

**Submission  
No 129**

**INQUIRY INTO USE OF E-SCOOTERS, E-BIKES AND  
RELATED MOBILITY OPTIONS**

**Organisation:** Transurban  
**Date Received:** 15 August 2024

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Thursday, 15 August 2024

The Hon Cate Faehrmann MLC  
Chair  
Portfolio Committee No. 6 – Transport and the Arts  
Parliament House  
Macquarie Street  
**Sydney NSW 2000**

Dear Ms Faehrmann,

**RE: Inquiry into the use of e-scooters, e-bikes and related mobility options**

Transurban is pleased to provide a submission in response to the Inquiry established by the Portfolio Committee No. 6 – Transport and the Arts.

Transurban operates urban motorways in Sydney, Melbourne, Brisbane, the Greater Washington Area in the USA and Montreal in Canada. Our road safety strategic framework is based on the Safe System approach and includes targets and action plans to further our goal in operating a transport network free from fatalities and life-changing injuries.

Transurban has an important role in contributing to the safety and performance of the overall network, beyond our own roads, as well as improving safety for the broader community. Key to this is our partnership with Neuroscience Research Australia (NeuRA) in the Transurban Road Safety Centre and its crash test facility. Research outcomes from this partnership are contributing to improved road safety standards for children, senior drivers and motorcycle riders. Transurban is very proud of this partnership and I would be pleased to facilitate a tour and demonstration of the Centre and its crash lab by the Committee members.

Transurban has first-hand experience of road safety issues arising from the increasing prevalence of electric mobility options, particularly as they relate to e-bikes. We have noticed an increase in e-bike riders on our network, both on sections where they are permitted and where they are prohibited. The following road safety issues have been identified as areas of particular concern:

- **Danger to riders:** the inherent risk of an increased level of exposure of relatively poorly protected e-bike riders in a high-speed, high-density road environment. Riders are poorly protected and may also not be noticed by drivers on the network who would not anticipate their presence. This is particularly the case for drivers of heavy vehicles, who have a more restricted field of view.
- **Potential to cause incidents through avoidance manoeuvres:** as drivers seek to avoid e-bike riders, they may either suddenly change lanes, or encroach into the neighbouring lane, resulting in the potential for lane-change related crashes with other vehicles.

- **Potential to cause rear-end collisions:** traffic may slow due to the presence of e-bike riders, either as drivers slow down to provide a more protective environment for the rider or where lanes are closed and speeds reduced while incident responders act to safely remove the rider and e-bike in a prohibited part of the network. This disruption to traffic flow increases the risk of rear-end crashes on the network.
- **Distracted riders:** our control room teams have sometimes observed e-bike riders riding erratically whilst looking at their phones or changing lanes or position on the road without acknowledging other vehicles. They are also observed as more likely to ignore road rules, such as riding contraflow or crossing pencil curb lane dividers to move through the motorway. This behaviour also increases the risk to e-bike riders and the risk to other road users as they seek to avoid collisions with the riders.
- **Understanding of road signage:** many e-bike riders are undertaking deliveries for food delivery platforms. Our understanding, both from our experience assisting delivery riders and engagement with delivery platforms, is that these riders are often foreign students for whom English is not their first language. This underscores both the need for symbolic signage, which can be easily understood regardless of language, and for ongoing education due to the itinerant nature of this workforce.
- **Cyclist detection:** e-mobility riders and cyclists are identified on our network typically through the use of surveillance cameras. Automated incident detection cameras are not effective at identifying e-bike riders when they are travelling at speed. However, Transurban has introduced thermal sensitive cameras on the Burnley Tunnel in Melbourne, which has proven effective at automatically identifying the presence of a rider or cyclist.
- **Incorrect GPS navigation selection:** our understanding, from discussions with delivery platforms, is that while delivery drivers are generally provided navigation guidance within the delivery platform app, cyclists are required to switch to a third-party platform of their choosing. This increases the risk that riders may select a navigation tool not suitable for cycling, therefore directing riders on to roads where only cars are permitted. In response, Transurban has undertaken an education campaign reminding cyclists to switch to cycling mode when riding a bicycle or e-bike.

## Transurban's road safety performance

Transurban measures and reports on its road safety performance while also engaging experts to analyse data, assess the network and evaluate activities to support improve road safety outcomes.

Transurban's road safety key performance indicators include our Road Injury Crash Index (RICI), which measures the rate of serious injury crashes by vehicle kilometres travelled. Performance thresholds are established to guide continuous improvement following analysis of past performance including crash rates and types, changes to Transurban assets and the surrounding network, as well as understanding the contributing factors to crashes including congestion, speed, distraction and vehicle type.

In the 2024 financial year, Transurban set a maximum RICI threshold of 4.15 serious injury crashes per 100 million vehicle kilometres travelled (VKT) and achieved a RICI of 3.72. Independent analysis conducted by Monash University Accident Research Centre has demonstrated that our roads in Australia are at least twice as safe as like roads when looking at the risk of being involved in a fatal or serious injury crash<sup>1</sup>.

Transurban attributes these results to investment in our employees' Safe System capability, as well as new and upgraded roads and innovative use of technology and data, and continued excellence in maintenance and incident response.

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<sup>1</sup> Fitzharris, M. (2024). *The safe of Transurban road assets in Australia: The incidence and severity of crashes on Transurban Australian assets FY17-FY22, with to 1H23 (Vic, NSW)*. Monash University Accident Research Centre.

As an active contributor to road safety policy in the jurisdictions in which we operate, Transurban has responded to research and policy initiatives by the National Transport Commission, Austroads, and the National Heavy Vehicle Regulator, along with numerous federal and state road safety and transport inquiries.

