

**Submission  
No 193**

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

**Organisation:** BIKEast  
**Date Received:** 18 August 2024

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Representing the community's interests in  
everyday cycling in Sydney's eastern suburbs

## BIKEast Submission - NSW Parliamentary Inquiry into the use of e-scooters, e-bikes and related mobility options

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Cate Faehrmann, Chair  
NSW Legislative Council Portfolio Committee No 6  
Parliament House  
Macquarie Street  
SYDNEY NSW 2000

Via email: [portfoliocommittee6@parliament.nsw.gov.au](mailto:portfoliocommittee6@parliament.nsw.gov.au)

18 August 2024

Dear Committee Members,

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

Thank you for the opportunity to provide input into this Parliamentary Inquiry.

BIKEast Incorporated represents the community's interests in everyday cycling in Sydney's Eastern Suburbs. We support the stated aims of the NSW Government's active transport strategy:

*to make active transport the preferred way to make short trips and a viable, safe and efficient option for longer trips. More than 1.5 billion walking and bike riding trips are taken per year across New South Wales. We want to double this number in 20 years.*

[\(NSW Active Transport Strategy\)](#)

E-bikes and other e-mobility devices are transforming transportation in NSW, Australia and across the planet. Young people and low-income workers are leading the charge. Electric micromobility can make a huge contribution to decarbonising our transport system, creating quieter, less polluted streets, less dominated by carbon-emitting internal combustion vehicles.

A network of safe, continuous and connected bike routes will encourage more people to ride their bikes more often – an outcome that is consistent with NSW and Local Government strategies to realise the considerable individual and public benefits of increasing the mode share of active travel.

BIKEast submits the following comments regarding the NSW Parliamentary Inquiry into the use of e-scooters, e-bikes and related mobility options. Our comments support the extensive evidence, information and recommendations detailed in the submission from our affiliated body, Bicycle NSW (BNSW) and the national industry advocacy group, Bicycle Industries Australia (BIA).

Please note that this submission can be published in full on your website, with BIKEast named as the author.

Sincerely,

**Mark Worthington**  
BIKEast President

**Warren Salomon**  
BIKEast Public Officer

## Recommendations

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E-bikes and other e-mobility devices are transforming transportation in NSW, Australia and across the planet. Young people and low-income workers are leading the charge. Electric micromobility can make a huge contribution to decarbonising our transport system, creating quieter, less polluted streets, less dominated by carbon-emitting internal combustion vehicles.

### Legislation, Regulation and Compliance

1. Support a national project to research and recommend an alignment pathway for legislative and regulatory reform (harmonisation) across Commonwealth and State jurisdictions.
2. Request the Commonwealth Government to review and improve the management and policing of the ROVER import portal with an emphasis on the treatment of e-bikes that do not meet EN15194.
3. Increase the size and conspicuity for compliance plates on all electrically-powered pedal cycles (EPACs).
4. Withdraw the NSW Power Assisted Pedal Cycle category.
5. Review international best practice to identify best power and speed restrictions.
6. Harmonise road laws/regulations with the rest of the country, to allow a single approach to the import, sale and use of e-bikes, ensuring that all e-bikes and batteries sold align to the national standard.
7. Support the implementation of training and information to support NSW Law enforcement agencies to achieve greater compliance with NSW regulations and laws.

### Encouragement and education

8. Develop e-bike parking guidelines for the planning and provision of public and private facilities.
9. Introduce a financial incentive scheme to increase e-bike use based on the platform and structure introduced by the NSW Government for e-vehicle purchase incentives.
10. Encourage the Commonwealth Government to introduce tax incentives for e-bikes to achieve parity with e-vehicles.
11. Fund Safe Routes to School programs, including active engagement of parents through light electric vehicles (LEVs).

