsten Vallmuur, public briefing transcript, Brisbane, 20 January 2026, p 5.
154 RACQ, submission 1091, p 10.

or unwilling to fully disclose the circumstances of an incident. He advised that while Queensland Health maintains several relevant data systems, and the Jamieson Trauma Institute is developing a more integrated trauma dataset, this work is still progressing and will take time to mature.[155] Dr Barker also explained that data used to inform studies is collected at the point of triage by a triage nurse, and is variable as patients may be unconscious, be unwilling to provide exact details, or arrive by ambulance. Currently triage nurses are targeted with triaging patients within 2 minutes, and any additional data requests would place an extra burden on frontline workers.[156]

Dr Lockwood recommended better utilisation of existing medical record data in the meantime, supported by the introduction of a clear and consistent data flag for e-mobility related presentations. He suggested this would require targeted funding – particularly within major trauma centres – to ensure accurate information is captured at triage and can be used to guide policy.[157]

Stakeholders also called for a more comprehensive approach to data collection at a national level, and for that data to be shared and published.[158] Professor Vallmuur advised that a national project through the National Road Safety Action Grants Program is currently working to establish what data is collected in states and territories and how this data can be improved.[159]

4.5 Children and young people

Dr Barker described the increasing burden of paediatric e-mobility injuries, noting that presentations involving children under 16 have risen to approximately 26% at the present time.[160] Professor Vallmuur, reporting on Jamieson Trauma Institute data, advised that young adults aged 16 to 34 continue to account for about 50% of presentations.[161]

Dr Barker advised that, from a neurodevelopmental perspective, most children in the under 16 age group do not yet have the cognitive or motor skills required to safely operate e-scooters. While some children demonstrate advanced riding ability in controlled environments, there is significant developmental variability, particularly in skills such as judging relative speed and understanding road rules. Dr Barker noted that unlike a motocross track, the urban environment requires riders to continually transition between footpaths, bike paths, roads, and crossings – often in unpredictable conditions, including at night. Dr Barker stated that children under 16 generally lack the capacity to manage

155 Dr David Lockwood, public briefing transcript, Brisbane, 22 July 2025, p 5.
156 Dr Ruth Barker, public briefing transcript, Brisbane, 20 January 2025, p 7.
157 Dr David Lockwood, public briefing transcript, Brisbane, 22 July 2025, p 5.
158 Dr Kelly Bertolaccini, Griffith University, public hearing transcript, Brisbane, 2 October 2025, p 37; Ms Irene McAleese, See.Sense, public hearing transcript, Brisbane, 2 October 2025, p 40; Professor Narelle Haworth AM, Chair, Motor Accident Insurance Commission-Queensland University of Technology Road Safety Research Collaboration, Queensland University of Technology; public hearing transcript, Brisbane, 22 July 2025, p 19.
159 Public briefing transcript, Brisbane, 20 January 2026, p 7.
160 Dr Ruth Barker, public briefing transcript, Brisbane, 20 January 2026, pp 4, 9.
161 Professor Kirsten Vallmuur, public briefing transcript, Brisbane, 20 January 2026, p 5.

these complex demands, and restricting their access to e-scooters would likely reduce the paediatric injury burden.[162]

The Queensland Family and Child Commission's 2025 paper, *Improving safety when young people ride e-scooters and e-bikes,* noted that the American Academy of Pediatrics recommends that children under 16 years, who are too young to have a driver's licence, should not operate or ride on e-scooters.[163] The Queensland Family and Child Commission also recommended that Queensland align with other jurisdictions and set a minimum age of 16 years for riding an e-scooter, stating that 'tightened and consistent regulation and law enforcement to ensure compliance for e-scooters and e-bikes could help enhance safety and injury prevention and make it easier for riders to understand and comply with the law'.[164]

Many submitters were also concerned about the limited grasp of road rules within this group. (See also section 6.3 of this report.)

4.5.1 Use and management of PMDs and e-bikes around schools

The committee received a variety of evidence relating to the use and management of PMDs and e-bikes around schools.

Significant community concerns

Numerous submitters and witnesses expressed concern about the use of PMDs and e-bikes by children travelling to and from schools.[165] Common themes in their evidence included the following:

- a large number of children use PMDs and e-bikes to travel to and from school, with the use of these devices being particularly prevalent in some areas[166]
- a significant proportion of the PMDs and e-bikes used by school children appear to be non-compliant[167]
- many of the children who use PMDs to travel to school are aged 12-15 but are riding without adult supervision (which is legally required)[168]

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162 Dr Ruth Barker, public briefing transcript, Brisbane, 20 January 2026, p 6.

163 Queensland Family and Child Commission, June 2025, *Improving safety when young people ride e-scooters and e-bikes,* https://www.qfcc.qld.gov.au/sites/default/files/2025-06/Improving-safety-when-young-people-ride-e-scooters-and-e-bikes.pdf, p 13; see also Schering, A., September 2022, *Don't let children under 16 ride electric scooters*, American Academy of Pediatrics, https://publications.aap.org/aapnews/news/21954/Don-tlet-children-under-16-ride-electric-scooters.

164 Queensland Family and Child Commission, June 2025, *Improving safety when young people ride e-scooters and e-bikes*, https://www.qfcc.qld.gov.au/sites/default/files/2025-06/Improving-safety-when-young-people-ride-e-scooters-and-e-bikes.pdf, p 18.

165 See for example submissions 870, 123, 29, 134, 165, 170, 292, 973, 564, 244, 883, 76, 1071, 606, 665.

166 See for example Michael Chambers, submission 134.

167 See for example name withheld, submission 1071; Mr Chris Capra, Executive Principal, Palm Beach Currumbin State High School, private hearing transcript (authorised for publication), Palm Beach, 23 July 2025, p 11.

168 See for example name withheld, submission 870.

- some of the children who use PMDs and e-bikes to travel to school do not comply with road rules, for example by failing to wear helmets, using mobile phones while riding, doubling, or riding 3 abreast[169]
- in some areas the use of PMDs and e-bikes by children is having a significant impact on traffic congestion during school drop-offs and pick-up times, heightening risks to road users and pedestrians, especially where cycling and road-safety infrastructure is poor[170]
- some people, including vulnerable pedestrians, reported dangerous encounters with PMDs and e-bikes near schools[171]
- many parents appear to be unaware of the risks associated with non-compliant devices, or do not take these risks seriously.[172]

One submitter shared her experience as a teacher at a large high school:

> I have seen many students doing unbelievably dangerous things on their ebikes. From speeding, to riding 3 abreast, to doing wheelies in front of cars at speed.
>
> Parents do not have any control over their children and do not seem to care the dangers that the[y] are allowing them to get into on very busy roads full of traffic.[173]

In contrast, as noted in section 3.5.1, some submitters highlighted the potential benefits of e-mobility for school students and their parents.[174] These submitters called for a greater focus on improving road safety for cyclists in the areas around schools.

Approaches taken by schools

There is significant variation in how schools have responded to the use of PMDs and e-bikes by students. While some schools have banned the use of PMDs and e-bikes by students, others have attempted to accommodate e-mobility device use, seeking to mitigate risks and reduce negative side-effects. The experience of schools to date suggests both approaches have advantages and disadvantages.

Palm Beach Currumbin State High School on the Gold Coast has taken an active approach to managing the use of e-mobility devices by students. The Executive Principal of Palm Beach Currumbin State High School, Mr Chris Capra, told the committee that over 300 e-mobility devices come in to the school grounds every day and that 90% of the devices students ride to the school are throttle-based, 'which means that 90 per cent of our devices are effectively motorbikes with an electric engine' and '90 per cent of them are actually illegal to ride on the roads'.[175] An average of one hospital presentation by a student of the school per week occurred over the first 6 months of 2025 as a result of

169 See for example Donna Russo, submission 29.
170 See for example Charlotte Henriks, submission 292.
171 See for example Council on the Ageing Queensland, submission 665, p 4.
172 See for example, name withheld, submission 564.
173 Name withheld, submission 564.
174 See for example Stephen Hanley, submission 770; Brisbane West Bicycle User Group, submission 944.
175 Private hearing transcript (authorised for publication), Palm Beach, 23 July 2025, p 11.

e-mobility device accidents.[176] Mr Capra explained that the use of these devices is a complex issue, as some students ride devices which are illegal without breaking road rules, and use them to travel to training and other activities that they would not otherwise have the opportunity to do, while on the other hand there are students riding legal devices 'with imperfect behaviour'.[177]

The school has undertaken 'a multitude of different methods and strategies as well as made an investment in time' with students to change their behaviour while riding the devices, and is in the process of rolling-out a school-based education and identification system for e-bikes, which would require students to complete an e-bike safety education program.[178]

Recent media reports indicate that alternative approaches have been undertaken by 3 high schools on the Sunshine Coast, Coolum State High School, Noosa District State High School and Sunshine Beach State High School. These schools recently banned all e-bikes and e-scooters from school grounds. In addition, the schools advised parents that students who rode non-compliant e-bikes or e-scooters while in school uniform would face a school-based consequence. In a joint letter to families, the principals of these schools explained that, despite previous efforts to engage with families, they continued to see students riding in an unsafe manner, often on devices that did not comply with legal requirements.[179]

In response to a rapid increase in the number of students riding e-bikes to school and concerns about the safety of students and the community, Cronulla High School in Sydney introduced a training program and identification plate system, with assistance from E Bike Safety Australia, in 2025. The program which involves an agreement between the school, parents and students, requires each student to complete an on-line education course (including road safety, battery safety, and first aid topics) in order to be issued with a visible identification tag to be attached to their e-bike. The identification tag identifies the rider of the e-bike, rather than the device. Currently approximately 300 students (approximately 25% of school enrolment) have been issued with tags.

The Principal, Mr Tony Ibrahim, and Mr Matthew Rog, Director of E Bike Safety Australia, told the committee that the identification of each student rider provides accountability, acting as a practical deterrent to poor behaviour, as well as providing reassurance to the local community. Students of the school told the committee that e-bikes support school attendance and participation in activities after school and that the system has improved students' riding behaviour. Mr Ibrahim reported that the school received 30 - 40 complaints

176 Private hearing transcript (authorised for publication), Palm Beach, 23 July 2025, pp 11, 12.
177 Private hearing transcript (authorised for publication), Palm Beach, 23 July 2025, p 12.
178 Palm Beach Currumbin State High, 'E-Bike Safety Education Program', 23 January 2026, https://pbc-shs.eq.edu.au/calendar-and-news/news/e-bike-safety-education-program.
179 Chris Gilmone, ''Necessary step': safety fears spark ban on e-mobility devices at three Coast high schools', *Sunshine Coast News*, 18 November 2025, https://www.sunshinecoastnews.com.au/2025/11/18/trio-of-coast-high-schools-ban-e-bikes-and-e-scooters/.

per week from the community before the system, and 4 - 5 per week after its introduction.[180]

Suggestions to improve e-mobility safety around schools

Submitters suggested a variety of options for improving the management of PMDs and e-bikes around schools and reducing the safety risks they create.

Several submitters proposed banning the use of PMDs and e-bikes by children travelling to and from school.[181] Alternatively, others suggested that schools prohibit the storage of e-mobility devices on school grounds, enforce existing minimum age and supervision requirements, or only permit the use of compliant devices by students.[182] Some submitters suggested that police should play a role in enforcing these requirements, including by seizing non-compliant devices stored on school grounds.[183]

Some submitters also called for improved infrastructure to better separate riders, pedestrians and motorists, especially near schools.[184] They suggested that this would reduce the risk of accidents while also addressing other problems associated with the use of such devices, including traffic congestion.

A significant number of submitters emphasised the need to expand education in schools about road safety and e-mobility devices.[185] This included suggestions that such education be made mandatory for children who ride PMDs and e-bikes to school. Other submitters noted that school-based education should be reinforced by broader education campaigns to ensure that parents, as well as the general public, are better informed about the rules relating to e-mobility devices.[186]

TMR advised the committee that it currently:

- distributes educational materials and partners with Queensland Police Service to deliver e-mobility education in schools
- provides road safety grants to a number of organisations that provide voluntary school-based education on e-mobility rules and safety.[187]

180 Site visit, Cronulla High School, Sydney, 19 February 2026.
181 Helen Gooderham, submission 759; Name withheld, submission 76.
182 Owen Easby, submission 485; Name withheld, submission 244; Name withheld, submission 767.
183 Name withheld, submission 1071.
184 Ross de la Haye, submission 114; Charlotte Henriks, submission 292; Name withheld, submission 251; Council on the Ageing Queensland, submission 665, p 33.
185 Ross de la Haye, submission 114; Name withheld, submission 793; Kym Pinnington, submission 62; Paul Carne, submission 46; Name withheld, submission 233; Name withheld, submission 23; Joel Landon, submission 128; Chris Enwright, submission 220; Name withheld, submission 604; Sidelines Traffic Pty Ltd, submission 667; Council on the Ageing Queensland, submission 665; Everybody eBikes, submission 739.
186 Scott Mason, submission 615; Janette Helen Gillies, submission 1124; Australian Lawyers Alliance, submission 820, p 10.
187 Department of Transport and Main Roads, correspondence, 30 September 2025, p 16.

TMR did not oppose the introduction of mandatory training and testing for children who use e-mobility devices but noted that implementing such programs within schools would require further consideration by the Department of Education.[188]

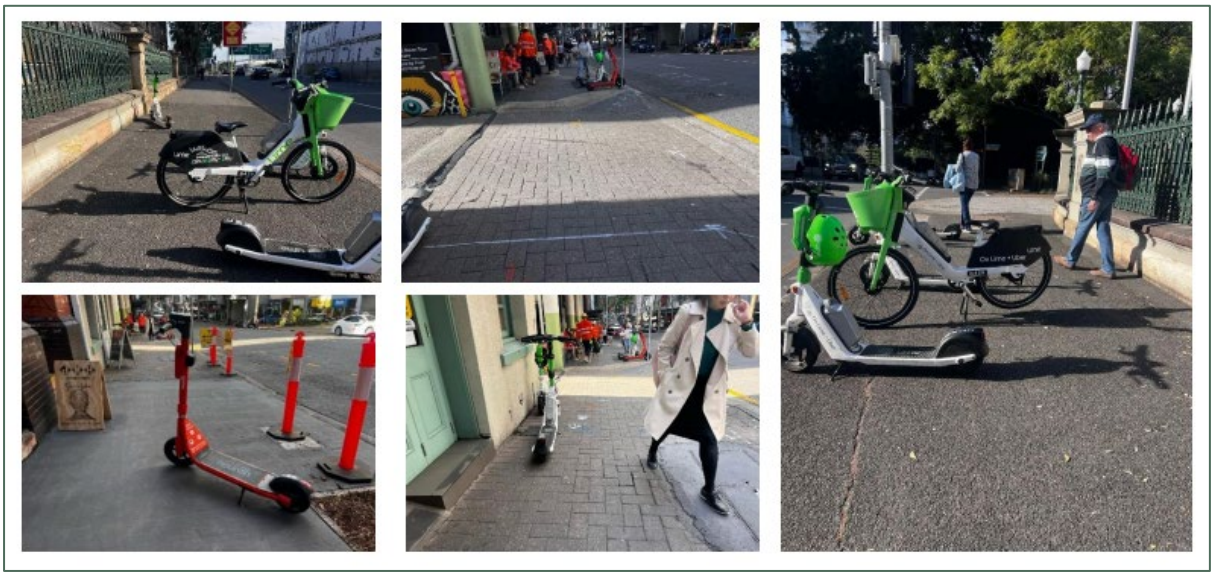
4.6 Pedestrian safety

Pedestrian safety on footpaths was one of the most frequently raised safety concerns, and was noted in approximately half of all submissions to the inquiry. Community members and advocacy groups, including Council on the Ageing Queensland and the Australasian College of Road Safety,[189] reported that excessive riding speeds and the absence of audible warnings from approaching devices create significant safety risks. Many described instances of interactions with devices, numerous near misses and reduced confidence or fear when using familiar walking routes. These concerns were amplified for vulnerable pedestrians.

By way of example, Queensland Walks submitted that the increasing use of e-mobility devices is reducing safety and comfort for pedestrians on footpaths and shared paths. They reported frequent community concerns about near misses and unsafe interactions, particularly for older people, those with vision, hearing or cognitive impairments, wheelchair and mobility-device users, and families with young children. They also noted growing reports of devices exceeding speed limits and riders weaving between pedestrians, which in some areas is discouraging people from walking, running, or using shared paths altogether.[190] Queensland Walks advised that its 2021 e-scooter survey found 60% of respondents had changed where they walk due to safety concerns, 46% had tripped over or encountered issues with poorly parked devices, and 7% reported sustaining an injury from an e-mobility device.[191]

Queensland Walks highlighted that poorly parked or discarded e-mobility devices create daily hazards for pedestrians, as shown in the images below. They called for stronger regulation of operators and local councils to prevent footpath obstruction.[192] The Pedestrian Council of Australia raised similar concerns, noting that the rapid proliferation of electric devices in public spaces has created an unsafe and uncontrolled environment.[193]

188 Department of Transport and Main Roads, correspondence, 30 September 2025, pp 16-17.
189 See for example submissions 665, 1175, 287, 319, 753.
190 Submission 1097, p 5.
191 Submission 1097, p 5.
192 Submission 1097, p 6.
193 Submission 1148, p 1.



Source: Queensland Walks, submission 1097.

Submitters made several suggestions to improve pedestrian safety, ranging from the prohibition of devices, exclusion from certain high traffic areas, restriction of devices to bike lanes or roads only, and infrastructure upgrades to accommodate the separation of riders and pedestrians (discussed below).

Vision Australia also submitted that the introduction of e-mobility devices has generated significant fear and anxiety within the blind and low-vision community. Research conducted by the group in 2018 found that 35% of respondents had experienced a collision or near-collision with an electric vehicle, and 75% said these technologies had reduced their confidence to leave their homes and move about independently.[194] Ms Caitlin McMorrow from Vision Australia told the committee that e-mobility devices, particularly in busy pedestrian areas, have had significant impacts on the safety and wellbeing of people who are blind or have low vision:

> I myself am totally blind and I work with a guide dog as my mobility aid. My dog is very skilled at her job and as a team we have to adapt constantly to changes in our working environment, whether that is caused by building and construction, unexpected traffic or obstacles on footpaths. Even with our substantial skills as a working team though, I have found that safe navigation has become increasingly difficult with the proliferation of e-mobility devices in recent years. I am no longer confident that I will be able to walk safely in busy pedestrian areas such as the Brisbane CBD.[195]

Vision Australia recommended prohibiting e-mobility devices from pedestrian footpaths, except for mobility aids used by people with disabilities. They further supported requiring devices to include an Acoustic Vehicle Alerting System, tamper-proof speed-limiting technology that restricts speeds to 10km/h in pedestrian areas, and additional safety

194 Submission 988, p 6.
195 Public hearing transcript, Brisbane 25 August 2025, p 12.

features. Vision Australia also advocated for infrastructure improvements, including clearer signage on shared-use paths and the installation of speed bumps.[196]

4.6.1 Technology solutions

The committee received evidence and demonstrations from Lime and Ario on emerging technological advancements within shared e-mobility schemes. Ario advised that its devices incorporate an AI-enabled onboard camera system that detects pedestrians, automatically reduces speed in high-density areas, and emits an audible alert to enhance safety. This system operates alongside geofencing to support real-time, context-specific speed management.[197]

Ario also outlined measures to improve parking compliance. At the end of each trip, each device captures a 360-degree image to verify correct parking. These images are reviewed by Ario's safety team, and incorrectly parked devices can be repositioned within minutes using remote-parking technology. This system helps prevent footpath obstructions and supports safer, more orderly public spaces.[198]

Similarly, Lime explained that each Lime vehicle incorporates thousands of sensors, monitoring speed, location and usage patterns to effectively control rider behaviour. Each vehicle has a unique identifier and every journey is tracked. Speed limits are hardwired as well as managed through geofencing technology. This technology also governs no-ride and no-park zones as agreed with local governments.[199]

As noted above, location tracking technology is widely used on share scheme devices. This technology is readily available on the private market and comes in various, accessible forms. There is opportunity for this technology to be used more widely by consumers, for example by attaching tags to private devices as an anti-theft security and detection measure.

4.6.2 Parking initiatives

Brisbane City Council acknowledged ongoing issues with improper parking of shared e-mobility devices advising that while operating agreements outline approved parking locations, shared scheme operators have sought to improve compliance through 'in-app' education. The Council has 'complemented these efforts with targeted regulation and infrastructure investment'. It has introduced 'virtual parking hubs' in the inner city, offering incentives such as discounted rides, which have delivered some improvements. Trials in several coastal suburbs have also shown positive results. Compliance is further supported by operators issuing penalties to riders who do not use designated parking areas.[200]

196 Submission 988, p 3.
197 Submission 1169, p 4.
198 Submission 1169, p 5.
199 Mr William Peters, Head, Asia-Pacific, Lime Network, public hearing transcript, 22 July 2025, p 7.
200 Submission 882, p 4.

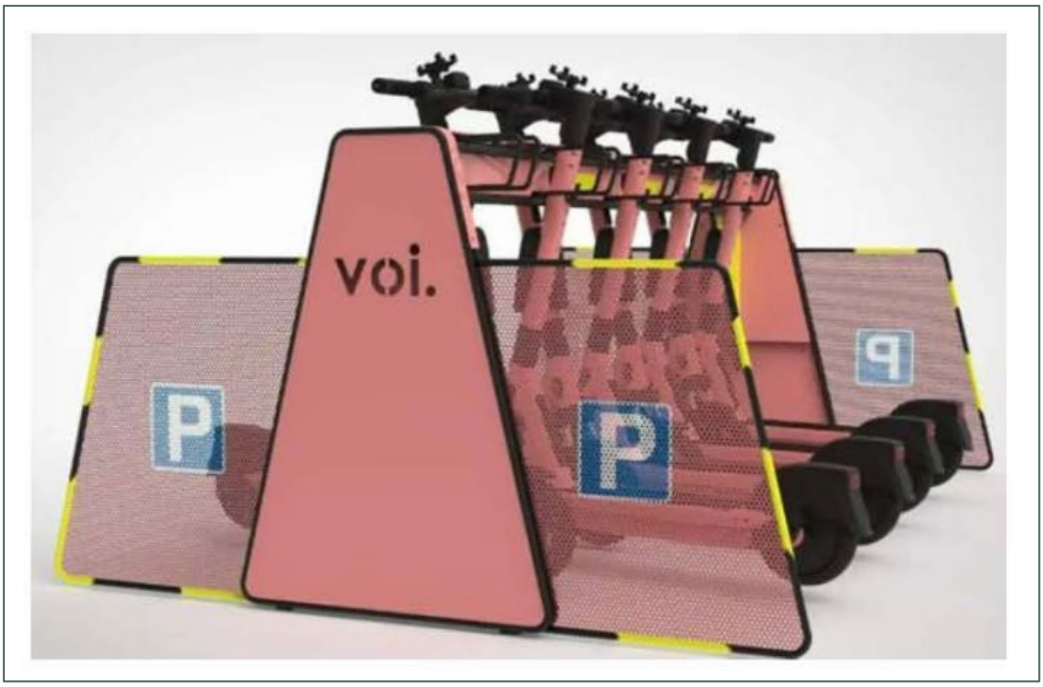
Source: Brisbane City Council, submission 882, p 14.

RACQ also raised concerns about e-scooter parking, noting that the absence of a coordinated parking framework increases risks for pedestrians. RACQ submitted that while 'drop-and-go' parking contributes to the popularity and flexibility of hire-scheme devices, poorly parked e-scooters can clutter public spaces, obstruct access to services and infrastructure, and pose significant hazards. RACQ submitted that, in the context of limited regulation and a lack of established global best practice, e-scooter parking remains a substantial challenge for planners and local authorities.[201]

The RACQ proposed a regulated parking system for hire-scheme e-mobility devices in CBDs and other high-traffic areas to enhance safety and accessibility. The proposal would introduce designated parking zones for hired e-scooters to ensure they are stored appropriately and do not obstruct pedestrian pathways (see example of preferred standard of dedicated parking for hire e-scooters below). To support this, RACQ recommended:

- installing physical barrier parking racks in high-traffic urban areas
- co-funding these racks through partnerships between state and local governments and industry
- using parking decals as a transitional or low-risk option where trip hazards are minimal
- continuing to apply geofencing technology and integrating it with physical parking infrastructure as it matures. [202]

[201] Submission 1091, p 13.
[202] Submission 1091, p 13.



Source: RACQ, submission 1091, p 17.

4.6.3 What can TMR and local government do to help with pedestrian safety

TMR advised that it remains committed to a regulatory framework that prioritises pedestrian safety while accommodating the mobility needs of e-mobility riders. Under current rules, riders must give way to pedestrians on footpaths, crossings and shared paths, and PMDs are limited to a maximum speed of 12km/h in these areas. There is no equivalent prescribed speed limit for bicycles; instead, bicycle riders are required to comply with the posted speed limits on paths and roads.[203]

TMR also advised that local governments have the flexibility to implement additional measures to address pedestrian safety concerns. They can introduce stricter speed limits or install signage to restrict use in high pedestrian areas.[204]

4.6.4 Signage

Many submitters noted that current signage can be confusing, inconsistent, or non-existent, particularly regarding speed limits and where to ride rules.[205] Ms Vida Mehranfar and Professor Christian Jones from the University of the Sunshine Coast, recommended clear signage and surface marking, which specifically shows e-mobility devices, to indicate speed limits and access restrictions to reduce confusion and improve compliance and riding behaviour.[206]

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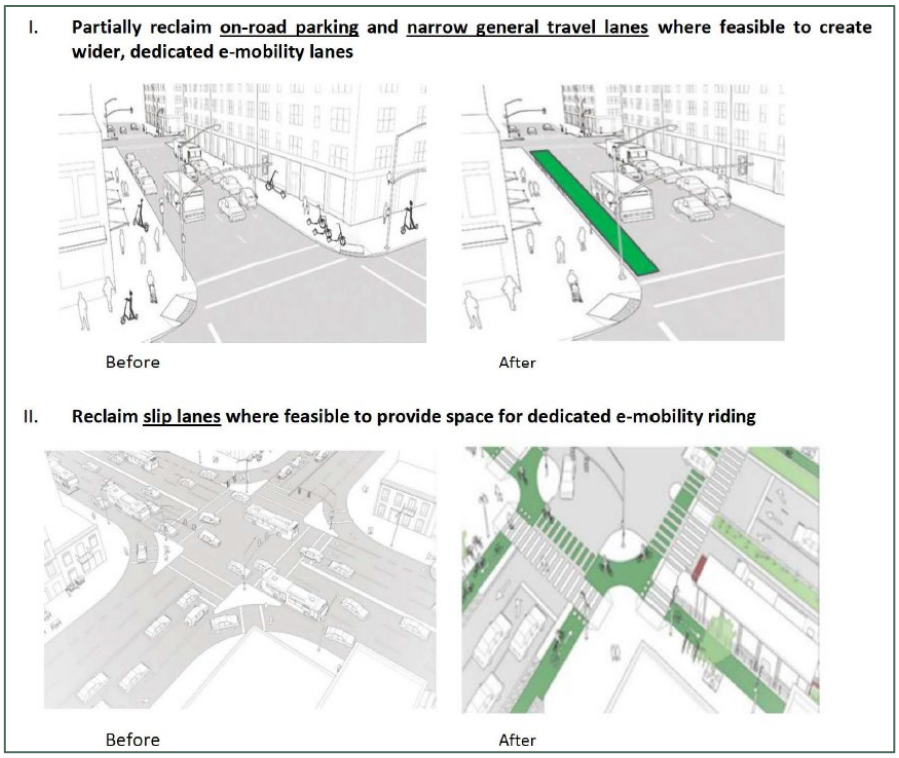
203 Department of Transport and Main Roads, correspondence, 30 September 2025, p 8.
204 Department of Transport and Main Roads, correspondence, 30 September 2025, p 8.
205 See for example submissions 173, 470, 605, 714, 804, 1080.
206 Ms Vida Mehranfar and Professor Christian Jones, University of the Sunshine Coast, submission 804, pp 5, 6, 14, 26, 27, 29.

4.7 Infrastructure solutions

Many submitters emphasised the importance of improved infrastructure to enhance safety and compliance for e-mobility riders and pedestrians.

Organisations including Council on the Ageing Queensland,[207] Vision Australia,[208] and the Queensland University of Technology[209] submitted that separated infrastructure could reduce crash risks and improve road rule compliance by creating a safer environment with greater distance from other road users.

Several submitters highlighted the need for dedicated e-mobility lanes.[210] Researchers from the University of the Sunshine Coast advised that the current urban environment is heavily oriented toward motor vehicles, and that meaningful progress toward reducing car dependency requires investment in infrastructure that safely integrates e-mobility.[211] They further recommended establishing connected, city-wide micro-mobility networks that separate e-mobility users from both pedestrians and motorists, minimising conflict, reducing the likelihood of high-impact crashes, and supporting safer, more predictable travel patterns for all road users.[212] They also provided the following examples:



Source: Vida Mehranfar and Christian Jones, University of the Sunshine Coast, submission 804, p 3.

207 Council on the Ageing Queensland, submission 665, p 5.
208 Vision Australia, submission 988, p 4.
209 Professor Haworth, Motor Accident Insurance Commission Queensland – QUT Road Safety Research, public briefing transcript, Brisbane, 22 July 2025, p 18.
210 See for example University of Sunshine Coast, submission 804, pp 3-4; Dr Kelly Bertolaccini, Griffith University, public hearing transcript, Brisbane, 2 October 2025, p 37.
211 Ms Vida Mehranfar and Prof Christian Jones, University of Sunshine Coast, submission 804, p 3.
212 Ms Vida Mehranfar and Prof Christian Jones, University of Sunshine Coast, submission 804, pp 3-4.

The University of the Sunshine Coast submitted that recent research findings indicate strong support for dedicated e-mobility infrastructure. More than half of respondents (53%) reported feeling safer when bike lanes were available, while limiting footpath use was viewed as a way to reduce near misses. The survey also found that inconsistent infrastructure – requiring riders to transition between different path types – contributed to 21% of reported falls.[213] The University further submitted that dedicated e-mobility routes must be designed with a clear understanding of rider behaviour and preferences. Without infrastructure that meets user needs, riders are likely to continue using footpaths, increasing risks for pedestrians, or to travel on routes where riding is not permitted.[214]

Others, including the Australian Medical Association Queensland, while supportive of fully separate infrastructure for riders and pedestrians recommended prioritising high-risk areas (such at schools or hospitals) as an initial focus.[215]

4.8 Safety equipment

The importance of appropriate safety equipment, particularly helmet compliance, was raised by many submitters including Ario, Lime, RACQ and Attwood Marshall Lawyers.[216]

Many stakeholders called for enhanced safety equipment to be mandated such as motorcycle style gear including full-face helmets, gloves, jackets etc. However, it was noted that while protective gear could be positive, it could also encourage risky behaviour due to a sense of invulnerability, or hinder rider identification.[217] Although not mandatory for riders, TMR strongly encouraged the use of protective clothing to reduce risks.[218]

4.8.1 Helmet use and non-compliance

QPS advised that the most common infringement notice issued to e-mobility users is for not wearing a helmet, accounting for over half the infringement notices over the past 3 years.[219]

Many submitters raised concerns about widespread non-compliance with helmet wearing rules, with stakeholders emphasising the need for more enforcement of the law.[220] Noting low helmet compliance when using shared devices and the impact of failure to wear a

213 University of Sunshine Coast, submission 804, p 4.
214 University of Sunshine Coast, submission 804, p 4.
215 Australian Medical Association Queensland, submission 1042, p 2; see also Lime Network, submission 1159; Vision Australia, public hearing transcript, Brisbane, 25 August 2025, p 16.
216 Ario, submission 1169, pp 4, 6; Lime, submission 1159, p 4; RACQ, submission 1091, p 13; Attwood Marshall Lawyers submission 1140, p 5.
217 See for example submissions 407, 1009; Dr Buning, public hearing transcript Brisbane, 22 July 2025, pp16-17; Dr Mitchell, public hearing transcript Brisbane, 20 January 2026, p 3.
218 Department of Transport and Main Roads, correspondence, 30 September 2025, p 10.
219 Queensland Police Service, correspondence, 15 December 2025, p 2.
220 See for example submission 1, 8, 35, 42, 74, 94, 149, 150, 163, 223, 239, 329, 405, 451, 455, 534, 600, 643, 1006.

helmet on the severity of injuries, submitters also recommended that hire e-scooters should not be able to be used unless a helmet is properly worn.[221]

Others suggested that rental e-mobility device operators should take more responsibility for ensuring compliance among their users. For example, eScootNow submitted that hire scheme operators should be required to enforce their customers' use of helmets, by monitoring use and suspending customer access as penalty.[222]

The Brisbane City Council advised that its agreements with e-mobility operators have a requirement for operators to develop initiatives in technology, and that the Council would support the use of new technology to enforce wearing a helmet.[223]

4.8.2 Full-face helmets

Inquiry participants expressed differing views on whether full-face helmets should be required for e-mobility riders, particularly e-scooter users. Trauma specialists from Queensland Health acknowledged that full-face helmets may offer additional protection against facial injuries but emphasised the need to consider these benefits in the broader context of overall injury patterns and other considerations. Dr Lockwood noted that, while facial injuries can be resource-intensive to treat, their burden is comparatively minor relative to head injuries. He advised that full-face helmets would likely prevent some facial fractures, although data is not available to prove this, and stressed that they are not the most critical safety measure.[224] Dr Barker also highlighted several important considerations, including:

- increased helmet weight, which may place additional strain on the neck, particularly in children – competition cyclists and motorcyclists often use neck braces to mitigate this
- reduced situational awareness, especially in environments requiring complex or dynamic traffic management
- infection-control risks associated with shared helmets used in hire schemes.[225]

The University of Queensland observed a research study that those wearing helmets ride faster, and those with full face helmets ride the fastest.[226]

Others including Queensland Nurses and Midwives Union,[227] the RACQ,[228] and the Australasian College of Road Safety[229] supported the full-face helmet option.

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221 See for example submission 1193; Mr Rodney Zinn, Sunshine Coast Regional Council, public hearing transcript, Caloundra, 24 July 2025, p 3.
222 Submission 1126, p 1; see also Professor Christian Jones, University of the Sunshine Coast, public hearing transcript, Caloundra, 24 July 2025, p 19.
223 Public hearing transcript, Brisbane, 2 October 2025, pp 4, 5.
224 Dr David Lockwood, public briefing transcript, Brisbane, 20 January 2026, p 8.
225 Dr Ruth Barker, public briefing, Brisbane, 20 January 2026, tabled paper, p 2.
226 The University of Queensland, submission 1009, p 2.
227 Queensland Nurses and Midwives Union, submission 951, p 5.
228 RACQ, submission 1091, p 5.
229 Australasian College of Road Safety, submission 1175, p 7.

