Inquiry into e-mobility safety and use in Queensland

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Submission to the Queensland Transport and Infrastructure Committee: Inquiry into E-Scooter and E-Bike Safety

Executive Summary

To whom it may concern,

High-powered e-bikes like the Fatboy Bagus (38 kg, 25 km/h) and Talaria XXX TL2500 (50-60 kg, 75 km/h) pose severe risks to Queensland pedestrians, contributing to 15 PMD deaths (11 children) and a 302 road toll in 2024. Their speed, weight, and reckless use by youths (e.g., wheelies, fleeing accidents) endanger children, the elderly, pram-pushing parents, and dog walkers.

Collisions cause compound fractures, traumatic brain injuries, or death, with Talaria's 39,062 Joules at 75 km/h far exceeding Bagus's 1877.6 Joules. Current laws lack e-bike age limits, enabling misuse.

This submission proposes: (1) Register e-bikes/e-scooters to over-18s with traceable license plates (e-bikes: behind seat; e-scooters: front shaft) to deter underage riders and ensure accident accountability; (2) Criminalize modifications (\$5,000 fines, confiscation); (3) Limit e-bikes/e-scooters to 12 km/h on footpaths, ban off-road models like Talaria on public roads; (4) Mandate 18+ riders, helmets, no passengers; (5) Enhance enforcement, education, infrastructure. These reforms, inspired by Victoria's e-scooter laws, protect bystanders, curb reckless riding, and restore public safety.

Submission to the Queensland Transport and Infrastructure Committee: Inquiry into E-Scooter and E-Bike Safety

Introduction

As a concerned Queensland resident (Kirra Beach Gold Coast), I welcome the inquiry into e-scooter and ebike safety, driven by 15 Personal Mobility Device (PMD) related deaths (11 children) and a 302 road toll in 2024. High-powered e-bikes like the <u>Fatboy Bagus</u> and motocross-style <u>Talaria XXX TL2500</u>, misused by riders, threaten pedestrians, including children, the elderly, pram-pushing parents, and dog walkers.

Riders often evade accident accountability, leaving bystanders injured. These models exemplify broader ebike issues. This submission examines their injury risks, proposes traceable registration, anti-modification laws, footpath/road restrictions, age limits, and reforms to regulation, enforcement, education, and infrastructure. I aim to ensure PMDs are safe, not dreaded, protecting Queensland's vulnerable. I am available for further input or hearings.

Context: PMD Safety Crisis

Queensland faces a severe PMD safety crisis, with 15 e-scooter deaths (highest in Australia) and a 9% rise in road fatalities (277 in 2023 to 302 in 2024). High-powered e-bikes like the Fatboy Bagus (38 kg, 500W continuous, 25 km/h) and Talaria XXX TL2500 (50-60 kg, 2500W, 75 km/h) endanger pedestrians.

Community concerns, raised by Deb Frecklington MP, highlight reckless riding, footpath misuse, and weak enforcement, with X posts noting riders fleeing accidents. Tragedies like the April 2025 deaths of a teenager in Terang and 12-year-old Summah Richards underscore urgency.

E-bike injuries (65% orthopedic fractures) are severer than bicycle accidents, with children risking growth plate damage and the elderly facing 20-30% mortality post-hip fracture. Modified e-bikes and 25 km/h footpath use threaten pram-pushing parents and dog walkers.

Off-road e-bikes like the Talaria, ridden by youths doing wheelies, exacerbate risks, with 2025 police crackdowns fining parents for children as young as 12 riding at 80 km/h. Current laws lack e-bike age limits (unlike e-scooters: 12+ with supervision), mandate helmets (\$161 fine), and allow passengers on designed bikes, increasing risks. The inquiry's focus on usage, regulation, enforcement, education, and infrastructure is vital to address these issues.

Case Study: Fatboy Bagus and Talaria XXX TL2500

The Fatboy Bagus and Talaria XXX TL2500 represent high-powered e-bike hazards, mirroring issues with models like Sur-Ron or Super73. The Bagus (38 kg, 500W continuous/1560W peak) reaches 25 km/h on footpaths, compliant with Queensland's 500W limit but dangerous due to its mass and throttle. Unlockable to 50 km/h, it risks modifications. Priced at \$2,490, its accessibility to teenagers and two-seater design encourage risky behavior, linked to 11 child PMD deaths.

The Talaria XXX TL2500 (50-60 kg, 2500W, 75 km/h), a motocross-style e-bike, is designed for off-road use but illegally ridden on roads/footpaths. Its 6000W peak power and dirt bike design appeal to youths performing wheelies, with police noting 12-year-olds riding unregistered at 80 km/h, requiring motorbike registration/licenses. Both models amplify collision force, with PedL's 3.3/5 rating suggesting Bagus quality issues and Talaria's off-road disclaimer ignored. A Bagus (78 kg with rider) at 25 km/h carries 1877.6 Joules, causing severe trauma; a Talaria at 75 km/h (39,062 Joules) risks fatalities.

Footpath use at 25 km/h (Bagus) and illegal road use (Talaria) heighten dangers, worsened by no age limits, allowed passengers (if designed), and riders evading accident accountability. These e-bikes require traceable registration, age restrictions, and road bans for off-road models to protect Queenslanders.

