

E-Bikes - Is the name misleading?

Pedal Power Discussion Paper by Steve Ryan, Pedal Power Advocate with editorial assistance from Bruce Smith, a recent addition to the Advocacy Group. August 2025.

This paper endeavours to

- Promote the need for discussions about e-bikes to make it clear what type of 'e-device' is being considered or all types of e-bikes will all be lumped together in new government regulations.
- Support a fundamental distinction to differentiate between pedal assist cycles with electric motors and those that can move without pedalling through the addition of an electric motor and a throttle.
- Suggests a way forward - including holding an Advocacy Forum - to develop a position that could be recommended to the Pedal Power Board for consideration.

There are two attachments to this paper that examine the position of Bicycle Queensland as in mid 2025 on 'E-mobility' (Attachment A) and a NSW Parliamentary Committee Report (Attachment B) released in early 2025 that looked at 'the use of e-scooters, e-bikes and related mobility options'. The following discussion considers many of the issues raised in these documents.

The recent escalation of 'e' issues demonstrates my long held concern that the term e-bike is being applied to any mobility device with an electric motor regardless of their type and capability and has the potential to result all e devices being lumped together and subjected to an overarching solution that for many devices won't be a solution at all.

This was emphasised by a recent interview of the Queensland Minister for Transport, Brent Mickelberg, on the ABC during which he said that a 'total ban on e-scooters and e-bikes is not off the table in Queensland'. Reading the complete text of the interview I suspect that he has fallen for the tendency to use the term e-bike to refer to specific e-devices such as the powerful throttle driven mountain bikes that high school children are riding rather than all types of e-bikes.

When I joined the PP Advocacy Group years ago, I asked what set PP apart from other community cycle groups, such as those representing mountain bike riders and competition riders. I was advised that PP

represented community and recreational riders who use bike paths, on-road bike lanes, and footpaths/roads as necessary.

Until about five or six years ago, this meant riders used bikes without electrical assistance. However, this has changed gradually, with the first major breakthrough being e-mountain bikes, followed by e-commuter bikes, e-dutch cargo bikes, e-road bikes, and most recently, e-gravel bikes. And then we saw the introduction of apparently unregulated e-motor bikes and e-scooters that were designed to look, but not act, like existing bicycles and scooters across the commuting and mountain bike spectrum.

This resulted in the proliferation of cheap and sometimes nasty bikes from department stores and bulk supermarkets, and the introduction, with the support of governments, of short-term rental e-bikes, followed by short-term rental e-scooters. Initially e-bikes, including the cheap ones, had one thing in common: the rider had to pedal to go forward, with electric motors providing additional assistance as required.

The degrees of assistance varied depending on the type of bike. For example, I rode an e-MTB in 2022 that had five assistance modes, with the top mode almost the equivalent of a motorbike, and equalling that of a completely motor-driven vehicle. However, from my research of current e-bikes for my website 'tourdemature.com' for bikes such as e-road, e-gravel and e-commuter the most common assistance modes seem to be Eco, Sport, and Turbo, possibly with different names such as Trail instead of Sport.

How these modes affect a ride can sometimes be modified using an application provided by the manufacturer so that more or less assistance is provided within the overarching maximum speeds. To my understanding, all EU countries and Australia restrict assistance to 25 kph, while the USA and New Zealand limit assistance to 32 kph. This means that when a rider is riding at speeds higher than the allowed maximum, they are doing so purely by pedalling.

This, I think, is the nub of the issue - does assistance that helps a rider achieve a maximum speed of 25 or 32 kph represent an abnormal risk to riders or those who come into contact with the rider or is there a problem with e-devices that for all intents and purposes are effectively motor bikes or motor scooters which can result in the rider losing control of the device and be a risk to themselves and pedestrians?

Perusing recent literature relating to e-bike issues in Australia has confirmed my strongly held opinion that the application of the term e-bike to any two wheel device that includes an electric motor has resulted in 'attempts to throw out the baby with the bath water'. There does appear to be a real problem with delivery bikes and recreational bikes that allow the rider to get from A to B without needing to pedal.