Several stakeholders, including Brisbane Central Business District Bicycle User Group, Lime, Neuron Mobility and Foucault Dynamics, opposed the proposal.[230] Ario, for example, cautioned against introducing full-face helmet requirements without robust supporting evidence. They argued that while such helmets may offer additional protection, they do present practical challenges, particularly in Queensland's hot and humid climate, where they would likely deter ridership. Given existing issues with helmet compliance, Ario advised that increasing requirements without corresponding improvements in enforcement or education is unlikely to achieve meaningful safety gains.[231]

In response to the issue, TMR advised that while riders may choose to use full-face helmets, the primary safety concern is not the quality of available protective gear but the low rate of helmet compliance. TMR supported riders choosing full-faced helmets if it enhances their perception of safety and comfort but noted that mandating the use of full-face helmets may further reduce overall compliance.[232]

4.9 Improved device design

Submitters proposed various design improvements for e-bikes and PMDs to enhance safety and minimise high risks. Submitters emphasised the need to reduce the overall size and weight of devices, citing concerns about the severity of injury and potential damage in collisions. Some also suggested that PMDs and e-bikes should undergo roadworthiness assessments, before use. Other suggestions included mandating sit-down devices.

The committee also received demonstrations from Lime showcasing emerging technologies, including sit-down scooter and hybrid bike models, underscoring the importance of supporting and enabling shared-scheme operators to continue innovating, testing and upgrading their fleets.[233]

4.9.1 Stability testing

The increased susceptibility of e-scooters to irregularities in the road or pathway surface due to their smaller wheel size means they are at higher risk of accidents.

Research by CARRS-Q identified instability as a key contributor to PMD-related falls and noted 2 primary ways to improve stability: increasing wheel size or lowering the centre of gravity. While prescriptive requirements for these features could be introduced, the research suggests that a performance-based standard would better allow manufacturers to determine the most effective design solutions.[234]

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230 See for example Brisbane Central Business District Bicycle User Group, submission 407; Lime Network, submission 1159; Neuron Mobility, submission 1019; Foucault Dynamics, submission 1173.

231 Ario, submission 1169, p 7.

232 Department of Transport and Main Roads, correspondence, 30 September 2025, pp 10-11.

233 Site visit, Lime Network, Brisbane, 2 October 2025.

234 Not published, Centre for Accident Research & Road Safety - Queensland, *Evaluation of the Regulation of Personal Mobility Devices (PMDs) in Queensland, Final Report*, August 2025, p 126.

Several countries have introduced formal stability tests to ensure e-scooters meet minimum safety standards. In Australia, an equivalent stability test exists for motorised mobility devices, including wheelchairs and mobility scooters, and is implemented through a Standards Australia technical specification and supported by an ACCC-enforced compliance labelling system.[235] Germany's 2019 regulations for small electric vehicles require e-scooters to pass stability and handling tests that simulate real-world conditions such as uneven surfaces and obstacles, effectively excluding non-compliant models from approval. The United Kingdom (UK) similarly mandates performance-based stability testing for e-scooters participating in government-approved trials.[236]

Referring to the stability of e-scooters, RACQ's 2025 Two Wheel Mobility Survey asked e-scooter users to self-report whether they had been involved in a crash while using the devices: 39% of e-scooter users reported that they had been involved in a crash while riding, and one quarter said that they had been involved in an e-scooter crash more than once. Almost half (48%) of users involved in an e-scooter crash reported simply losing balance/falling off.[237]

RACQ is currently conducting a research project, in collaboration with the Queensland University of Technology, testing the stability of different e-scooter devices. The study will examine the extent to which riders of stand-up e-scooters are more susceptible to rotational forces propelling them over the handles more easily than sit-down e-scooter models.[238]

4.9.2 Sit-down devices

Stakeholders expressed differing views on whether sit-down e-mobility devices should be mandated. RACQ also recommended mandating sit-down designs across all hire scheme e-scooters to help prevent serious head and facial injuries from over-the-handlebar accidents. The RACQ noted that suitable models already exist and can improve accessibility for people with disabilities or reduced physical capacity such as the new device introduced by Neuron Mobility in 2025 (see below).[239]

235 Not published, Centre for Accident Research & Road Safety - Queensland, *Evaluation of the Regulation of Personal Mobility Devices (PMDs) in Queensland, Final Report*, August 2025, p 126.
236 Not published, Centre for Accident Research & Road Safety - Queensland, *Evaluation of the Regulation of Personal Mobility Devices (PMDs) in Queensland, Final Report*, August 2025, p 126.
237 RACQ, submission 1091, p 13.
238 RACQ, submission 1091, p 13.
239 RACQ, submission 1091, p 13.

Source: RACQ, submission 1091, p 15.

Ario proposed that three-wheel designs may also enhance stability and safety.[240]

In contrast, Zipidi opposed prescriptive design requirements, arguing instead that regulating devices by speed and weight would better support innovation and the integration of emerging safety features.[241]

Committee comment

The numbers of injuries and deaths involving e-mobility devices in Queensland is alarming, and growing. There were over 6,300 presentations to Queensland Health facilities in the 12 months to March 2025, the majority of them children and young people. We know this figure is an underestimate. To June 2025, there were over 230 major trauma cases across Queensland, and over 60 admissions to intensive care. These cases were dominated by head injuries. There is a trend of severe, disabling and life-long injuries from e-mobility device accidents.

Tragically, in 2025, 12 people lost their lives to mobility device related accidents. Many of these were young people; the youngest just 8 years old. The committee has heard the anguish of parents and families affected by these tragedies and their resolve to raise awareness about the safety risks of e-mobility devices.

It is not surprising that safety, above all other issues, has been of most concern to stakeholders during this inquiry: safety of the riders of e-bikes and e-scooters including children; safety of pedestrians; safety of more

240 Submission 1169, p 4.
241 Submission 1028, p 4.

vulnerable pedestrians such as blind and low vision people, the elderly, and families with young children; safety of other road users; safety of e-mobility devices; safe battery charging and storage; safety and use of protective equipment; safe separated infrastructure for active transport, and safe riding behaviour including safely travelling to school and around popular pathways and precincts.

In our view, the way Queensland responds to and manages these safety issues is key to successfully integrating e-mobility devices into transportation in Queensland. The discussion and recommendations that follow in this report are fundamentally aimed at minimising risks and increasing safety.

To underpin the necessary reforms the committee recommends that:

- data collection is improved to understand the nature and trends in the use of e-mobility devices, and the injuries resulting, in order to inform policy, infrastructure planning, and research into risk factors, vehicle design, and to underpin improvements to regulatory settings – there is opportunity to improve data collection and sharing at both state and national levels
- state and local governments embed e-mobility into strategic transport infrastructure planning, taking steps to develop infrastructure solutions that encompass e-mobility device use including connected and separated pathway networks and dedicated parking – this should include setting targets and incorporating separate infrastructure into design and asset management plans for future budgets.

Recommendation 3

That the Queensland Government work with relevant state and national government agencies, shared e-mobility companies, and local government, to improve the collection and sharing of data regarding incidents involving PMDs and e-bikes.

Recommendation 4

That the Queensland Government embed e-mobility into strategic transport infrastructure planning and work with local governments to achieve greater investment and delivery of high quality, connected and separated pathway networks.

Recommendation 5

That the Queensland Government advocate for local governments to provide dedicated parking for e-mobility devices in appropriate designated areas, as determined by the local government or on private property where applicable.

5. Issues associated with e-mobility ownership including the risk of battery fire the use of lithium-ion batteries

5.1 Introduction

This chapter examines key challenges associated with e-mobility ownership in Queensland, including the risk of fire, storage and disposal of lithium-ion batteries. Evidence presented to the inquiry indicates an increase in the number of fires associated with e-mobility devices. These fires have resulted in fatalities, serious injuries and significant property damage. Inquiry participants highlighted key risk factors and proposed mitigation strategies, with many emphasising the need for safer charging practices, more education and community awareness, and product safety standards.

5.2 Fires associated with lithium-ion batteries are a growing challenge

The committee received detailed advice from the Queensland Fire Department (QFD) about the growing fire safety risks posed by e-mobility devices. Commissioner Steve Smith AFSM made clear that rechargeable lithium-ion batteries - particularly those used in e-scooters – represent a growing fire safety challenge in Queensland, consistent with trends across Australia and internationally.[242]

The Commissioner advised that lithium-ion batteries, while efficient and lightweight, are highly volatile if compromised and can lead to sudden and catastrophic fires.[243] This volatility is the result of 'thermal runaway', a self-sustaining chemical reaction that generates uncontrolled pressure and heat in a battery cell. The Commissioner advised that once initiated, thermal runaway cannot be stopped and often propagates to adjacent cells.[244]

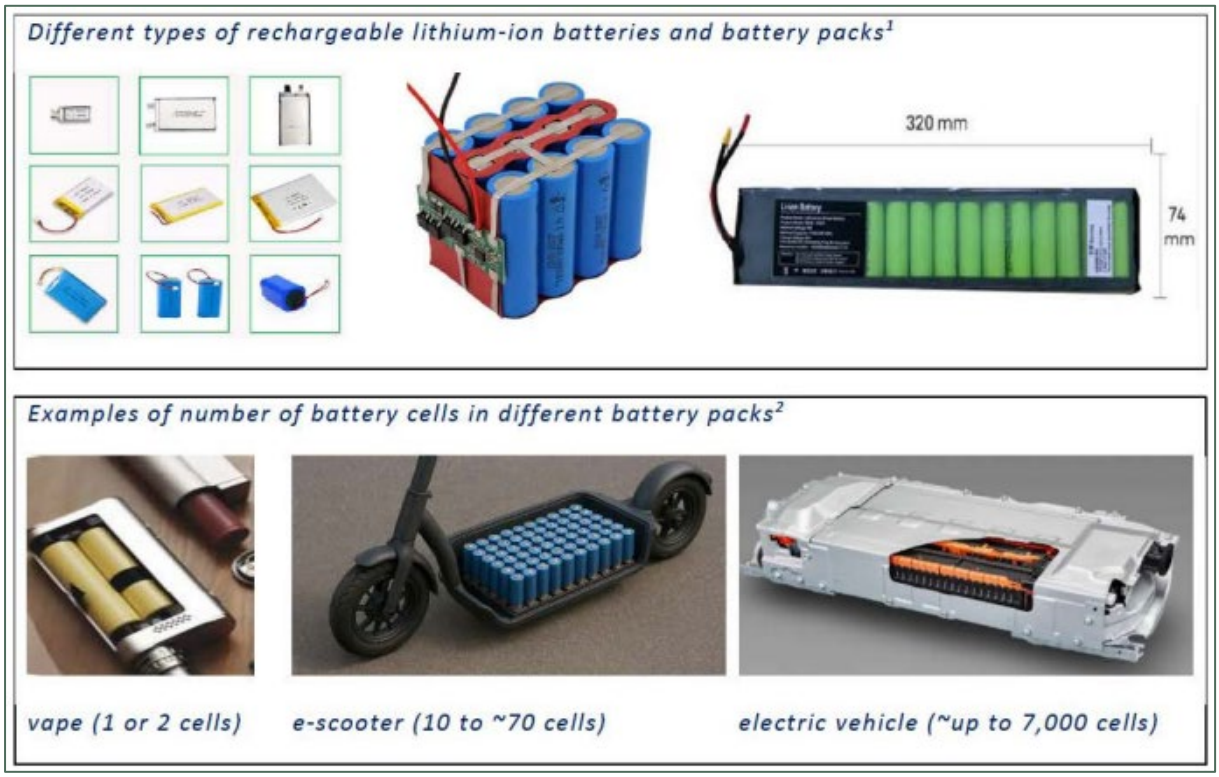
E-mobility devices are typically powered by rechargeable lithium-ion batteries. QFD explained that batteries are made up of multiple cells, grouped into battery packs. A vape battery pack, for example, contains 1 or 2 cells, whereas a battery pack for an e-scooter can contain around 70 cells, as illustrated in the figure below.[245]

242 Commissioner Stephen Smith AFSM, Queensland Fire Department, public briefing transcript, Brisbane, 22 July 2025, p 9; Commissioner Stephen Smith AFSM, tabled paper, Supplementary submission to the State Development, Infrastructure and Works Committee, p 1.

243 Queensland Fire Department, submission 799, p 3.

244 Queensland Fire Department, public briefing transcript, Brisbane, 22 July 2025, p 9; Queensland Fire Department, submission 799, p 4.

245 Queensland Fire Department, submission 799, p 3.



Source: Queensland Fire Department, submission 799, p 3.

The Commissioner explained that thermal runaway can result in sudden and intense fires that spread rapidly and which are difficult to extinguish.[246] Firefighting strategies focus on cooling the surrounding battery cells to reduce propagation or, if it is safe to do so, allowing the battery to burn out under controlled conditions. The Commissioner also advised that lithium-ion batteries can pose a risk of reignition long after the initial fire appears extinguished.[247]

Toxins from an offgassing lithium-ion battery are one of the most significant hazards associated with these batteries. Offgassing produces highly toxic, flammable vapours that resemble smoke but contain additional chemical compounds absent in conventional fires.[248] These toxic gas clouds exclude oxygen and can rapidly overwhelm an individual who encounters them.[249] From a firefighting perspective, both the gas and explosive elements of such fires are of significance, as is the level of decontamination of equipment.[250]

246 Queensland Fire Department, public briefing transcript, Brisbane, 22 July 2025, p 9.
247 Queensland Fire Department, public briefing transcript, Brisbane, 22 July 2025, p 9.
248 Commissioner Stephen Smith AFSM, Queensland Fire Department, public briefing transcript, Brisbane, 22 July 2025, p 12.
249 Commissioner Stephen Smith AFSM, Queensland Fire Department, public briefing transcript, Brisbane, 22 July 2025, p 12.
250 Inspector Daren Mallouk, Queensland Fire Department, public briefing transcript, Brisbane, 22 July 2025, p 10.

5.2.1 Nature of e-mobility device battery fires

The Commissioner advised that as e-scooters and e-bikes contain dozens of battery cells, thermal runaway is a significant risk. If compromised, each individual cell can discharge toxic, flammable gases, emit jet-like flames, explode, or create an explosive atmosphere. Individual cells can also become projectiles, accelerating the spread of fire.[251]

The Commissioner advised that in the case of a typical house fire in a modern home, a room will transition to 'flashover' – i.e. be fully involved in fire within 3 to 5 minutes. In contrast, tests have shown that e-scooter fires can reach flashover in under one minute.[252] QFD explained that this rapid onset of fire reduces the warning period provided by smoke alarms before a potentially catastrophic explosion or spread of fire occurs. Fires of this nature are particularly concerning in areas where people sleep.[253]

The images below, submitted by QFD, illustrate the damage caused by fires involving e-mobility devices. The first image shows a series of yellow markers which show were lithium-ion battery cells were found after becoming projectiles. The next image shows damage caused by an e-scooter fire and explosion in a Brisbane apartment complex.

Lithium-ion battery cells become projectiles

Battery cells in thermal runaway can be ejected from the battery pack. They become projectiles that lead to rapid fire spread. This fire was caused by an e-bike (marker 12). The other yellow markers indicate where battery cells were found. Three separate fires were caused by ejected battery cells. (QFD image)

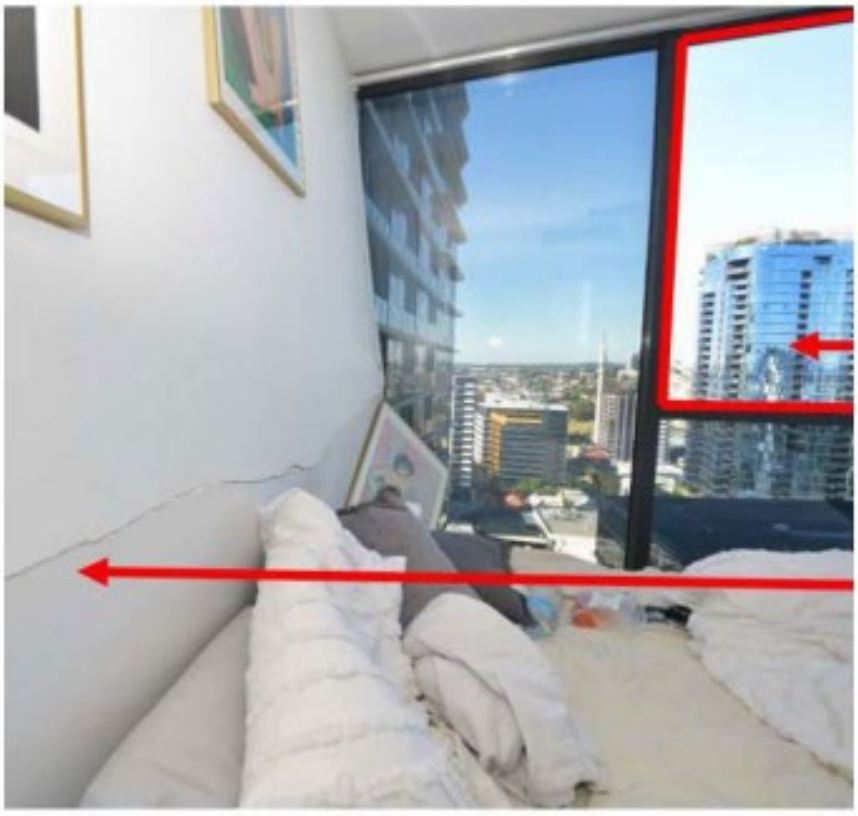
Source: Queensland Fire Department, submission 799, p 6.

[251] Superintendent Mark Halverson, Queensland Fire Department, public briefing transcript, Brisbane, 22 July 2025, p 10.
[252] Queensland Fire Department, submission 799, p 11.
[253] Queensland Fire Department, submission 799, p 11.

E-scooter fire and explosion on Level 22 of a Brisbane apartment complex[9]

Automated sprinkler activation prevented fire spread

Impact of the explosion on the adjacent room



Window glass dislodged and fell 22 floors

Damage to wall in adjoining room from explosion

(QFD images)

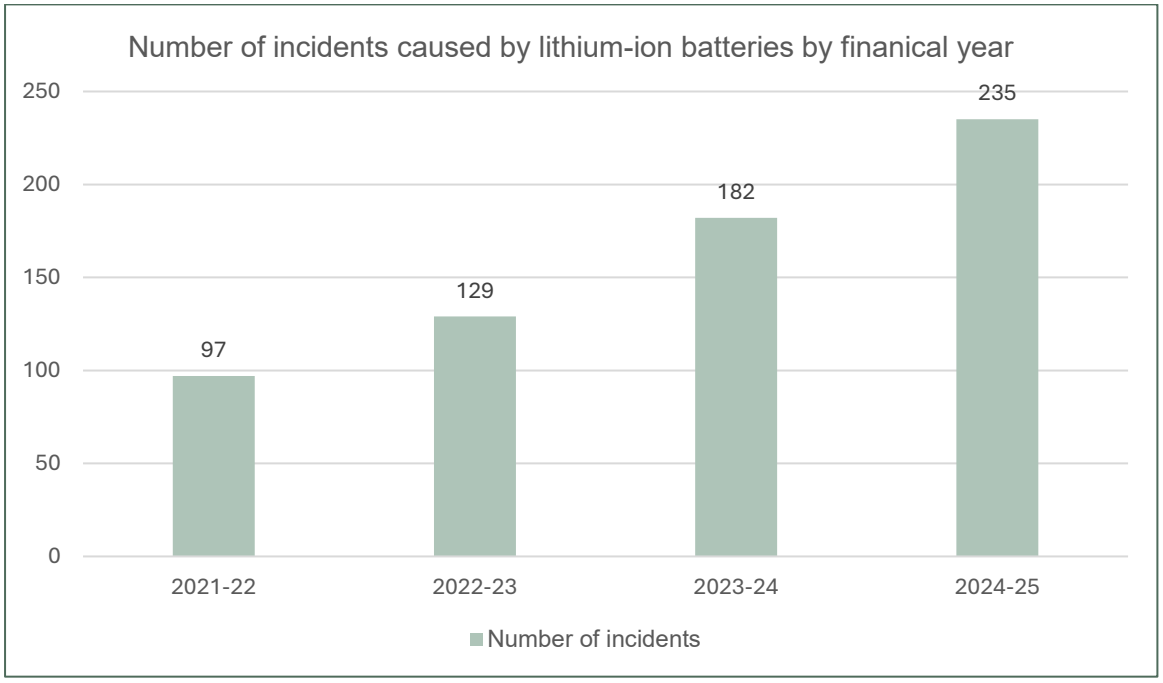
Source: Queensland Fire Department, submission 799, p 7.

5.3 Data – incidents attended by the Queensland Fire Department

QFD provided data on the number and nature of incidents relating to lithium-ion battery fires attended in recent years.

5.3.1 Incidents caused by all lithium-ion batteries are increasing

The graph below outlines incidents caused by lithium-ion batteries attended by QFD between 1 July 2021 and 30 June 2025. The graph shows a steady increase in the number of incidents, reaching a total of 235 incidents in 2024-25.[254]



Source: Queensland Fire Department, public briefing, 22 July 2025, tabled paper, p 1.

QFD advised that these figures likely underestimate the true number of incidents due to existing data collection methods, as other fires may have involved lithium-ion batteries and contributed to the severity of fires, without being identified as the primary source of ignition. Further, the destructive nature of lithium-ion battery fires can mean that it is sometimes not possible to determine the responsible factors.[255]

5.3.2 E-mobility devices are the largest single cause of lithium-ion battery fires

The Commissioner advised that QFD began recording lithium-ion battery fire incidents by device type in 2023, including a category for personal mobility devices such as e-scooters, e-bikes and hoverboards.[256] QFD advised that since implementing these codes, data

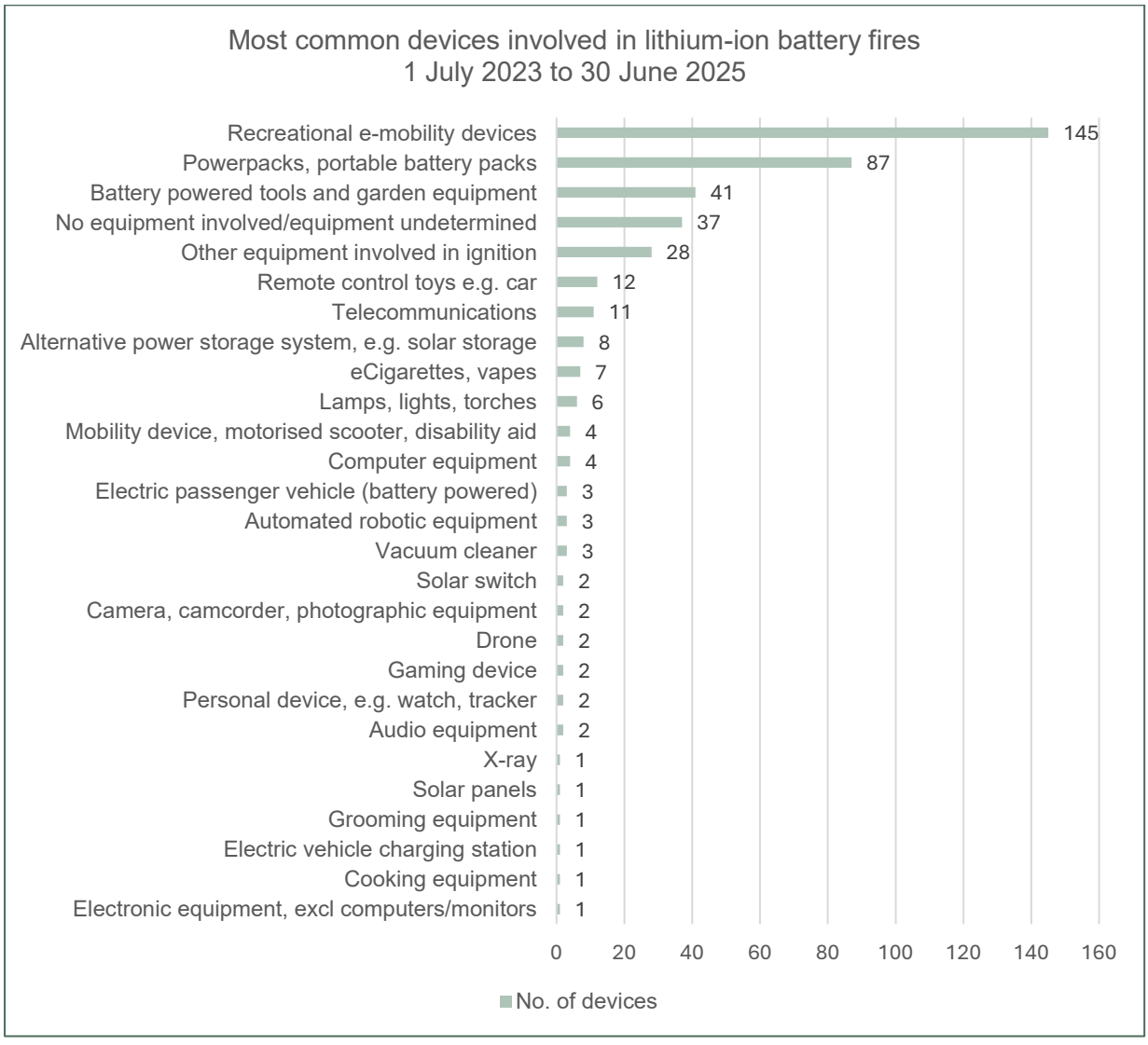
254 Commissioner Stephen Smith AFSM, Tabled Paper, Supplementary submission to the State Development, Infrastructure and Works Committee, p 1.

255 Commissioner Stephen Smith AFSM, Tabled Paper, Supplementary submission to the State Development, Infrastructure and Works Committee, pp 1-2.

256 Commissioner Stephen Smith AFSM, Queensland Fire Department, public briefing transcript, Brisbane, 22 July 2025, p 10.

shows e-mobility devices are the leading cause of lithium-ion battery related fires in Queensland.[257]

The graph below outlines the most common devices involved in lithium-ion battery fires since the introduction of the new reporting codes in 2023. It shows that e-mobility devices account for the largest share of lithium-ion battery related fire incidents, with 145 out of a total of 417 cases.[258]



Source: Queensland Fire Department, public briefing, 22 July 2025, tabled paper, p 3.

The Commissioner advised that experience and data indicate that fires linked to lithium-ion batteries and e-mobility devices are rising, with the number of incidents increasing from 51 in 2023-24 to 94 in 2024-25.[259]

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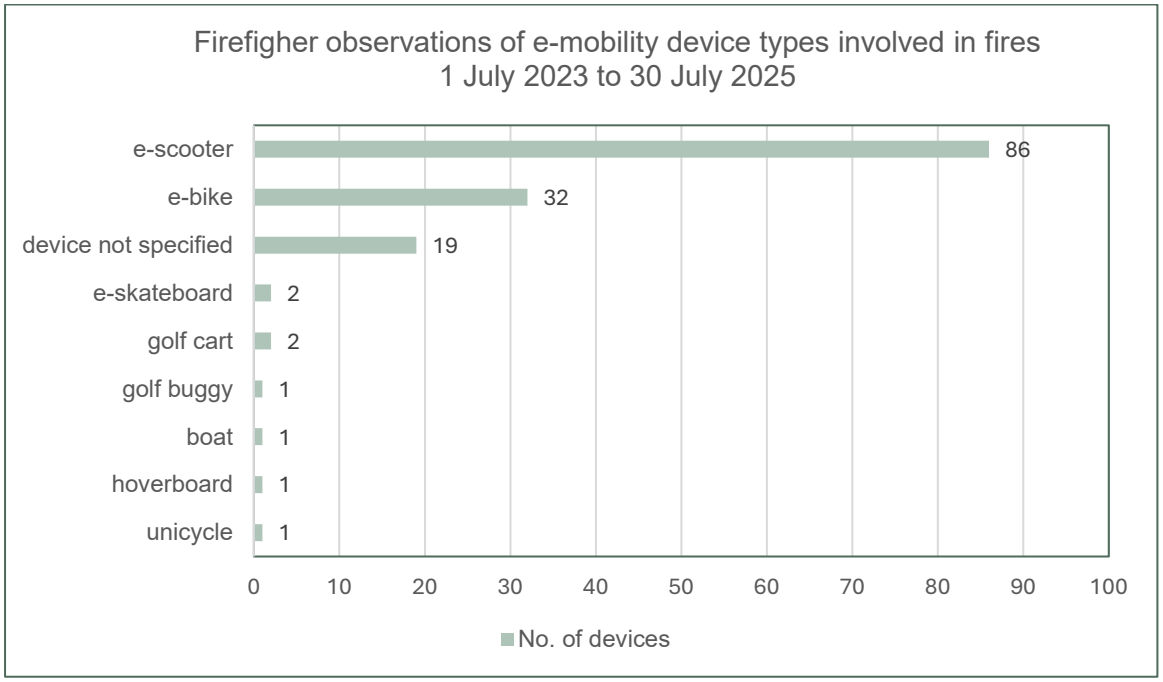
257 Commissioner Stephen Smith AFSM, Tabled Paper, Supplementary submission to the State Development, Infrastructure and Works Committee, p 1.

258 Commissioner Stephen Smith AFSM, Queensland Fire Department, public briefing transcript, Brisbane, 22 July 2025, p 10.

259 Commissioner Stephen Smith AFSM, Queensland Fire Department, public briefing transcript, Brisbane, 22 July 2025, p 10.

5.3.3 E-scooters are the most common e-mobility device involved in fires

The graph below sets out firefighter observations relating to the types of e-mobility devices involved in fires. The graph shows that e-scooters were involved in the majority of fires over the reporting period, with 86 of the 145 recorded cases. This is followed by e-bikes which were observed in 32 cases.[260]



Source: Queensland Fire Department public briefing, 22 July 2025, tabled paper, p 4.

5.3.4 Fatalities and serious incidents relating to e-scooter fires

The Commissioner advised that QFD fire investigators have attended multiple lithium-ion battery fires resulting in fatalities, severe injuries, and extensive property damage.[261]

Between March 2022 and July 2025, QFD firefighters responded to 4 fatal incidents and numerous cases of serious burns suspected to involve e-scooters.[262] QFD advised that e-scooter related incidents had also resulted in serious and complete property damage from fire and/or explosion.[263]

5.4 Practices increasing the risk of fire

QFD briefed the committee on practices that can increase the risk of fire. Primary factors included unsafe charging practices, the home modification of devices, and the quality of the device.

260 Commissioner Stephen Smith AFSM, Tabled Paper, Supplementary submission to the State Development, Infrastructure and Works Committee, p 3.
261 Queensland Fire Department, submission 799, p 12.
262 Queensland Fire Department, submission 799, p 12.
263 Queensland Fire Department, submission 799, p 12.

5.4.1 Unsafe charging practices

QFD advised that many thermal runaway incidents stem from unsafe charging practices, particularly the use of incorrect chargers. The Commissioner described this as the biggest threat to safety.[264] QDF advised that it is a common misconception that any charger that fits and charges a device is suitable – this is not the case.[265]

QFD recommended that:

- devices only be charged with the original charger supplied by the manufacturer, ensuring it bears the Regulatory Compliance Mark for compliance with Australian Standards
- devices should not be left unattended while charging and should be disconnected once charging is complete. Batteries should be allowed to cool after use and before recharging
- e-scooters and e-bikes should be charged in dry, well-ventilated areas (such as outdoors), and away from soft furnishings or other combustible materials.[266]

Several inquiry stakeholders suggested retailers should be required to provide information on safe charging practices.

5.4.2 Home modifications

QFD reported an increase in fires linked to unsafe home modifications of e-mobility devices. QFD advised that many users attempt to boost battery capacity or power by installing larger, non-standard batteries, often from unreliable sources.[267]

QFD advised that that home modifications significantly elevate fire risk due to:

- incompatible chargers: using mismatched chargers can cause overcharging, overheating, and battery instability
- unregulated battery replacements: counterfeit or low-quality batteries may lack essential safety features, making them prone to thermal runaway
- poor installation practices: DIY installations often bypass protective circuits, leading to electrical faults and short-circuiting
- excessive power draw: modified devices may exceed their design limits, overloading electrical systems and increasing fire risk
- DIY battery packs: constructing packs from mixed second-hand batteries is a high-risk practice that increases the risk of fire and explosion.[268]

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264 Commissioner Stephen Smith AFSM, Queensland Fire Department, public briefing transcript, Brisbane, 22 July 2025, p 11.
265 Queensland Fire Department, submission 799, p 12.
266 Queensland Fire Department, submission 799, p 12.
267 Queensland Fire Department, submission 799, p 12.
268 Queensland Fire Department, submission 799, p 13.

5.4.3 Quality and type of device

QFD noted that lower quality products present higher risks, particularly when charged in bedrooms or near soft furnishings.[269] Quality devices typically include an in-built battery management system, which regulates charging and switches to trickle charge once full. Poor-quality products often lack these safeguards, making them considerably less safe.[270]

RACQ referenced a UK study that found a clear correlation between battery price-per-unit-of-energy and safety outcomes. Higher-priced PLEV batteries (i.e. a lithium-ion battery pack powering a Personal Light Electric Vehicle) featuring advanced safety circuits, sophisticated electronics, and superior manufacturing, were shown to prevent thermal runaway through combined passive and active protection systems.[271]

The Insurance Council of Australia agreed, submitting that e-bikes and e-scooters present a significant risk of fire which is primarily due to poor design and manufacturing, high wear and tear, and poor regulation.[272]

Inspector Daren Mallouk from QFD reported that most e-mobility related fires involve privately owned devices, with significantly fewer incidents linked to shared hire schemes.[273] Brisbane City Council advised that shared scheme operators manage batteries in accordance with international standards, using specialised charging and storage systems. Proprietary battery management systems monitor internal and external temperatures, incorporate fail-safes to halt charging, and deploy lithium-ion extinguishers when required.[274] Additional measures include:

- fire-suppressive bags and spacing of batteries during transport to mitigate thermal risks (ISO 14000 compliance)
- staff training to identify and respond to thermal distress
- waterproofing to international standards for safety upon immersion.

Shared scheme providers informed the committee that they have comprehensive battery safety measures in place.

