

Inquiry into e-mobility safety and use in Queensland

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To: QLD State Government Parliamentary Enquiry:

INQUIRY INTO E-MOBILITY SAFETY AND USE IN QUEENSLAND

Industry representative response to Section 4. *Suitability of current regulatory frameworks for PMDs and ebikes, informed by approaches in Australia and internationally;*

Dear Committee with the evolution of ebikes over the past decade much improvement has been made in areas of safety and design. User demands have shaped the design of modern ebikes to provide more ergonomic, practical, reliable and functional mobility devices that better cater for recreational use, commutes and work, and designs have adapted to offer beneficial transportation for an increased number and broader range of users for good reason.

Given the technological advancements of modern ebikes, the increased economic pressures on commuters, benefits to traffic congestion reduction, council investment in foot paths and cycleways, ebikes provide a major benefit to the broader community, physically, socially, economically and environmentally.

The current legislation has not kept up with these advancements in design, user demands, infrastructural improvements and may considered to be outdated requiring revision to align with evolving international standards.

Main reasons to review current legislation:

1. Technological Advancements Have Outgrown the 250W Limit

- The 250W cap was introduced over a decade ago when e-bike motors were less efficient. Modern motors are lighter, smarter, and more efficient—making higher-wattage motors safer and more practical. The 250W limit is not proven to make use safer and may be found to increase risk to users due to insufficient power to ascend common gradients experienced in QLD. Speed limitation is however the priority and power limit should be raised to increase safety.
- *A 500W or 750W motor today can offer controlled power delivery that is as safe, if not safer, than older 250W motors with speed limitations being able to be locked.*

2. Accessibility and Inclusivity

- Heavier riders, older users, or those with disabilities benefit greatly from additional motor support.
- Limiting to 250W excludes many who cannot generate the pedal power needed to activate or sustain propulsion on hills or long commutes.

3. Improved Traffic Safety and Flow

- More power helps riders keep up with urban traffic flow, especially when accelerating from lights or merging with cars in shared zones.

- E-bikes that can more confidently handle gradients or headwinds make riders less of a traffic impediment, reducing risky overtaking behaviour by drivers.

4. Enhanced Utility for Commuters

- A 250W e-bike may struggle under load, especially if the rider is carrying groceries, child, work equipment or deliveries.
- Increasing the legal wattage allows cargo e-bikes and family e-bikes to function more reliably, helping reduce car dependence.

5. Reduced Environmental Impact

- If more powerful e-bikes become road-legal, they will replace short car trips more effectively, lowering emissions.
- Users are less likely to choose cars when an e-bike can confidently handle diverse conditions like hills, heavy loads, or strong winds.

6. Safer in Hilly Terrain

- Cities like Brisbane and the Gold Coast are not flat. A 250W limit forces many users to strain physically or dismount on steeper terrain.
- Higher power motors reduce accidents due to stalling or sudden stops on inclines.

7. Boosts Physical Activity

- Contrary to belief, users of 500W or 750W pedal-assist e-bikes still pedal regularly. The assistance simply makes riding more enjoyable and less intimidating, increasing ride frequency.

8. Economic Growth and Innovation

- Relaxed wattage limits could stimulate the local e-bike industry, enabling brands to compete with international standards (e.g., USA 750W).
- It encourages product diversity, including bikes better suited for delivery services, regional commuting, and recreation.

Recommendations Instead of a Blanket 250W Limit

- Introduce tiered licensing or speed caps for more powerful e-bikes instead of banning them outright.
- Adopt a speed-based regulation (e.g., keep top assist speed capped at 30-35 km/h) regardless of motor wattage.
- Allow 500W-750W pedal-assist e-bikes under expanded safety and equipment requirements (lights, helmets, brakes, etc.).

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Global Trends to consider:

- Rising acceptance of 500–750W e-bikes in urban and cargo contexts (especially in the US and Canada).
- Shift toward speed-based regulations instead of motor power (e.g., Europe focuses on speed limit, not wattage).

- Safety tech improvements (ABS, smart controllers) prompting regulatory updates.