They seem to be more prevalent on footpaths or in shopping precincts and because of their weight represent a real risk to pedestrians and other riders. Add to this the impact of private and rental e-scooters on roads and footpaths, both because they are also self propelled and the poor location of rental scooters after riders finish with them.

The above material does not cover all the issues, nor addresses what could be the PP policy for 'e devices'. During my perusal of the e-bike related literature in the PP News Summary I noticed that even so-called experts in the cycle retail industry seem to have a poor understanding of the differences between e-bikes. For example a WA ABC report on 30 July 2025 included a statement from an assistant manager at LifeCycle Bikes in Margaret River that 'a compliant e-rideable in WA has a maximum speed of 25 kph, weighs 25 kgs and has a motor that does not exceed 250 watts'.

Two out of three is not bad, but there are no regulations that deal with device weight and this enables road e-bikes to be offered with weights ranging between 10 and 15 kgs, e-mountain bikes in the low 20 kgs and e-commuter bikes ranging from the mid teens through to the high 20's kgs. If he can't get it right, what hope is there for the average politician being asked to impose new or enforce existing regulations to effectively differentiate between devices that represent a real risk and those that are an important part of the active travel scene in Australia?

Furthermore, reading through the weekly Advocacy News Summary I have noticed an escalation of stories concerning e-bikes across Australia and the world. These stories are predominantly negative and at times are also contradictory. For example in NSW the same Summary contained a story about NSW 'mulling e-bike incentives' and another about number plates to be enforced for e-bikes in the Sutherland Shire.

I think that PP has the opportunity to build on the policies presented by We Ride Australia and Bicycle Industries Australia in their submission on 30 July 2025 to the Commonwealth concerning e-bike regulation. PP should seek to fill the Territory policy voids on e-devices and also work with the other jurisdictions to encourage the Commonwealth and State/Territory Governments to develop and implement policies that will:

1. Recognise that like their non-motor bicycle equivalents that are separated by their naming protocols (e.g. road bikes, mountain bikes, city bikes, hybrid bikes etc) e-bikes need the same protocols so that not all motorised devices are lumped together when a problem occurs as a result of a specific type of device such as a bike with a throttle driven motor;
2. Focus regulatory bodies on taking consistent action to enforce or amend road rules such that devices that operate as if they are motor vehicles are properly regulated and the regulations are effectively enforced. I would suggest that a device with an electric motor and no need for the rider to pedal to move forward is a motor bike and should be dealt with in the same way as any motor bike.
3. Encourage riders to use 'e-devices' that require them to have to pedal to move forward as a way of encouraging active travel. The use of Eco, Sport and Turbo modes allows riders to cope with climbs and head winds, while still requiring riders to make the effort that suits them by choosing the mode appropriate to them. If governments go down the path of lumping all 'e-devices' together for regulatory purposes, the likely result will be to drive riders with physical impediments away from being cyclists. Personally I am saddened when I pass or am passed by someone who seems to think they are getting exercise while their device is doing all the work.
4. Provide an emphasis on ensuring that 'e-device' batteries are safe to use. These batteries are also known as lithium batteries and while it is fairly straight forward to design and deliver battery charging systems that are safe to operate, there is growing evidence that some of the battery systems being offered to consumers are highly unsafe.

For example, the battery cut-off systems that result in batteries turning off after they are charged are apparently not included in cheaper systems and this means that if there are any problems with a battery or the battery continues to receive power after charging is complete they can get hotter and hotter and eventually catch fire.

Phil Latz in his article on the 'E-Bike Dilemma' in May 2025 noted that NSW Fire and Rescue published tables on e-bike fires for 2022, 2023 and the first half of 2024 and not one 'mainstream 'blue chip' brand of e-bike was included.

So, what next? I suggest that PP should hold an advocacy forum to start the process of developing policies based on the above four issues. I am sure that We Ride Australia and Bicycle Industries Australia would be keen to participate as their request for PP and our interstate equivalents to sign on to their letter to the Commonwealth demonstrate that they recognise the value of joining with us to get an appropriate decision.