Lime advised that safety is its highest priority in battery charging, supported by strict handling procedures and robust infrastructure.[275] Lime stated that it uses an efficient battery management system. Its Gen4 e-scooters and e-bikes are equipped with interchangeable, tamper-resistant batteries that can be safely replaced in the field by trained staff. Centralised charging in Lime warehouses removes the need to return

269 Inspector Daren Mallouk, Queensland Fire Department, public briefing transcript, Brisbane, 22 July 2025, p 11.
270 Superintendent Mark Halverson, Queensland Fire Department, public briefing transcript, Brisbane, 22 July 2025, p 14.
271 Submission 1091, p 18.
272 Submission 666, p 3.
273 Inspector Daren Mallouk, Queensland Fire Department, public briefing transcript, Brisbane, 22 July 2025, p 11.
274 Submission 882, p 16.
275 Submission 1159, p 16.

vehicles for recharging, improving operational efficiency and reducing environmental impacts. This approach reduces the number and duration of support vehicle trips, lowering fuel use, congestion, and associated greenhouse gas emissions.[276]

Lime advised that all battery-related processes – including charging, storage, maintenance, and disposal – are managed by a dedicated Environmental Health and Safety (EHS) team. Lime's Australian operations are further supported by LMS Environmental Inc. and Hazmat Safety Consulting, who provide regular training and annual audits. In Brisbane, the EHS program maintains emergency readiness through detailed procedures and routine inspections.[277]

Neuron Mobility submitted that it has implemented fire risk mitigation measures, including charging all batteries in controlled warehouse environments under strict work health and safety protocols.[278] To further strengthen safety and oversight, Neuron has developed a battery charging monitoring system capable of connecting to up to 30 batteries simultaneously. The system captures Battery Management System data to enable temperature monitoring, early thermal runaway alerts, faulty battery detection, charger voltage monitoring, LED status display, and monthly battery-performance analysis for operational planning.[279]

As for responsible recycling, Neuron Mobility noted the importance of careful disposal and recycling for batteries, which can otherwise present a significant ecological challenge. Neuron advised that it ensures that batteries which have reached end-of-life are disposed of in an environmentally-friendly manner which does not contribute to landfills through a partnership with Sustainable Lithium Cells Australia for second-life programs for retired batteries in Australia.[280]

Neuron Mobility agreed there are valid concerns around battery safety for private e-scooters. Neuron suggested a review of the baseline quality requirement for lithium-ion batteries and chargers used in private e-scooters to ensure that only batteries of sufficient quality are being used in private e-scooters and e-bikes being sold in Australia. Neuron noted that this is becoming a broader issue globally with increased risk of fires in home-based charging, where often potentially faulty chargers and batteries, or a quality below international standards for e-scooters and e-bikes, are used.[281]

The Electrical Safety Office recently conducted an audit of major hire scooter providers to assess their storage practices for electrical equipment and maintenance procedures.[282]

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276 Submission 1159, p 16.
277 Submission 1159, p 17.
278 Submission 1019, p 10.
279 Submission 1019, p 10.
280 Submission 1019, p 10.
281 Submission 1019, p 10.
282 Mr Rob Wicks, Electrical Safety Office, Office of Industrial Relations, Department of State Development, Infrastructure and Planning, public briefing transcript, Brisbane, 25 August 2025, p 18.

No significant fire risks were identified, and the inspections were undertaken as a proactive safety measure.[283]

5.4.4 Product safety standards and inclusion in electrical safety framework

The QFD emphasised that product safety standards for lithium-ion batteries and the devices they power are critically important to ensuring safe operation.[284] Many other stakeholders agreed.[285]

The Electrical Safety Office observed the importance of a nationally consistent approach, noting that fragmented regulation creates confusion for consumers and suppliers. The Office is therefore advocating for national pre-market controls to ensure products meet safety standards before entering the market.[286] Departmental officers indicated that e-mobility devices and batteries would likely meet the necessary risk threshold to be included in Queensland's electrical safety framework.[287]

Several stakeholders, including the RACQ and the Insurance Council of Australia, supported the introduction of product safety standards for e-mobility devices and recommended that the Queensland Government adopt the recently introduced NSW measures by introducing prescribed battery safety standards prior to sale.[288]

The Insurance Council of Australia called for coordinated federal and state government action to establish a nationally consistent framework governing the importation, design, supply, and sale of lithium-ion powered e-mobility devices, and to progress a national approach under the Australian Consumer Law to ensure their safe use.[289] Engineers Australia similarly supported the adoption of nationally harmonised compliance standards for batteries and devices, aligned with the NSW model, including a national compliance mark and a public awareness campaign to support informed consumer choices. [290]

Bicycle Industries Australia also emphasised that reducing battery-related fires requires stronger import controls to ensure only compliant products enter Australia. While this is a federal responsibility, they recommended advocating for the reinstatement of border standards requiring all imported e-mobility batteries to meet EN15194 or the Australian equivalent AS15194. These standards include rigorous Battery Management System and anti-tampering requirements that significantly reduce fire risk. Bicycle Industries Australia

283 Mr Rob Wicks, Electrical Safety Office, Office of Industrial Relations, Department of State Development, Infrastructure and Planning, public briefing transcript, Brisbane, 25 August 2025, p 18.
284 Commissioner Stephen Smith AFSM, Queensland Fire Department, public briefing transcript, Brisbane, 22 July 2025, p 13.
285 See for example Cairns Regional Council, submission 1083, p 4.
286 Mr Rob Wicks, Office of Industrial Relations, Department of State Development, Infrastructure and Planning, public briefing transcript, Brisbane, 25 August 2025, p 18.
287 Mr Rob Wicks, Office of Industrial Relations, Department of State Development, Infrastructure and Planning, public briefing transcript, Brisbane, 25 August 2025, p 18.
288 See for example RACQ, submission 1091, p 5.
289 Submission 666, p 3.
290 Submission 1106, p 5.

recommended that all e-bike batteries sold or used in Queensland comply with EN15194 requirements.[291]

In NSW, e-mobility devices and their lithium-ion batteries are now classified as *declared electrical articles* under the *Gas and Electricity (Consumer Safety) Act 2017* (NSW). This change requires all such products to meet prescribed safety standards before they can be sold, ensuring only safe and compliant devices enter the market and reducing fire related risks. The measures also mandate the provision of clear safety information for consumers covering use, charging, storage, fire prevention and disposal. In addition, NSW has introduced a battery recycling trial in partnership with local councils at designated Community Recycling Centres.[292]

5.4.5 Second hand devices and batteries

QFD advised that the second-hand market for e-scooters increases safety risks, as consumers may unknowingly purchase devices with altered or compromised battery systems.[293]

Superintendent Mark Halverson advised that many second-hand e-mobility devices originate from unknown or overseas sources, making it difficult to verify their quality or history. Some may have been previously involved in fires and resold with defects that are not disclosed. The committee also heard that chargers supplied with second-hand devices pose additional risks, as their compatibility and compliance cannot be guaranteed. QFD therefore strongly recommends the use of manufacturer-approved chargers, noting that encouraging consumers to follow this guidance remains an ongoing challenge. [294]

Inspector Mallouk further observed that battery repurposing, or 'second-lifing', is becoming increasingly common. While extending battery life is beneficial, it is essential that repurposed batteries are properly tracked and directed into safe recycling pathways to prevent unsafe disposal through household waste streams. [295]

5.5 How are electrical products regulated in Queensland

5.5.1 Role of the regulator and key features of the electrical safety framework

The Electrical Safety Office and Policy and Workplace Services, within the Office of Industrial Relations, oversee electrical safety in Queensland. As the regulator, the Electrical Safety Office administers the electrical safety framework, which is designed to prevent death, injury and destruction caused by electricity. Responsibilities of the Electrical Safety Office include compliance and enforcement, participation in safety standards development, licensing and accreditation, and public education initiatives. [296] The

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291 Submission 1017, p 23.
292 RACQ, submission 1091, p 18.
293 Queensland Fire Department, submission 799, p 13.
294 Superintendent Mark Halverson, Queensland Fire Department, public briefing transcript, Brisbane, 22 July 2025, p 14.
295 Inspector Daren Mallouk, Queensland Fire Department, public briefing transcript, Brisbane, 22 July 2025, p 15.
296 Department of Transport and Main Roads, correspondence, 30 May 2025, Appendix 3, p 29.

Electrical Safety Office emphasised that risks can be mitigated by enforcing safe manufacturing standards, holding suppliers accountable, educating consumers, ensuring qualified personnel maintain equipment integrity, and enabling the regulator to respond to emerging hazards.[297]

The electrical safety framework comprises the *Electrical Safety Act 2002*, the Electrical Safety Regulation 2013 and associated codes of practice. Under the Act, electrical equipment is classified as:

- prescribed electrical equipment – extra low voltage items posing electrical risk, as listed in the Regulation – for example, water equipment including pool lights and pumps
- low voltage electrical equipment – exceeding extra low voltage, but not more than 1,000V AC RMS or 1,500V ripple-free DC
- high voltage electrical equipment – above low voltage.[298]

The framework provides a variety of regulatory levers to the regulator and the Minister to respond to critical risks to life and property.[299] This includes:

- supply chain obligations to ensure equipment safety and compliance
- ministerial powers to recall unsafe products
- mandatory incident notifications for investigation and response
- licensing requirements for electrical work.[300]

Also relevant is the Electrical Equipment Safety System (EESS), which is a national scheme for participating jurisdictions, regulating low voltage household electrical equipment and is aimed at consumer safety. Key features include:

- mandatory registration of businesses importing, manufacturing, or selling specified electrical equipment, and for those businesses to be linked to an Australian-based responsible supplier prior to sale
- certification to confirm compliance with relevant safety standards
- use of a single Regulatory Compliance Mark on all compliant equipment; and
- a publicly accessible national database of registered suppliers, certified equipment and associated certificates.[301]

Officials from the Electrical Safety Office advised that the EESS framework presents an opportunity to strengthen minimum standards for batteries and their management systems as part of market-entry requirements.[302]

297 Department of Transport and Main Roads, correspondence, 30 May 2025, Appendix 3, p 29.
298 Department of Transport and Main Roads, correspondence, 30 May 2025, Appendix 3, p 29.
299 Department of Transport and Main Roads, correspondence, 30 May 2025, Appendix 3, p 29.
300 Department of Transport and Main Roads, correspondence, 30 May 2025, Appendix 3, p 30.
301 Department of Transport and Main Roads, correspondence, 30 May 2025, Appendix 3, p 31.
302 Mr Rob Wicks, Office of Industrial Relations, Department of State Development, Infrastructure and Planning, public briefing transcript, Brisbane, 25 August 2025, p 18.

5.5.2 E-mobility devices and batteries are not regulated under the framework

Under the existing Queensland framework, extra low voltage equipment, with some exceptions including prescribed electrical equipment, is not captured under the electrical safety framework. Equipment forming part of the propulsion unit of a vehicle is also typically outside the scope of the electrical safety framework, except where it is included as prescribed electrical equipment.

This means that e-mobility devices and lithium-ion batteries are not regulated under Queensland's electrical safety framework. However, device chargers are classified as electrical equipment because they convert mains power to the appropriate voltage and current for battery charging.[303]

5.5.3 National discussions underway

Representatives from Policy and Workplace Services and the Electrical Safety Office advised that national discussions are underway regarding the regulation of extra-low-voltage equipment and e-mobility devices, and outlined several related national initiatives currently in progress.[304]

A national review was undertaken to strengthen consumer protection, improve regulatory consistency and reduce compliance costs. Led by the Australian Government Department of Finance and the Australian Competition and Consumer Commission (ACCC), in partnership with state and territory governments, the review recommended adopting a risk-based regulatory approach for extra-low-voltage electrical products, including certain lithium-ion batteries. Queensland Treasury and Policy and Workplace Services are now working with the Commonwealth Government to clarify implementation arrangements and timeframes. A National Meeting of Consumer Electrical Safety Ministers will be established to oversee and monitor the rollout of agreed reforms.[305]

On 21 November 2025, Commonwealth, state and territory ministers announced that addressing risks associated with unsafe products – particularly lithium-ion batteries and e-mobility devices – will be a national priority in 2026.[306] A cross-jurisdictional working group, led by NSW, is being established to develop a consistent approach under the Australian Consumer Law for the safe use of lithium-ion battery-powered e-mobility vehicles. Regulation through the electrical safety framework will remain outside the scope of this group, with equipment regulation progressing under reforms agreed by the Australian Government Department of Finance and ACCC in consultation with states and territories in 2024.[307]

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303 Department of Transport and Main Roads, correspondence, 30 May 2025, Appendix 3, p 30.
304 Department of Transport and Main Roads, correspondence, 30 May 2025, Appendix 3, p 31.
305 Department of Transport and Main Roads, correspondence, 30 May 2025, Appendix 3, p 31.
306 Media Release, The Hon Dr Andrew Leigh MP, Assistant Minister for Productivity, Competition, Charities and Treasury, 'Consumer Affairs Ministers renew commitment to protecting consumers, with ambitious agenda for 2026', dated 21 November 2025.
307 Department of Transport and Main Roads, correspondence, 30 May 2025, Appendix 3, p 32.

The Electrical Safety Office is also engaging with Standards Australia on the potential adoption of an international standard for modified e-scooters as an Australian Standard.[308]

5.5.4 Experience of New South Wales – lithium-ion batteries 'declared electrical articles'

As noted in section 5.4.4 above, several stakeholders referred to the regulatory model adopted in NSW, which from 1 February 2025 requires all lithium-ion e-micromobility devices sold in the state, such as e-bikes, to meet prescribed safety standards, and from 1 February 2026 requires these devices to be tested, certified and marked before they can be sold. These requirements are intended to ensure that only compliant, safe products enter the market, thereby reducing fire risks.[309]

Officers from NSW Fair Trading told the committee that e-micromobility products have been the largest group of lithium-ion battery powered devices associated with fires in NSW since 2022 – with 89 fire incidents connected with e-mobility products in 2024 and 113 in 2025. Consumer behaviour, particularly low knowledge of the safe use of e-mobility products, was found to be associated with a significant proportion of the incidents. The NSW Government undertook a staged approach to introducing regulatory requirements for e-micromobility devices, prescribing safety standards under the *Gas and Electricity (Consumer Safety) Act 2017* (NSW) and an information standard under the Fair Trading Regulation 2019 (NSW):

- designating e-bikes, e-scooters, e-skateboards and self-balancing scooters as 'declared electrical articles' which must comply with prescribed safety standards
- enforcing a mandatory information standard which requires retailers to provide information to encourage safe consumer behaviour when selling a device (including information on product safety, storage and servicing, safe charging, legal use of e-mobility vehicles, lithium-ion battery disposal, etc)
- requiring that all declared e-micromobility vehicles and associated lithium-ion batteries devices must be tested, certified and marked prior to sale in accordance with EN15194, AS 15194, or UL2849.[310]

5.6 Evacuation challenges and charging practices in buildings

The QFD advised that fires involving e-scooters and e-bikes, and other lithium-ion batteries, can pose challenges for occupant evacuation and firefighting and that building safety protocols and firefighting strategies require ongoing review to address these risks.[311] The QFD also reported incidents in lifts, where thermal runaway has caused severe injuries and fatalities, advising that in such closed environments, there is no effective mitigation against the immediate impacts of fire or explosion.[312]

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308 Department of Transport and Main Roads, correspondence, 30 May 2025, Appendix 3, p 32.
309 Zipidi, submission 1028, p 71.
310 Meeting with NSW Fair Trading, Sydney, 18 February 2026.
311 Commissioner Stephen Smith AFSM, Queensland Fire Department, public briefing transcript, Brisbane, 22 July 2025, pp 10-11.
312 Queensland Fire Department, submission 799, p 14.

Fire Protection Association Australia (FPA Australia) also raised concerns about e-scooters being charged in common areas of apartments and strata complexes, submitting that such practices pose a significant fire risk, with the potential to engulf entire buildings and endanger hundreds of residents. FPA Australia noted that charging in these areas can also obstruct emergency exits, creating serious safety hazards.[313] FPA Australia recommended introducing targeted education and regulatory measures to mitigate these risks and ensure body corporates and strata managers are fully informed. Such educational materials for residential and commercial buildings should address safe use, maintenance, charging practices, including appropriate locations, and proper battery disposal.[314]

The Insurance Council of Australia also submitted agreed submitting that charging of e-mobility devices inside buildings presents a significant risk of fire.[315]

QDN submitted that for people with disabilities, emergency evacuations in the event of a fire can be particularly challenging, as mobility limitations may prevent rapid escape. The presence of lithium-ion batteries in shared spaces further heightens risks, requiring improved fire response protocols and accessible safety measures.[316]

5.7 Building design and planning

Engineers Australia recommended incorporating fire-safe infrastructure into building design, including battery containment rooms, designated charging zones with automatic shut-off, and fire-rated enclosures. They also noted several practical challenges, such as residents' reluctance to leave valuable or mobility-essential devices in shared areas, legislative constraints on external storage solutions, and the requirement that devices must not be stored or charged in egress paths.[317]

Engineers Australia submitted that fire risks associated with e-mobility devices are increasing and require a coordinated national response spanning regulation, infrastructure, education, and disposal. The organisation's Society for Fire Safety is developing a national practice guide to support the safe integration of small battery-powered devices. Engineers Australia encouraged the government to consider engineering-led solutions to enhance community safety.[318]

Bicycle Queensland reported that it was not aware of any fire incidents involving high-quality, compliant e-bikes, but noted that inadequate import regulation, a large second-hand market, and increased media attention on battery fires have led some building owners to prohibit e-mobility device charging. The organisation recommended updating planning laws and building regulations to ensure secure storage and safe

313 Submission 528, p 2.
314 Submission 528, p 2.
315 Submission 666, p 3.
316 Queenslanders with Disability Network, submission 1076, p 10.
317 Submission 1106, p 6.
318 Submission 1106, p 6.

charging of compliant devices, and supporting the development of secure, ventilated charging facilities in apartment buildings, workplaces, and public infrastructure.[319]

Brisbane City Council advised that its by-laws and planning instruments do not currently regulate lithium-ion battery storage or use. However, safety and environmental outcomes are prioritised within operating agreements for shared e-mobility services.[320] The City of Gold Coast emphasised the need for state government issued design guidance or building code provisions to support safe charging and storage of lithium-ion batteries. They also noted the importance of retrofitting existing residential buildings to reduce fire risks.[321]

City of Gold Coast suggested incorporating fire-rated charging and storage rooms in new residential developments and providing retrofit solutions for existing buildings, which include outdoor charging enclosures, battery lockers and smart charging systems equipped with thermal sensors and automatic shut-off feature.[322]

5.8 Safe storage of devices

Inquiry stakeholders across multiple sectors highlighted concerns regarding the safe storage of e-mobility devices, particularly in apartments and units, schools, public transport facilities, and public spaces such as caravan parks, and supported the development of secure, ventilated charging facilities in apartment buildings, workplaces, and public infrastructure.

Kidsafe Queensland suggested that schools should prohibit on-site storage of e-mobility devices due to fire risks.[323]

The Caravan Parks Association of Queensland noted that lithium-ion battery fires present a significant hazard in caravan parks, citing the vulnerability of accommodation structures and varied visitor behaviour. They submitted that safe charging infrastructure is often cost-prohibitive without regulatory support, and that clear guidance is needed to help operators manage battery related risks. Without such measures, they warned that prohibitions on e-mobility devices in caravan parks may become more common, reducing accessibility for users. The Association recommended that the committee consider regulatory standards for charging infrastructure and nationally consistent fire-safety education for guests.[324]

5.9 Public transport

QFD advised that as e-mobility device battery fires can ignite rapidly and explosively, particularly in confined spaces, leaving occupants with little time to evacuate, several jurisdictions have prohibited e-scooters and e-bikes on trains.[325]

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319 Submission 1160, p 5.
320 Submission 882, p 16.
321 Submission 1093, p 9.
322 Submission 1093, p 9.
323 Submission 1195, p 2.
324 Submission 1121, p 6.
325 Queensland Fire Department, submission 799, p 14.

The Office of the National Rail Safety Regulator (ONRSR) identified fires involving e-mobility devices as an emerging safety risk for passenger rail and tram services. Under the Rail Safety National Law (South Australia), operators are required to eliminate or minimise safety risks so far as is reasonably practicable, and expectations in this area are likely to evolve as understanding of these risks improves. ONRSR submitted that operators transporting e-mobility devices must undertake a risk assessment that identifies appropriate controls, including charging arrangements, staff training for battery-related fire response, and updates to emergency management plans.[326]

ONRSR advised that internationally, several jurisdictions have introduced bans on taking certain e-mobility devices on transport services including in London and Germany. Transport for London prohibited e-scooters and e-unicycles in December 2021. By June 2023, most train operators had extended bans to include e-scooters, e-unicycles, e-skateboards and hoverboards, while continuing to permit electric mobility scooters, wheelchairs and compliant e-bikes. Similarly, in Germany, Berlin's BVG network banned e-micromobility devices in 2024, with similar prohibitions in Hamburg, Düsseldorf and Munich. These measures were introduced due to insufficient safety standards for lithium-ion batteries. Electric wheelchairs and four-wheeled mobility vehicles were exempt, as they meet higher battery safety requirements.[327]

The Rail Tram and Bus Union called for the prohibition of devices on Queensland buses, trains and trams, until robust national safety standards, import controls and enforcement mechanisms are in place, given the risks posed in enclosed and crowded public transport environments.[328] The Union referred to e-mobility related incidents in Sydney, Melbourne and London, submitting that public transport is especially vulnerable due to confined spaces, evacuation challenges, off-gassing, and suppression difficulties, and infrastructure damage.[329] Secure storage facilities at major transport hubs and designated park and ride areas for light electrical vehicle users were recommended.[330]

5.10 Safe disposal of batteries

The QFD reported an increasing number of lithium-ion battery related fires resulting from inappropriate disposal of batteries in household and commercial waste, and the challenges these fires pose for waste collection vehicles and facilities.[331] From a firefighting perspective, QFD is reviewing practices in other jurisdictions to identify effective response mechanisms for battery related incidents.[332]

326 Office of the National Rail Safety Regulator, submission 1196, p 1.
327 Office of the National Rail Safety Regulator, submission 1196, p 2.
328 Submission 1218, p 3.
329 Submission 1218, p 6.
330 Rail, Tram and Bus Union, submission 1218, p 9.
331 Queensland Fire Department, submission 799, p 13.
332 Commissioner, Queensland Fire Department, public briefing transcript, Brisbane, 22 July 2025, p 15.

The Commissioner emphasised that consumer education is critical to reducing disposal related risks, as most improper disposal stems from a lack of awareness rather than intent.[333] The Commissioner advised that targeted information campaigns present significant opportunities to promote safe and practical disposal practices.[334]

The Waste Recycling Industry Association Queensland (WRIQ) submitted that Queensland records an estimated 10,000 – 12,000 lithium-ion battery-related fires annually with each truck fire costing approximately $174,000. The WRIQ reported that in 2023- 2024 alone, the waste and recycling industry spent $87.3 million managing these incidents. The WRIQ submitted that without urgent government action, critical infrastructure, worker safety, and progress towards a circular economy remain at risk.[335]

The WRIQ noted that Canberra's Material Recovery Facility was destroyed by a lithium-ion battery fire in 2022, highlighting that such incidents are not isolated and will continue without proactive measures to prevent lithium batteries from entering trucks and recycling facilities.[336] WRIQ recommended:

- introducing a landfill ban on e-scooters and other e-mobility devices, supported by enforceable penalties for improper disposal
- funding industry-led community education programs to highlight the risks of disposing of lithium-powered devices in household waste
- mandating a return-to-retail stewardship scheme for all retailers supplying e-mobility devices and lithium-ion battery products
- providing specialised training for waste and recycling workers on identifying and safely handling lithium-ion batteries
- implementing Extended Producer Responsibility legislation requiring manufacturers and suppliers of high-risk or hard-to-recycle products to assume full life cycle responsibility, including end-of-life management.[337]

FPA Australia also emphasised the importance of safe lithium-ion battery disposal. It recommended increased funding for local councils to manage emerging risks, greater promotion of the Queensland Government's Battery Collection Program, and improved public education on safe disposal practices. Additionally, disposal locations and associated costs should be clearly publicised, and access to safe disposal options made easier.[338]

The committee visited the Bedminster Advanced Resource Recovery Facility in Cairns,[339] damaged by a major fire in early 2025. Although the cause of the fire was not confirmed,

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333 Commissioner, Queensland Fire Department, public briefing transcript, Brisbane, 22 July 2025, p 15.
334 Commissioner, Queensland Fire Department, public briefing transcript, Brisbane, 22 July 2025, p 15.
335 Submission 555, p 2.
336 Submission 555, pp 1-2.
337 Submission 555, pp 1-2.
338 Submission 528, p 2.
339 Site visit, Bedminster Advanced Resource Recovery Facility, Cairns, 8 October 2025.

reports indicate the incident may have involved a lithium-ion battery from an improperly disposed e-mobility device. While unverified, the example provided valuable insight into the operational response required during such events, the impacts on facility availability, and the associated costs to ratepayers. It also highlighted the importance of community education on safe battery disposal, the challenges faced by local governments, and existing constraints in managing battery-related waste.

The City of Gold Coast also highlighted battery disposal and fire risks, noting that small lithium-ion batteries discarded in household waste are causing frequent fires in collection trucks, while larger batteries from e-bikes and electric vehicles are being stockpiled, posing future safety concerns as they reach end-of-life.[340]

The Sunshine Coast Regional Council advised that the safe disposal and recycling of lithium-ion batteries from e-mobility devices is an emerging challenge as first and second generation products reach end-of-life.[341] Lower quality e-bikes and e-scooters often cannot be disassembled, increasing both the safety risks and the costs of handling and disposal. Recycling devices with embedded batteries costs approximately $7.50 per kilogram (excluding transport), compared with no cost for recycling loose or removable lithium-ion batteries under 5kg through the B-Cycle scheme.[342] The Council noted that attempts to recover these higher costs through fees are likely to lead to illegal dumping, increasing fire risks within waste streams. There are currently no lithium-ion battery recyclers in Queensland, with available facilities located in Victoria. Transportation is not covered under the B-Cycle scheme, adding further cost pressures to safe disposal activities.[343]

Cairns Regional Council agreed, calling for consideration of e-waste pathways for end-of-life devices and batteries to support safe and legal disposal.[344]

QDN highlighted concerns regarding the disposal of lithium-ion batteries. QDN advised that people with disability, particularly those with respiratory conditions or pollutant sensitivities, may face heightened risks and recommended that governments and manufacturers implement comprehensive battery collection and recycling programs that ensure safe handling and incorporate accessibility considerations.[345]

Neuron Mobility emphasised the importance of responsible battery disposal and recycling, given the significant environmental risks associated with lithium-ion batteries at end-of-life. The company ensures that all retired batteries are managed through environmentally

340 Submission 1093, p 9.
341 Submission 1129, p 3.
342 Submission 1129, p 4.
343 Submission 1129, p 3.
344 Submission 1083, p 4.
345 Queenslanders with Disability Network, submission 1076, p 10.

sound processes that avoid landfill through Neuron's partnership with Sustainable Lithium Cells Australia, which facilitates second-life programs for batteries across Australia.[346]

5.11 Battery disposal and end-of-life pathways

The Battery Stewardship Council (BSC) operates Australia's national battery stewardship scheme, B-cycle, which has collected more than 6 million kilograms of used batteries to date, helping reduce fire risks and other hazards. Over the past 2 years, the BSC has worked with the e-mobility sector to strengthen battery stewardship, improve safety, and support compliance with standards for batteries used in e-mobility devices.[347]

The BSC submitted that a nationally consistent approach to battery stewardship is essential for public safety, environmental protection and economic efficiency. It noted that the consequences of inaction are already evident, with rising battery-related fires, increasing loss of recoverable materials to landfill, and growing pressures on local councils, waste operators and government agencies.[348]

The BSC recommended that the Queensland Government work with other jurisdictions to align product categories and compliance requirements and adopt or recognise a shared national framework for battery stewardship modelled on NSW's *Product Lifecycle Responsibility Act 2025*. It further recommended mandating importer and producer participation to ensure equitable funding for education, infrastructure, and recovery. The BSC also proposed establishing a Circular Battery Taskforce comprising B-cycle, government agencies, councils, emergency services, and industry, and partnering with B-cycle to expand drop-off access, strengthen compliance, and deliver targeted communications to regional, remote, and high-risk communities. [349]

Zipidi submitted that it supports implementing a product stewardship scheme for micromobility devices, including mandatory retailer and importer take-back programs, public collection points for end-of-life batteries, and the use of digital identifiers and product passports to track batteries throughout their lifecycle and enforce extended producer responsibility.[350]

5.12 Education and public awareness

The RACQ called for the Queensland Government to implement greater education of owners on the fire dangers of devices and how to correctly and safely charge and store these devices to reduce the incidence of fires.[351] The Insurance Council of Australia agreed.[352] The Insurance Council also cited the NSW Government's 2024 '*Shop, Charge*

346 Submission 1019, p 10.
347 Submission 1130, p 1.
348 Submission 1130, p 1.
349 Submission 1130, p 1.
350 Submission 1028, p 30.
351 Submission 1091, p 7.
352 Submission 666, Appendix A, p 4.

and Recycle Safely' campaign, which offers simple, actionable steps for battery safety across its lifecycle, as a potential model for similar initiatives in Queensland.[353]

The Local Government Association of Queensland (LGAQ) recommended that the state government strengthen and expand community education efforts focused on fire safety risks associated with e-mobility devices.[354] Zipidi also proposed a unified e-mobility and lithium-ion battery safety campaign using the slogan: 'eMobility Safety: Buy Safe, Charge Safe, Store Safe*'* as a simple message to effectively communicate essential safety practices to all users.[355]

Cairns Regional Council also called for public education about safe charging and storage practices.[356]

The QFD advised that it delivers public information on lithium-ion battery safety via formal campaigns, community engagement activities, social and traditional media, and dedicated web resources. Engagement teams develop accessible materials and coordinate local initiatives to amplify safety messaging, with tailored content for higher-risk audiences such as seniors, culturally and linguistically diverse communities, and youth.[357]

In late 2023, the QFD launched the '*Take charge*' campaign to raise awareness of rechargeable lithium-ion battery risks and promote safer behaviours. Post-campaign research showed measurable improvements in consumer knowledge and that the campaign generated over 28,000 visits to QFD's battery safety webpage. The campaign continues to be integrated into annual home fire safety initiatives to inform community awareness.[358]

The QFD website provides guidance on safe battery disposal and links to recycling services.[359] The Commissioner noted that disposal methods will vary depending on the battery's condition, type, size and location. In some areas, the local council offer advice, while platforms such as Recycle Mate and B-cycle provide information and contact points for safe disposal.[360]

QFD advised that the Department of the Environment, Tourism, Science and Innovation is leading initiatives to improve battery disposal, including the *'Don't bin your batteries'* campaign and expanding collection points.[361]

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353 Submission 666, p 4.
354 Submission 1199, p 7.
355 Submission 1028, p 30.
356 Submission 1083, p 4.
357 Commissioner Stephen Smith AFSM, Queensland Fire Department, public briefing transcript, Brisbane, 22 July 2025, p 15.
358 Commissioner Stephen Smith AFSM, Queensland Fire Department, public briefing transcript, Brisbane, 22 July 2025, p 15.
359 Queensland Fire Department, submission 799, p 13.
360 Commissioner Stephen Smith AFSM, Queensland Fire Department, public briefing transcript, Brisbane, 22 July 2025, p 15.
361 Commissioner Stephen Smith AFSM, Queensland Fire Department, public briefing transcript, Brisbane, 22 July 2025, p 15.

FPA Australia also emphasised the need for greater public awareness of fire risks associated with e-mobility devices. To address concerns, FPA Australia established a Lithium Battery Special Interest Group, which collaborates with technical committees and external organisations. This group developed a good practice guide for the safe use, maintenance, storage and disposal of lithium-ion batteries.[362]

Everybody eBikes, a small independent retailer, noted that many customers are unaware of variations in battery cell quality and highlighted the need for improved consumer education beyond formal certification. Everybody eBikes submitted that as a small-scale provider of customised products, it cannot invest in certification for all batteries and instead relies on design documentation and quality assurance checks prior to import to ensure the use of high-quality cells.[363]

Bicycle Industries Australia submitted that the bicycle industry has developed a series of resources for bicycle retailers and wholesalers to support the safe storage and handling of batteries within the industry.[364]

5.13 Quality of data

The Commissioner highlighted the need for significant improvements in data quality and availability, both internally and nationally. Enhancing data capture and refining analysis methods is essential to accurately identify the key drivers behind these issues.[365] Bicycle Industries Australia also highlighted data collection as a key issue, recommending funding for a centralised system to capture critical information on e-mobility products, building and fire safety.[366]

Committee comment

The Queensland Fire Department makes clear that rechargeable lithium-ion batteries are presenting an increasingly significant fire safety risk in Queensland, reflecting trends seen nationally and internationally. These fires can occur with little warning and may result in fatalities, serious injuries, and substantial property damage. E-scooters remain the most frequently involved devices.

The inquiry identified several key contributors to battery related fires, including unsafe charging practices, low quality products, and unauthorised modifications. The risk is notably higher among privately owned devices.

There was broad support for the introduction of mandatory product safety standards, and ideally implemented through a nationally consistent approach

362 Submission 528, p 1.
363 Submission 739, p 3.
364 Submission 1017, p 18.
365 Commissioner Stephen Smith AFSM, Queensland Fire Department, public briefing transcript, Brisbane, 22 July 2025, p 13.
366 Submission 1017, p 23.

at the point of import. The committee supports this direction and has recommended that the Queensland Government advocate to the Australian Government for the implementation of mandatory national safety standards for lithium-ion batteries in e-mobility devices and regulation to enhance consumer safety and reduce the risk of fires.

The recent change to regulatory requirements for e-mobility devices and their lithium-ion batteries in NSW requires these products to meet prescribed safety standards before they can be sold, and mandates the provision of clear safety information by retailers. This aims to drive the sale of compliant and safe products and reduce fire risks.

The Queensland Fire Department has also reported a growing number of fires caused by the improper disposal of lithium-ion batteries in household and commercial waste, creating significant risks for waste collection vehicles and processing facilities. We believe that there is opportunity for the Queensland Government, in consultation with the Battery Stewardship Council, to investigate and support local government and/or private waste disposal sites and retailers to identify better disposal opportunities.

Building on existing work by the Queensland Fire Department and other agencies, we believe that a targeted and enhanced communication campaign could promote safe charging practices, regular maintenance of e-mobility devices, and correct battery disposal.

Consumer education about the risks associated with buying second hand e-mobility devices, particularly in regard to second hand batteries and chargers, should be part of this campaign.

Recommendation 6

That the Queensland Government advocate to the Australian Government for the implementation of mandatory national safety standards for lithium-ion batteries in e-mobility devices and regulation, to enhance consumer safety and reduce the risk of fires.

Recommendation 7

That the Queensland Government, in consultation with the Battery Stewardship Council, investigate and support local government and/or private waste disposal sites, and retail and point of sale disposal opportunities, to facilitate responsible battery disposal.

Recommendation 8

That the Queensland Government continue to support and expand education campaigns focused on e-mobility battery safety and fire risks.

6. Suitability of current regulatory frameworks for PMDs and e-bikes

6.1 Introduction

This section examines the adequacy of Queensland's current regulatory frameworks for e-bikes and PMDs. Stakeholders identified several priority areas for reform. At the federal level, there was unanimous support for stronger import controls and enhanced border enforcement to prevent unsafe devices entering Queensland. At the state level, issues centred on the proliferation of non-compliant devices, the potential need for stronger licensing, registration and insurance arrangements, age limitations, and measures to improve pedestrian safety and retail practices. At the local government level, stakeholders called for a focus on good infrastructure solutions.