Transurban's response to the Terms of Reference is included as an attachment, restricted to those terms in which we have relevant experience. In responding to the Terms of Reference for the current Inquiry, Transurban draws on its experience, expertise and activities to provide relevant and real-world examples.

Key recommendations are:

- There is a need for delivery platforms to assume greater responsibility for safe route choice of delivery riders utilising e-bikes and bicycles.
- Symbolic signage informing riders of prohibited portions of the network should become the standard, and the regulations should move away from text-based signage. Consideration should also be given to the increased use of pavement marking, to ensure the symbols are prominent for riders entering a highly complex environment who may not be looking in the direction of roadside signs.
- Cyclists and e-mobility riders should be prohibited from motorways when there are other safer, similarly efficient route options available, due to the inherent risk of interacting with vehicles in a high-speed, high-density environment, and the risks to other motorists as they act to avoid interactions with cyclists and riders.

On behalf of Transurban, I thank the Committee for the opportunity to participate in this Inquiry and welcome further discussion on the matters detailed within this submission.

Please feel free to contact David Beck, Road Safety Technical Manager at [dbeck@transurban.com](mailto:dbeck@transurban.com) or on 0466414378 should you wish to discuss further.ours sincerely

Elizabeth Waller  
A/General Manager Health, Safety, Environment and Road Safety

## **Transurban's response to the relevant Terms of Reference**

### **c) local council, industry and stakeholder perspectives on the utilisation and impact of e-mobility devices in the community**

Transurban's experience has been that the introduction of e-mobility devices, particularly e-bikes, has resulted in a significant uptake of these devices in the community. We recognise that e-bikes, as well as other mobility options, play a key role within a diverse transport system when used responsibly. The increased capabilities of e-bikes may give some riders a sense of confidence to ride within the on-road environment in a manner that would typically make them uncomfortable if they were riding a pushbike. It is also possible that there is a subgroup of inexperienced riders with a high tolerance to risk who may be more likely to ride e-bikes in high-speed environments than pushbikes, simply because they wouldn't have the fitness to ride a pushbike in such an environment, or due to the opportunities offered through the availability of e-bikes and the accessibility of work as a delivery rider. As a result, Transurban has noticed an increase in incidents of bicycles on the network, particularly e-bikes. This increase is on both sections of the network on which riders are permitted, and on sections in which they are prohibited, such as in tunnels.

As a result of an increased exposure to bicycles on our road, Transurban has witnessed an increase in near-misses involving cars narrowly avoiding striking riders, and also near misses from drivers narrowly avoiding other road users as they act to avoid interacting with cyclists on high-speed, high-density roads.

Transurban has also witnessed an impact to the flow of traffic on our roads due to the presence of riders on the network, as drivers slow to avoid riders, and as our incident response team close lanes and slow traffic as they act to safely remove riders from the network when riders have accessed sections where they are prohibited. The disruption to traffic flow leads to an increase in crash risk for other road users, and therefore has a net negative effect on road safety.

### **d) opportunities to improve mobility, the customer experience, safety for users and the community**

Transurban has identified several opportunities to protect e-bike riders as they interact with our road network:

- Transurban has identified that the majority of riders intercepted on prohibited portions of the network do not speak English as a first language. It is important to utilise symbolic signage to convey roads where cyclists should not be present, so it is more easily understood by those whose first language may not be English. Currently, Transport for NSW requires the use of R6-13 to indicate restricted access to a road for bicyclists, which is entirely text based. R6-10-3, a symbolic sign, would be more easily understood by riders who do not speak English as a first language, and would be easily identified and understood by riders who do. Video footage of cyclists entering tunnels also shows that they are concentrating on the road ahead, rather than looking for roadside signage. Consideration should also be given to the increased use of pavement marking, to ensure the symbols are prominent for riders entering a highly complex environment who may not be looking in the direction of roadside signs.
- Transurban has also identified many e-bike riders intercepted on prohibited portions of the network are working for food delivery companies. Investigations by Transurban have found that food delivery platforms may not provide riders with cyclist-specific navigation aids, rather expecting cyclists to access a third-party navigation platform of their choosing, which may not be a reliable tool for safe cyclist navigation. It is therefore recommended that food delivery companies utilising cyclists take the following steps:
  - Provide suitable on-boarding education clarifying how cyclists can safely choose routes to navigate the road network and advise on sections of the network that are prohibited or unsafe to access.
  - Provide in-app navigation suitable for cyclists to ensure clear, safe directions for cyclists that navigate away from sections of the road network that are prohibited or unsafe for cyclists.

- Provide GPS monitoring of cyclists that includes alerts should they try and access sections of the road network that are prohibited or unsafe for cyclists.
- The NSW Government should also consider the utility of geofencing and other in-vehicle technologies to discourage use of e-mobility options in areas where they are prohibited. Technology such as the AI-powered cameras used by e-scooter provider Neuron in Melbourne could be explored as well. However, it is understood that it would be challenging to regulate such vehicle requirements for non-registrable vehicles unless e-mobility is restricted to share schemes only.

#### **h) best practice in other Australian and international jurisdictions**

Road safety best practice in Australia and international jurisdictions is for bicycles and other wheeled recreational devices, whether motorised or not, to be prohibited from motorways. Cyclists are vulnerable road users and are likely to be seriously injured or killed in a crash with a vehicle travelling at the high speeds typical on motorways. As mentioned previously, the presence of riders on our high-speed, high-density network presents both a road safety risk for the riders, and also a road safety risk for other road users as they navigate to avoid interactions with riders, and as disruptions in traffic flow lead to an increased crash risk.

Sydney is the only city in which Transurban operates that bicycles are permitted to be ridden on parts of the network.

#### **j) any other related matters.**

All points relevant to Transurban's experience related to e-mobility devices have been raised in this submission, however we would be pleased to provide further advice and information as appropriate.