

Our ref: DG37395

9 DEC 2019

Mr Tim Davern  
National Transport Commission  
Public submission – Barriers to the safe use of personal mobility devices  
Level 3, 600 Bourke Street  
MELBOURNE VIC 3000

Dear Mr Davern

I refer to a letter of 25 October 2019 from Dr Gillian Miles, Chief Executive Officer and Commissioner, National Transport Commission (NTC), seeking feedback on NTC's *Barriers to the safe use of personal mobility devices Consultation Regulation Impact Statement*. I thank NTC for the opportunity to submit a response.

Enclosed is Queensland's Department of Transport and Main Roads' (TMR) submission for your consideration.

TMR looks forward to working with NTC in the coming months to develop a nationally consistent approach to regulating personal mobility devices that enables safe mobility and independence for all road users.

A copy of this letter and submission is also being emailed to you.

If you have any questions or would like to discuss TMR's submission further, I encourage you to contact Ms Nadine Dumont, Acting Manager (Driver Licensing), TMR, by telephone on (07) 3066 2218 or email at [nadine.s.dumont@tmr.qld.gov.au](mailto:nadine.s.dumont@tmr.qld.gov.au).

Yours sincerely



Mike Stapleton  
**Acting Director-General**  
**Department of Transport and Main Roads**

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**The Department of Transport and Main Roads  
Response to National Transport Commission (NTC) Consultation Regulation Impact  
Statement (Consultation RIS)  
*Barriers to the safe use of personal mobility devices***

**December 2019**

The Queensland Department of Transport and Main Roads (TMR) welcomes the opportunity to comment on the NTC Consultation RIS on barriers that prevent the safe and legal use of personal mobility devices (PMDs).

TMR is responsible for delivering an integrated transport network in Queensland, that is accessible to everyone. As such, the responses offered to the Consultation RIS are informed by multi-disciplinary expertise from across the agency.

Queensland implemented changes to the laws for PMDs on 14 December 2018. The new laws provide for a broad range of PMDs to be legally used in public spaces in Queensland and introduce additional safety obligations on users. Prior to the changes, Queensland's laws limited PMDs to self-balancing Segway-like devices which were not widely used given their prohibitive cost, limited availability on the market and lack of portability. However, it is likely that other wheeled electric devices were being used on paths or roads with users being unaware that their devices were illegal.

The changes to the laws in Queensland therefore responded to the changing travel patterns and availability of new technologies for personal transport that offer environmental benefits and help to reduce traffic congestion. The laws aim to provide for innovation, while defining a set of specifications to ensure compliant devices are appropriate and safe for interactions with pedestrians on paths, and that they are operated safely.

The commencement of the laws was the outcome of several years of considered policy development. This includes detailed examination of a range of safety and infrastructure implications that was undertaken through the 2015–16 Austroads project, *RS1978 – Alternative Vehicles: Personal Electric Transportation Devices* (Austroads project). It also includes consideration of the emerging availability and use of a range of different PMDs in local and international markets and their role in first and last mile transport.

Overall Queensland's transport laws aim to appropriately balance safety with access and amenity, in line with the broader objective providing an integrated transport network that is safe and accessible to all users. Furthermore, to aid compliance and promote good safety outcomes, the laws must be enforceable by police and easily understood and communicated to the public.

The introduction of Queensland's new PMD laws coincided with the deployment of e-scooter hire schemes in Brisbane, which operated under a temporary permit until the new laws commenced. In Queensland, the deployment and management of e-scooter hire services is the responsibility of local government.

The deployment of e-scooter hire services in Brisbane generated significant public and media interest and they have proven popular among users throughout the first year of operation. This has provided a valuable opportunity for Queensland's regulatory framework to be examined with a local evidence base. Representations from a range of stakeholders, correspondence from members of the public and injury statistics from major Brisbane hospitals have helped inform the appropriateness of the policy settings and whether the balance between safety and access/amenity is optimised.

TMR's comments to the questions below have been informed by both the body of work that was undertaken to inform the laws and the evidence-base that has been collected over the last 12 months.

**Question 1: Are the requirements in the proposed regulatory framework appropriate? Are there any requirements that should be removed, included or modified? Please provide a rationale to support your position**

TMR notes that the proposed regulatory framework that could be adopted into the *Australian Road Rules* (ARR) seek to capture and recognise a range of PMDs that are portable, capable of travelling medium range distances and suitable for recreation or commuting.