Collision Injury Analysis

A Fatboy Bagus (38 kg, plus 40 kg rider) at 25 km/h on a footpath could devastate a child, elderly person, or pedestrian with a pram, carrying 1877.6 Joules. A child (20-30 kg) may suffer a **comminuted open tibial fracture**, with bone fragments piercing skin, causing bleeding and infection. Femur fractures or splenic ruptures require surgery, with growth plate damage risking deformity. Skull fractures or subdural hematomas could lead to coma or death. An elderly person faces a **compound distal femur fracture** or **femoral neck fracture**, with 20-30% one-year mortality. The Talaria XXX TL2500 at 75 km/h (100 kg, ~39,062 Joules) causes catastrophic multi-system trauma, including multiple compound fractures, organ ruptures, and fatal TBIs, akin to high-speed vehicle crashes. Cervical spine fractures (20.5% risk) may cause paralysis, and intracranial hemorrhages are fatal.

Dog walkers or parents with prams risk similar injuries (42% of PMD victims), requiring prolonged hospitalization and surgeries (e.g., titanium implants). Footpath collisions at 25 km/h (Bagus) and illegal road use at 75 km/h (Talaria) amplify risks, with riders often fleeing, necessitating traceable registration, 12 km/h limits, and 18+ restrictions to protect bystanders.

Recommendations

To address PMD dangers like the Fatboy Bagus and Talaria XXX TL2500, I propose these reforms, aligned with the inquiry's objectives:

- Mandatory Registration and Age Restriction:
 - Require all e-bikes and e-scooters sold in Queensland to be registered at sale to persons over 18, with a license plate behind the rider's seat for e-bikes (e.g., Bagus, Talaria) and on the front vertical shaft for e-scooters. Plates ensure traceability via a TMR database, deterring underage riders (linked to 11 child deaths) and holding owners/riders accountable for accidents, addressing cases where riders flee, leaving bystanders injured.
- Anti-Modification Laws:
 - Criminalize PMD modifications (e.g., Bagus to 50 km/h, Talaria to 80 km/h) with \$5,000 fines, confiscation, and 6 months' jail for repeat offenders.
 - Mandate tamper-proof speed limiters and annual inspections for 25 km/h and 500W compliance.
- Footpath and Road Restrictions:
 - Allow traditional pedal bikes on footpaths but restrict e-bikes and e-scooters capable of >25 km/h to 12 km/h on footpaths using geofenced speed governors. High-powered models (e.g., Bagus) should be limited to road shoulders or bike lanes, with footpath access prohibited unless speed-limited.
 - Ban off-road e-bikes like the Talaria XXX TL2500 on public roads and footpaths, restricting them to private property or off-road trails, as they require motorbike registration/licenses for road use.
 - Install speed sensors and 12 km/h signs on footpaths; fine illegal road use (\$1,000-\$5,000).

- Age, Helmet, and Passenger Restrictions:
 - Prohibit e-bike use for riders under 18, especially for models like Bagus and Talaria, addressing no current age limit (unlike e-scooters: 12+ with supervision) and 11 child deaths.
 - Mandate helmets, reinforcing law (\$161 fine), to prevent head injuries (42% of PMD accidents).
 - Ban pillion passengers, even on designed e-bikes (e.g., Bagus's two-seater), to reduce weight and instability, stricter than current law allowing passengers if equipped.
- Stricter Regulations:
 - Limit pedelecs to 250W and 25 km/h; require registration and motorcycle licenses for models exceeding 500W (e.g., Bagus at 1560W peak, Talaria at 2500W).
 - Classify off-road e-bikes like Talaria as restricted vehicles or motorbikes, prohibiting public road/footpath use without full compliance (license, registration, road features).
 - Ban throttle-equipped PMDs for under-18s and e-bikes over 30 kg on footpaths.
- Enhanced Enforcement:
 - Empower police to seize unregistered or modified PMDs (e.g., Talaria on roads) and fine footpath misuse, wheelies, or illegal road use, using license plates to trace offenders for accident accountability.
 - Deploy patrols in pedestrian-heavy areas to protect pram-pushing parents and dog walkers.
- Safety Education:
 - Mandate PMD training in schools/community centers, covering road rules, risks of heavy models, and accident consequences.
 - Launch campaigns showing collision injuries (e.g., compound fractures, TBIs) to deter footpath misuse, underage riding, and stunts, emphasizing rider accountability.
- Infrastructure Upgrades:
 - Develop dedicated PMD lanes to separate 25 km/h+ models from pedestrians, prioritizing urban footpaths.
 - Designate off-road trails for Talaria use, with signage banning public road access.
- Retailer Accountability:
 - Require retailers like PedL to verify buyer age (18+) and provide anti-modification/off-road warnings.
 - Regulate online sales to block underage purchases, with penalties. These reforms, inspired by Victoria's e-scooter laws, Singapore's e-scooter tags, and Queensland's motorbike rules, ensure pedestrian safety and PMD accountability.

Conclusion

High-powered e-bikes like the Fatboy Bagus and Talaria XXX TL2500, with speeds up to 75 km/h, risk causing compound fractures, brain injuries, or death to pedestrians, with riders often evading accountability. Queensland's 15 PMD deaths demand action. Traceable registration, anti-modification laws, 12 km/h footpath limits, public road bans for off-road models, 18+ age restrictions, and robust regulation, enforcement, education, and infrastructure will make PMDs safe, not dreaded. I urge prioritising pedestrian safety to protect bystanders. I am available for further input or hearings. Let's safeguard Queensland's footpaths and roads for all.

Yours sincerely,

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