6.2 Import of devices

The import and sale of non-compliant devices in Queensland was one of the most significant issues raised throughout the inquiry. There was widespread agreement that these products pose significant risks to public safety and form the basis of many of the challenges being experienced on Queensland's roads and pathways.

The committee heard that import laws introduced by the Australian Government in 2021 have enabled unregulated and unsafe devices to enter and be sold in Queensland in their thousands. Similar issues have been reported in other jurisdictions, which are also calling for reform of the existing import laws.[367]

The Australian Government is responsible for setting the standards and rules for vehicle importation and enforcing these at the Australian border. This responsibility is shared between the Department of Infrastructure, Transport, Regional Development, Communications, Sport and the Arts (DITRDSCA) and the Australian Border Force.[368]

Under the *Road Vehicles Standards Act 2018* (Cwth) (RVS Act),[369] PMDs and e-bikes that meet the specifications outlined in the *Road Vehicle Standards (Classes of Vehicles that are not Road Vehicles*) *Determination 2021* (Cwth) (the Determination)[370] can be imported into Australia as 'vehicles that are not road vehicles'.[371] This classification effectively exempts these devices from complying with motor vehicle standards and Australian Design Rules,[372] which set national safety requirements for new and imported vehicles.[373]

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367 See for example Community Development and Justice Standing Committee, *Report 2 Ride Safe Inquiry into the safety, regulation and penalties associated with the use of electric powered mobility devices*, December 2025, https://www.parliament.wa.gov.au/Parliament/commit.nsf/(Report+Lookup+by+Com+ID)/43493D47E62284BC48258D550030E903/$file/02328458.pdf.

368 Department of Transport and Main Roads, correspondence, p 7.

369 *Road Vehicle Standards Act 2018* (Cwth), https://www.legislation.gov.au/C2018A00163/latest/text.

370 Road Vehicle Standards (Classes of Vehicle that are not Road Vehicles) Determination 2021, https://www.legislation.gov.au/F2021L00956/asmade/text.

371 Department of Transport and Main Roads, correspondence, p 7.

372 Department of Transport and Main Roads, correspondence, p 7.

373 Australian Design Rules, Department of Infrastructure, Transport, Regional Development, Communications, Sport and the Arts, https://www.infrastructure.gov.au/infrastructure-transport-vehicles/vehicles/vehicle-design-regulation/australian-design-rules.

TMR advised that devices that do not meet the specifications set out in the Determination should not be imported without approval and full assessment against motor vehicle standards and Australian Design Rules.[374]

Under the RVS Act, vehicles that are not road vehicles must not be supplied to the market or sold to another person or business for use in transport on public roads. The DITRDCSA website states that doing so may be an offence under RSV legislation.[375]

6.2.1 Definitions of devices under the Determination

The Determination specifies that PMDs must be designed to carry one person only, have one or more wheels, be propelled by an electric motor, include an effective stopping system, not be capable of exceeding 25km/h on level ground when propelled by a motor, have a footprint of no more than 1250mm by 700mm, have an unladen mass of 60kg or less, and not be equipped with anything that protrudes from any part of the device that is likely to increase the risk of bodily injury.[376]

For power-assisted pedal cycles, the Determination specifies that the device be equipped with one or more auxiliary propulsion electric motors with a combined maximum power output not exceeding 200 watts, not be propelled exclusively by the motor or motors, is an electrically power-assisted cycle, but does not include a vehicle that has an internal combustion engine.[377]

6.2.2 Changes made in 2021

Before changes were made in 2021, importing compliant e-mobility devices required approval from DITRDCSA. With the Determination, the department introduced the ROVER portal to manage import applications under the Road Vehicle Standards legislation.[378] Previously, any shipment containing an EPAC or power-assisted cycle required evidence of compliance with EN15194. Under the ROVER guidelines, this requirement was removed.[379] ROVER now issues optional 'Advisory Notices' confirming the vehicle is not a road vehicle and does not require import approval. However, Advisory Notices are not mandatory if the vehicle is listed under the Determination.[380]

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374 Department of Transport and Main Roads, correspondence, p 7.

375 Advisory notice that a thing is not a road vehicle—a guide, Department of Infrastructure, Transport, Regional Development, Communications, Sport and the Arts, https://www.infrastructure.gov.au/infrastructure-transport-vehicles/vehicles/importing-vehicle/advisory-notice-narv-guide.

376 Road Vehicle Standards (Classes of Vehicles that are not Road Vehicles) Determination 2021, s 5(1).

377 Road Vehicle Standards (Classes of Vehicles that are not Road Vehicles) Determination 2021, s 5(1).

378 ROVER administration system for the Road Vehicle Standards (RVS) legislation, https://www.rover.infrastructure.gov.au/.

379 Bicycle Industries Australia, submission, p 6.

380 Department of Transport and Main Roads, correspondence, p 7.

6.2.3 National changes in 2025

In late 2025, the Australian Government announced that it would make changes aimed at strengthening e-bike importation rules to bring them in line with EN15194, the European Standard.

However, while the change was welcomed, industry stakeholders made clear to the committee that this was only a voluntary system, and for it to be truly effective, a mandatory requirement for compliance with EN15194 was needed.[381] Stakeholders also identified that the announcement only related to a small section of the e-mobility market, (being EPAC bikes limited to 250 watts and 25km/h). Stakeholders argued that import rules must cover the entire e-mobility category including e-scooters and not just the sub-segment of e-bikes.[382]

Other work relating to the regulation of e-bikes and PMDs is also underway at the national level. The Infrastructure and Transport Ministers' Meeting (ITMM) communiqué of 11 August 2025 reported ongoing work through the Australian Consumer Ministers Network to assess lithium-ion battery safety in PMDs and to consider broader safety management measures. Ministers agreed to collaborate on the development of an integrated regulatory framework, led by Western Australia with support from the National Transport Commission and all jurisdictions, to enhance rider and pedestrian safety.[383]

At the November 2025 ITMM, Ministers further committed to progressing a national regulatory framework for e-mobility devices to ensure their safe and consistent supply and use, while supporting mobility and innovation. According to the communiqué, the framework is to include clear, enforceable rules, supported by education and guidance materials. An update is scheduled for the first ITMM meeting in 2026. [384] However, it was noted that national processes can be protracted and that substantial reforms are unlikely in the short term.[385]

6.2.4 Calls for stronger import measures

Many inquiry participants called for the reinstatement of stronger import laws, stating that arrangements had led to a significant increase in unsafe, illegal and uncertified e-mobility devices entering the Australian market. In its correspondence to the Australian Government, eMobility Australia summarised its key concerns as follows:

- misrepresentation at the point of import through unverifiable, self-declared documentation
- widespread non-compliance with recognised international safety standards
- a rise in serious incidents, including fires, severe injuries and at least 17 deaths linked to illegal devices since import controls were relaxed in July 2021

381 Ms Krystana Weston, Zipidi, public briefing transcript, Brisbane, 10 December 2025, p 3.
382 Mr Stephen Coulter, Zipidi, public briefing transcript, Brisbane, 10 December 2025, p 3.
383 Communique for Infrastructure and Transport Ministers' Meeting, 11 August 2025, p 2.
384 Communique for Infrastructure and Transport Ministers' Meeting, 21 November 2025, p 1.
385 Department of Transport and Main Roads, correspondence, 30 September 2025, p 1.

- erosion of state-based safety reforms and widening enforcement gaps.[386]

Zipidi submitted that the regulatory gap between Commonwealth import controls and Queensland's operational laws represents one of the most significant risks to micromobility safety. While acknowledging shortcomings in the pre-2021 framework, Zipidi argued that making Advisory Notices optional in July 2021 substantially weakened oversight, removing pre-approval requirements and limiting checks by the Australian Border Force.[387] Zipidi further submitted that while some reputable manufacturers continue to obtain Advisory Notices, these rely on self-declared compliance and are not enforceable. The notices merely indicate that a product is not intended for use on public roads, notwithstanding widespread public use.[388]

6.2.5 Calls for a national, standards-based approach

Many inquiry participants emphasised the need for a nationally consistent approach to regulating PMDs and e-bikes, including mandatory certification for all e-mobility products and their core electrical components, preferably at the point of import.[389] Examples of relevant standards were provided below.

e-Bikes	ePMDs	Batteries	Chargers
EN 15194:2017+A1:2023	EN 17128:2020	EN 50604-1:2016 +A1:2021	
AS 15194:2016; (until 1 February 2027)	AS/NZS 60335.2.114:2018 (until 30 November 2026) or AS/NZS 60335.2.114:2023	IEC 62133-2:2017; or AS/NZS 60335.2.114:2018 (until 30 November 2026); or AS/NZS 60335.2.114:2023	AS/NZS 61558 series or AS/NZS 60335.2.29
UL 2849	UL 2272:2016 (until 1 February 2027); or UL 2272:2024	UL 2271:2018 (until 1 February 2027); or UL 2271:2023	

Source: Zipidi, submission 1028, pp 28-29.

Several inquiry participants referred to international jurisdictions where governments have strengthened import and safety requirements in this way. For example:

- The European Union (EU) requires that devices must meet CE certification standards and customs block non-compliant models at the border. The EU has also

386 Letter from E-Mobility Australia to Hon Dr Jim Chalmers MP, Treasurer, Hon Stephen Jones MP, Assistant Treasurer, Mr Michael Leigh, First Assistant Secretary, Consumer and Product Safety Division, Hon Catherine King MP, Minister for Infrastructure, Transport, Regional Development, Communication and the Arts, Mr Jim Betts – Secretary, Department of Infrastructure, Transport, Regional Development, Communication and the Arts, email send 6 August 2025, regarding Restoring Import Controls and Adopting Digital Verification to Protect Australia from Unsafe E-Mobility Products.

387 Submission 1028, p 41.

388 Submission 1028, p 41.

389 See for example Sunshine Coast Regional Council, submission 1129, p 7; Bicycle Queensland, submission 1160, p 5.

mandated the introduction of digital product passports, which will apply to all batteries, from 2030.[390]

- Singapore requires all personal mobility devices to be certified to the UL 227 safety standard. Importers must register each model and are held legally responsible for unsafe products placed on the market.[391]
- In Spain, from January 2024, all e-scooters and other PMDs must comply with specific technical requirements set out in national legislation and be certified by authorised laboratories. These requirements include a maximum speed of 25km/h, anti-tampering measures to prevent modifications, minimum deceleration capabilities, minimum wheel sizes, and mandatory safety features such as lighting and a horn.[392]

The LGAQ stated that at its 2024 Annual Conference, Queensland councils called on the Australian Government to introduce mandatory device standards to control the speed and capabilities of devices. The LGAQ advised that this resolution followed several years of mounting community concern around the capabilities of private e-scooters and experience that enforcement and regulation alone are not sufficient to address the problem.[393]

The RACQ also noted the lack of national standards to govern the importation of e-bikes and e-scooters.[394] Similarly, the Motor Trades Association of Queensland submitted that the importation of PMDs should be more heavily regulated and subject to the same level of scrutiny applied to other road vehicles.[395]

6.2.6 Digital verification and compliance solutions

Zipidi suggested that to support enforcement and consumer confidence approved devices should include a digital fingerprint, linking to a compliance digital product passport with certification details. Zipidi advised that such an approach is consistent with EU digital product passport laws and global industry expectations for traceability and compliance transparency.[396]

Bicycle Industries Australia noted that in addition to the EU digital product passport, which relates to electrical safety only, EU 'right to repair' legislation soon to come into force will apply to product safety and compliance of several of the replaceable components of e-bikes, with batteries, motors, brakes, etc to be marked with manufacturers' details. Further, while EN15194 has been the leading e-bike standard in the world, which also has the leading battery standard as a compulsory requirement, it does not apply to e-scooters,

390 Zipidi, submission 1028, p 41.
391 Zipidi, submission 1028, p 41.
392 Zipidi, submission 1028, p 41.
393 Submission 1199, p 14.
394 Submission 1091, p 26.
395 Submission 1197, p 8.
396 Submission 1028, p 35.

and in Australia there is no equivalent scooter standard that covers all elements of the scooter or PMD.[397]

6.2.7 Increased e-bike power and speed limits

Some submitters proposed allowing higher powered and higher speed e-mobility devices, including increasing permissible motor power to 500 watts and assisted speeds up to 32km/h to improve accessibility and usability.[398] Others highlighted the category of 'speed pedelecs' – e-bikes capable of reaching 45km/h – which are regulated as mopeds in Europe and the United States and therefore require registration, licensing and insurance.[399]

Several industry representatives, including Pedal Group and Foucault Dynamics, argued that current speed and power limits no longer align with contemporary technology or industry standards. Some suggested that permitting and appropriately regulating higher-powered devices could reduce the prevalence of illegal models and improve rider safety.[400] However the majority of submitters to the inquiry, including the RACQ, City of Gold Coast, and Get Around Caboolture, submitted their support for a continued prohibition on e-bikes capable of motor speeds of more than 25km/h.

TMR advised that Queensland's current definitions align with Commonwealth vehicle classifications and European standards, consistent with all Australian jurisdictions except NSW. TMR advised that it considered existing limits appropriate, as they ensure e-bikes remain primarily pedal-powered and safe around other road users while still supporting mobility. TMR further noted that increasing allowable speeds, such as permitting speed-pedelecs, would require national agreement, import approval by the Australian Government, and compliance with relevant national safety standards.

Committee comment

It is evident that current import settings have allowed large numbers of unsafe, high-powered and non-compliant devices to enter the Queensland market, creating significant safety risks, including battery related hazards, for riders and the wider community. Strengthening controls at the point of import is essential to improving safety outcomes. These devices also present substantial enforcement challenges across jurisdictions.

The committee considers it critical that devices imported into Australia meet recognised product safety standards. While recent announcements by the Australian Government to align e-bike import rules with the European

397 Mr Peter Bourke, General Manager, Bicycle Industries Australia, public hearing transcript, Brisbane 10 December 2025, p 7.

398 See for example Zwart Transport Planning, submission 1209; Brisbane Central Business District Bicycle User Group, submission 407.

399 See for example University of the Sunshine Coast, submission 804; Bicycle Industries Australia, submission 1017.

400 Pedal Group Australia, submission 1157; Foucault Dynamics, submission 1173.

Standard are welcome, we are concerned that this requirement is voluntary, and that they do not adequately address import requirements for PMDs and for individual battery components.

The committee believes the Queensland Government should continue to advocate with national counterparts for stronger mandatory import controls in order to prevent illegal and dangerous devices entering Queensland.

Recommendation 9

That the Queensland Government continue to advocate for stronger import controls relating to e-bikes and PMDs to be implemented nationally, and for stronger enforcement of these controls in order to prevent illegal and dangerous devices entering Queensland.

Recommendation 10

That the Queensland Government update state legislation to align definitions of compliant e-bikes, PMDs, and batteries with recognised product safety standards – including EN15194–*Electrically power assisted cycles* for e-bikes, and an equivalent product standard for PMDs, to ensure that e-mobility devices that are sold in Queensland are safe to use.

6.3 Calls for registration and licensing of compliant devices

Registration is not required for compliant PMDs and e-bikes in Queensland, a position that is consistent with other Australian jurisdictions. This is designed to minimise the administrative and financial burden imposed on the users of such devices.[401]

The committee received a range of views about whether PMDs and e-bikes should be subject to registration requirements.

QPS acknowledged that registration would assist enforcement by enabling device and rider identification. They noted that many e-mobility devices lack distinguishing features, making it difficult to determine compliance with legal standards, and that riders are often hard to identify, particularly when not carrying identification, wearing non-distinctive clothing, or evading police.[402] Submitters who agreed included local councils,[403]

401 Department of Transport and Main Roads, correspondence, 30 September 2025, 30 September 2025, p 2.

402 Deputy Commissioner Cameron Harsley APM, Queensland Police Service, public briefing transcript, Brisbane, 25 August 2025, p 3.

403 City of Gold Coast, public hearing transcript, Robina, 23 July 2025, p 3; Fraser Coast Regional Council, submission 976, p 6; City of Gold Coast, submission 1093, p 4.

organisations representing vulnerable communities,[404] and other stakeholders.[405] They argued that registration would support enforcement by enabling device and rider identification, and would bring the regulation of these devices into closer alignment with vehicles such as motorcycles and motorised mobility devices. The City of Gold Coast, for example, noted that a numberplate or similar identifier would allow offences to be linked to the device's owner.[406]

Submitters and witnesses who supported a registration scheme expressed the view that implementation was warranted given the risk that PMDs and e-bikes pose to others.[407] Some witnesses also noted that the revenue generated via registration could be used to fund road-safety infrastructure, enforcement activities or public health services.[408]

Other submitters and witnesses opposed or expressed reservations about proposals to require the registration of PMDs and e-bikes. This included bicycle user groups[409] and some industry stakeholders.[410] They took the view that this would impose an unnecessary and disproportionate regulatory burden on users and could deter people from using active transport. For example, Peter Bourke, General Manager of Bicycle Industries Australia stated: 'From our perspective, we want more people using these products; we do not really want to put more barriers in the way of getting more people out there. In approaching registration, we have to be very careful that we do not have unintended consequences'.[411] However, he also noted that registration could have a positive impact on users if registration fees were used to fund better cycling and PMD infrastructure.[412]

Some submitters and witnesses expressed doubt about the ability of a registration system to solve the problem of non-compliance. As one e-bike user told the committee, 'It is like trying to catch smoke. The only people you are going to get registering them are the people who are wanting to act honestly and legally. It is not going to stop all of the illegal devices'.[413]

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404 Council on the Ageing Queensland, public hearing transcript, Brisbane, 25 August 2025, pp 8, 10; Spring Hill Community Group, submission 726, p 5; Queenslanders with Disability Network, submission 1076, p 17.

405 Maurice Blackburn Lawyers, submission 1087, p 2; Caravan Parks Association of Queensland, submission 1121, p 8.

406 Mr Sonny Suharto, Acting Coordinator, Road Safety, Infrastructure Gold Coast, City of Gold Coast, public hearing transcript, Robina, 23 July 2025, p 3.

407 See for example Spring Hill Community Group, submission 726, p 6; Fraser Coast Regional Council, submission 976, p 2.

408 See, for example Ellis Williams, public hearing transcript, Robina, 23 July 2025, p 22; Greg Spinda, Partner, Travis Schultz & Partners, public hearing transcript, Brisbane, 24 July 2025, p 23.

409 Brisbane Central Business District Bicycle User Group, submission 407, pp 14-15; Brisbane West Bicycle User Group, submission 944, p 18; Bicycle Queensland, submission 1160, p 17.

410 Bicycle Industries Australia, public hearing transcript, Brisbane, 25 August 2025, p 3.

411 Public hearing transcript, Brisbane, 25 August 2025, p 3.

412 Public hearing transcript, Brisbane, 25 August 2025, p 3.

413 Mr Greg Gould, public hearing transcript, Cairns, 8 October 2025, p 15.

Other submitters and witnesses were opposed to wholesale registration of all e-bikes and PMDs, but recommended the introduction of a tiered scheme.[414] Under such a scheme, devices would be classified by speed and weight, with registration required for those exceeding certain specifications. The most common suggestion was that there should be a category of registration that captures devices known as 'speed pedelecs' and mopeds.[415]

6.3.1 Challenges of registration

TMR identified several challenges associated with proposals to require the registration of PMDs and e-bikes. The department advised that such a scheme would only work 'with managed entry and active enforcement', stating that while effective for road vehicles, due to dealer-assigned plates, identifiers like Vehicle Identification Numbers (VINs), and high enforcement visibility, e-mobility devices enter Queensland through varied channels, which limits point-of-sale registration. Without stronger enforcement, offenders are unlikely to comply.[416]

TMR advised the committee that the challenges associated with a registration system were not insurmountable but noted that the ability of such a system to improve compliance may be limited. They explained that while registration would help identify devices that are legal, it does not solve the problem of people who do not comply.[417]

A tiered registration system as proposed by some submitters may also present challenges. TMR noted that such a scheme would likely be complex and costly, requiring certification, tamper-proof labelling, and regulatory oversight and changes at the national level. It would require significant changes to the state Transport Registration and Integrated Licensing System (TRAILS) and could impose costs on industry and consumers and discourage active transport.[418]

6.3.2 Calls for licensing of riders

The issue of licensing of riders was also frequently raised by stakeholders and views were mixed. Licensing is not required for riders of compliant e-mobility devices in Queensland, consistent with other Australian jurisdictions. However, TMR advised that non-compliant

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414 Council on the Ageing Queensland, submission 665, p 5; Spring Hill Community Group, submission 726, p 14; Gold Coast North Chamber of Commerce and Industry, public hearing transcript, Robina, 23 July 2025, p 7; Brisbane West Bicycle User Group, submission 944, p 19; Zipidi, submission 1028, pp 8-9; Sunshine Coast Regional Council, submission 1129, pp 5-6; Gold Coast North Chamber of Commerce, submission 1153, p 3.

415 See for example Pedal Group Australia, submission 1157, p 2; Foucault Dynamics, submission 1175, p 3.

416 Department of Transport and Main Roads, correspondence, 30 September 2025, p 2.

417 Mr Andrew Mahon, Deputy Director-General, Policy, Planning and Investment Division, Department of Transport and Main Roads, public briefing transcript, Brisbane, 10 December 2025, p 5.

418 Department of Transport and Main Roads, correspondence, 30 September 2025, p 2.

device users such as those riding overpowered e-bikes, can face unlicenced vehicle offences.[419]

Supporters of a licensing scheme highlighted benefits such as improved rider training, education and enforcement. Many were also of the view that requiring a licence would go some way to addressing concerns about young people, and others, lacking sufficient knowledge of the road rules.[420]

Ms Vida Mehranfar and Professor Christian Jones from the University of the Sunshine Coast recommended incorporating e-mobility safety and awareness into mandatory driver education and licensing exams. They advised that this would improve understanding of the road rules, reinforce e-mobility as a legitimate transport mode, and promote mutual respect among road users, thereby reducing conflicts and enhancing safety.[421]

The PrepL is the online learning and assessment program for obtaining a Queensland learner licence. The PrepL course is an interactive course focusing on the road rules and safe driving behaviours. The committee sought assurances from TMR as to the accessibility of the PrepL course for people with disability, individual needs, or learning challenges. TMR acknowledged that not all people learn in the same way, and some require assistance when applying for a learner licence. TMR confirmed that one of the design features of the PrepL program is that it can be completed at any time, and in multiple sittings, providing customers with the ability to complete it at their own pace. Furthermore, where individuals may require assistance, family or friends may be encouraged to work through the PrepL program with them.[422]

Council on the Ageing Queensland also highlighted concerns from its members regarding the lack of training and road-rule awareness among PMD users. Their members noted that many riders are untrained and unlicensed, with limited understanding of safety obligations, including helmet requirements and shared-path etiquette. Several called for mandatory safety training, licensing and formal education programs, particularly for younger riders and first-time users. [423]

The Gold Coast North Chamber of Commerce and Industry proposed introducing a mandatory online theory test for e-mobility users aged 14-17, leading to an ‘E-Mobility Permit’. It further recommended a practical licensing test at age 17 for higher-powered devices, and for high-speed e-bikes to be classified as motorcycles.[424]

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419 Department of Transport and Main Roads, correspondence, 30 September 2025, p 3.
420 See for example Queensland Trauma Clinical Network, Queensland Health submission 824; Council on the Ageing Queensland, submission 665; Pedestrian Council of Australia, submission 1148.
421 Submission 804, p 25.
422 Department of Transport and Main Roads, correspondence, 16 February 2026.
423 Submission 665, p 26.
424 Submission 1153, p 3.

Conversely opponents of this suggestion, including bicycle user groups, argued that licensing would impose unnecessary regulatory burdens on active transport users and would not deter those who choose to ride recklessly.[425]

TMR advised that its rider education efforts currently include large-scale public campaigns, targeted social media activity, school-based programs and the distribution of educational materials. As with registration, any licensing scheme would require active enforcement to deter unlicensed riding. TMR also cautioned that introducing licensing requirements may create barriers to e-mobility use, particularly for children and some people with disability.[426]

A small proportion of submitters suggested strengthening penalties to deter careless riding behaviour, including applying demerit points for e-mobility offences to riders of all ages. These views were supported by the Queensland Law Society. Some submitters further proposed that accruing demerit points should result in the loss of a driver's licence or delay children from obtaining one.[427]

6.4 Calls for insurance

In Queensland and across Australia, riders of e-bikes and e-scooters are not required to hold insurance, and Compulsory Third Party (CTP) insurance is not available for unregistered recreational vehicles, including compliant e-mobility devices. While options such as third party insurance for shared scheme operators, emerging private insurance products, WorkCover for work-related use, and limited coverage under some home and contents policies do exist, they offer narrow protection and uptake remains low.[428]

6.4.1 Support for insurance

Many inquiry participants, including from the legal, academic, and health sectors, called for some form of insurance framework to be put in place. As summarised by the Australian Lawyers Alliance, concerns with the current system include:

- injured parties often rely on the public health system or their own private health insurance, yet may still face significant out-of-pocket expenses for treatment and rehabilitation
- injuries can also result in loss of income, leading to additional financial hardship
- individuals who experience property damage may have no recourse for compensation and must bear the full cost of repair or replacement
- riders are personally liable for any injury or property damage they cause. When the rider is a child, there is effectively no practical avenue for recovering these costs
- adult riders may also lack the financial capacity to meet costs arising from injury or property damage

425 See for example submission 944, Brisbane West Bicycle User Group, p 19; Brisbane Central Business District Bicycle User Group, p 3.
426 Department of Transport and Main Roads, correspondence, 30 September 2025, p 2.
427 Department of Transport and Main Roads, correspondence, 30 September 2025, p 18.
428 Department of Transport and Main Roads, correspondence, 30 September 2025, p 3.

- many e-mobility users in Queensland are unaware that they risk their personal assets, including their home, if they cause harm to others. Insurance coverage is therefore essential to protect riders from personal liability.[429]

Several inquiry participants called for CTP insurance arrangements to be put place, however acknowledged that there were complexities associated with this approach.[430] The Queensland Law Society submitted that it was important to carefully consider the recourse available to those who are injured by or while using PMDs, given the severity of injuries that can occur.[431] They suggested that a CTP scheme would need to involve a form of identification to be displayed on the e-scooter, which would also assist in identifying riders who engage in unsafe riding.[432] The Australian Lawyers Alliance also acknowledged challenges associated with identification and that consideration would need to be given as to how insurance would be collected and obtained, and how second hand sales would be dealt with.[433] The Law Council of Australia agreed.[434]

Stakeholders from the health sector also suggested a form of CTP insurance. The Australian Centre of Health Law Research at QUT (ACHLR) submitted that such a scheme and associated nominal defendant arrangements could resolve risks flowing from unregistered and/or uninsured PMDs and e-bikes.[435] ACHLR submitted that third party insurance coverage would resonate with the broader community interest and when coupled with a registration regime, insurance coverage makes owners and users more visible, accountable, and traceable in the case of an accident or incident.[436]

The University of Sunshine Coast offered Germany as an example where third party arrangements have been introduced, noting that:

- e-scooters must be covered by insurance and an insurance sticker must be attached to the scooter (valid for 12 months)
- in the event of an accident, the third party insurance will cover damage to third parties
- insurance can only be obtained if a general operating permit is available
- if the e-scooter is intended for sale in the German market, the operating permit should be enclosed with the papers. If the vehicle does not have an operating permit, it cannot be used in road traffic
- 40 euro fines apply for driving without insurance plates.[437]

429 Australian Lawyers Alliance, submission 880, p 11.
430 See for example Queensland Law Society, submission 1200, p 4.
431 Submission 1200, p 4.
432 Submission 1200, p 4.
433 Submission 880, p 14.
434 Submission 1200, p 1.
435 Australian Centre for Health Law Research, QUT, submission 1079, p 9.
436 Australian Centre for Health Law Research, QUT, submission 1079, p 9.
437 Ms Vida Mehranfar and Professor Christian Jones, University of Sunshine Coast, submission 804, p 22.

The Insurance Council of Australia supported the introduction of insurance arrangements but considers the CTP scheme unsuitable due to the absence of registration and premium collection systems for e-mobility devices. It advised that incorporating these devices into CTP would require a dedicated premium collection framework and noted that bespoke insurance products for e-scooters and similar devices are expected to become more available over time.[438]

TMR advised of limitations of the CTP scheme, and stated that while it supports access to rehabilitation and compensation for injured persons, a CTP scheme excludes coverage for at-fault riders which would leave many e-mobility injuries uncovered.[439] TMR also advised that introducing CTP would require fair cost distribution. If many devices remained unregistered and uninsured, injury costs would fall on the Queensland Nominal Defendant, which is funded by levies on all vehicle registrations, and would increase costs for motorists.[440]

6.4.2 Insurance not necessary for compliant devices

Many inquiry participants contended that a compulsory insurance scheme was not necessary. By way of example, Dr Michael Kane from the RACQ advised that the organisation did not consider it necessary to require insurance for legal e-mobility devices, noting existing public liability and workers compensation schemes were already in place, and that CTP insurance is already required for legal motorbikes.[441]

Several bicycle user groups noted that a range of personal insurance options is already available and argued that introducing additional registration or insurance requirements would impose unnecessary restrictions. These submitters noted that Bicycle Queensland has long offered comparable coverage through its membership, now extended to include personal accident and public liability insurance for privately owned e-scooter riders. Bicycle Queensland submitted that rather than mandating new requirements the government should focus on promoting existing insurance products.[442]

6.4.3 WorkCover

WorkCover reported a consistent year-on-year increase in both the frequency and cost of claims involving e-mobility devices.[443] The number of personal mobility device claims rose from 107 in 2021 to 388 in 2025, with e-scooters accounting for most incidents. Claim costs also increased significantly over the same period, from $2.1 million in 2021 to $4.4 million in 2025, driven primarily by injuries associated with e-scooter use.[444]

438 Ms Alix Pearce, Insurance Council of Australia, public hearing transcript, Brisbane, 2 October 2025, p 13.
439 Department of Transport and Main Roads, correspondence, 30 September 2025, p 3.
440 Department of Transport and Main Roads, correspondence, 30 September 2025, p 3.
441 Dr Michael Kane, RACQ, public hearing transcript, Brisbane, 22 July 2025, p 5.
442 Bicycle Queensland, submission 1160, p 16.
443 Submission 1161, p 2.
444 WorkCover Queensland, submission 1161, p 3.

6.4.4 Shared schemes

The insurance risk is generally lower for shared e-mobility schemes because operators are required to hold third party and public liability insurance as a condition of their operations.

Neuron Mobility advised that it carries insurance exceeding minimum council requirements, including public liability, third party liability and personal accident cover provided automatically to all users. This coverage applies to third party injury or property damage, even where riders breach operating rules or are injured while using a Neuron device.[445] Similarly, Lime advised of comprehensive insurance which covers third parties. Lime recommended that the state government establish statewide operational standards for e-mobility devices incorporating insurance requirements and rider education.[446]

Several stakeholders from the legal sector argued that shared scheme operators provide insufficient insurance coverage.[447] The Australian Lawyers Alliance, for example, highlighted that indemnity limits are set on an annual aggregate basis and may be inadequate given the number of hospitalisations and that coverage often excludes riders under 16 years of age. Furthermore, policies may be voided if riders breach legal requirements, such as failing to wear a helmet, and personal accident policies typically offer a low coverage limit.[448]

6.4.5 Definitional issues

Currently, e-mobility devices (e-scooters and e-bikes) are defined as a 'vehicle' under Queensland legislation. Road rules and other requirements apply to e-mobility 'vehicle' riders, but some provisions do not. Defining e-mobility devices as 'motor vehicles' could enable riders to be subject to certain rules that apply to motor vehicles, such as licensing requirements, drink and drug riding, and careless riding.

Acknowledging that it is a policy matter, the QPS explained that there are enforcement complexities in e-mobility devices being defined as 'vehicles' in the TORUM Act rather than 'motor vehicles'.[449] CARRS-Q also considered there to be merit in TMR exploring the implications of re-classifying PMDs as motor vehicles, as an option to strengthen the ability to monitor and enforce the degree of compliance with regulations. CARRS-Q reported that e-scooters in the UK are classed as motor vehicles and users need to hold a valid full or provisional licence.[450]

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445 Submission 1019, p 8.

446 Mr William Peters, Head, Asia-Pacific, Lime Network, public hearing transcript, Brisbane, 22 July 2025, p 7.

447 See for example Queensland Law Society, submission 1200, p 4; Australian Lawyers Alliance, submission 880, p 11.

448 Australian Lawyers Alliance, submission 880, p 11.

449 Inspector Gareth Bosley, Queensland Polic Service, public briefing transcript, 8 December 2025, pp 5, 8.

450 Not published, Centre for Accident Research & Road Safety - Queensland, *Evaluation of the Regulation of Personal Mobility Devices (PMDs) in Queensland, Final Report*, August 2025, p iii.

6.5 Illegal devices on public roads and paths

As highlighted throughout this report, a major ongoing problem is the widespread use of non-compliant devices on public roads and paths. Stakeholders suggested a range of reforms to address this issue which are discussed throughout this report. In relation to the Queensland regulatory framework, key suggestions included strengthening enforcement and providing the QPS with adequate powers to take decisive action to impound and seize illegal devices (discussed in chapter 8), introducing tighter retail regulations (see chapter 7), and improving consumer knowledge about the legality of devices (see chapters 7 and 8).

6.6 Age limits

In Queensland, the minimum age for riding a PMD is 12 years with adult supervision and 16 years without supervision. Across Australia, the age limit for riding a PMD varies among jurisdictions, ranging from 12 years in the ACT to 18 years in South Australia and the Northern Territory. The higher age limits generally occur in jurisdictions where only shared scheme e-scooters are allowed to operate and link to the need for the rider to be able to enter into legally binding agreements with the shared scheme companies.[451]

There are currently no age limits in place for e-bikes in Queensland. Victoria and Western Australia require e-bike riders to be 16 years of age, and NSW requires e-bike riders seeking to hire a device to be 14 years of age. There are no age requirements in other states and territories.

Supporters of age limits emphasised the need for consistent rules across all e-mobility devices, with most recommending a minimum age of 16 or 18.[452] They reasoned that stricter age requirements would enhance safety, given younger children's limited ability to understand and follow road rules, and provide clearer guidance on e-mobility device regulations for parents.[453] There were also calls for age limits to be harmonised throughout Australia where possible.[454]

The Queensland Family and Child Commission has recommended introducing a minimum age of 16 for e-scooter use, aligning with other jurisdictions. It also highlighted advice from the American Academy of Pediatrics, which states that children under 16 should not operate or ride motorised scooters.[455]

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451 Not published, Centre for Accident Research & Road Safety - Queensland, *Evaluation of the Regulation of Personal Mobility Devices (PMDs) in Queensland, Final Report*, August 2025, p 131.

452 See for example Dr Matthew Clanfield, submission 1211, Queensland Family and Child Commission, submission 1110.

453 Queensland Trauma Clinical Network, Queensland Health, submission 603, p 6; Council on the Ageing Queensland, submission 665.