The key requirements of the proposed framework are similar to those adopted by Queensland. TMR also notes that they are similar to those adopted in South Australia and to the definition currently used by the Department of Infrastructure, Transport, Regional Development and Cites to allow importation approval for PMDs. This consistency in approach is welcomed.

Queensland's laws require a PMD, among other things, to have no sharp protrusions as opposed to not being equipped with any object or fitting:

- not essential to the device that protrudes from any part of the vehicle so that it likely increases the risk of bodily injury to any person
- that, because it is pointed or has a sharp edge, likely increase the risk of bodily injury to any person.

Queensland's less prescriptive requirement is considered to adequately address the risk of a bodily injury to a person caused by an unsafe protrusion from a device. The additional complexity in the proposed regulatory framework for the ARR may prove more difficult to communicate to the public and enforce by police, given the additional elements that would need to be proven in respect of an offence.

Furthermore, Queensland's laws provide that a PMD's dimensions must be not greater than 700mm in length, by 1250mm in width, by 1350mm in height, or 1250mm in length, by 700mm in width, by 1350mm in height. This extra dimension allowance provides for some Segway models which are wider than 700mm. For instance, the Segway X2 is 840mm wide. Queensland is not supportive of removing Segways from the framework as they currently operate with no issue.

In Queensland, a PMD user who is aged between 12 years and 16 years may ride a PMD providing they are supervised by an adult. TMR is not aware of the rationale or evidence to support the decision to only allow those who are aged 16 years and over to ride PMDs. While it is acknowledged that due to the adolescent development stage there may be some increased risk, TMR assesses that the requirement for supervision offsets this. Safety benefits can be gained by instilling behaviours of how to use these types of devices safely and appropriately from the younger age of 12 years while supervised by an adult.

**Question 2: Is 60kg a suitable maximum weight for a PMD? If not, what is a more suitable weight and what other factors should be considered? Please provide a rationale to support your position**

TMR supports a 60kg maximum weight for PMDs. The 60kg unladen maximum mass limit provides for common types of PMDs currently available on the market to be captured. This includes Segways which, overall, are heavier than other PMDs. TMR notes that the Segway X2 weighs 54.7 kg. TMR considers that the 60kg maximum weight limit also provides sufficient flexibility for emerging devices to be captured.

TMR also notes that the 60kg maximum unladen mass limit is consistent with the agreed outcomes from the Austroads project, which examined the impact of weight on the kinetic energy in crash outcomes. This research shows that a PMD weighing 60kg (plus 80kg rider) travelling at 25km/h has almost half the force (kinetic energy) when compared to an average passenger vehicle travelling in a 10km/h shared pedestrian zone.

**Question 3: Should children under the age of 16 years old continue to be permitted to use a motorised scooter incapable of travelling more than 10km/h on level ground on roads and paths? Or should they be able to use any device that complies with the proposed PMD framework? (see Appendix A). Please provide a rationale to support your position.**

In Queensland, a person using a PMD must be at least 16 years old or be supervised by an adult if they are between 12 years old and 16 years old. Children under 12 years are not permitted to use PMDs. This age restriction was already in place prior to the December 2018 changes and was considered appropriate for the broader range of devices permitted under the new laws.

TMR is not aware of any concerns that have been raised regarding the age restriction for PMD users, noting that PMDs are primarily used for recreation and commuting and are therefore not designed for use by younger children, in particular those aged under 12 years old.

In Queensland, a motorised foot scooter that has a maximum power output of the motor of not more than 200 watts and not capable of going faster than 10km/h on level ground is classified as a 'wheeled recreational device'. Wheeled recreational devices also include roller skates, rollerblades, skateboards and non-motorised foot scooters.

Motorised scooters that fall under the definition of a wheeled recreational device are more likely to be the devices used by children for recreation and play. There is no age restriction on the use of wheeled recreational devices by children and TMR is also not aware of any concerns around this.

As noted above, TMR is not aware of the rationale or evidence to support the age restriction for PMD users at 16 years. This proposed age restriction could limit the uptake of PMDs as this is the same age that young people begin to focus on obtaining their learner licence. TMR considers a car to be a higher risk 'device' than a PMD so the age alignment is not understood. On the other hand, bicycles have no age restriction under the current ARR framework.

TMR considers that there are positive benefits from the requirement for adult supervision of users aged between 12 and 16 years as this enables the use of PMDs at a younger age whilst allowing adult supervision to monitor a child's behaviour and safety.