A forum could be asked to identify what are the issues and to set up working parties to then draft policies that endeavour to address the issues. This needs to be done quickly as I think we need to ensure that the policy voids aren't filled by well meaning but poorly thought through government responses that effectively result in my big fear, 'throwing out the baby with the bath water' and riders such as myself not being able to enjoy riding when conditions are against us.

Furthermore, we risk all bicycles getting caught up in the uninformed debate. We know that there is a small but constant demands that all bikes being ridden on the road should be registered. I would suggest that if governments decide that all cycles with an electric motor need to be registered, then the logical next step will be for them to agree with the call to require all cycles using the roads to be registered and this in turn will probably see the take-up of cycling decline. A disaster for active travel and a disaster in terms of encouraging a move away from using sedentary travel arrangements.

Attachment A

On 17 July, the Pedal Power (PP) Advocacy meeting addressed developments relating e-bikes in Queensland and Victoria. Bicycle Queensland (BQ) had released a statement on 'E-Mobility' and I indicated at the meeting that I had reviewed it and had some concerns regarding the absence of definitions associated with the concept of e-bike. I agreed to provide the Advocacy Group with a review of the Statement.

BQ had welcomed the Queensland Parliamentary Inquiry into 'E-Mobility' and had called on the Qld State Govt to 'urgently elevate active transport to a serious and properly funded part of the state's transport network'. BQ noted that it has made a detailed submission to the Inquiry with a three point plan:

1. Make active and e-mobility transport a mainstream part of the (transport) network.
2. Tougher rules on illegal high powered e-bikes.
3. A state-wide public education campaign.

The three point plan appears to be consistent with the current position of Pedal Power.

In addition BQ has released a new position statement that calls for the stronger regulation of high powered e-bikes that do not comply with Australian Standards and pose significant safety risks on shared pathways and roads. BQ notes that illegal devices capable of speeds of up to 60 kph purely by throttle should be removed from the public transport network and greater enforcement measures should be applied.

At the same time BQ remained a strong advocate for legal pedal-assist e-bikes which meet the Australian Standard and offer a sustainable transport alternative.

BQ's position on high-powered e-bikes seems to also be consistent with the current Pedal Power position. At the advocacy meeting I suggested that the Qld position seemed to be focused on delivery e-bikes and e-scooters. In researching BQ position I realised that my comments related to a NSW parliamentary enquiry and to BQ's paper.

Attachment B

After reading the NSW Parliamentary Committee Report titled 'Use of e-scooters, e-bikes and related mobility options' (Feb 2025).I wrote an article for my Tour de Mature Facebook page. The article is reproduced below:

“Today I had my attention drawn to the NSW Parliamentary Committee report called 'Use of e-scooters, e-bikes and related mobility options' which was published in February 2025. As a committed e road bike rider I thought that I should have a look. It's a very interesting report, but it has all the faults that I have previously identified as regards not properly defining which e-bikes the report is intended to cover.

I think the Committee set out to look into e-mobility devices such as public shared ride services offering e-bikes and e-scooters but after a good start where it defines the differences between e-bikes that self propel and those that assist manual peddling, the report jumps all over the place to arrive at its conclusions and recommendations.

In my opinion, the Committee should have started its review by properly defining the issues that it would be addressing, then identifying the bikes, scooters and other mobility devices that would fall within the scope of these issues before making recommendations about what is needed to be done, if anything, as a result of the Committee's work.

I certainly agree that the delivery riders on self propelled bikes or tipsy riders on e-scooters are a menace and there are effective ways of using technology to manage the use of these devices, but to lump all e-bikes and all e-scooters into the review was to arrive at recommendations that may have far ranging consequences for segments of the impressive e-mobility market.

Hopefully other jurisdictions including my own will, when looking at the problems caused by e mobility devices, get to the nub of the problem and acknowledge that, as I have said on many occasions, you can't label all bikes with electric motors simply as e-bikes. Just like you would not call a commuter bike a mountain bike, you should not call electric commuter bikes and electric gravel bikes as simply e-bikes!

Concerning the NSW Parliamentary Committee Report, I believe there needs to be a distinction between different types of bikes and devices with electric motors.”

References

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NSW Government pushes back e-bike certification fine after industry confusion. Millie Roberts, ABC News, 29 July 2025

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