454 Engineers Australia, submission 1106, p 4.

455 Queensland Family and Child Commission, submission 1110, attachment, *Improving safety when young people ride e-scooters and e-bikes*, June 2025, p 18; Kidsafe Queensland, submission 1195.

The Brisbane West Bicycle User Group and others argued against age limits for legal e-bikes to maintain consistency with standard bicycle rules.[456]

As discussed in chapter 4, Queensland Health, Kidsafe Queensland, and the Australian Medical Association Queensland raised concerns about injury rates among children under 16. They suggested that a minimum age of 16, alongside licensing requirements, could reduce e-mobility-related injuries and fatalities in this age group.[457]

Committee comment

Effective regulatory frameworks must be proportionate, risk-based, and supported by strong education, compliance, and enforcement measures. Queensland has led nationally in developing e-mobility regulation; however, the evidence to this inquiry demonstrates the need for further reforms to improve safety and address emerging challenges. This will require a coordinated, multi-agency approach across federal, state and local governments.

A critical first step is the introduction of clear product safety standards. These standards establish the minimum requirements necessary to ensure devices are safe to use, reduce the risk of injury or death, and provide consistent guidance for manufacturers, retailers and consumers. The standards should form the basis for determining what constitutes a compliant e-mobility device.

It is also evident that different categories of devices carry different levels of risk and therefore require different regulatory approaches. Compliant e-bikes and PMDs present significantly lower risks than the over-powered, high-speed devices currently available on the market. We are of the view that a two-tiered regulatory approach is warranted.

For compliant devices – i.e. those that meet recognised standards including being limited to a maximum speed of 25km/h – the committee does not consider mandatory registration or Compulsory Third Party insurance to be justified. However, the committee remains concerned about the rising number of paediatric e-mobility injuries. Evidence indicates that children under the age of 16 do not yet possess the cognitive or motor capabilities required to operate powered devices safely in dynamic environments. Limited understanding of road rules further heightens these risks.

Accordingly, the majority of the committee recommends that laws be amended to provide that PMDs and e-bikes may only be ridden by individuals aged 16 years and over. We note that other jurisdictions have moved towards

456 Submission 944, p 3.

457 Queensland Trauma Clinical Network, Queensland Health, submission 824; Kidsafe Queensland, submission 1195; Australian Medical Association Queensland, submission 1042.

this approach, and we consider that a clear, consistent age requirement provides a strong and simple framework for improving child safety.

We acknowledge that introducing a minimum age of 16 for riders of PMDs and e-bikes will affect families whose children under 16 currently ride these devices legally. The committee grappled with this issue, particularly with respect to children under 16 years of age who currently ride compliant e-bikes legally. We considered a range of alternatives to this proposal, including safety training at some schools providing education and rider identification plates for students, which has positively changed rider behaviour and should be implemented as a solution.

Younger riders generally have less developed judgment and decision-making capacity, and limited understanding of road rules, and the prevalence of illegal devices further complicates safe use. A clear, consistent age requirement provides a strong and simple framework for improving safety.

The reality is that these devices – both e-scooters and e-bikes – are being used in their thousands on Queensland roads. It is therefore essential that riders have a clear understanding of the road rules. Current approaches to education, and risky riding behaviours and attitudes, mean that strong and decisive action must be taken.

To support this, the committee recommends amending legislation to require that e-bike and PMD riders must hold at least a Queensland Class C learner licence, and that appropriate updates be made to the PrepL online course to cover information about e-mobility devices.

Evidence shows that higher speeds significantly increase safety risks. It is clear that devices capable of exceeding the 25km/h limit require a more stringent regulatory framework.

The committee recommends amending legislation to specify that any device that does not meet the definition of a compliant e-bike or PMD, that is, that can travel faster than 25km/h, be classified as a motorcycle, moped, or other appropriate classification. These devices should be subject to licensing requirements, registration and Compulsory Third Party insurance, be restricted to road use only, and sold exclusively through licensed motor dealers. It is noted that many European countries cater for pedal assisted bicycles to travel with motor assistance up to 45km/h (speed pedelecs). It would be appropriate for the government to consider arrangements for such devices in Queensland and for them to be classified as ‘light motorcycles’ in existing systems.

There is merit in reconsidering how e-bikes and PMDs are defined in legislation, including whether they should continue to be classified as ‘vehicles’ or be classified as ‘motor vehicles’. To address the enforcement

challenges arising from the current definitions, we recommend that the Queensland Government amend legislation to classify e-mobility devices as 'motor vehicles' to provide a clearer and more consistent regulatory framework. Inappropriate motor-vehicle requirements—such as registration and Compulsory Third Party insurance—should be expressly disapplied.

Recommendation 11

That the Queensland Government update state legislation to provide that all e-mobility devices with an electrical power source be defined as a 'motor vehicle', to simplify enforcement.

Recommendation 12

That the Queensland Government amend state legislation to expressly provide that any device that does not meet the definition of a compliant e-bike or PMD with a top speed which exceeds 25km/h, be defined as a motorcycle, moped or other appropriate classification, and make clear in the legislation that:

- riders must hold an appropriate class of driver licence, such as a motorcycle licence
- devices must be sold by a licensed motor trader
- devices must be registered, and therefore meet Australian Design Standards, have a vehicle identification number (VIN), and be covered by Compulsory Third Party insurance
- devices must only be ridden on roads, and are prohibited from being ridden on footpaths and bike paths
- riders must wear a motorcycle helmet that complies with appropriate product safety standards.

Recommendation 13

That the Queensland Government amend legislation to provide that:

- e-bikes and PMDs can only be ridden by individuals aged 16 years and over
- riders of e-bikes and PMDs be required to hold at least a Queensland Class C learner licence which requires completion of the PrepL online learning and assessment program
- this requirement does not apply to e-wheelchair and other accessibility device users.

6.7 Speed limits

6.7.1 Current speed limits on footpaths in Queensland and across Australia

TMR advised that existing default speed limits apply to personal mobility devices (PMDs) including e-scooters. PMDs are limited to 12km/h on footpaths and shared paths, and 25km/h elsewhere. These limits apply even where signs are absent. In contrast e-bikes are limited to 25km/h under motor assistance but, like bicycles, have no specific default speed limits. However, all devices must follow signed speed limits where these exist.[458] Under current rules, riders must give way to pedestrians on footpaths, crossings and shared paths.[459] TMR acknowledged these speed limits can be confusing and may not meet community expectations.[460]

The default speed limits that apply to e-scooters on footpaths and shared paths also vary across Australian jurisdictions. In some states, such as Tasmania, the speed limit is higher (15km/h). In other states, such as Western Australia and NSW, the speed limit is lower (10km/h). However, in both NSW and Victoria, the use of e-scooters on footpaths (as distinct from shared paths) is prohibited.[461]

For PMDs, some countries have a lower speed limit on footpaths than on roads. In several European countries there is a 6km/h speed limit in pedestrian areas. OECD/International Transport Forum recommended in 2024 a speed limit for PMDs (and e-bikes) of approximately 6-10km/h where riders share pedestrian spaces.[462]

6.7.2 Support for reduced speed limits

A variety of submitters indicated support for reducing the speed limits that apply to e-mobility devices on footpaths and shared paths. This group included peak bodies representing vulnerable path users,[463] road safety professionals,[464] academics[465] and other stakeholders.[466] These submitters generally explained their support for reduced limits by reference to improved safety for vulnerable footpath users, including elderly people and people with a disability. Some also stated that this would align with speed limits imposed in other jurisdictions, such as Western Australia.

For example, Ms Vida Mehranfar and Professor Christian Jones, from the University of the Sunshine Coast, indicated support for lower footpath speed limits, explaining that lower speed limits in pedestrian environments offer 2 key benefits – improved pedestrian

458 Department of Transport and Main Roads, correspondence, 30 September 2025, p 4.
459 Department of Transport and Main Roads, correspondence, 30 September 2025, p 4.
460 Department of Transport and Main Roads, correspondence, 30 September 2025, p 4.
461 The University of Queensland Micromobility Research Cluster, submission 1009, attachment, Table 1, p 17.
462 Not published, Centre for Accident Research & Road Safety - Queensland, *Evaluation of the Regulation of Personal Mobility Devices (PMDs) in Queensland, Final Report*, August 2025, p 134.
463 Pedestrian Council of Australian, submission 1148, pp 2-3.
464 Australasian College of Road Safety, submission 1175, p 7.
465 Ms Vida Mehranfar and Professor Christian Jones, submission 804, p 10.
466 Vehicle Design and Research Pty Ltd, submission 982, p 4.

safety, by reducing the impact force in the event of a collision, and behavioural 'nudging', encouraging riders to shift toward more appropriate infrastructure, such as bike lanes or dedicated e-mobility paths where higher speeds are permitted.[467]

In addition, some submitters suggested a 'review' of existing default speed limits to ensure they are evidence-based and appropriate but did not expressly call for their reduction.[468]

Other submitters expressed support for existing speed limits for PMDs suggesting that the limits are appropriate but should be made more visible through improved signage and be consistently enforced.[469]

A small number of submitters suggested other changes relating to speed limits. These suggestions included establishing a national footpath speed limit of 15km/h,[470] applying the default PMD speed limits to e-bikes[471] and modifying the footpath speed limit for PMDs so it only applies in busy pedestrian areas or if pedestrians are present.[472]

The issue of speed limits on footpaths was discussed in the CARRS-Q evaluation of the regulation of PMDs in Queensland. That research found that fewer than a quarter of PMD users and fewer non-users were aware that the speed limit on footpaths was 12km/h. Awareness of the speed limits on separated paths, bicycle paths and local streets was also poor. [473] CARRS-Q recommended that TMR investigate the benefits of reducing speed limits on footpaths to 6km (walking speed) to improve amenity and safety for pedestrians and compare these benefits with any disadvantages such as increased riding on roads or reduced stability of PMDs at lower speeds.[474]

In response to concerns about pedestrian safety, TMR advised that it is committed to maintaining a regulatory framework that prioritises the safety of pedestrians, as the most vulnerable group on pathways, while balancing the mobility needs of e-mobility riders. As noted above, under current rules, riders must give way to pedestrians on footpaths. TMR also advised that local governments have the flexibility to implement additional measures to address pedestrian safety concerns such as introducing lower speed limits or installing signage to restrict e-mobility device use in areas with high pedestrian traffic.[475]

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467 Submission 804, p 10.
468 See for example Australian Medical Association Queensland, submission 1042, p 2.
469 See for example Sunshine Coast Regional Council, submission 1129, p 5.
470 Australian Electric Vehicle Association, submission 1135, p 5.
471 City of Gold Coast, submission 1093, p 3.
472 Brisbane West Bicycle User Group, submission 944, p 19; Brisbane Airport Bicycle User Group, submission 1111, p 3.
473 Not published, Centre for Accident Research & Road Safety - Queensland, *Evaluation of the Regulation of Personal Mobility Devices (PMDs) in Queensland, Final Report*, August 2025, p i.
474 Not published, Centre for Accident Research & Road Safety - Queensland, *Evaluation of the Regulation of Personal Mobility Devices (PMDs) in Queensland, Final Report*, August 2025, p v.
475 Department of Transport and Main Roads, correspondence, 30 September 2025, p 8.

Committee comment

Hundreds of submitters raised concerns about the safety of pedestrians walking alongside fast moving e-mobility devices. Many reported near misses and unsafe interactions, with some indicating they no longer feel safe using public pathways. These risks are heightened for older people, those with vision, hearing or cognitive impairments, and families with young children. Queensland's current speed limits on footpaths are also comparatively high relative to other jurisdictions.

The committee considers a reduction in footpath speed limits necessary. Differing rules for e-bikes and PMDs contribute to confusion, and research indicates that the existing limits are not well understood by riders. Although enforcement may present challenges, addressing excessive speeds on footpaths and shared paths requires stronger action from both state and local governments. Improved signage is also needed to support awareness and compliance, and local governments should prioritise updating local laws to restrict or further reduce speeds in high pedestrian traffic areas.

At present, PMDs may travel up to 12km/h on footpaths, while e-bikes may ride at their default speed of 25km/h. This inconsistency creates confusion. The committee considers there is a clear case for all e-mobility devices to be limited to 10km/h on footpaths.

Recommendation 14

That the Queensland Government amend legislation to reduce the speed limits on all footpaths, for all e-mobility devices, to maximum 10km/h.

Recommendation 15

That the Queensland Government amend legislation to prescribe an offence of riding an e-mobility device on a footpath in the vicinity of a pedestrian without due care and attention.

Recommendation 16

That the Queensland Government support local governments to use local laws to regulate e-mobility devices including setting lower speed limits for high pedestrian traffic zones and pathways.

Recommendation 17

That the Queensland Government and local governments increase and improve signage of speed limits on footpaths and requirements to give way to pedestrians.

Recommendation 18

That local governments stipulate that shared scheme operators use technology to prohibit the use, or limit the speed of shared devices to 10km/h or lower in identified high pedestrian zones.

7. Regulating the retail of e-mobility devices

7.1 Introduction

This chapter examines the regulatory framework governing the sale of e-mobility devices in Queensland. Inquiry participants expressed strong concerns that devices, irrespective of quality and compliance with regulations, can be readily sold in Queensland with the proviso that it is 'for use on private property only'. Many contended that this was instrumental to the number of non-compliant devices on the roads and called for this loophole to be closed. Many inquiry participants advocated for devices sold to meet recognised standards, and for stronger enforcement of existing consumer laws to prevent the irresponsible sale of non-compliant devices and modification kits. There was also broad support for requiring retailers to provide clear information at the point of sale so consumers understand the legality of their purchases and the rules around responsible and safe use.

7.2 Australian Consumer Law and the role of the Office of Fair Trading

The Office of Fair Trading (OFT) regulates Queensland's marketplace and administers the Australian Consumer Law (ACL), which defines consumer rights and business obligations in Australia.[476] Under the ACL, retailers must not make false or misleading representations that a good has an approved benefit or particular use. For example, a retailer that supplies a non-compliant e-bike or PMD to a consumer with claims that it is safe and legal for road use or in public spaces, could be subject to enforcement by the OFT as it is likely a breach of the ACL.[477] The penalties for such breaches are significant – up to $50 million for a corporation and $2.5 million for an individual.[478] OFT also confirmed that misleading representations regarding the sale of modification kits, including failing to disclose that modified devices exceeding regulatory limits are unlawful for road use, may constitute a misrepresentation.[479]

7.2.1 Enforcement of Australian Consumer Law

In August 2025, the OFT reported that while no enforcement had yet been taken against e-mobility traders, addressing harmful misrepresentations in the market had been identified as a priority and compliance operations were scheduled.[480] OFT advised it is developing a compliance program targeting misrepresentations about e-mobility devices being suitable for public road use, and that breaches of the ACL will result in enforcement

476 Mr Craig Turner, Executive Director, Office of Fair Trading, public briefing transcript, Brisbane, 25 August 2025, p 10.
477 Mr Craig Turner, Executive Director, Office of Fair Trading, public briefing transcript, Brisbane, 25 August 2025, p 10.
478 Department of Transport and Main Roads, correspondence, 30 May 2025, p 8.
479 Mr Craig Turner, Executive Director, Office of Fair Trading, public briefing transcript, Brisbane, 25 August 2025, p 11.
480 Mr Craig Turner, Executive Director, Office of Fair Trading, public briefing transcript, Brisbane, 25 August 2025, p 12.

action against retailers.[481] OFT advised that the program will address both verbal and written representations to consumers and that actions will be publicised to serve as a deterrent for individual retailers and the broader industry. [482]

In November 2025, the OFT wrote to e-bike retailers advising them of their obligations under the ACL. The OFT indicated it would conduct supplier visits to outline ACL requirements and the characteristics of e-bikes permitted on public roads and spaces, followed by proactive compliance checks to identify misleading claims about legality. The letter also recommended that suppliers should look for e-bikes compliant with the European Standard for Power Assisted Pedal Cycles (EN15194) as a strong indicator of legal use in Queensland.[483]

In June 2025, TMR issued letters to e-bike suppliers advising that marketing illegal e-bikes as legal for public use is a breach of the ACL. The letters warned that the Office of Fair Trading may investigate false or misleading representations and outlined the associated penalties.[484] The letters also noted that, beyond criminal penalties, businesses could face civil liability, as police are increasingly seizing illegal devices and consumers may seek damages if misled during purchase.[485]

7.2.2 Complaints received about e-bikes and e-scooters

OFT advised that it receives approximately 21,000 complaints each year. Last year, 53 related to e-bikes but primarily concerned consumer guarantee issues. Only 5 complaints involved misrepresentations.[486]

7.2.3 Online retailing and the second-hand market

Retailer obligations under the ACL apply both to bricks-and-mortar and online stores. OFT advised that overseas retailers transacting in Queensland are also bound by the ACL. OFT advised that while serving documents internationally can be challenging, OFT will issue warnings and, where necessary, publish public notices about non-compliant suppliers. These measures aim to inform consumers of the risks and limitations when

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481 Mr Craig Turner, Executive Director, Office of Fair Trading, public briefing transcript, Brisbane, 25 August 2025, p 12.

482 Mr Craig Turner, Executive Director, Office of Fair Trading, public briefing transcript, Brisbane, 25 August 2025, pp 11-12.

483 Letter to e-bike suppliers from Mr Craig Turner, Executive Director, Office of Fair Trading, dated 11 November 2025, regarding the sale and supply of e-bike devices in Queensland, pp 1-2.

484 Mr Craig Turner, Executive Director, Office of Fair Trading, public briefing transcript, Brisbane, 25 August 2025, p 10.

485 Letter, General Manager (Land Transport Safety and Regulation), Department of Transport and Main Roads, to organisations involved in the importation, wholesale or retail of e-bikes in Queensland, 3 June 2025, regarding sale and use of illegal e-bike devices in Queensland; see Department of Transport and Main Roads, correspondence, 30 September 2025, attachment 3.

486 Mr Craig Turner, Executive Director, Office of Fair Trading, public briefing transcript, Brisbane, 25 August 2025, p 11.

dealing with online traders, particularly where consumer guarantees may not be enforceable.[487]

The committee inquired about the second-hand market for e-mobility devices. OFT confirmed that businesses selling second-hand goods must comply with the ACL, whereas private sales, such as those via Facebook Marketplace, are not regulated under the ACL. OFT noted there is an opportunity to improve consumer and seller education in this market.[488]

7.2.4 Enhancing retailer and consumer awareness

OFT advised that a key regulatory priority for the OFT this year is to help businesses meet their regulatory obligations.[489] OFT advised that there was also opportunity to increase consumer education about e-mobility devices and that such work would involve collaboration with TMR, and QPS. Such information could include general consumer information about what to look for when purchasing a device from a bricks-and-mortar or online retailer, and what due diligence consumers should undertake when selecting a product. OFT advised that such information could also be useful for the private sales space, acknowledging that private sales are not regulated.[490]

7.3 Should devices sold meet specified design and safety standards

As discussed in the previous chapter, there were strong calls for e-mobility devices to comply with recognised safety and mechanical standards at the point of import. Several stakeholders called for stricter requirements to also be applied at the point of sale.[491]

7.4 Modifications and anti-tampering laws

Inquiry participants raised significant concerns regarding the growing importation, sale and use of modification kits that alter device performance. Industry stakeholders broadly supported prohibiting modification alongside stronger penalties for non-compliance and introducing requirements for tamperproof products.

For example, Bicycle Industries Australia advised that many conversion kits enable performance levels that exceed regulatory limits and fail to meet essential frame and braking standards, rendering devices unsafe even for private-property use. They recommended prohibiting the sale and use of higher-powered conversion kit motors.[492] Bicycle Industries Australia called for explicit anti-tampering provisions that shift responsibility from consumers to retailers and manufacturers. Mr Bourke argued that

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487 Mr Craig Turner, Executive Director, Office of Fair Trading, public briefing transcript, Brisbane, 25 August 2025, p 14.

488 Mr Craig Turner, Executive Director, Office of Fair Trading, public briefing transcript, Brisbane, 25 August 2025, p 14.

489 Mr Craig Turner, Executive Director, Office of Fair Trading, public briefing transcript, Brisbane, 25 August 2025, p 14.

490 Mr Craig Turner, Executive Director, Office of Fair Trading, public briefing transcript, Brisbane, 25 August 2025, p 14.

491 Bicycle Queensland, submission 1160, p 4; see also submissions 804, 110, 1135, 1121, 1157.

492 Submission 1017, p 19.

suppliers should be required to take all reasonable steps to prevent unauthorised modifications, noting that current practices, such as providing access codes or aftermarket throttle components, actively facilitate tampering. While acknowledging that some individuals will attempt modifications regardless, he stressed that manufacturers and retailers should not enable or implicitly support such practices.[493]

Similarly, the MTAQ emphasised that ensuring consumer access to safe and compliant devices requires preventing the sale and use of non-compliant or easily modified devices, adding that such modifications pose a significant public safety risk and should attract substantial penalties.[494] Other industry and safety organisations broadly agreed including Pedal Group, Neuron Mobility, Zipidi and the Australasian College of Road Safety.[495]

As discussed in chapter 5, the Queensland Fire Department also made clear that home modification or tampering with e-mobility device batteries increases the risk of fire and thermal runaway.[496]

Several stakeholders referred to the EN15194 standard (or equivalent AS15194) for e-bikes during discussions on tampering. This standard includes stringent requirements for Battery Management Systems and anti-tampering measures, which are designed to reduce the risk of battery fires. Bicycle Industries Australia, along with others, noted that incorporating EN15194 into sale and road-use regulations would also prohibit manufacturers from enabling consumer modifications that circumvent these anti-tampering protections.[497]

While most evidence focused on prohibiting the modification of devices, several stakeholders highlighted that specialised features, such as throttles, may be necessary for some people with disabilities. Bicycle Queensland advised that certain users may require modified e-bikes for accessibility purposes and recommended a case-by-case exemption process administered by TMR.[498]

While most stakeholders reflected on e-bikes, others made similar comments regarding PMDs, particularly e-scooters.

7.5 Should devices be sold by licensed motor dealers

Some inquiry stakeholders suggested that rather than prohibiting non-compliant devices completely, restrictions should be placed on their importation and sale, acknowledging that some off-road uses, such as for primary production, remain legitimate purposes.

493 Mr Peter Bourke, Bicycle Industries Australia, public hearing transcript, Brisbane, 25 August 2025, p 2.
494 Submission 1197, p 6.
495 Pedal Group Australia, submission 1157, p 3; Australasian College of Road Safety, submission 1175, p 7; Neuron Mobility, submission 1019, pp 9, 12.
496 Commissioner Stephen Smith AFSM, Queensland Fire Department, public briefing transcript, Brisbane, 22 July 2025, p 10.
497 Bicycle Industries Australia, submission 1017, pp 18, 19.
498 Submission 1160, p 5.

The RACQ suggested that the import and sale of such devices be limited to licensed motor dealers who have appropriate accreditation and training.[499] The MTAQ and others agreed that licensed motor dealers are the appropriate retailers for devices that are essentially electric motorcycles, and that relevant requirements for roadworthiness and registration should apply.[500]

7.6 Identifying devices that may be legally used on private property only

Several inquiry participants noted the difficulty in distinguishing devices intended solely for private property use and recommended clearer identification of non-compliant products to improve consumer awareness at the point of sale and enforcement.

Bicycle Industries Australia advised that the key loophole permitting the sale of over-powered or over-speed e-bikes is their classification as "for private use only". Bicycle Industries Australia noted that these devices often appear identical to compliant models, making enforcement difficult. To support clearer identification, Bicycle Industries Australia recommended that the Queensland Government require permanent, easily recognisable markings, such as symbols, stickers, or plates, on devices manufactured or sold for use on private property. These markings should be visible from a distance to assist enforcement officers.[501] Others agreed, including the Sunshine Coast Regional Council.[502]

Bicycle Industries Australia noted that the EU uses clear, standardised markings to differentiate between 25km/h and 45km/h e-bikes and suggested that Queensland adopt this approach. Given Australia's comparatively small market and the fact that most products are manufactured for Europe, Bicycle Industries Australia considered the EU system an appropriate model. Mr Bourke further advised that, in Europe, higher-powered e-bikes are classified similarly to mopeds and therefore require registration plates.[503]

7.7 Advertising concerns

The committee was alerted to various concerning advertising practices. Bicycle Queensland advised that non-compliant devices are frequently marketed to teenagers and young adults, contributing to situations where inexperienced or irresponsible riders use these devices close to pedestrians on footpaths and shared paths.[504] The committee was also presented with examples of advertising targeting young children, promoting inexpensive modification kits, and highlighting various risky behaviours.

499 Submission 1091, p 26.
500 Motor Trades Association of Queensland, public hearing transcript, Brisbane 2 October 2025, p 24; Sunshine Coast Regional Council, submission 1129, p 6; Gold Coast North Chamber of Commerce and Industry, public hearing transcript, Robina, 23 July 2025, p 7; RACQ, public hearing transcript, Brisbane, 22 July 2025, p 2.
501 Submission 1017, p 19.
502 Submission 1129, p 7.
503 Public hearing transcript, Brisbane, 25 August 2025, p 4.
504 Bicycle Queensland, submission 1160, p 14.

7.8 Mandatory information requirements

Many inquiry participants supported requiring retailers to provide information and educational material about legal devices, road rules, and safety at the point of sale, including the University of Queensland, Neuron Mobility, the Australian Lawyers Alliance, Zipidi, Maurice Blackburn Lawyers, the MTAQ, and the City of Gold Coast.[505] The committee heard that several retailers already provide this information as part of standard business practices.

Talking to this issue and about both retailers of private devices and providers of shared devices, the University of Queensland advised that changes to road rules can have limited impact on compliance. It was therefore recommended that retailers and shared e-scooter providers deliver consistent education on road rules and associated penalties at the point of sale or sign-up to rent the device.[506]

The University of Queensland advised that consumers receive little to no information at the point of sale, and that shared scheme platforms often present safety material in ways that allow users to skip through it. They recommended standardising the delivery of road-rule information for both private and shared devices, including incorporating guidance on helmet use, speed limits and permitted infrastructure into onboarding processes and affixing key information directly to devices. They emphasised that ready access to road rule information is essential, as improved knowledge directly supports better compliance.[507] Clarifying this point further, Dr Buning advised:

> There are all kinds of different places where you can buy these devices. It is kind of the wild west in terms of where they are being sold. There is no indication whatsoever on what the road rules are or whether that device is illegal. If you go to JB Hi-Fi, you will just see a generic picture or something that says, 'Warning, obey your local road rules', but no indication of what they are, where you can ride and those types of things.[508]

Maurice Blackburn Lawyers agreed, noting that it was important that this information include compliance information as it was their observation that many consumers are purchasing non-compliant devices on the mistaken belief that the devices comply with local laws.[509] Maurice Blackburn pointed to similar public policy discussions which took place in relation to the importation and sale of quad bikes, noting that the ACCC instigated

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505 University of Queensland, submission 1009, p 2; Mr Jayden Bryant, General Manager Australia and New Zealand, Neuron Mobility, public hearing transcript, Brisbane, 22 July 2025, pp 7, 12; Australian Lawyers Alliance, submission 820, p 10; Zipidi, submission 1028, p 47; Maurice Blackburn Lawyers, submission 1087, pp 3, 4; Motor Trades Association of Queensland, submission 1197, p 3; City of Gold Coast, submission 1903, p 10; see also submissions 726, 804, 1110, 1121, 1153, 1160, 1175.

506 University of Queensland, submission 1009, p 2.

507 University of Queensland, submission 1009, p 2; Dr Richard Buning, Senior Lecturer, University of Queensland Business School, Lead University of Queensland Micromobility Research Cluster, public hearing transcript, 22 July 2025, p 16.

508 Dr Richard Buning, Senior Lecturer, University of Queensland Business School, Lead University of Queensland Micromobility Research Cluster, public hearing transcript, 22 July 2025, p 16.

509 Submission 1087, p 3.

a process to ensure that such vehicles coming into Australia were compliant with Australian requirements, that retailers knew their responsibilities at point of sale, and that consumers were provided with information about their safe use.[510]

As discussed in chapter 5, the Australian Electric Vehicle Association, and others, recommended that retailers also provide battery safety guidance at the point of sale.[511]

Committee comment

The Queensland Government should take urgent and targeted action to reduce the sale of unsafe e-mobility devices in Queensland.

It is unacceptable that devices, regardless of their quality or compliance with Queensland regulations, continue to be sold under the label 'for use on private property only'. This loophole has enabled high powered devices to enter public spaces and to be ridden by children, and it must be closed. Although the Australian Government has signalled reforms to import laws, it is essential that decisive action is taken now. We have recommended that the Queensland Government amend state laws to require that e-mobility devices sold in Queensland for on-road use align with recognised mechanical and electrical safety standards, such as EN15194:2017 for e-bikes and an equivalent standard for PMDs.

We welcome advice that the Queensland Government is using existing consumer laws to undertake a targeted compliance and enforcement campaign to identify, investigate, and prosecute retailers that make misleading claims about the legality and safety of non-compliant e-mobility devices. Retailers have a clear responsibility to ensure accurate representation of the products they sell. While many businesses act responsibly, the committee repeatedly received reports of traders engaging in unscrupulous conduct, including implying that illegal devices are acceptable for use on public roads or providing advice and products that enable legal devices to be modified into illegal ones. Such practices must be addressed.

We recommend that the Queensland Government introduce anti-tampering laws. These laws should prohibit the sale of modification kits, or any assistance that enables devices to be altered to increase their power or speed. While a small number of exemptions may be justified, these should be narrowly defined and remain the exception rather than the norm. We also recommend that devices which can exceed 25km/h and do not meet the definitions of compliant devices, must be sold by licensed motors traders.

510 Submission 1087, p 3.
511 Submission 1135, p 4.

Stronger measures are needed to clearly distinguish devices intended exclusively for private property use. The committee recommends that the Queensland Government require these devices to display permanent, highly visible markings indicating they are 'for private use only' and not permitted on public roads or pathways. Appropriate penalties should apply to retailers and riders who remove these markings or fail to comply with these requirements. The government should determine the most appropriate point in the supply chain for responsibility for affixing these markings.

We also believe that there is an opportunity for retailers to support the education of riders at the point of sale. This could include for example, information on licensing requirements, regulations, and battery safety, and must include the legality of using the device on public roads and pathways.

We recommend that the Queensland Government support retailers to provide information and educational resources at the point of sale.

Recommendation 19

That the Queensland Government amend laws to require that e-mobility devices sold in Queensland for on-road use align with recognised mechanical and electrical safety standards (such as EN15194:2017 for e-bikes and an equivalent standard for PMDs).

That non-compliant devices sold for use on private property only, are to be clearly marked with permanent and visible markings that indicate for consumers and enforcement officers that the device is 'for use on private property only' and that there be appropriate penalties for retailers and riders for non-compliance.

Recommendation 20

That the Queensland Government introduce anti-tampering laws that prohibit the sale and use of modification kits or assistance by retailers to increase the power and speed of e-mobility devices.

Recommendation 21

That the Queensland Government support retailers to provide information and educational resources at the point of sale, including information about compliance with safety standards, road rules and penalties for non-compliance, battery safety and disposal, and the legal use of the device on public roads and pathways.

8. Effectiveness of current enforcement approaches

8.1 Introduction

This chapter examines the effectiveness of the enforcement of regulations relating to e-mobility devices. Many inquiry participants called for stronger enforcement of the existing rules by the QPS, with many expressing concerns that people were riding illegal devices and engaging in risky behaviour without consequence. Recent efforts by the QPS in the enforcement area were welcomed, however, several operational and practical challenges were identified.

8.2 Existing enforcement approaches and infringements issued to date

The QPS is responsible for the enforcement of the road rules. Deputy Commissioner Cameron Harsley APM advised that the QPS is committed to ensuring that all road users can move safely and responsibly through our communities, whether on foot, in vehicles or using e-mobility devices.[512] In support of this, the QPS adopts a range of enforcement approaches relating to e-mobility including routine enforcement activities, targeted operations, infringement notices, impounding non-compliant devices, investigating serious incidents involving injury or reckless conduct, and education activities.