**Question 4: Do you agree with the criteria selected to assess the options? Are there any key impacts not covered by these criteria?**

TMR agrees that the criteria identified to assess the options are appropriate and cover key factors that must be considered for consideration of regulatory options.

Integral to compliance and enforcement, TMR notes it is important that the laws can be easily communicated and understood by the public. No data has been provided to support the proposed age restriction to 16 years for PMD users.

**Question 5: When considering the safety risk assessment, access and amenity impacts, broader economic impacts, as well as compliance and enforcement impacts; has the impact analysis sufficiently considered all relevant variables and available evidence? What other factors could be included in the analysis? Please provide any additional evidence. (See Appendix E - Impact Analysis)**

TMR considers that impact analysis has sufficiently considered core relevant variables and the available evidence. Within this, however, TMR acknowledges that each option necessitates a trade-off between safety, access/amenity, economic impacts and compliance/enforcement, and that no one option is superior across all the criteria. Local factors may also influence the optimal approach in some jurisdictions.

Overall, TMR notes that innovative active transport options must be encouraged as much as possible to increase sustainability, promote public health, reduce traffic and parking congestion in heavily populated areas and facilitate increased use of public transport.

Increased uptake of PMDs not only provides first and last mile transport options between public transport hubs but may also enable new types of smart communities and cities to be created. Existing cities will also need to continue to adapt to increasing people and environmental focussed transportation and mobility options as these become more readily available.

While TMR agrees that the core relevant variables are safety, access/amenity, economic impacts and compliance/enforcement, additional factors that could be considered in the impact analysis are:

- confirmation that the proposed options are considered broad enough to encompass emerging technology
- consideration of the PMDs ongoing role in providing personalised transport – with their associated operation, performance and size being distinct from on-road vehicles
- consideration of the PMDs relative place in the pedestrian versus vehicle spectrum and how to position them now and for the future
- the ability and benefits of controlling PMD usage at a local level through signage or other restrictions, where additional controls may be needed
- consideration of how the requirement for adult supervision for a person aged between 12 and 16 years can mitigate the risks of this age group having access to a PMD.

**Question 6: What do you believe is the most appropriate road infrastructure for PMDs to access: footpaths, separated paths, bicycle paths and/or roads? Please provide a rationale to support your position**

PMDs, by definition, are compact, lightweight and low-speed electric devices. They generally have smaller wheels and are designed to travel short to medium distances. They provide an alternative to walking to enable users to move more efficiently between transport hubs and their final destinations, without being reliant on more conventional modes of transport such as cars. They are also used for recreation.

In Queensland, PMDs are considered to be pedestrian-like devices. They can be used on footpaths, shared paths, the bicycle side of a separated path and bicycle paths. They can also be ridden on local streets but are not permitted on main roads or streets in central business district areas (except to cross those roads). They must also not be ridden in on-road bike lanes.

A local street is a road with a speed limit of 50km/h or less. It must have no dividing line or median strip and if it is a one-way road, it can't have more than one lane. For consistency,

they have been afforded the same access to the road network as wheeled recreational devices.

As PMDs are not designed or built to travel long distances, they can be distinguished from bicycles. Bicycles are propelled by human power, not relying on a battery, and have larger wheels and can travel at faster speeds.

When compared with bicycles, TMR considers that users of PMDs are particularly vulnerable when interacting with traffic and the devices themselves offer little protection. Traffic volumes and the speed differential between PMDs and other vehicles would expose PMD users to an unacceptable risk if they were permitted general access to the road network. They may also create safety risks for motorists, who may be required to take swift evasive action to avoid a collision with a PMD, possibly increasing the risk of a rear-end collision from following traffic who cannot see the PMD.

In relation to on-road bicycle lanes, while bicycle riders also have less protection than drivers and remain a vulnerable road user group, bicycles can travel at higher speeds and can interact with traffic in safer manner due to their larger physical size (including larger wheels) and greater visible presence.

Access to on-road bicycle lanes for PMD users would mean interactions between PMDs and bicycles, and interactions between these and other vehicles on the road. This would expose PMD users to a road safety risk and would also increase the road safety risks to bicycle riders on the road. For all of these reasons, Queensland's laws do not permit access for PMDs on on-road bicycle lanes and Queensland is not supportive of such access for PMDs.