### Lithium Ion battery safety

12. Fund a centralised data collection project to identify accurately the number and cause of all lithium-ion battery fires. Fire and Rescue NSW (FRNSW) are national leaders in this important area.
13. Widen the current Government promotion of safe charging, storage and disposal guidelines for e-bike users – FRNSW are making a substantial contribution in this area.
14. Fund the delivery of fee-for-service specific training units on the management, storage and handling of lithium-ion batteries in the bicycle industry.
15. Fund a coordinated program that provides a safe storage solution at bicycle retailers and distributors to enable them to hold damaged and end of life batteries e-bike batteries until transported to an appropriate recycling centre.

## The need for better e-bike regulation

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The rapid development, sale and use of any new technology has both risks and rewards for the community. The benefits are quickly recognised. However, as use becomes more widespread, the unintended consequences of rapid development and uptake soon become more apparent.

Three examples of these unintended consequences are:

- There is widespread importation of illegal/non-compliant e-bikes and e-scooters without regulatory oversight. E-bikes sold in NSW are also being sold with modifications which circumvent vehicle design and operating requirements (e.g.: throttle control-only instead of pedal-assist; unlimited speed; increased motor output above the 250W/500W limits).
- There is no standard certification scheme for batteries, and there is limited education about safe charging practices. As a result, there are currently an alarming number of fires caused by malfunctioning batteries.
- Untrained riders are using bikes unsafely.
- Police are not enforcing riding rules or confiscating illegal e-bikes.

Most current concerns around the use of e-bikes and e-scooters are due to regulatory failures, due mainly to a lack of detailed understanding of the new technology and its full impact on the community. This is exacerbated by a lack of regulatory coordination between Commonwealth and State Governments.

Governments have not provided adequate regulation or infrastructure for the safe and comfortable use of e-bikes and other healthy, sustainable and efficient transport modes. A brief history of the current inadequacy of e-bike regulation is provided in Appendix A.

## The need for better encouragement of e-mobility

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Current Government policies do not adequately encourage and support the amazing opportunities offered by e-bikes. Any policy and regulation changes that reduce the capacity of e-bikes to provide a transport solution will have an adverse impact on the NSW economy and environment.

BIKEast supports the introduction of a financial incentive scheme to increase e-bike use based on the platform and structure introduced by the NSW Government for e-vehicle purchase incentives.

To effectively encourage and provide for increased active travel, it is essential to have safer streets and roads. Cities must adapt to accommodate space efficient, low emission and sustainable transport. BIKEast supports the recommendations in Bicycle NSW's submission to this inquiry to improve safety, comfort and amenity of active transport in NSW:

1. Increase the level of investment in active transport.
2. The NSW Government must commit to completing regional networks of separated cycleways.
3. Reduce speed limits everywhere.
4. Apply the Road User Space Allocation Policy and the Road User Hierarchy to prioritise road space and create space for people walking and cycling.
5. Traffic signal phasing adjusted to prioritise people walking and cycling.
6. Empower and require NSW Police to crack down on dangerous driving and riding.
7. Empower local government to make decisions on safer streets.

## The need for better e-battery safety

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The Australian bicycle industry has developed a series of resources for bicycle retailers and wholesalers to support the safe storage and handling of batteries within the industry. These include:

- Standard operating procedures
- Storage systems
- Handling procedures
- Transport
- Recycling

Under a Green Wheels program funded by NSW EPA, each NSW bicycle retailer is evaluated for its ability to reduce its carbon footprint.

The safety and security of collecting and storing damaged or end-of-life batteries was identified as a high priority but extreme risk.

The result of this assessment has been that many retailers are not willing to collect end-of-life batteries, leading to 'dumping' of batteries from consumers in general waste. These batteries cannot be collected in general battery deposit bins at major retailers (or similar) due to the energy capacity of these batteries.

The Government needs to support and promote local collection and storage programs for industry.

The collection of accurate data on e-bike and e-scooter incidents (including lithium ion battery) is an issue that many authorities across Australia have identified as critical in planning future direction.