Deputy Commissioner Harsley advised that from a policing perspective there are concerns about the growing number of incidents involving unsafe or unlawful use, particularly in high-pedestrian areas and on public roads.[513] The Deputy Commissioner advised that QPS officers are increasingly responding to reports of dangerous riding behaviour, crashes with pedestrians and the use of non-compliant or illegally modified devices, adding that 'these incidents not only pose a risk to public safety but also place additional pressures on frontline policing resources'.[514] Assistant Commissioner Adam Guild advised that these issues are similar to those being experienced in every policing jurisdiction in Australia.[515]

Assistant Commissioner Guild emphasised that road safety is of the utmost importance and e-mobility devices come into play as part of the broader road safety strategy across Queensland. QPS operational decisions are taken in the context of balancing priorities within a particular district and ensuring the local demands of that particular district are being met, however all districts are engaged in some form of activity in relation to road safety at all times.[516]

Deputy Commissioner Harsley acknowledged that the complexity and rapid growth of e-mobility present challenges that cannot be addressed by enforcement alone. He emphasised the importance of a collaborative approach which brings together government agencies, local council, industry and the public to develop a way which promotes the safe

512 Public briefing transcript, Brisbane, 25 August 2025, p 2.
513 Public briefing transcript, Brisbane, 25 August 2025, p 1.
514 Public briefing transcript, Brisbane, 25 August 2025, p 1.
515 Public briefing transcript, Brisbane, 20 January 2026, p 14.
516 Public briefing transcript, Brisbane, 8 December 2025, p 7.

and responsible use of e-mobility devices. Inspector Gareth Bosley reiterated this point noting that a system wide approach was needed to address issues associated with e-mobility to reduce access to dangerous devices and address risky riding behaviour through a range of regulation, education and other approaches:[517]

> Certainly, looking at it as an ecosystem and looking at streamlining and simplifying both the front end in terms of what is a device and the back end, being the enforcement, and the ability to take decisive action will add to that deterrence effect. There needs to be a consequence of enforcement. Enforcement by itself will have little effect. We need to promote deterrence so that people voluntarily do the right thing for their own safety and for that of broader society.[518]

TMR advised that whenever the government implements significant regulatory reforms that have an element of enforcement, TMR will work closely with the Queensland Police Service to ensure that education and enforcement are proportionate. In many cases a period of transition is necessary where both TMR and QPS work to educate the community, issue warnings and provide people the opportunity to comply, prior to infringements being issued. This can occur both prior and post the reforms being implemented and helps ensure the community is educated and the best chance of safety outcomes are achieved.[519]

8.2.1 Operation X-Ray Surety

In November 2025 the QPS initiated Operation X-Ray Surety (running from November 2025 through to the end of January 2026), a statewide engagement, education and enforcement campaign focussed on reducing road trauma and improving compliance with e-mobility legislation.[520]

Assistant Commissioner Guild advised that as of 20 January 2026, there had been a total of 2,706 infringement notices issued for PMDs (that is, PMDs and e-bikes categorised by Traffic Infringement Notice Codes). Concerningly, 78% of those infringements related to noncompliance with wearing a helmet.[521]

The Assistant Commissioner stated that the operation resulted in the seizure of 60 e-bikes and 78 PMDs.[522] In total, Operation X-Ray Surety involved 4,950 officer hours statewide.[523]

The Assistant Commissioner reported that much of the work in the early stages of the operation focussed on engagement and education, which was completed successfully

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517 Inspector Gareth Bosley, Queensland Police Service, public briefing transcript, Brisbane, 20 January 2026, p 14.
518 Inspector Gareth Bosley, Queensland Police Service, public briefing transcript, Brisbane, 10 December 2025, p 9.
519 Department of Transport and Main Roads, correspondence, 16 February 2026.
520 Assistant Commissioner Adam Guild, Queensland Police Service, public briefing transcript, Brisbane, 8 December 2025, p 1.
521 Public briefing transcript, Brisbane, 20 January 2026, p 12.
522 Public briefing transcript, Brisbane, 20 January 2026, p 12.
523 Public briefing transcript, Brisbane, 20 January 2026, p 12.

with the assistance of schools.[524] The QPS advised that they had attended more than 70 schools throughout the Operation X-Ray Surety timeframe and conducted more than 50 community engagements across different police districts. Part of Operation X-Ray Surety was to try to get the message out to parents about their responsibility to know what they are actually buying:[525]

> I liken it to the fact that very few parents would consider buying their child a 250cc motorcycle to ride to school. However, because it is termed an e-mobility device, there is a perception that there is a difference. It is in those grey areas that well-meaning people might make poor decisions because of a lack of understanding.[526]

One of the key findings from Operational X-Ray Surety has been challenges in interacting with users, particularly those on illegal devices. Inspector Bosley advised that typically individuals who are willing to interact are on compliant devices. He noted that those who know they are blatantly offending will not interact, noting it was not something that can be addressed by enforcement alone.[527]

8.2.2 Infringement notices issued as part of normal operations

Between November 2022 and November 2025, the QPS issued 10,931 infringement notices to PMD users statewide. The most common offences were failure to wear a helmet and riding on prohibited roads, as outlined in the table below.[528]

Top Ten Infringement Notices for PMD offences	YEAR			
INFRINGEMENT TYPE	2022	2023	2024	2025
PMD fail to wear approved helmet without exemption	349	2341	2,249	3,299
PMD ride on prohibited road other than as permitted	98	907	746	857
PMD carry passenger/s	24	159	150	183
PMD fail to stop at red traffic light	14	95	112	117
PMD exceed speed limit by less than 14kmh (not footpath)	17	102	87	81
PMD exceed 12kmh footpath speed limit by less than 14kmh	4	122	29	45
PMD exceed speed limit by 14kmh to 20kmh (not footpath)	8	62	40	31
Fail give way to pedestrian/bicycle/PMD on or entering foot crossing	4	31	49	37
PMD ride device without lights/reflectors at night/hazardous weather	5	38	31	48
PMD exceed speed limit by 20kmh to 30kmh (not footpath)	7	22	32	25

Source: Queensland Police Service, correspondence, 15 December 2025, p 2.

Data provided by QPS in August 2025 detailed infringement notices by district and offender age for the period 1 November 2024 to 30 June 2025. The highest number of infringements were recorded in North Brisbane District (3,313), followed by South

524 Public briefing transcript, Brisbane, 20 January 2026, p 12.
525 Assistant Commissioner Adam Guild, Queensland Police Service, public briefing transcript, Brisbane, 20 January 2026, p 3.
526 Inspector Gareth Bosley, Queensland Police Service, public briefing transcript, Brisbane, 10 December 2025, p 9.
527 Inspector Gareth Bosley, Queensland Police Service, public briefing transcript, Brisbane, 20 January 2026, p 14.
528 Queensland Police Service, correspondence, 15 December 2025, p 2.

Brisbane (2,061) and Townsville (1,358). The lowest numbers were recorded in Southwest (126), Logan (133), and Mount Isa (152), with Gold Coast and Sunshine Coast districts each recording 276 infringements.[529]

Number of infringements relating to PMDs by district and offender age group, Queensland
1 November 2022 to 30 June 2025

	Offender Age Group								
District	10-17	18-24	25-29	30-39	40-49	50-59	60+	Other	Total
CAPRICORNIA	49	241	108	222	89	28	8	0	745
DARLING DOWNS	7	88	42	57	64	10	12	0	280
FAR NORTH	6	162	125	147	94	44	17	0	595
GOLD COAST	19	59	41	68	53	34	2	0	276
IPSWICH	10	91	40	87	62	8	1	0	299
LOGAN	0	24	18	39	40	11	1	0	133
MACKAY/WHITSUNDAY	13	86	77	92	57	16	6	0	347
MORETON	9	105	59	97	92	21	4	0	387
MOUNT ISA	0	48	27	54	15	7	1	0	152
NORTH BRISBANE	59	1102	754	827	402	144	25	0	3313
SOUTH BRISBANE	22	605	445	520	291	138	40	0	2061
SOUTHWEST	1	34	20	42	23	6	0	0	126
SUNSHINECOAST	12	32	32	73	77	31	19	0	276
TOWNSVILLE	26	448	284	350	152	86	10	2	1358
WIDE BAY BURNETT	27	198	79	160	88	23	5	0	580

Notes to all tables
1. This data is preliminary and may be subject to change.
2. Data has been sourced from QPRIME, where there is a selected infringement relating to PMD and there is a 1465 offence on the occurrence.
3. Offender age group is based on the age the offender was at the reported time.
4. Data for infringements is for the period of 1 November 2022 to 30 June 2025.

Source: Queensland Police Service public briefing, 25 August 2025, tabled paper.

TMR advised that it is not possible to provide data on e-bike infringements as offence data groups e-bikes with all other bicycles.[530]

8.3 Calls for stronger enforcement of existing rules

More than 600 submitters raised concerns about the enforcement of e-mobility regulations, citing illegal riding behaviour and a lack of visible enforcement. There was broad support for expanding police powers, with submitters advocating for the QPS to confiscate, impound, or destroy non-compliant devices.[531]

Several submitters made suggestions to address enforcement resource challenges. This included involving local council officers, school officers and TMR transport inspectors in issuing infringements and confiscating devices. For example one community member submitted that while there are reasonable laws in place relating to the use of e-mobility devices, there is 'no way currently to police them consistently' and called for increased numbers of staff and possibly joint operations involving police and TMR staff issuing on-

529 Deputy Commissioner Cameron Harsley APM, Queensland Police Service, public briefing, 25 August 2025, tabled paper, p 1.
530 Department of Transport and Main Roads, correspondence, 30 May 2025, p 9.
531 See for example submissions 5, 72, 260, 277, 289, 490, 686, 1026, 1063, 1066.

the-spot fines and confiscating devices to help get issues such as doubling, not wearing helmets, and speeding under control.[532]

LGAQ also acknowledged enforcement challenges, but maintained that responsibility for the enforcement of PMD regulations should remain with the state government, with clear boundaries to avoid placing regulatory or financial burdens on local government.[533]

Submitters also called for a centralised reporting system to allow community members to report unsafe or illegal behaviour to local or state authorities. Some submitters recommended using enforcement technology, to track and address non-compliant behaviour more effectively.[534]

8.4 Concerns about riders not complying with rules

Nearly half of all submitters expressed concern that riders are not complying with existing rules for e-mobility devices. They highlighted the need for stronger enforcement, clearer communication and education, and simplified road rules to improve compliance.[535]

Queensland Health, the Australian Lawyers Alliance, and Queensland University of Technology raised specific concerns about widespread helmet non-compliance, noting its strong association with the frequency and severity of injuries.[536]

Several stakeholders, including the Australian Lawyers Alliance, the University of the Sunshine Coast, and Maurice Blackburn Lawyers, also emphasised that limited public understanding of road rules contributes significantly to non-compliance. Riders often lack clarity on where devices can be used, what constitutes a legal device, and whether modifications are permissible. The University of the Sunshine Coast specifically called for simplifying the road rules and language to improve rider comprehension.[537]

The CARRS-Q evaluation of the regulation of PMDs in Queensland found low levels of rider awareness, with fewer than one-quarter of users, and even fewer non-users, aware that the footpath speed limit is 12km/h.[538]

Some stakeholders also referred to the ‘fragmented’ regulatory framework across Australian jurisdictions, and the varying approaches resulting in confusion, particularly in border areas like Coolangatta/Tweed Heads.

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532 Submission 476, p 1.
533 Submission 1199, p 2.
534 See for example submission 1169.
535 See for example submissions 1091, 18, 26, 544, 854, 1107.
536 See Queensland Trauma Clinical Network, Queensland Health, submission 824; Australian Lawyers Alliance, submission 820; Queensland University of Technology, submission 954.
537 Ms Vida Mehranfar and Professor Christian Jones, University of the Sunshine Coast, submission 804; see also Australian Lawyers Alliance, submission 820; Maurice Blackburn Lawyers, submission 1087.
538 Not published, Centre for Accident Research & Road Safety - Queensland, *Evaluation of the Regulation of Personal Mobility Devices (PMDs) in Queensland, Final Report*, p i.

8.5 Calls for increased penalties and driver licence sanctions

Several submitters suggested strengthening penalties to deter non-compliant behaviour, including applying demerit points for e-mobility offences to riders of all ages. These views were supported by the Queensland Law Society.[539]

TMR advised that it supports penalties for e-mobility devices that are proportionate to the severity and risks associated with the behaviour and noted that several PMD penalties were increased significantly in 2022.[540] TMR also advised that increased penalties will only be effective if accompanied by robust enforcement.[541]

8.6 Enforcement challenges

The QPS acknowledged that there were several challenges relating to the enforcement of e-mobility regulations.

8.6.1 Pursuit of and identification of riders

A key enforcement challenge is the pursuit of riders breaching e-mobility device and road rules. The Queensland Police Safe Driving Policy regulates when pursuits may occur, and recognises the inherent risks involved. The policy adopts a risk-based approach and prohibits pursuits where there is an unjustifiable risk to police, the public or the pursued individual. Officers are directed not to commence or continue a pursuit where doubt exists.[542]

Deputy Commissioner Harsley advised that this presents challenges for the intervention of e-mobility devices, as often they are being ridden in high-use, public places where sometimes the interception of these vehicles would create a greater risk to road users and the community.[543] The Deputy Commissioner indicated that those with previous contact with the police would be aware of when they may need to take an action that assists them rather than assisting the police or the public.[544]

Assistant Commissioner Guild observed that the QPS has experienced strong enforcement results in the South Brisbane district, supported by a network of bikeways and paths which are suitable for targeted operations. In contrast, he noted that in public spaces on the Gold Coast and comparable areas, riders frequently disperse when officers approach, significantly constraining opportunities for effective interception and

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539 Queensland Law Society, submission 1200; see also for example submissions 1078, 867, 912, 274, 1166.

540 Department of Transport and Main Roads, correspondence, 30 September 2025, p 18. Queensland Law Society, Brisbane South Bicycle User Group, submission 1166, p 3.

541 Department of Transport and Main Roads, correspondence, 30 September 2025, p 18. Queensland Law Society, Brisbane South Bicycle User Group, submission 1166, p 3.

542 Queensland Police Service, *Queensland Police Service Safe Driving Policy*, section 14.34.1, https://cabinet.qld.gov.au/documents/2010/Nov/Police%20Pursuits/Attachments/Attachment%20-%20Comm%20Circ.docx.

543 Deputy Commissioner Cameron Harsley APM, Queensland Police Service, public briefing transcript, Brisbane, 25 August 2025, p 3.

544 Deputy Commissioner Cameron Harsley APM, Queensland Police Service, public briefing transcript, Brisbane, 25 August 2025, p 3.

enforcement.[545] There is also a challenge in identifying offenders who fail to comply with directions to stop due to the absence of discernible features and the lack of licensing and registration requirements.[546]

Inspector Bosley advised that, as part of Operation X-Ray Surety on the Gold Coast, officers have been monitoring incidents described as 'failing to engage with police', where riders avoid police presence before a direction to stop can be issued. In the early stages of the operation, approximately two-thirds of riders were observed disengaging in this way. While this behaviour has reduced slightly, particularly around schools, avoidance rates remain high in areas such as Broadbeach, with more than 80% of riders continuing to evade police, limiting opportunities for safe and effective enforcement.[547]

The QPS advised that they would welcome technology that would assist officers to identify riders. QPS noted that while the technology exists, and some shared scheme companies are able to track devices, it can be challenging to obtain information about the identity of a rider.[548]

Ride outs

The emergence of so-called 'ride outs', which are organised or spontaneous group riding that can involve dangerous and antisocial behaviour, was identified as an emerging issue and presented specific enforcement challenges.

Inspector Bosley advised that these ride outs are social media driven events designed around non-compliance. They seek to ride often on roads where they are not supposed to be in live traffic and they are very difficult to manage. The QPS has to manage such events for the safety of the riders rather than from an enforcement perspective to avoid the potential unintended consequence that QPS actions could provoke more serious behaviour which is of higher risk.[549] The QPS explained that similar to patterns observed in vehicle and motorcycle offending, this behaviour is often linked to a lack of maturity and limited appreciation of consequence and there is frequently little consideration of the risk of injury to themselves or to the broader community.[550]

From an operational perspective, Assistant Commissioner Guild advised that, in response to ride out events and similar activities, police often seek to identify riders through indirect means. This can include reviewing CCTV footage, analysing how participants assembled

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545 Assistant Commissioner Adam Guild, Queensland Police Service, public briefing transcript, Brisbane, 20 January 2026, p 12.
546 Assistant Commissioner Adam Guild, Queensland Police Service, public briefing transcript, Brisbane, 8 December 2025, p 1.
547 Inspector Gareth Bosley, Queensland Police Service, public briefing transcript, Brisbane, 8 December 2025, pp 2-3.
548 Assistant Commissioner Adam Guild, Queensland Police Service, public briefing transcript, Brisbane, 8 December 2025, p 4.
549 Inspector Gareth Bosley, Queensland Police Service, public briefing transcript, Brisbane, 20 January 2026, p 15.
550 Deputy Commissioner Chris Stream APM, Queensland Police Service, public briefing transcript, Brisbane, 20 January 2026, p 16.

at locations, often through social media, and exploring other investigative avenues to support enforcement action over time. However, he noted that this approach is highly labour-intensive.[551]

Inspector Bosley reflected on provisions of the *Police Powers and Responsibilities Act 2000* which exist to address matters relating to hooning, including attendance at events, and the recording and posting of vision. However, these provisions relate to 'motor vehicles' only, and a change in the definition of vehicle type for e-mobility devices would need to be made to enable QPS to use these laws. Inspector Bosley stated that the ability to control what is posted and filmed would assist, arguably, in managing the worst effects of the ride outs.[552]

8.7 Tackling illegal and non-compliant devices

One of the most significant issues raised throughout the inquiry, was the emergence of illegal and non-compliant devices on the roads. The Deputy Commissioner confirmed that many non-compliant e-bikes come under the legal definition of a motorbike, meaning they must be registered and insured and require a licence to be used on public roads.[553] Inspector Bosley advised that these devices present significant issues due to their ability to reach speeds exceeding 100km/h.[554]

Under existing laws illegal electric motorbikes can be legally immobilised, impounded and eventually forfeited to the state if the rider is charged, arrested or issued with an infringement notice for a relevant hooning offence.[555]

Hooning offences

QPS officials explained that vehicle-based hooning offences are categorised into Type 1 and Type 2 offences and have graduated penalties for repeat offenders that include impoundment, immobilisation and eventually permanent forfeiture of the vehicle.[556] Inspector Bosley explained that the first time an offender is detected they get what is called a zero offence. There is an enforcement action taken but they are basically put on notice that any further such offending will then start to be counted in terms of an impoundment. The subsequent second, third and fourth offences, which are all counting offences, can

551 Assistant Commissioner Adam Guild, Queensland Police Service, public briefing transcript, Brisbane, 20 January 2026, p 12.
552 Inspector Gareth Bosley, Queensland Police Service, public briefing transcript, Brisbane, 20 January 2026, p 13.
553 Deputy Commissioner Cameron Harsley APM, Queensland Police Service, public briefing transcript, Brisbane, 25 August 2025, p 2.
554 Inspector Gareth Bosley, Queensland Police Service, public briefing transcript, Brisbane, 20 January 2026, p 15.
555 Assistant Commissioner Adam Guild, Queensland Police Service, public briefing transcript, Brisbane, 8 December 2025, p 2.
556 *Police Powers and Responsibilities Act 2000*, Chapter 4, Part 2.

lead to various terms of impoundment, and are required to be finalised before a court or payment of the infringement notice.[557]

For juveniles, the *Youth Justice Act 1992* (Youth Justice Act) requires alternative considerations to be undertaken prior to commencing proceedings. Firstly, there is cautioning or taking no action. In both of those instances there is no counting offence attributed. Secondly, if the offender is issued with an infringement notice then under the Youth Justice Act they can elect to be cautioned instead. Again, that is a no-counting offence. If that caution is provided by police, it does not count. It has to be a caution by a magistrate or to be finalised before a magistrate for it to count. Quite often matters are referred back outside of the court to be finalised through police cautioning as opposed to court cautioning.[558]

Inspector Bosley advised that whilst technically there is the ability for vehicle impoundment and seizure under the hooning regulations, the Youth Justice Act means very seldom is the position reached where there are the requisite number of offences finalised in the requisite manner to enable that to take place. The QPS advised that it sees complications because of the application of the Youth Justice Act. The QPS advised that it sees the same complications with juvenile offenders in terms of motor vehicles, with dangerous operation and other road-based offending.[559]

8.8 Seizure and disposal of devices

In addition to the legal constraints discussed above, practical issues relating to the storage and disposal of devices and their batteries were also raised by the QPS.

The QPS noted challenges associated with the safe storage of seized devices at police property points, particularly where the quality and safety of the devices are unknown. Battery removal presents both practical and safety challenges, and the disposal of batteries poses further difficulties. While some local governments offer battery collection services, most commercial disposal providers operate interstate, requiring alternative disposal arrangements as these batteries cannot be processed through conventional waste streams.[560]

Inspector Bosley advised that devices seized as part of Operation X-Ray Surety were being stored at police property points, which presents safety risks when co-located with other stored items. Storing these devices alongside materials such as solvents, chemicals or ammunition significantly increases risk, including the potential for thermal incidents. Alternative storage arrangements have been trialled across the state, including the use of

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557 Inspector Gareth Bosley, Queensland Police Service, public briefing transcript, Brisbane, 8 December 2025, p 2.

558 Inspector Gareth Bosley, Queensland Police Service, public briefing transcript, Brisbane, 8 December 2025, p 2.

559 Inspector Gareth Bosley, Queensland Police Service, public briefing transcript, Brisbane, 8 December 2025, p 2.

560 Inspector Gareth Bosley, Queensland Police Service, public briefing transcript, Brisbane, 20 January 2026, p 13.

shipping containers on police premises to enable separation from other dangerous goods.[561]

An alternative approach is the seizure and storage of devices in tow yards, where available. Some towing operators maintain dedicated storage facilities for e-mobility devices; however, this option involves associated costs. Inspector Bosley advised that in cases involving juveniles aged 16 to 17 years, those costs cannot currently be recovered from the rider. As a result, the QPS bears the cost of seizure and storage. Operational experience from Operation X-Ray Surety indicates that these cost pressures arise most acutely within this juvenile cohort.[562]

The committee also inquired as to how long storage costs would need to be borne by the QPS, and it was confirmed that storage costs would need to be incurred pending a court outcome.[563] Inspector Bosley advised that any policy around the immediate disposal of the battery would obviously have to take into consideration the natural justice aspects of removing and disposing of a person's private property.[564]

8.9 Tackling the most significant road offences

In addressing the most serious offences and offenders, Deputy Commissioner Chris Stream APM drew parallels with established enforcement approaches used in road trauma and motorcycle safety. He advised that evidence shows individuals with extensive traffic histories are at increased risk of involvement in road trauma. Accordingly, enforcement efforts are focused on reducing fatalities, serious injuries and associated social and economic harm. Deputy Commissioner Stream explained that existing policing frameworks are applied, including the escalation of enforcement action through the courts, where appropriate. He noted that a number of matters are currently before the courts involving riders charged with multiple dangerous operation offences, and that relevant policies and guidelines are already in place to support this approach.[565]

Assistant Commissioner Guild advised that 2024 data indicates approximately 75% of road fatalities were attributable to one of the 'fatal five' risk factors—fatigue, speeding, drink and drug driving, distraction and seatbelt non-use. He cautioned that risky behaviours observed among e-mobility riders are often carried through as individuals progress to licensed driving. These behaviours reflect individual choices, whether on an

561 Inspector Gareth Bosley, Queensland Police Service, public briefing transcript, Brisbane, 20 January 2026, p 15.
562 Inspector Gareth Bosley, Queensland Police Service, public briefing transcript, Brisbane, 20 January 2026, p 15.
563 Inspector Gareth Bosley, Queensland Police Service, public briefing transcript, Brisbane, 20 January 2026, p 15.
564 Inspector Gareth Bosley, Queensland Police Service, public briefing transcript, Brisbane, 10 December 2025, p 7.
565 Deputy Commissioner Chris Stream APM, Queensland Police Service, public briefing transcript, Brisbane, 20 January 2026, p 16.

e-mobility device or in a motor vehicle, and remain a significant contributor to road trauma.[566]

Inspector Bosley further advised that unsafe e-mobility use among juveniles risks becoming a 'training ground' for poor road behaviour. He noted that riders aged 15 to 17 are in a formative, pre-licensing stage where attitudes to risk, self-control and compliance are being established. Concerningly, patterns of inappropriate use at this stage may carry through as learned behaviour into the licensing system, contributing to poorer road safety outcomes in late adolescence and early adulthood. This trajectory can mirror behaviours seen in hooning and social media driven ride out activity, representing a different manifestation of the same underlying risk culture. Given that younger cohorts are already over-represented in road trauma statistics, this trend presents a significant concern.[567]

8.10 Drink and drug driving

As discussed in chapter 4, injury data indicates that a significant proportion of injured PMD riders had consumed alcohol prior to riding. While existing laws prohibit e-bike and PMD riders from riding under the influence of alcohol or drugs, QPS has advised that current legislation limits officers' ability to respond effectively to impaired riding, particularly in relation to devices used on footpaths and the capacity to require breath or drug testing.

Section 79(1) of the TORUM Act makes it an offence to drive, attempt to put in motion, or be in charge of a motor vehicle while under the influence of alcohol or drugs. This provision applies to illegal devices, including electric motorcycles and non-compliant e-bikes, and extends to both roads and road-related areas.[568]

Section 79(7) of the TORUM Act makes it an offence to drive, or be in charge of, any vehicle other than a motor vehicle while under the influence of alcohol or drugs on a road. While e-mobility devices fall within the definition of a vehicle for this purpose, the provision applies only to conduct occurring on a road and does not extend to road-related areas such as footpaths. As a result, QPS cannot conduct random breath testing of PMD riders on footpaths and may intervene only where there is sufficient indication of impairment to justify arrest.[569]

Inspector Bosley advised that to bring PMDs into the legislation it may require an expansion of the definition of motor vehicle to include e-mobility devices.[570]

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566 Assistant Commissioner Adam Guild, Queensland Police Service, public briefing transcript, Brisbane, 20 January 2026, p 16.

567 Inspector Gareth Bosley, Queensland Police Service, public briefing transcript, Brisbane, 20 January 2026, p 16.

568 Queensland Police Service, correspondence, 16 September 2025, p 1.

569 Inspector Gareth Bosley, Queensland Police Service, public briefing transcript, Brisbane, 25 August 2025, p 6.

570 Inspector Gareth Bosley, Queensland Police Service, public briefing transcript, Brisbane, 25 August 2025, p 6.

8.11 Modified devices

QPS advised that it is seeing an increase in bicycles being converted into motorised vehicles through the addition of small petrol-powered engines. While legislative change is a matter for government, QPS identified operational limitations and a lack of dedicated powers to take decisive enforcement action to prevent offending involving these devices.[571]

A related challenge for officers being able to identify whether an e-mobility device was compliant with the legal power rating was also raised by QPS. Inspector Bosley explained that the challenge for QPS was being able to test and identify the actual specification and compliance of these devices.[572] Certainly any information that would simplify the process of identification would be beneficial. Inspector Bosley stated that trying to measure the power of a device on the side of the road is near impossible, and that anything that assists the frontline of policing to provide an efficient response would be helpful.[573]

8.12 Legal responsibility of parents for offences

The QPS advised that, once an e-mobility device is provided to a juvenile, no liability attaches to the parent or guardian. Unlike unregistered and uninsured motor vehicles, owner liability does not apply because e-mobility devices cannot be registered. Consequently, there is no legislative mechanism to hold parents or guardians responsible for offences committed by a juvenile using such a device.[574]

A significant proportion of submitters proposed that parents of minors using e-mobility devices should be held responsible and accountable for their child's actions.[575] Some submitters suggested that parents receive a fine and demerit points for negligent riding behaviour,[576] and others suggested a heavy fine for purchasing an e-scooter for a child.[577] Submitters further suggested parents should be liable for any incidents arising from the use of the device by the child, and that the liability should extend to injuries sustained by such use.[578]

8.13 Recording data

Some data recording issues were also identified by the QPS. Inspector Bosley advised that the rapid evolution of the various e-mobility devices has outpaced the systems used

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571 Inspector Gareth Bosley, Queensland Police Service, public briefing transcript, Brisbane, 8 December 2025, p 5.
572 Deputy Commissioner Cameron Harsley APM, Queensland Police Service, public briefing transcript, Brisbane, 25 August 2025, p 5.
573 Inspector Gareth Bosley, Queensland Police Service, public briefing transcript, Brisbane, 10 December 2025, p 10.
574 Inspector Gareth Bosley, Queensland Police Service, public briefing transcript, Brisbane, 10 December 2025, p 10.
575 See for example submissions 45, 167, 260, 328, 343, 378, 427, 448, 476, 483, 499, 530, 565, 780, 789, 811, 986, 1063, 1066, 1127.
576 See for example submission 499.
577 See for example submission 328.
578 See for example submission 530.

to record enforcement data. QPS has examined changes to the QPRIME system to improve the identification and recording of device types. However, these changes have been deferred pending the findings of the committee. As a result, there are current limitations in distinguishing between certain device categories, particularly electric motorcycles and traditional motorcycles, noting that the electric motorcycle category emerged only within the past 18 months. QPS advised that work is ongoing to adapt data systems to reflect these developments.[579]

Committee comment

Road safety is a core priority for the Queensland Police Service, which is committed to ensuring the safe movement of all road and path users. QPS has reported a growing number of incidents involving unsafe and illegal e-mobility device use, particularly in high-pedestrian environments and on public roads. Officers are increasingly responding to dangerous riding behaviour, non-compliant devices, and collisions involving pedestrians. Submissions to the inquiry indicate strong community support for increased enforcement and action against non-compliant riders. We agree that too many riders are deliberately ignoring road rules and putting themselves and others at serious risk.

During the inquiry, it was clear that the Queensland Police Service undertook visible and well-received enforcement activities. Operation X-Ray Surety, a statewide coordinated campaign, aimed to reduce road trauma and improve compliance with existing regulation. Early outcomes were positive, with more than 2,000 infringement notices issued, over 120 illegal devices seized, and engagement activities conducted at more than 70 schools. While these efforts are significant, operational decisions must continue to balance competing priorities and local district needs, and the complexity of these issues cannot be resolved through enforcement alone.

The Queensland Police Service faces several enforcement challenges, many of which are consistent with those experienced in other jurisdictions. Key issues include the identification and safe interception of non-compliant riders, the emergence of organised ‘ride outs’, and the growing prevalence of illegal devices, along with difficulties determining device compliance in the field. Additional barriers relate to the ability of the Queensland Police Service to seize and lawfully dispose of illegal devices, and to address high-risk behaviours such as drink and drug riding. Enforcement is further complicated when dealing with young people, particularly in relation to hooning activities.

[579] Inspector Gareth Bosley, Queensland Police Service, public briefing transcript, Brisbane, 20 January 2026, p 14.

The committee has made targeted recommendations to address key risk areas and equip the Queensland Police Service with the necessary tools to enhance community safety.

We recommend that the Queensland Police Service maintain an active and visible enforcement presence in relation to e-mobility use. Strengthening police powers is essential to address the growing prevalence of illegal devices. As outlined earlier in this report, this should include immediate action to increase penalties for offences involving illegal devices on Queensland roads and other high-risk behaviours.

Illegal e-mobility devices are inherently unsafe and there is strong and clear community sentiment that these devices have no place on our roads and footpaths. We consider legislative change necessary to ensure the Queensland Police Service has clear authority to seize and impound illegal devices as soon as they are identified. The law should also enable QPS to immediately dispose of or destroy such devices. Further, the cost and responsibility for storing and disposing of these devices should not fall to the public. Fines and penalties should be set at a level that fully recovers these expenses.

Evidence to the inquiry indicates that a significant proportion of e-bike and PMD riders involved in accidents were riding while impaired, creating substantial risk to themselves and others. Legislative amendments should be progressed to ensure that riders using footpaths can be subject to the same impaired-riding provisions that apply to motor vehicle drivers. This should include enabling officers to conduct Random Breath Tests and apply appropriate penalties where impairment is detected.

To address the complexities of enforcing penalties on young riders, it is recommended that the Queensland Government amend legislation to allow the State Penalties Enforcement Registry (SPER) to pursue 16 and 17 year old riders who breach e-bike and PMD regulations. Laws should also be amended to ensure that parents and guardians can be held responsible when a child under 16 years of age breaches e-bike or PMD regulations.

The committee encourages Queensland Police Service and the Department of Transport and Main Roads to work closely to ensure that education and enforcement are proportionate while implementing any new reforms. It is likely that a transition period is necessary. The department and police will need to work together to educate the community, issue warnings and provide people the opportunity to comply, before issuing an infringement.

Recommendation 22

That the Queensland Government amend laws to ensure that the Queensland Police Service has sufficient power to seize and impound an illegal e-mobility device on a first offence. This should include the ability for the Queensland Police Service to dispose of, or destroy, the device. Fines should be set at an appropriate level to cover costs associated with disposal of the illegal device.

Recommendation 23

That the Queensland Government review, with a view to strengthening, the existing penalties for offences associated with the most significant risk factors, including riding an illegal device, riding at excessive speed, failure to wear a helmet, riding under the influence of alcohol or drugs, and hooning.

Recommendation 24

That the Queensland Government amend laws to enable the State Penalties Enforcement Registry (SPER) to pursue 16 and 17 year old riders who breach e-bike and PMD regulations.

Recommendation 25

That the Queensland Government amend laws to provide that the parent/guardian can be pursued for penalties for breaches of e-mobility device regulations by children under 16 years of age.

Recommendation 26

That the Queensland Government amend laws to ensure that e-bike or PMD riders under the influence of alcohol or drugs can be dealt with in the same way as alcohol or drug impaired drivers of motor vehicles on roads, including undertaking Random Breath Tests.

9. Community awareness and education

This chapter considers communication and education about e-mobility use. Inquiry participants strongly supported improved education to enhance e-mobility safety and compliance, with various suggestions and examples offered over the course of the inquiry.

9.1 Existing education programs and initiatives

Stakeholders provided evidence about existing e-mobility education programs and initiatives. This included programs and initiatives delivered by government agencies,[580] shared device providers,[581] local governments,[582] retailers[583] and private training companies.[584]

TMR and QPS already play an active role in providing education about device compliance, speed limits, safety and road rules. For example, TMR advised the committee that it is rolling out enhanced communication and education specifically targeted at young people. This includes delivering presentations about rules and safe riding in schools and partnering with the Department of Education and QPS to distribute educational materials to parents and children. TMR also provides information about e-mobility devices across a range of social media channels.[585]

StreetSmarts is a road safety education platform developed by TMR. It provides children and young people, as well as parents, with access to facts, tools, tips and campaigns about electric devices.[586] The StreetSmarts initiative has also provided draft newsletter articles and e-posters to Queensland schools and offered free brochures to help educate students and parents on the rules for e-scooters and e-bikes.[587]

Shared scheme providers have also established education initiatives. For example, Neuron Mobility advised the committee that it has a 'robust' education program. Neuron explained:

> All of our riders agree to a comprehensive list of rules before they are able to take their first trip. There is in-app messaging reminding riders of the rules and stickers on the e-scooters with the main dos and don'ts. We complement the in-app education with in-person engagement from our Safety Ambassadors, whom we regularly deploy on the streets, where they encourage riders to follow the rules and ride responsibly as well as report any breaches which result in actions under our three strike policy.[588]

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580 For example, Department of Transport and Main Roads, correspondence, 30 September 2025, pp 7, 16.
581 See Neuron Mobility, submission 1019, pp 7-8; Beam Mobility Australia, submission 1146, p 4; Lime Network, submission 1159, p 5.
582 See for example City of Gold Coast, submission 1093, p 9.
583 See for example Everybody eBikes, submission 739, p 2.
584 See for example ScootFit, submission 1051.
585 Department of Transport and Main Roads, correspondence, 30 September 2025, pp 7, 16.
586 Available online at https://streetsmarts.initiatives.qld.gov.au/.
587 Queensland Family and Child Commission, June 2025, *Improving safety when young people ride scooters and ebikes,* https://www.qfcc.qld.gov.au/sites/default/files/2025-06/Improving-safety-when-young-people-ride-e-scooters-and-e-bikes.pdf, p 16.
588 Submission 1019, pp 7-8.

Some retailers told the committee about their efforts to provide education at the point of sale. However, they also observed that their efforts to provide information were sometimes met with hostility and needed to be reinforced by broader community education campaigns.[589]

9.1.1 Need for improved education

The evidence received by the committee indicates strong community support for improved education of PMD and e-bike riders and, in the case of children, their parents. Numerous submitters and witnesses called for more and better training, with many of them suggesting that such education should cover device compliance, road rules, safe riding practices, and the consequences of risky behaviour. This group included medical professionals,[590] insurers,[591] organisations representing vulnerable communities,[592] retailers and shared device providers,[593] bicycle user groups,[594] local councils[595] and other stakeholders.[596]

For example, Everybody eBikes, an e-bike retailer, told the committee parents purchasing devices for children were often unaware of existing rules. They explained that some parents, 'have no idea around maximum speeds, maximum continuous rated power ratings or the risks to rider and equipment associated with converting a bike designed to be propelled by humans not oversized motors.'[597] Similarly, the Queensland Family and Child Commission submitted:

> … parents and carers must be equipped to model and reinforce safe emobility behaviours. Public campaigns that clearly explain the risks associated with unsafe use, including injury

589 Everybody eBikes, submission 739, p 2; Neuron Mobility, submission 1019, p 12.

590 Royal Australasian College of Surgeons, submission 640, p 2; Queensland Trauma Clinical Network, Queensland Health, submission 824, p 204.