**Question 7: What is an appropriate and safe maximum speed that PMDs should be permitted to travel across the various infrastructure: (a) pedestrian areas, (b) bicycle areas, and (c) roads? Please provide a rationale to support your Position**

In Queensland, the maximum speed at which a PMD may travel on each permitted infrastructure is 25km/h. While this is the maximum speed that PMDs can reach, there will be many circumstances where the actual speed that a PMD user is required to travel at is much lower.

While not regulating a tiered speed approach, Queensland's laws require PMD users to keep left, give way to pedestrians, travel at a safe speed and keep a safe distance from pedestrians so there isn't a collision. In high pedestrian areas, or at times of the day when large numbers of pedestrians are present on paths, a PMD rider must travel at a speed much lower than the maximum permitted speed of 25km/h to comply with the laws. This required lower speed may be even slower than 10km/h depending on the pedestrian congestion at the time. Further, in Queensland, local councils have the power to prohibit PMDs and wheeled devices being used on council infrastructure where their use would be unsafe. This can include in highly pedestrianised areas such as malls, jetties and esplanades.

The maximum speed limit of 25km/h recognises the role that PMDs play in moving people between transport hubs and final destinations without the need to rely on cars. This speed limitation also aligns with the allowable 25km/h speed limit for the electric motor on a power-assisted bicycle, such as the Pedalec, which are also permitted to travel on footpaths in Queensland and have been for some time.

Furthermore, any vehicle capable of exceeding 25km/h is subject to the Australian Design Rules (ADRs) in terms of braking requirements. As such, this speed provides a consistent and reasonable threshold between devices that are not subject to ADRs (PMDs and power-assisted bicycles) and vehicles that are subject to ADRs (motor vehicles, including mopeds).

In terms of economic considerations, TMR notes that most PMDs on the market are designed for speeds of up to 25km/h. As most devices are manufactured overseas, the Australian market is unlikely to have a considerable impact to warrant significant changes to device design. A reduced speed capability would mean that devices would have to be retrofitted for the Australian market, which would likely increase the cost for consumers.

**Question 8: Do you agree with the overall assessment that Option 3, Speed Approach 1 is the option that best balances mobility and safety? If not, which option and speed approach do you prefer? Please provide a rationale to support your position**

TMR agrees with the overall assessment that Option 3, which provides access to most pedestrian infrastructure, bicycle paths and local roads, best balances safety, with access and amenity. However, TMR supports Speed Approach 3: 25km/h maximum speed on all permitted infrastructure.

To facilitate two speed restrictions of 10km/h and 25km/h, like that described in Speed Approach 1, would require the PMD to have either a speedometer or speed-limiting switch to move between different infrastructure. It is unlikely that many PMDs would be manufactured to have such capabilities and that it may be impractical to require an aftermarket fitment to a device without handlebars, like a solo-wheel or electric skateboard. Therefore, implementing such a requirement would likely result in increased device costs, as well as poor user compliance. A tiered speed approach would also be difficult to enforce, given the additional elements that would need to be proved for an offence. It would also be more complex to communicate to the public, potentially impacting on user compliance and user attitudes.

A tiered speed approach could not readily be implemented in Queensland as devices have, for the last 12 months, been purchased/hired and are legally being used based on a maximum permitted speed of 25km/h. Queensland is not supportive of retrospectively introducing a requirement where users would need to fit a speedometer or speed-limiting switch to their device.

Safety in pedestrian areas, such as footpaths, is dependent on everyone sharing the public space safely, obeying the rules and considering the rights and safety of others. As noted above, Queensland's PMD laws include a safety framework for interactions between PMDs and pedestrians. The laws require users to keep left, give way to pedestrians, travel at a safe speed (which is often considerably less than the maximum speed of 25 km/h) and keep a safe distance from pedestrians to avoid a collision. While 25km/h is the maximum speed that a PMD can reach on level ground, this is not the speed that a PMD user is required to travel at. Queensland's laws provide that speeding on PMD is an offence that is subject to a fine of \$177 (financial year 2019-20), which along with fines of \$133 for a range of other PMD related offences, aims to deter unsafe riding behaviours without the need for prescriptive and less flexible regulation.

Following the commencement of Queensland's new PMD laws, TMR received correspondence from pedestrians who expressed concern over the possibility of a collision with a PMD based on the maximum permitted speed limit. While interactions between PMDs and pedestrians on footpaths is likely to be common, TMR is not aware of incidents or collisions between PMD users and pedestrians that have resulted in significant injuries to a pedestrian. Therefore, there is insufficient practical evidence to support a separate speed limit for pedestrian infrastructure.