591 Insurance Council of Australia, submission 666, p 4; RACQ, submission 1091, pp 5-6, 27.

592 Council on the Ageing Queensland, submission 665, pp 5, 36; Spring Hill Community Group, submission 726, pp 15, 27, 29; Vision Australia, submission 988, pp 4, 11-12; Queenslanders with Disability Network, submission 1076, pp 15-16; Queensland Family and Child Commission, submission 1110, pp 10-11; Kidsafe Queensland, submission 1195, p 2.

593 Everybody eBikes, submission 739, pp 2, 6-7.

594 Brisbane West Bicycle User Group, submission 944, p 2; Brisbane Airport Bicycle User Group, submission 1111, p 4; Bicycle Queensland, submission 1160, pp 5, 15-16; Brisbane South Bicycle User Group, submission 1166, pp 3-4, 6; Sunshine Coast Bicycle User Group, submission 1177, p 3.

595 Fraser Coast Regional Council, submission 976, p 6; Cairns Regional Council, submission 1083, pp 2-3; City of Gold Coast, submission 1093, pp 6, 10; Logan City Council, submission 1154, p 1; Local Government Association of Queensland, submission 1199, pp 2, 5.

596 Australian Lawyers Alliance, submission 830, pp 9-11; BRAKE Driver Awareness, submission 974, pp 2-3; The University of Queensland Micromobility Research Cluster, submission 1009, p 2; Zipidi, submission 1028, pp 15, 29, 47-48, 56; Australian Centre for Health Law Research, QUT, submission 1079, p 7; Maurice Blackburn Lawyers, submission 1087, pp 2, 4; Queensland Walks Incorporated, submission 1097, p 6; Engineers Australia, submission 1106, p 4; Caravan Parks Association of Queensland, submission 1121, p 9; Outdoors Queensland, submission 1150, p 4; Gold Coast North Chamber of Commerce & Industry Inc, submission 1153, p 4; Ario, submission 1169, p 5; Australasian College of Road Safety, submission 1175, p 7; Sandy Bolton MP, Member for Noosa, submission 1186, p 3; Motor Trades Association of Queensland, submission 1197, p 9; Queensland Law Society, submission 1200, p 3; Zwart Transport Planning, submission 1209, p 5.

597 Everybody eBikes, submission 739, p 2.

> and legal penalties, are necessary to shift social norms and strengthen community expectations.[598]

Many submitters also called for more education about the fire risks associated with charging, storing and disposing of e-mobility devices and their batteries.[599]

Some submitters and witnesses suggested that PMD and e-bike riders should undertake mandatory training and testing. Other submitters suggested that education about PMD and e-bike safety should be delivered via schools or incorporated into driver education and training.[600] A small number observed that there is a particular need for education relating to privately owned, as opposed to shared devices, with some suggesting that mandatory safety education should be provided by retailers at the point-of-sale.[601]

9.1.2 Suggestions for making education more effective

Submitters made a variety of suggestions about how to ensure that rider education is effective.

Several submitters stressed the importance of making education about PMDs and e-bikes inclusive and targeted. Many emphasised the need to tailor education for young people.[602] For example, the Queensland Family and Child Commission told the committee:

> Young people, due to their stage of brain development, are more likely to misjudge risk and act impulsively, which heightens their susceptibility to injury in complex traffic environments. These factors underscore the importance of communication strategies that are tailored, developmentally appropriate, and supported by caregivers and communities.[603]

Some submitters told the committee that education should also incorporate tailored messaging for culturally and linguistically diverse communities, First Nations communities, tourists and visitors. They suggested that education be made available in a variety of languages and mediums to ensure it is accessible to as many people as possible.[604]

Other submitters emphasised the need for education to be provided in a manner that encourages users to engage with it. Several submitters noted that although shared PMD and e-bike providers make information about road rules and safe riding available to users, this information is typically provided during paid, timed sessions. This creates a

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598 Queensland Family and Child Commission, submission 1110, p 11.
599 See for example submissions 528, 555, 739, 1076, 1083, 1091, 1106, 1130, 1199.
600 See for example Australian Lawyers Alliance, submission 830, p 11; Fraser Coast Regional Council, submission 976, p 6.
601 Neuron Mobility, submission 1019, p 12; ScootFit, submission 1051, p 3; Caravan Parks Association of Queensland, submission 1121, p 9; Bicycle Queensland, submission 1160, p 15; Motor Trades Association of Queensland, submission 1197, p 3.
602 See for example Maurice Blackburn Lawyers, submission 1087, p 4; Queensland Family and Child Commission, submission 1110, pp 10-11; Outdoors Queensland, submission 1150, p 4.
603 Queensland Family and Child Commission, submission 1110, p 10.
604 Queenslanders with Disability Network, submission 1076, pp 15-16; Queensland Family and Child Commission, submission 1110, p 11; Outdoors Queensland, submission 1150, p 4; Queensland Tourism Industry Council, submission 1151, p 2.

disincentive to engage with that information, encouraging riders to skip through it quickly to save time.[605] As researchers from the University of Queensland explained:

> …the use timers for shared scooters often begin while the rules are being shown, which encourages users to skip through the notices quickly. The rules are often presented in a generic manner and easily quickly bypassed by the user.[606]

This problem could be reduced by redesigning the apps employed by shared device providers to mandate completion of interactive training modules and competency checks by riders.

Recommendation 27

That the Queensland Government implement a wide-ranging community education campaign outlining the rules and changes to the rules, governing e-bike and PMD use to ensure the community is well informed of the changes.

Recommendation 28

That the Queensland Government provide guidelines to assist schools to promote safe and compliant riding behaviours and set clear expectations for students travelling to and from school, that inform the school community about any changes to e-mobility regulations, road rules, what are legal devices, and safe riding behaviours.

605 See for example University of the Sunshine Coast, submission 804, p 25; The University of Queensland Micromobility Research Cluster, submission 1009, p 2.

606 The University of Queensland Micromobility Research Cluster, submission 1009, p 2.

Appendix A – Submitters

1 - Geoff Thomas
2 - Name Withheld
3 - Dowell Williams
4 - Joshua Behnke
5 - Hiram Jeffery
6 - Name Withheld
7 - Name Withheld
8 - Name Withheld
9 - Mal Shipton
10 - Name Withheld
11 - John Griffiths
12 - Kristy Other
13 - Name Withheld
14 - Nicholas Bell
15 - Jade Cuffe
16 - John Elcock
17 - Kim Garnham
18 - Tristan Cuffe
19 - Confidential
20 - Scott Carpenter
21 - Name Withheld
22 - Peter Steindl
23 - Name Withheld
24 - Name Withheld
25 - Name Withheld
26 - John Liversage
27 - Peter Terrill
28 - Graham Williamson
29 - Donna Russo
30 - Lachlan Dante
31 - Leeanne Brazier
32 - Confidential
33 - Name Withheld
34 - Jacob Campbell
35 - Daniella Ieracitano
36 - Andy Semple
37 - Confidential
38 - Donna Hawes
39 - Name Withheld
40 - Name Withheld
41 - Joy Marks
42 - Chris Mickles
43 - John Giuricin
44 - Name Withheld
45 - David Morris
46 - Dr Paul Carne
47 - Name Withheld
48 - Name Withheld
49 - Robert Forbes
50 - Name Withheld
51 - Sue Wicks
52 - Maria Rossington
53 - Name Withheld
54 - John Pouroula
55 - Name Withheld
56 - Name Withheld
57 - Name Withheld
58 - Anthony Maguire
59 - Name Withheld
60 - Kevin Morgan
61 - Name Withheld
62 - Kym Pinnington
63 - Beth Hall
64 - Name Withheld

65 - Robert Acheson
66 - Melanie Windsor
67 - Name Withheld
68 - Peter Nelson
69 - Name Withheld
70 - Name Withheld
71 - Gene Norman
72 - Name Withheld
73 - Name Withheld
74 - Nicole Anderson
75 - Katie Zwicker
76 - Name Withheld
77 - Confidential
78 - Name Withheld
79 - Tom Hulse
80 - Jasmine Blas
81 - Name Withheld
82 - Gary Bourke
83 - Confidential
84 - Name Withheld
85 - Linda Magin
86 - Natalie Buttenshaw
87 - Name Withheld
88 - Roger Green
89 - Name Withheld
90 - Chris Jobson
91 - Greg Melloy
92 - Name Withheld
93 - Leonard Paarman
94 - Name Withheld
95 - Donna Bulmer
96 - Name Withheld
97 - Bruno Hurisset
98 - Name Withheld
99 - Name Withheld
100 - Name Withheld
101 - John Dawes
102 - Name Withheld
103 - Name Withheld
104 - Rosalind Lazar
105 - Name Withheld
106 - Robert Alexander
107 - Confidential
108 - Name Withheld
109 - Louise Smith
110 - Number not assigned
111 - Confidential
112 - Name Withheld
113 - Number not assigned
114 - Ross de la Haye
115 - Name Withheld
116 - Name Withheld
117 - Paul Durlach
118 - Name Withheld
119 - Alan Matteucci
120 - Peter Farnan
121 - Name Withheld
122 - Peter Nissen
123 - Christine Shepherd
124 - Confidential
125 - Robert Dickie
126 - Name Withheld
127 - Confidential
128 - Joel Landon
129 - Name Withheld
130 - Name Withheld
131 - Sam Carroll
132 - David Nicholson
133 - Grant Wensor
134 - Michael Chambers

135 - Peter Halpin
136 - Sylvia Hill
137 - Name Withheld
138 - Name Withheld
139 - Dallas Faulkner
140 - Name Withheld
141 - Name Withheld
142 - Name Withheld
143 - Keith Joser
144 - Ric Frawley
145 - Name Withheld
146 - Leonie Tuite
147 - Name Withheld
148 - Name Withheld
149 - Name Withheld
150 - Adrian Holland
151 - Donald Faulkner
152 - Name Withheld
153 - Name Withheld
154 - Confidential
155 - Elliot Baylis
156 - Rebecca Petersen
157 - Name Withheld
158 - Sarah Townley
159 - Denise Maryanne Grozier
160 - Paul Bolster
161 - Evolve Skateboards
162 - Name Withheld
163 - Kevin Chews
164 - Anna Hewlett
165 - Emily Battese
166 - Name Withheld
167 - Name Withheld
168 - Name Withheld
169 - Robyn Wicks
170 - Name Withheld
171 - Marie Fox
172 - Dennis Riddell
173 - Name Withheld
174 - Garry Polesta
175 - Name Withheld
176 - Regan Woodmass
177 - Christina Kruczaj
178 - Greg Duffy
179 - Dwight Campbell
180 - Benjamin Knight
181 - Name Withheld
182 - Name Withheld
183 - Richard Yonge
184 - Number not assigned
185 - Confidential
186 - Graeme Wells
187 - Name Withheld
188 - Robyn Shorrock
189 - Name Withheld
190 - Leyland Barnett
191 - Name Withheld
192 - Name Withheld
193 - Name Withheld
194 - Name Withheld
195 - Lynda Hepworth
196 - Andrew Aves
197 - Name Withheld
198 - Name Withheld
199 - Name Withheld
200 - Christian King
201 - Name Withheld
202 - Bob Williams
203 - Derick Frost
204 - Name Withheld

205 - SnowBiz (Fully Charged.Biz)
206 - Name Withheld
207 - Name Withheld
208 - Greg Robinson
209 - Natalie Daugherty
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211 - Name Withheld
212 - Graham Lloyd-Jones
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217 - Peter Allen
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219 - Name Withheld
220 - Chris Enwright
221 - Kim Woolley
222 - Ashlee De Cotta
223 - Steve Thomas
224 - Name Withheld
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226 - Name Withheld
227 - John Ibbotson
228 - Jane Clancy
229 - Name Withheld
230 - Tony Pantlin
231 - Julie Pantlin
232 - Darlene MacDonald
233 - Name Withheld
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236 - Name Withheld
237 - Name Withheld
238 - Grant Sheard
239 - Ross Wakeley
240 - Ian Ferris
241 - Confidential
242 - Name Withheld
243 - Warwick McPherson
244 - Name Withheld
245 - Xena Byrne
246 - Fraser Tait
247 - Confidential
248 - Kathy Gibson
249 - Donald Marshall
250 - Number not assigned
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252 - Peter Crymble
253 - Stuart Whitney
254 - Joseph Lee
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259 - Name Withheld
260 - Kyron Halleday
261 - Garry Harris
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263 - Mark Montgomery
264 - Greg Bowmer
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266 - Greg Gould
267 - Name Withheld
268 - Peter Farley
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273 - Brian Tinker
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275 - Derek Adkins
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277 - John Condren
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279 - Gail Cunneen
280 - Ron Harvey
281 - Kevin Butt
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285 - Suzanne Daugherty
286 - Confidential
287 - Name Withheld
288 - Ann Langley
289 - Christopher Dee
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292 - Charlotte Henricks
293 - Margaret Cummins
294 - Name Withheld
295 - Name Withheld
296 - Anthony Eccleston
297 - Leigh Smith
298 - Name Withheld
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300 - Sara Helyer
301 - Name Withheld
302 - Name Withheld
303 - Confidential
304 - Lyn Carter
305 - Confidential
306 - Confidential
307 - Name Withheld
308 - Peter Kline
309 - Peter Nell
310 - Confidential
311 - Name Withheld
312 - Heath Morris
313 - John Galletta
314 - Name Withheld
315 - Andrew Sweeney
316 - Paul Croucher
317 - Name Withheld
318 - Martin Beckwith
319 - Gary Thorpe
320 - Graham Cameron
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330 - Daniella Possee
331 - Dale Mills
332 - Brooke Alexander
333 - Ian Tapp
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337 - Name Withheld
338 - Ramsey Skelly
339 - Martin Edwards
340 - Name Withheld
341 - Bryan Dickson
342 - Confidential
343 - Scott Durston
344 - Gail Driver

345 - Confidential
346 - Name Withheld
347 - Kayla Mckellar
348 - Confidential
349 - Confidential
350 - Nerida Ellerton
351 - John Dowde
352 - Paul Jancar
353 - Taiga Shipley
354 - David Tragen
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357 - Andrew Moore
358 - Walter Borell
359 - Name Withheld
360 - Roderick Macdougall
361 - Scott Hall
362 - Jodi Mullett
363 - Margaret Messinbird
364 - Name Withheld
365 - Des Forrester
366 - Benjamin Mundt
367 - Name Withheld
368 - Raymond Read
369 - Damon Falcongreen
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376 - Paul Gray
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378 - Paulo Mendes
379 - Roger Bayzand
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383 - Kevin Drinnen
384 - Jack Whaley
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392 - Elizabeth Johnson
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394 - Name Withheld
395 - Noeleen Pye
396 - Joyce Shallcross
397 - Scott Geldart
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399 - Name Withheld
400 - Name Withheld
401 - Russell De lange
402 - Emily Williams
403 - Name Withheld
404 - Name Withheld
405 - Andrew Leach
406 - Name Withheld
407 - Brisbane Central Business District Bicycle User Group
408 - Name Withheld
409 - Name Withheld
410 - Carol Stanton
411 - Name Withheld
412 - Name Withheld
413 - Confidential

414 - Kevin Mason
415 - Paul Horton
416 - Name Withheld
417 - Name Withheld
418 - Name Withheld
419 - William Ellsum
420 - Denis Moore Moore
421 - Gerry McKeering
422 - James Kahn
423 - Sharyn Briggs
424 - Greg Smith
425 - Blake Hunter
426 - Kevin Kunst
427 - Name Withheld
428 - Name Withheld
429 - Nigel Moody
430 - Darren Munday
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436 - Marilyn Moody
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441 - Ronald Walsh
442 - Vicki Rosser
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444 - Trevor Lobegeier
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452 - David Pye
453 - Name Withheld
454 - Name Withheld
455 - Baden Lane
456 - Name Withheld
457 - Malcolm McRae
458 - Name Withheld
459 - Michael Stephens
460 - Peter Austin
461 - Christopher Gosney
462 - Mike Banks
463 - Dr Gary Franks
464 - Carol Franks
465 - Name Withheld
466 - Neville Jensen
467 - Robert Donoghue
468 - Name Withheld
469 - Name Withheld
470 - Pauline Houweling
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475 - Name Withheld
476 - Tony Wickham
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479 - John Dawkins
480 - Kathryn ODonnell
481 - Bianka Kent
482 - Carol Thorogood
483 - Annette O'Shea

484 - Rodney Fox
485 - Owen Easby
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487 - Dennis Isaacs
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491 - Terry Godde
492 - Ted Turner
493 - Name Withheld
494 - Carolyn Jensen
495 - Confidential
496 - Name Withheld
497 - Name Withheld
498 - Confidential
499 - Grahame Giles
500 - Name Withheld
501 - Dane O'Hara
502 - Karina Caldwell
503 - Lions Club of Mooloolaba
504 - Carol Jones
505 - Name Withheld
506 - Doric Torkington
507 - Harry Cramer
508 - Lynne Hudson
509 - Annette Thwaites
510 - Name Withheld
511 - Tay-Sharn Wesley
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519 - William Cox
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524 - Elizabeth Adamson
525 - Joe Hallenstein
526 - Name Withheld
527 - Confidential
528 - Fire Protection Association Australia
529 - Carolyn Giovannetti
530 - John Liversage
531 - Matthew Clanfield
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535 - Peter Pilarski
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540 - Marc Slater
541 - Charles De Wet
542 - Name Withheld
543 - Anthony Drake
544 - Richard Cleave
545 - Name Withheld
546 - Name Withheld
547 - Charles Panos
548 - Name Withheld
549 - Name Withheld
550 - Name Withheld
551 - Name Withheld
552 - Nialle Parker
553 - Name Withheld

554 - Name Withheld

555 - Waste Recycling Industry Association Queensland

556 - Lee-Sarose Orevich

557 - Mark Stanley

558 - Name Withheld

559 - Confidential

560 - Balonne Shire Council

561 - Duncan Gordon

562 - Ken Robertson

563 - Name Withheld

564 - Name Withheld

565 - Name Withheld

566 - Name Withheld

567 - Gavin Becker

568 - Murray Brymner

569 - Name Withheld

570 - Name Withheld

571 - Ann Jaschke

572 - Tony Gibson

573 - Name Withheld

574 - Wayne Jones

575 - Number not assigned

576 - John Kennerley

577 - Name Withheld

578 - Name Withheld

579 - Paul Gray

580 - Name Withheld

581 - Samuel Williams

582 - Name Withheld

583 - Confidential

584 - Name Withheld

585 - Name Withheld

586 - Venesa Gleeson

587 - Brian Kennaugh

588 - Name Withheld

589 - Name Withheld

590 - Keith Campbell

591 - Graham Legg

592 - Name Withheld

593 - Confidential

594 - Name Withheld

595 - Name Withheld

596 - David McLean

597 - Robert Jensen

598 - Name Withheld

599 - The Royal Australian College of General Practitioners

600 - Name Withheld

601 - Robert Fast

602 - William Aitken

603 - Queensland Injury Surveillance Unit

604 - Name Withheld

605 - Name Withheld

606 - Alastair Milroy

607 - Rod Forrester

608 - Jan Forrester

609 - Number not assigned

610 - Name Withheld

611 - Confidential

612 - Name Withheld

613 - Barb Holden

614 - Name Withheld

615 - Scott Mason

616 - Name Withheld

617 - Peter Fisher

618 - Marc Venter

619 - Stuart Kennedy

620 - David Ford

621 - David Huth

622 - Name Withheld
623 - Name Withheld
624 - Name Withheld
625 - Confidential
626 - Terry Thompson
627 - Name Withheld
628 - Name Withheld
629 - Confidential
630 - Name Withheld
631 - Lisa North
632 - Stephen Moore
633 - Confidential
634 - Helen Kollosche
635 - Luke Vanni
636 - Abilio Henrique
637 - Kevin Payne
638 - Lisa Morse
639 - Name Withheld
640 - Royal Australasian College of Surgeons
641 - Allan Tonks
642 - John McPherson
643 - Name Withheld
644 - Ronald George
645 - Simon Jeffery
646 - Confidential
647 - Chris Rosewarne
648 - Name Withheld
649 - Name Withheld
650 - Pamela Laxton
651 - Name Withheld
652 - John Kennedy
653 - Name Withheld
654 - Name Withheld
655 - Confidential
656 - Simone Saba
657 - Nicolas Lekieffre
658 - Michele Poppi
659 - Name Withheld
660 - Griffith University
661 - Name Withheld
662 - Jillian White
663 - Name Withheld
664 - Pavo Walker
665 - Council on the Ageing Queensland
666 - Insurance Council of Australia
667 - Sidelines Traffic Pty Ltd
668 - Name Withheld
669 - Haydn Clentsmith
670 - Name Withheld
671 - Name Withheld
672 - Name Withheld
673 - Name Withheld
674 - Neil McKay
675 - Paul Guard
676 - Name Withheld
677 - Carl Martens
678 - Name Withheld
679 - Giuseppe Gambasin
680 - Derek Brown
681 - Name Withheld
682 - Brian Hurst
683 - Anthony Baguley
684 - Confidential
685 - Name Withheld
686 - William Boyd
687 - Paul Scuffham
688 - Susan McCulloch
689 - Jodie Maguire
690 - Micaela Rae
691 - John Kirkwood-Scott

692 - Name Withheld

693 - Name Withheld

694 - Confidential

695 - Name Withheld

696 - Name Withheld

697 - Jason Covacci

698 - Name Withheld

699 - Confidential

700 - Mark Pappas

701 - Name Withheld

702 - Name Withheld

703 - Sheryl Parnell

704 - Confidential

705 - Name Withheld

706 - Name Withheld

707 - Christopher George

708 - Irene Davey

709 - Darren Hallesy

710 - Name Withheld

711 - Name Withheld

712 - Name Withheld

713 - Katharine Kelly

714 - Chris Robertson

715 - Robert Shillam

716 - Kevin Stapleton

717 - Elizabeth Robinson

718 - Name Withheld

719 - Jonathan Byrne

720 - Kirsten Clayton

721 - Name Withheld

722 - Kevin Stapleton

723 - Name Withheld

724 - Name Withheld

725 - Tony Winter

726 - Spring Hill Community Group (Brisbane Residents United)

727 - Name Withheld

728 - Name Withheld

729 - Name Withheld

730 - Name Withheld

731 - Get Around Caboolture

732 - Name Withheld

733 - Name Withheld

734 - Name Withheld

735 - Diane Reinbott

736 - Name Withheld

737 - Leesa Porter

738 - Name Withheld

739 - Everybody eBikes

740 - Verna Dunn

741 - Peter Shaw

742 - Donald Bernard Morris

743 - Frank Anning

744 - Graeme Reinbott

745 - Name Withheld

746 - Name Withheld

747 - Justine Hamilton

748 - Andrew Read

749 - Confidential

750 - Number not assigned

751 - Melanie Thomas

752 - Name Withheld

753 - Thomas Pluss

754 - Ralph Carlisle

755 - Name Withheld

756 - Confidential

757 - Name Withheld

758 - Simon English

759 - Helen Gooderham

760 - Saloni Patel

761 - Jen Piaskowski

762 - Robert Roberson

763 - Name Withheld

764 - Name Withheld

765 - Name Withheld

766 - Confidential

767 - Name Withheld

768 - Peter Baumann

769 - David Walter

770 - William Stephen Hanley

771 - Anne Wilson

772 - Victoria Paterson

773 - Margaret La Caze

774 - Doug Thomson

775 - Peter de Wet

776 - Keith Vass

777 - Lynne Healey

778 - Paul Coleman

779 - Name Withheld

780 - Jan Kent

781 - Name Withheld

782 - Mansfield Electorate Youth Advisory Council

783 - Dawn Litzow

784 - Miriam Airey

785 - Name Withheld

786 - Bernard Cannon

787 - Name Withheld

788 - Nicholas Brook

789 - Joanne McDonald

790 - Name Withheld

791 - Robert Standen

792 - Name Withheld

793 - Name Withheld

794 - North Rockhampton Neighbourhood Watch #4 Group

795 - Thomas Modica

796 - Kirstie O'Brien

797 - Lyn De Wet

798 - Tim Ciesiolka

799 - Queensland Fire Department

800 - Lorraine Kaszas

801 - Bradley Azzopardi

802 - Heidi Aly

803 - Name Withheld

804 - Vida Mehranfar and Prof Christian Jones, University of the Sunshine Coast

805 - Name Withheld

806 - Name Withheld

807 - Name Withheld

808 - Dennis Gregor

809 - Name Withheld

810 - Kristy Hold

811 - Name Withheld

812 - Name Withheld

813 - Name Withheld

814 - Confidential

815 - Name Withheld

816 - DiroDi

817 - Carol Single

818 - Michael Coleman

819 - Name Withheld

820 - Australian Lawyers Alliance

821 - Stewart Fernandez

822 - Rose Torcasio

823 - Name Withheld

824 - Queensland Health

825 - Confidential

826 - Confidential

827 - Name Withheld
828 - Name Withheld
829 - Name Withheld
830 - Name Withheld
831 - Georgia Hoffman
832 - Gary Hoffman
833 - John Van Rooy
834 - Name Withheld
835 - Kylie Jeffrey
836 - Stephen Eagle
837 - Name Withheld
838 - Name Withheld
839 - Name Withheld
840 - Jack Novinc
841 - Neil Page
842 - Name Withheld
843 - Name Withheld
844 - David Dunn
845 - Hayley Lee
846 - Dennis Johnson JP
847 - Name Withheld
848 - Name Withheld
849 - CHATO International Pty Ltd
850 - Name Withheld
851 - Name Withheld
852 - John Dowde
853 - Ronald Joseph Davis
854 - Neil McKay
855 - Confidential
856 - Name Withheld
857 - Graeme Ransley
858 - Melissa Venville
859 - Name Withheld
860 - Confidential
861 - George Covey
862 - Lachlan McLean
863 - Jennifer Barwick
864 - Karen Rowles
865 - Rochelle Dabinett
866 - Name Withheld
867 - Name Withheld
868 - Name Withheld
869 - Julian Tomlinson
870 - Name Withheld
871 - Name Withheld
872 - Elizabeth Molloy
873 - Save Our Southern Gold Coast
874 - Name Withheld
875 - Kris Jones
876 - Tony Kitchner
877 - Name Withheld
878 - Michael Mayfield
879 - Confidential
880 - Neil Greensmith
881 - Kara Bowen
882 - Brisbane City Council
883 - Name Withheld
884 - Kevin Jacobson
885 - Name Withheld
886 - Name Withheld
887 - Name Withheld
888 - Paul Garcia
889 - Name Withheld
890 - Margaret Campbell
891 - Murray Henman
892 - Ian Douglas
893 - Gina Zimpel
894 - Margaret Backhouse
895 - Name Withheld

896 - Palm Beach Currumbin State High School P&C
897 - Darren Angelo Grech
898 - Name Withheld
899 - Trudy Gadaleta
900 - Ben Vawdrey
901 - Name Withheld
902 - Philippe Girault
903 - Dimitri Morfoulis
904 - Damien Stacy
905 - Name Withheld
906 - Confidential
907 - Peter Angus
908 - Elizabeth Whitton
909 - Lisa Nissen
910 - Cheryl Virgo
911 - Name Withheld
912 - Name Withheld
913 - Marc Desveaux
914 - Name Withheld
915 - Jess Baxter
916 - Name Withheld
917 - Name Withheld
918 - Name Withheld
919 - Joris Leruste
920 - Madeline June Lee
921 - Name Withheld
922 - Name Withheld
923 - Josh Bosselmann
924 - Name Withheld
925 - Name Withheld
926 - Name Withheld
927 - Ciaron Rush
928 - James Ditton
929 - Bruce Withers
930 - Name Withheld
931 - Name Withheld
932 - Name Withheld
933 - Elizabeth Datson
934 - Name Withheld
935 - Name Withheld
936 - Name Withheld
937 - Lauren Loumeau
938 - Name Withheld
939 - Greg Loumeau
940 - Jennifer Eldridge
941 - Name Withheld
942 - Name Withheld
943 - Anthony Mark Sullivan
944 - Brisbane West Bicycle User Group
945 - Name Withheld
946 - Michael St Henry
947 - Name Withheld
948 - Derek Hall
949 - Alan Lang
950 - Bianca Saez
951 - Queensland Nurses and Midwives' Union
952 - Gerard Conway
953 - Arlo Fry
954 - Queensland University of Technology
955 - Adam Mathieson
956 - Name Withheld
957 - Lachlan Trappett
958 - Name Withheld
959 - Emma Coleman
960 - Name Withheld
961 - Gregory Grimmett
962 - Anthony Billington
963 - Confidential
964 - Susan Resnik

965 - Name Withheld
966 - Janette Tomkins
967 - Joanne Barkworth
968 - Name Withheld
969 - Jane Herrador
970 - Jonathan Simpson
971 - Terance Sweeney
972 - Name Withheld
973 - Name Withheld
974 - Brake Driver Awareness
975 - Jordan Reeves
976 - Fraser Coast Regional Council
977 - Name Withheld
978 - Paul Bateman
979 - Bronwyn Jackson
980 - Name Withheld
981 - Confidential
982 - Vehicle Design and Research Pty Ltd
983 - Confidential
984 - Robert Martin
985 - Bianca Hamilton
986 - Joanne Roddy
987 - Brad Sergeant
988 - Vision Australia
989 - Name Withheld
990 - Name Withheld
991 - Name Withheld
992 - Name Withheld
993 - E Bike Safety Australia Pty Ltd
994 - Paula Sharam
995 - Ross Eason
996 - Dmitri Sharov
997 - Timothy Ireland
998 - Name Withheld
999 - Stephanie Meggitt
1000 - Roland Spaarwater
1001 - Michael Gooley
1002 - Gwenda Adams
1003 - Name Withheld
1004 - David McBurnie
1005 - Name Withheld
1006 - Name Withheld
1007 - Name Withheld
1008 - Name Withheld
1009 - The University of Queensland Micromobility Research Cluster
1010 - Name Withheld
1011 - Kathy Young
1012 - Daniel Newby
1013 - Jane Britt
1014 - Paddy Moore
1015 - Name Withheld
1016 - Kathryn Buder
1017 - Bicycle Industries Australia
1018 - William Jessop
1019 - Neuron Mobility
1020 - Name Withheld
1021 - James Crichton
1022 - Name Withheld
1023 - Andrew Diete
1024 - Ke Wang
1025 - Name Withheld
1026 - Michael Tong
1027 - Tony Giufre
1028 - Zipidi
1029 - Patrick Cahill
1030 - Confidential
1031 - Brian Taylor
1032 - Wallace Yuen
1033 - Robert Walford

1034 - Aussie Philipsen

1035 - Clive Brooks

1036 - Kaizhen Huang

1037 - Number not assigned

1038 - Name Withheld

1039 - Ross Powrie

1040 - Ampd Bros

1041 - Confidential

1042 - Australian Medical Association Queensland

1043 - Name Withheld

1044 - Name Withheld

1045 - Pieter Van Baren

1046 - Name Withheld

1047 - Tiago Ventura

1048 - Name Withheld

1049 - Trevor Smith

1050 - Whitney Hourigan-Richmond

1051 - Laura Leighton

1052 - Andrew Vickers

1053 - David Dallaston

1054 - Scoot Fit

1055 - Maria Sealy

1056 - Mignon Simpson

1057 - Bryan Wharton

1058 - Name Withheld

1059 - Jarrah Balderstone

1060 - Name Withheld

1061 - Robert Stable

1062 - David South

1063 - Peter Creagh

1064 - Name Withheld

1065 - Richard Haywood

1066 - Scott Peterson

1067 - Mark Wareham

1068 - David Eves

1069 - John Timms

1070 - Name Withheld

1071 - Name Withheld

1072 - Name Withheld

1073 - Name Withheld

1074 - Name Withheld

1075 - Confidential

1076 - Queenslanders with Disability Network

1077 - Name Withheld

1078 - Pete Finn

1079 - Australian Centre for Health Law Research, QUT

1080 - Kwok Wong

1081 - Name Withheld

1082 - Name Withheld

1083 - Cairns Regional Council

1084 - Darren Geddes

1085 - Confidential

1086 - Daniel Moffit

1087 - Maurice Blackburn Lawyers

1088 - John Weller

1089 - Confidential

1090 - Gold Coast Hospital and Health Service

1091 - The Royal Automobile Club of Queensland (RACQ)

1092 - Confidential

1093 - City of Gold Coast

1094 - Name Withheld

1095 - Yassin Nooradini Shahabadi

1096 - Name Withheld

1097 - Queensland Walks Incorporated

1098 - Name Withheld

1099 - Name Withheld

1100 - Name Withheld

1101 - Twin Waters Residents Association

1102 - Name Withheld

1103 - Lachlan Tree

1104 - Name Withheld

1105 - Tim Dunn

1106 - Engineers Australia

1107 - Name Withheld

1108 - National Heart Foundation of Australia

1109 - Andrew Hofman

1110 - Queensland Family and Child Commission

1111 - Brisbane Airport Bicycle User Group

1112 - Ampd Bros (Brendon Keats)

1113 - Ampd Bros (Corey Keats)

1114 - Michael Crisp

1115 - Jessie Oldfield

1116 - Benny Wang

1117 - GoGet Carshare

1118 - Name Withheld

1119 - Charles Rottier

1120 - Name Withheld

1121 - Caravan Parks Association of Queensland

1122 - Name Withheld

1123 - Adrian Francis

1124 - Janette Helen Gillies

1125 - Number not assigned

1126 - eScootNow

1127 - Name Withheld

1128 - Michael Marron

1129 - Sunshine Coast Regional Council

1130 - Battery Stewardship Council

1131 - Queensland Consumers Association

1132 - Steve Wilkinson

1133 - Confidential

1134 - Name Withheld

1135 - Australian Electric Vehicle Association

1136 - David Corby

1137 - Hemi Te Tana

1138 - Peter Brown

1139 - Name Withheld

1140 - Attwood Marshall Lawyers

1141 - Stephen Wetton

1142 - Name Withheld

1143 - Name Withheld

1144 - Joan Brown

1145 - Tom Foran

1146 - Beam Mobility Australia Pty Ltd

1147 - Nicole Powrie

1148 - Pedestrian Council of Australia

1149 - Nader Ibrahim

1150 - Outdoors Queensland

1151 - Queensland Tourism Industry Council

1152 - Road Accident Action Group

1153 - Gold Coast North Chamber of Commerce & Industry Inc

1154 - Logan City Council

1155 - Kristen Whittingham

1156 - Confidential

1157 - Pedal Group Australia Pty Ltd

1158 - Name Withheld

1159 - Lime Network Pty Ltd (Lime)

1160 - Bicycle Queensland

1161 - WorkCover Queensland

1162 - Adjunct Professor Matthew Burke

1163 - Confidential

1164 - Anne Moffit

1165 - Name Withheld

1166 - Brisbane South Bicycle User Group

1167 - Name Withheld

1168 - Haydn Clentsmith

1169 - Ario

1170 - Name Withheld

1171 - Name Withheld

1172 - Confidential

1173 - OKB-42 Pty Ltd (Foucault Dynamics)

1174 - Benjamin Murphy

1175 - Australasian College of Road Safety

1176 - Name Withheld

1177 - Sunshine Coast Bicycle User Group

1178 - Ross Fazel

1179 - Reuben Richardson

1180 - Colin Caudell

1181 - Name Withheld

1182 - Bao Son Nguyen

1183 - Greg Spinda, Partner, Travis Schultz & Partners

1184 - EVA Motors

1185 - Peter Hale

1186 - Sandy Bolton MP, Member for Noosa

1187 - Ray Bange OAM

1188 - Anthony Shelley

1189 - James Gibson

1190 - Australian Institute of Landscape Architects

1191 - Name Withheld

1192 - Geoff Webster

1193 - Paula Mcleister

1194 - Dr Terry Goldsworthy

1195 - Kidsafe Queensland Inc

1196 - Office of the National Rail Safety Regulator

1197 - Motor Trades Association of Queensland

1198 - See.Sense

1199 - Local Government Association of Queensland

1200 - Queensland Law Society

1201 - Electronic Sports Entertainment

1202 - Adam Kellermann

1203 - Michael Beattie

1204 - Susanne Vergers

1205 - Confidential

1206 - Confidential

1207 - Patrick Yeung

1208 - Confidential

1209 - Zwart Transport Planning

1210 - Harry Zwegers

1211 - Dr Matthew Clanfield

1212 - Name Withheld

1213 - KirraSurf Apartments Body Corporate Committee

1214 - Jenni Dabelstein

1215 - Zoomo

1216 - Jason Gagg

1217 - Kirsten Little

1218 - Rail Tram and Bus Union

1219 - Colin Caudell

1220 - Sophia Tyrrell

1221 - Glen Needs

1222 - Darren Stribning

1223 - Troy Hondow and Kloe Weedon

Appendix B – Officials at public briefings

BRISBANE - WEDNESDAY, 11 JUNE 2025

Department of Transport and Main Roads

- Mr Geoff Magoffin, Deputy Director-General, Customer Services, Safety and Regulation
- Mr Daniel Kaden, Acting Executive Director, Land Transport Safety and Regulation
- Ms Nicole Downing, Acting General Manager, Land Transport Safety and Regulation
- Mr Nicholas Mackay, Manager, Road Rules and Emerging Technology

BRISBANE - TUESDAY, 22 JULY 2025

Queensland Trauma Clinical Network, Queensland Health

- Dr David Lockwood, Director of Trauma Service and Acute Care and Renal Transplant Surgeon, Princess Alexandra Hospital; and Clinical Co-Chair, Queensland Trauma Clinical Network, Clinical Excellence Queensland

Queensland Fire Department

- Commissioner Stephen Smith AFSM
- Superintendent Mark Halverson, State Fire Safety Section
- Inspector Daren Mallouk, State Fire Investigations Unit

BRISBANE - MONDAY, 25 AUGUST 2025

Queensland Police Service

- Deputy Commissioner Cameron Harsley APM, Regional Services
- Acting Assistant Commissioner Adam Guild, Road Policing and Regional Support Command
- Inspector Gareth Bosley, Road Policing Group

Office of Fair Trading, Department of Justice

- Mr Craig Turner, Executive Director, Harm Prevention and Regulation

Office of Industrial Relations, Department of State Development, Infrastructure and Planning

- Ms Andrea Fox, Executive Director, Policy and Workplaces Services
- Mr Rob Wicks, Executive Director, Electrical Safety Office
- Mr Stuart McLaughlin, Director, Industrial Work Health and Safety and Electrical Safety Policy
- Mr Brian Richardson, Director, Equipment Safety and Licensing

BRISBANE - MONDAY, 8 DECEMBER 2025

Queensland Police Service

- Acting Assistant Commissioner Adam Guild, Road Policing and Regional Support Command
- Inspector Gareth Bosley, Road Policing Group

BRISBANE - WEDNESDAY, 10 DECEMBER 2025

Department of Transport and Main Roads

- Mr Andrew Mahon, Deputy Director-General, Policy, Planning and Investment Division
- Ms Joanna Robinson, General Manager, Land Transport Safety and Regulation, Policy, Planning and Investment Division

BRISBANE - TUESDAY, 20 JANUARY 2026

Queensland Health

- Dr David Lockwood, Co-Chair of the Queensland Trauma Clinical Network, Director of Trauma at Princess Alexandra Hospital
- Professor Kirsten Vallmuur, Chair of Trauma Surveillance and Data Analytics, Jamieson Trauma Institute, Metro North, Queensland Health, and Australian Centre for Health Services Innovation, Queensland University of Technology
- Dr Gary Mitchell, Staff Specialist, Royal Brisbane and Women's Hospital Emergency and Trauma Centre, and Clinical lead of Jamieson Trauma Institute e-mobility research program
- Dr Ruth Barker, Director, Queensland Injury Surveillance Unit

Queensland Police Service

- Deputy Commissioner Chris Stream APM
- Assistant Commissioner Adam Guild, Road Policing and Regional Support Command
- Inspector Gareth Bosley, Road Policing Group

Appendix C – Witnesses at public hearings

BRISBANE - TUESDAY, 22 JULY 2025

The Royal Automobile Club of Queensland (RACQ)

- Dr Michael Kane, Head of Public Policy
- Mr Joel Tucker, Road Safety and Technical Manager

Lime Network Pty Ltd

- Mr William Peters, Head of Asia-Pacific

Neuron Mobility

- Mr Jayden Bryant, General Manager for Australia & New Zealand

Foucault Dynamics

- Mr Arkadiy Matsekh, Chief Scientist and Director

Queensland University of Technology

- Professor Narelle Haworth AM, Chair, Motor Accident Insurance Commission–Queensland University of Technology Road Safety Research Collaboration
- Associate Professor Joshua Watts, Director, Energy Storage Research Group and Project Lead, National Battery Testing Centre
- Ms Rebecca Schade, Senior Environment Partner, Health, Safety & Environment
- Mrs Amanda Burns, Senior Health, Safety and Environment Partner, Health, Safety and Environment

University of Queensland Micromobility Research Cluster

- Dr Richard Buning, Senior Lecturer, University of Queensland Business School, Lead, University of Queensland Micromobility Research Cluster

Bicycle Queensland

- Hon Rachel Nolan, Chair
- Ms Liana Health, Interim Chief Executive Officer
- Mr Andrew Demack, Director of Advocacy

Queensland Walks

- Mr Gregory Vann, President
- Mrs Anna Campbell, Executive Officer

ROBINA - WEDNESDAY, 23 JULY 2025

City of Gold Coast

- Mrs Renee Wise, Manager Transport Operations, Infrastructure Gold Coast
- Mr Sonny Suharto, Acting Coordinator, Road Safety, Infrastructure Gold Coast

Gold Coast North Chamber of Commerce and Industry

- Mr Paul Jones, Research Officer

Ampd Bros

- Mr Brendon Keats, Director and Co-founder
- Mr Paul Sullivan, Head of Product

Gold Coast Hospital and Health Service

- Mr Andy Menzies, Analyst, Divisional Analysis and Reporting Team
- Mr Shaun Robertson, Nursing Director, Emergency Care Services

Open session

- Mr Andre Bandeson
- Mr John Cohen
- Ms Meridyth McKenzie
- Mr Phil Rowlands
- Mr Andrew Dyhin
- Mr Lance Edbrooke
- Mr Peter Fast
- Mr Homer Papantoniou
- Mr Ellis Williams

PALM BEACH (CLOSED HEARING) - WEDNESDAY, 23 JULY 2025

Palm Beach Currumbin State High School Students

- Ms Matilda Burger
- Ms Tahlia Dewsbury
- Ms Holly Hunt
- Mr Blake Jordan
- Mr Rhys Moore
- Ms Harper Palmer
- Mr Harry Zwegers
- Ms Anita Loftus

Palm Beach Currumbin State High School

- Mr Chris Capra, Executive Principal
- Mr Mitch Kennedy, Deputy Principal

Palm Beach Currumbin State High School P&C Association

- Ms Kaylee Campradt, President

CALOUNDRA - THURSDAY, 24 JULY 2025

Sunshine Coast Regional Council

- Mr Rodney Zinn, Acting Manager, Transport Network Management, Built Infrastructure

Sunshine Coast Bicycle User Group (SCBUG)

- Mr Craig Humphrey, SCBUG Chair and President, Caloundra Residents Association
- Ms Prue Oswin, Member SCBUG Infrastructure Committee
- Ms Linda Bradby, SCBUG member
- Mr Jon Rogers, Convenor, SCBUG Safety Committee

Get Around Caboolture

- Ms Wendy Nash, Founder & Advocate
- Mr John Burrill, Volunteer

Twin Waters Residents Association

- Mr Mark Hamlyn, President
- Mr Greg Smith

University of the Sunshine Coast, Engage Research Lab

- Professor Christian Jones, Leader, Engage Research Lab
- Ms Vida Mehranfar, PhD Candidate and Researcher

Travis Schultz & Partners

- Mr Greg Spinda, Partner

Open session

- Mr Kym Ayling
- Ms Kathryn Buder
- Mr Adrian Holland
- Mr John Stark

TOWNSVILLE - MONDAY, 18 AUGUST 2025

Townsville City Council

- Ms Kimberley Nitschke, General Manager - Property, Fleet and Emergency Management

Queensland Ambulance Service

- Mr Stephen Willdin, Officer in Charge, Burdell Station

Ario

- Mr Adam Rossetto, General Manager
- Mr Mitchell Price, Head of Government Relations

Townsville Bicycle Users Group

- Mr Thijs Krugers, Representative

Open session

- Mr Arthur Burchett
- Mr Reuben Richardson
- Mr Colin Phillips
- Ms Marianne Roverts

BRISBANE - MONDAY, 25 AUGUST 2025

Bicycle Industries Australia

- Mr Peter Bourke, General Manager

Council on the Ageing Queensland

- Mr Darren Young, Chief Executive Officer
- Ms Stephanie Power, Policy and Research Officer

Queenslanders with Disability Network

- Ms Michelle Moss, Chief Executive Officer

Vision Australia

- Mr Bruce Maguire, Lead Policy Advisor, Corporate Affairs and Advocacy
- Ms Caitlin McMorrow, NDIS and Aged Care Specialist Lead, Corporate Affairs and Advocacy

BRISBANE - WEDNESDAY, 27 AUGUST 2025

Queensland Family and Child Commission

- Mr Luke Twyford, Principal Commissioner
- Ms Tammy Walker, Director, Monitoring, Advocacy and Reviews

Queensland Law Society (QLS)

- Ms Hayley Stubbings, Special Counsel, Legal Policy
- Ms Alison Barrett, Member of QLS Accident Compensation and Tort Law Committee
- Ms Pru Connolly, Member of QLS Accident Compensation and Tort Law Committee

Australian Medical Association Queensland

- Dr Nick Yim, President

Royal Australasian College of Surgeons (RACS)

- Dr Harsheet Sethi, Deputy Chair, RACS Queensland State Committee
- Ms Michaela Newman, RACS Queensland Executive Officer

BRISBANE - THURSDAY, 2 OCTOBER 2025

Brisbane City Council

- Councillor Andrew Wines, Civic Cabinet Chair for the Public Transport Committee
- Mr James Ashley, General Manager, Commercial and Contract Services, Public Transport Services Group
- Ms Bridget Luke, A/General Manager, Transport Assets and Operations, Infrastructure Services Group
- Ms Courtney Williamson, Manager, Policy, Strategy and Planning, Transport Assets and Operations, Infrastructure Services Group

Queensland Tourism Industry Council

- Ms Melanie Anderson, General Manager, Strategy and Advocacy

Insurance Council of Australia

- Ms Alexandra Hordern, General Manager, Regulatory & Consumer Policy
- Ms Alix Pearce, General Manager, Climate, Social Policy and International Engagement

Pedestrian Council of Australia

- Mr Harold Scruby, Chief Executive Officer

Motor Trades Association of Queensland (MTAQ)

- Mr Rod Camm, Chief Executive Officer
- Mrs Kellie Dewar, Deputy Chief Executive Officer
- Mr Paul Peterson, Chair MTAQ and Qld Motorcycle Division

Zipidi

- Mr Stephen Coulter, Founder
- Ms Krystyna Weston, Founder

Brisbane Central Business District Bicycle User Group

- Mr Paul French

Griffith University

- Dr Kelly Bertolaccini, Engineering Lecturer

Deagon Ward of Brisbane City Council

- Councillor Jared Cassidy

See.Sense

- Ms Irene McAleese, Co-Founder and Chief Strategy Officer

Brisbane Residents United

- Dr Neil Peach, Spring Hill Community Group

East Coast Choppers

- Mr Reece Coleman, Owner

Open session

- Mr Chris Walker
- Mr Travis Bassett
- Mr Stephen Hanley
- Mr Frank Karg
- Mr Ross Powrie

CAIRNS - WEDNESDAY, 8 OCTOBER 2025

Cairns Regional Council

- Councillor Brett Olds, Deputy Mayor

Open session

- Mr Don Anderson
- Mrs Connie Luders
- Mr Michael Marron
- Mr Brynn Mathews
- Ms Helen Reed
- Mr David Ellery
- Mr Greg Gould
- Mr William McVinnish
- Mr Damian Meadows

BRISBANE - MONDAY, 8 DECEMBER 2025

Palm Beach Currumbin State High School

- Mr Chris Capra, Executive Principal

Queensland Police Service

- Senior Constable Kurt Foessel

BRISBANE - WEDNESDAY, 10 DECEMBER 2025

Bicycle Industries Australia

- Mr Peter Bourke, General Manager

Pedal Group Australia

- Mr Andrew Garnsworthy, Chief Executive Officer

Zipidi

- Mr Stephen Coulter, Founder
- Ms Krystyna Weston, Founder

Appendix D – Site and research meetings

TOWNSVILLE - MONDAY, 18 AUGUST 2025

Technology demonstration with Ario e-scooters

- Mr Adam Rosetto, General Manager
- Mr Mitchell Price, Head of Government Relations

Meeting with Townsville Forensic Crash Unit

- Acting Sergeant Hayley Garrod
- Senior Sergeant Robert Nalder

BRISBANE - THURSDAY, 2 OCTOBER 2025

Facility tour of the Lime Network operational facility

- Mr William Peters, Head of Asia-Pacific
- Mr Naim Kirubairajah, Operations Manager Queensland
- Mr Nelson Savanh, Policy Consultant

CAIRNS - WEDNESDAY, 8 OCTOBER 2025

Tour of Bedminster Advanced Resource Recovery Facility with Cairns Regional Council

- Mr Steve Cosatto, Executive Manager Resource Recovery

BRISBANE / PERTH - WEDNESDAY 19 NOVEMBER 2025

Meeting with Community Development and Justice Standing Committee, Legislative Assembly of Western Australia

- Mr Peter Rundle
- Mr Dan Bull
- Mrs Lisa Munday
- Mr Frank Paolino
- Mr Liam Staltari

SYDNEY, NSW - WEDNESDAY, 18 FEBRUARY 2026

Meeting with Transport for NSW

- Ms Ruth Graham, Executive Director Transport Policy, Safety, Policy, Environment and Regulation
- Ms Louise Higgins-Whitton, Director Road Safety, Licensing & Vehicle Policy

Meeting with NSW Fair Trading

- Ms Natasha Luschwitz, Executive Director, Strategy, Policy & Delivery
- Ms Maggie Phang, Director Consumer Policy
- Ms Urvashi Sandhu, Senior Policy Officer, Consumer Policy
- Mr Lachlan Brown, Graduate, Consumer Policy

SYDNEY, NSW - THURSDAY, 19 FEBRUARY 2026

Cronulla High School visit

- Mr Tony Ibrahim, Principal, Cronulla High School
- Mr Matthew Rog, Director, E Bike Safety Australia

Students

- Ms Jessica Beehag
- Ms Luka Powell

Statement of reservation

QUEENSLAND LABOR OPPOSITION

Statement of Reservation

State Development, Infrastructure and Works Committee

Inquiry into E-Mobility Safety and use in Queensland

58TH PARLIAMENT

Acknowledgment of Country

We acknowledge the Traditional Owners of the lands, seas, skies and waterways from across Queensland.

We pay our respect to the Elders, past, present and emerging, for they hold the memories, traditions, the culture and hopes of Aboriginal peoples and Torres Strait Islander peoples.

This artwork by The Hon Leeanne Enoch MP is called "The Power of Many" from her "Connections" series. It represents the paths we take to reach our goals and the many important and often powerful connections we make with each other along the way.

Queensland is in the middle of an e-mobility safety crisis, and the Crisafulli LNP Government has chosen delay over action.

While injuries and deaths have risen sharply over the past year, the Crisafulli LNP Government has stretched this parliamentary inquiry across almost a full year, rejected calls for urgent interim measures from numerous stakeholders and the Queensland Labor Opposition, and allowed unsafe and illegal devices to remain on our streets.

Every further delay by the Crisafulli LNP Government carries real consequences for Queensland families and communities.

There are thousands of Queenslanders who use safe, legal e-mobility devices responsibly every day. These devices support active transport, reduce congestion and provide affordable travel options. These benefits are especially relevant as Queensland continues to experience population growth and rising demand for affordable transport.

Clear decisions and actions are needed now from the government to protect Queenslanders and preserve the benefits of e-mobility.

E-MOBILITY SAFETY CRISIS

Under the Crisafulli LNP Government, Queensland has experienced a sharp and sustained increase in serious injuries and deaths linked to e-mobility devices. Data from the Queensland Injury Surveillance Unit (QISU) shows more than 2,000 people presented to Queensland emergency departments with e-mobility injuries in 2025 alone. This represents a 23 per cent increase on 2024 and a 45 per cent increase on 2023.

Stakeholders told the State Development, Infrastructure and Works Committee (committee) that these figures understate the problem. The QISU data captures only around 25 to 30 per cent of emergency department presentations across the state. The true number of injuries is likely far higher, meaning the harm occurring in Queensland communities right now is significantly underreported.

In 2025, 14 people tragically died in Queensland as a result of e-mobility device use. Among them were eight-year-old Zeke Hondow on the Sunshine Coast and 15-year-old Fudou Stovell on the Gold Coast, who died just days apart. These deaths shocked communities and prompted urgent calls for action from the Crisafulli LNP Government, with the action delayed by the Crisafulli LNP Government.

Medical experts warned that the severity of injuries was increasing while this parliamentary inquiry was still underway. Australian Medical Association Queensland President Nick Yim cautioned that hospitals were seeing a rise in serious trauma, including head injuries and complex fractures. He said,

> **"*The greatest concern for me is many of the injuries that we are seeing are leading to long-term consequences – and sometimes they can be quite catastrophic*"[1]**

Road safety advocates reached the same conclusion. RACQ Head of Public Policy Dr Michael Kane said the data showed that **"*Queensland's e-mobility crisis has reached tipping point*"[2].**

These are not just statistics. They represent real Queenslanders. People whose lives have been permanently changed by serious injury. Families who have lost loved ones. Families who pleaded with the Crisafulli Government to act to prevent further tragedy.

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[1] https://www.theaustralian.com.au/nation/doctors-urge-crisafulli-government-to-act-as-injuries-and-deaths-linked-to-escooters-rise/news-story/774bf5946ba703e4653f16d88ce5e1e1#:~:text=He%20added%3A%20%E2%80%9CThe%20greatest%20concern,(suffering)%20these%20injuries.%E2%80%9D

[2] https://www.racq.com.au/news/advocacy/reform-critical-after-qld-e-mobility-injuries-almost-double

To the Queenslanders injured, and to the families who have suffered tragic loss as a result of the Crisafulli Government's failure to act in the past year when it could and should have, the Queensland Labor Opposition hears you and supports you.

INQUIRY DELAY BY THE LNP CONTROLLED HOUSE HAS ALLOWED E-MOBILITY HARM

In the view of the Queensland Labor Opposition the Crisafulli LNP Government has not only failed to stop e-mobility harm, but it has also actively allowed e-mobility harm to continue.

On 1 May 2025, the Queensland Parliament agreed to refer an inquiry into e-mobility safety and use to this parliamentary committee, with a reporting deadline of 30 March 2026. This established a 333-day inquiry period.

From the outset, stakeholders warned that this timeframe was incompatible with the scale and immediacy of the problem. Injuries were rising month by month. Deaths were occurring. Christmas was approaching, a time when many Queensland children receive e-bikes and e-scooters as gifts.

Recognising this risk, the Queensland Labor Opposition moved to shorten the inquiry so it would conclude by 1 August 2025. This would have reduced the inquiry to 92 days and allowed the government time to introduce safety measures before the Christmas period.

The Crisafulli LNP Government voted against this proposal. Fifty-one Government members opposed shortening the inquiry[3]. This act was indeed shameful.

Jason Gagg, whose 17-year-old son Hudson died in an e-bike crash at Tallebudgera on the Gold Coast in September 2025, publicly urged the Crisafulli LNP Government not to wait for this inquiry to conclude before taking action. He said the Government needed to act "now".

> **"*It's absolutely ridiculous to wait until March when there are so many kids and adults getting killed or hurt.*"[4]**

> **"*A lot of families are buying their kids e-bikes and e-scooters for Christmas so by March it's going to be too late.*"[5]**

Police also warned of the dangers of delay. On 1 November 2025, Queensland Police Chief Superintendent Kylie Rigg told the government:

> **"*With a growing number of incidents I urge the government to fast track their response.*"[6]**

Local leaders echoed these concerns. Gold Coast Mayor Tom Tate wrote to the Premier in October 2025 calling for action before Christmas following a spate of serious incidents[7].

In a Queensland Parliamentary sitting on Thursday 20 November 2025, Shadow Minister for Transport and Main Roads Bart Mellish MP moved a motion calling for interim safety measures for e-mobility devices to be introduced prior to the December 2025 Parliamentary shutdown period. This motion was voted down by Crisafulli LNP Government members – another shameful act.

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[3] https://documents.parliament.qld.gov.au/events/han/2025/2025_05_01_WEEKLY.pdf
[4] https://www.couriermail.com.au/truecrimeaustralia/police-courts-qld/thirteen-people-taken-to-hospital-across-queensland-after-ebike-escooter-crashes/news-story/971808cc9ab9a45a3f2af4608b249c04
[5] https://www.couriermail.com.au/truecrimeaustralia/police-courts-qld/thirteen-people-taken-to-hospital-across-queensland-after-ebike-escooter-crashes/news-story/971808cc9ab9a45a3f2af4608b249c04
[6] https://www.couriermail.com.au/news/queensland/escooter-crackdown-delayed-as-qld-premier-stands-firm-on-review/news-story/b140f1dd6e3df194aec705cb8e7583c7
[7] https://www.couriermail.com.au/news/queensland/escooter-crackdown-delayed-as-qld-premier-stands-firm-on-review/news-story/b140f1dd6e3df194aec705cb8e7583c7

The Crisafulli LNP Government must take responsibility for its actions and its inaction.

The Queensland Labor Opposition gave the Crisafulli LNP Government at least two clear opportunities in the Legislative Assembly to act in the best interests of Queenslanders by shortening this inquiry and introducing strong and immediate interim safety measures. Both opportunities were shamefully ignored.

The Crisafulli LNP Government must now show a far greater sense of urgency in responding to the committee's recommendations. Further delay will only put more Queenslanders at risk of harm.

ILLEGAL AND NON-COMPLIANT DEVICES

Industry, safety groups and police consistently told the Committee that today's enforcement challenges began with failed import rules.

Stakeholders told the inquiry that Queensland's e-mobility safety crisis cannot be understood without examining what devices are being sold.

Australia once had a clear and consistent framework for e-bikes. The same standard governed what could be imported and what could be legally used on roads and paths. E-bikes were low-powered, pedal-assist bicycles designed to integrate safely into cycling environments.

That alignment was broken in 2021 when Commonwealth import settings were weakened by the Liberal–National Coalition government, led by former Liberal Prime Minister Scott Morrison. High-powered and throttle-controlled devices could be imported and sold even though many remained illegal to use under Queensland road rules.

Stakeholders explained to the committee that this created a fundamental gap between purchase and legality. Queensland consumers could legally buy devices that were illegal to ride on public roads and footpaths, and the market has become flooded with non-compliant products.

This confusion has undermined enforcement and increased risk in shared public spaces. Stakeholders also warned that riders of illegal devices may be uninsured and personally liable if they injure someone.

In November 2025, the Albanese Labor Government announced that:

> ***"the Commonwealth will reinstate the EN-15194 standard and meet with relevant stakeholders to ensure the use of this standard is well understood and supported"*[8].**

The Queensland Labor Opposition together with industry groups welcome this announcement. We Ride Australia and Bicycle Industries Australia said they "***could not be happier***" and that reinstating EN15194 would ensure Australians could trust that the e-bikes they buy for themselves and their children are safe and fit for purpose.

However, the Queensland Labor Opposition stresses that fixing imports is essential but not sufficient. The Crisafulli LNP Government will need to take strong point-of-sale enforcement and action on devices already in circulation.

PEDAL ASSIST

During the public hearings stakeholders consistently distinguished between pedal-assist e-bikes and throttle-controlled and high-powered devices.

[8] https://www.infrastructure.gov.au/sites/default/files/documents/itmm-communique-21-november-2025.pdf

Pedal-assist e-bikes are limited to 250 watts of continuous power, with motor assistance cutting out at 25 kilometres per hour. Assistance only operates when the rider pedals and these e-bikes fall into the European (EU) standard (EN 15194).

Stakeholders expressed strong support for pedal-assist e-bikes due to their natural speed control and predictable movement which aligns with the expectations of pedestrians and other cyclists.

In contrast, stakeholders warned the committee about safety concerns with throttle-controlled and high-powered devices. Stakeholders told the committee that instant power, higher speeds and abrupt acceleration increase the likelihood of serious injury, particularly on footpaths and shared paths and that these devices are often marketed to younger and less experienced riders.

Many practical solutions were repeatedly put forward by stakeholders including returning devices already sold to retailers for speed limiting and throttle removal.

The Queensland Labor Opposition encourages the Crisafulli LNP Government to work constructively with consumers and retailers to bring e-mobility devices into compliance alongside any regulatory reform. This should include a focus on education, transition arrangements, and pathways to compliance.

ACTIVE TRANSPORT INFRASTRUCTURE

Stakeholders consistently told the committee that e-mobility users are frequently forced onto narrow footpaths or busy roads and that active transport networks are fragmented.

The Australian Institute of Landscape Architects said many safety issues arise from "***lack of infrastructure leading to inappropriate mixing of travel modes and usage speeds***"[9] and called for separated infrastructure, including temporary lanes until permanent solutions are built.

Queenslanders with Disability Network emphasised that without separation, people using mobility aids are placed at risk. They called for infrastructure that prevents e-mobility devices from sharing footpaths with pedestrians or roads with cars.

The Australian Medical Association Queensland urged rapid investment in separated infrastructure, particularly near schools, parks and other places frequented by children.

Local Governments support these solutions but warned of financial constraints.

The Queensland Labor Opposition urges the government to invest in safe, connected active transport infrastructure. Fragmented networks must be fixed so Queenslanders are not forced into unsafe spaces and affordable active travel options are protected.

EDUCATION

Stakeholders consistently told the committee that confusion is driving unsafe behaviour and community frustration.

It is clear to the Queensland Labor Opposition that many Queenslanders do not clearly understand which e-mobility devices are legal or where they can be used. Parents are unsure what to buy. Young riders are often unaware of speed limits, helmet rules or permitted riding locations.

The Motor Trades Association of Queensland has called for heavy investment in rider education and highlighted the growing use of e-mobility devices for school travel.

[9] https://documents.parliament.qld.gov.au/com/SDIWC-1AF9/IQ-3C82/submissions/00001190.pdf

The Australian Medical Association Queensland urged a statewide education campaign targeting riders, drivers and the broader community.

The Queensland Labor Opposition support stakeholder calls for an education campaign that is consistent, visible and delivered at the point of sale, supported by clear enforcement of misleading marketing.

POLICE CANNOT FIX THIS ALONE

Throughout the committee process the Queensland Police have been clear about the limits of enforcement.

Police told the committee that enforcement is occurring but is highly resource-intensive and difficult to sustain.

Inspector Gareth Bosley explained that in high-risk areas "***in excess of 80 per cent of people… simply avoid engaging with police"***[10], making safe interception difficult.

The committee was told that police officers struggle to identify illegal devices at the roadside. Power output and software modifications are not visible. Impounding devices creates safety risks due to lithium-ion batteries and storage requirements.

Operation X-Ray Surety required 4,950 officer hours statewide[11]. Police warned the committee that without upstream reforms, enforcement demand will continue to divert resources from higher-harm policing priorities.

Local Governments echoed this concern. Councils told the committee that they receive complaints about helmet use and illegal devices despite lacking enforcement powers. Many respond anyway, without additional funding.

The Queensland Labor Opposition support dedicated police resources for e-mobility compliance and caution the Crisafulli LNP Government against cost shifting e-mobility enforcement to councils.

TECHNOLOGICAL SOLUTIONS

Stakeholders made it clear to the committee that technology can reduce e-mobility harm.

Evidence to the committee demonstrated that regulated hire schemes use embedded safety technology. This includes geofencing, dynamic speed limiting, helmet detection and real-time compliance monitoring.

Ario told the inquiry that "***Ario has introduced a helmet with an inbuilt sensor that detects if it is being worn… If an Ario helmet is not worn… the vehicle will slow down and stop***."[12]

The Queensland Labor Opposition encourages the Crisafulli LNP Government to investigate and invest in technological solutions such as those used in hire schemes to improve safety and compliance without reducing access or affordability.

DATA

Stakeholders told the committee that there is currently no comprehensive system for collecting and reporting data on e-mobility use and impacts in Queensland. Data on usage, injuries, health outcomes, and emissions benefits is fragmented and limited.

[10] https://documents.parliament.qld.gov.au/com/SDIWC-1AF9/IQ-3C82/Public%20Briefing%20held%20on%208%20December%202025.pdf
[11] https://documents.parliament.qld.gov.au/com/SDIWC-1AF9/IQ-3C82/Public%20Briefing%20held%20on%2020%20January%202026.pdf
[12] Transcript - 18 August 2025 - SDC - Hearing - Inquiry into e-mobility safety and use in Queensland - Townsville

The Queensland Labor Opposition supports calls from Bicycle Queensland, RACQ, and Queensland Walks for greater investment in coordinated e-mobility data collection, including usage trends, safety outcomes, and health and environmental benefits.

Given the clear data gap, the Queensland Labor Opposition suggest a single Minister takes the lead and be accountable to the Premier for this work.

The Queensland Labor Opposition suggests the Minister for Customer Services and Open Data lead this effort, with assistance from relevant portfolios such as transport and health. This aligns directly with a core portfolio value in the Minister's Charter Letter to **"*ensure the Government is open and transparent, through more accessible public data and information*"**[13].

TRANSPORT AFFORDABILITY

Queenslanders are finding it harder to afford the essentials of everyday life. The cost of groceries, housing, electricity, and transport continues to rise. This affordability crisis is affecting households across the state.

Transport costs are a growing pressure for Queensland households. Fuel prices, car registration, insurance, parking, and maintenance place car ownership out of reach for many Queenslanders. In this context, e-mobility devices have become an important and affordable alternative. For many Queenslanders, they are not a lifestyle choice but a way to avoid transport costs they can no longer afford under the Crisafulli LNP Government.

E-mobility devices provide low-cost and flexible travel, particularly for short trips in urban and suburban areas. They allow Queenslanders to avoid fuel costs, parking fees, registration, and insurance. This makes them especially valuable for young people, low-income households, and people who only need local transport or who do not have reliable access to public transport.

The Queensland Labor Opposition recognises the importance of transport affordability. That is why, when in government, Queensland Labor reduced car registration by 20 per cent and introduced 50 cent fares on all public transport across Queensland, regardless of distance or location.

E-mobility devices can work alongside 50 cent fares to create a genuinely affordable and connected transport system. E-scooters and e-bikes make it cheaper and easier to reach train stations, bus stops, and ferry terminals. This is particularly important in areas with infrequent services or long distances between stops. These first- and last-kilometre connections reduce reliance on cars and make 50 cent fares more accessible for more Queenslanders.

Another benefit of e-mobility devices is that they reduce reliance on fuel. Charging an e-mobility device costs a fraction of filling a tank, giving households a practical way to avoid volatile fuel prices and rising transport costs. The Queensland Labor Opposition recognises that more action is needed on transport affordability and while e-mobility devices are one answer, there are many more including the need to tackle fuel prices in Queensland.

The Queensland Labor Opposition urges the Crisafulli LNP Government to properly assess how any changes to e-mobility regulation will affect transport affordability. These impacts must be considered before changes are made and measured again after implementation.

The Queensland Labor Opposition also calls on the Crisafulli LNP Government to reduce other transport costs for Queenslanders who invested in e-mobility devices and relied on them to avoid car ownership. This includes taking action to lower fuel, registration, insurance, and parking costs. It also requires a focused

[13] https://cabinet.qld.gov.au/ministers-portfolios/assets/charter-letter/steve-minnikin.pdf

effort to improve the frequency, coverage, and accessibility of public transport for people who simply can no longer afford to own a car.

CONCLUSION

In 2025, Queensland experienced a sharp and unprecedented escalation in e-mobility harm. Serious injuries rose rapidly. Deaths occurred within weeks of each other.

While harm increased, the Crisafulli LNP Government rejected calls for interim safety measures and the shortening of this inquiry by rejecting two attempts by the Queensland Labor Opposition to shorten the committee process by taken action in the Legislative Assembly.

At the same time, many Queenslanders relied on safe and legal e-mobility devices in 2025 to manage rapidly rising transport costs. As fuel, registration, insurance, and parking became increasingly unaffordable, e-mobility has provided a critical alternative to car ownership.

However, the Crisafulli LNP Government's lack of timely action and failure to clearly signal what reforms are coming has created widespread confusion. Queenslanders have been left uncertain about which devices were legal, whether rules were about to change, and whether their investments would remain compliant. This uncertainty has undermined confidence and has made it harder for Queenslanders to make informed decisions about how to manage their transport costs.

The Crisafulli LNP Government must act with transport affordability front of mind, because their delays are costing Queenslanders both their safety and their ability to get around.

This inquiry deals with a number of issues, which the Queensland Labor Opposition reserves it right to articulate further views on during the debate of legislation. It should also be noted that not all of the recommendations or committee comments are supported by the Queensland Labor Opposition.

The Queensland Labor Opposition thanks the submitters who took the time to share their views and the Queensland Parliamentary Service staff for their assistance.

JONTY BUSH MP
MEMBER FOR COOPER
DEPUTY CHAIRPERSON OF THE COMMITTEE

BART BELLISH MP
MEMBER FOR ASPLEY
SHADOW MINISTER FOR TRANSPORT AND MAIN ROADS

SHANE KING MP
MEMBER FOR KURWONGBAH

On behalf of the Queensland Labor Opposition