Though Fire and Safety NSW are current leaders in the prevention field, there is no Australia-wide agency that has accurate data on LEV lithium battery fires:

- Number of LEV lithium-ion battery fires
- Type of fire (scooter/hoverboard/e-bike)
- History/damage of system/battery/charger
- Brand of system
- Modifications to system
- Was the e-bike 'road legal'?
- Other reasons for overheating

In a [presentation to the bicycle industry on the 19th of January 2024](#), a Senior Fire Investigator of the South Australian Metropolitan Fires Services said:

'It is overwhelmingly the case that the fires occur when users are tampering...or importing online and making their own homemade systems, overwhelmingly they are the cause of the fire.'

'It [fire] is quite uncommon if users purchase all of the components together and they are used in accordance with the manufacturer's instructions, it is very rare that there is an instance when they fail.'

'Based on experience we 'know' what are the types of batteries that are burning, but we do not have the data to support future decisions.'

## Appendix A

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### A short history of e-bike regulation in Australia.<sup>1</sup>

Prior to 2012, the Australian regulations relating to power assisted cycles were loosely defined.

The critical restriction in road legislation identified at that time was that the power of the motor does not exceed 200w maximum output. At that time throttle-only e-bikes were allowed across Australia.

In May 2012 the Federal Parliamentary Secretary for Transport introduced Vehicle Standard (Australian Design Rule - Definitions and Vehicle Categories) 2005 Amendment 6 (pedalec) .

The critical elements of this regulation are:

- Maximum assisted speed 25km/h
- Maximum of 250w maximum continuous rated power (Note that the difference between maximum and maximum continuous is significant)

Throttle only power assisted cycles up to 200w continued to be allowed.

At that time, to import an e-bike, Australian Border Force required an advice notice from the Department of Infrastructure, Transport, Regional Development and Communications that the e-bike 'had been assessed as not road motor vehicles as defined by the Motor Vehicle Standards Act 1989' to prove that it had met the requirement.

Victoria became the first state to adopt EN15194 into road regulations in September 2012.

Over the course of the following 5 years, each state adopted the modification of the Australian Design Rules (EN15194), with the NSW National Parks and Wildlife Service as the final NSW jurisdiction to allow the use of e-bikes on public land in May 2017.

In 2017, Australia imported approximately 9,000 pedalecs and power assisted cycles (negligible numbers of road-legal e-bikes are made in Australia).

The number of e-bikes imported in 2022 grew to almost 200,000 units.

In 2016, Standards Australia released the standard for a pedalec AS 15194:2016 as a modified adoption of the European standard EN15194:2009 (we are still operating from the EU 2009 standard which is now 15 years old).

With the release of the national standard, and adoption of EN15194 in each state, all Australian state and territory regulations were harmonised, creating a consistent definition of a pedalec across all jurisdictions in Australia (incorporating import, sale and use of e-bikes).

In 2018, the Federal Government withdrew an exemption to the 5% import tariff on e-bikes imported from countries not featured in a Free Trade Agreement (FTA). This has generally increased the price of higher quality products.

As Australia has signed an FTA with China, e-bikes originating from China do not attract the import tariff.

In January 2021, the Assistant Minister to the Deputy Prime Minister introduced the Motor Vehicle Standards (Road Vehicles) Amendment Determination (No 1) 2021 (without consultation with the industry or states), moving the definition from a pedalec to an 'electrically powered pedal cycle' (EPAC) and modifying the definition of a 'power assisted pedal cycle'.

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<sup>1</sup> Excerpted from Bicycle Industries Australia Submission to the NSW Parliamentary Inquiry into e-scooters, e-bikes and related mobility options.

This created a new definition for the importation of e-bikes. NSW was the only Australian state or territory that adopted the new definition without modification into its road regulations.

Coinciding with these changes, the Federal Department of Transport released the ROVER administrative portal for the management of import applications and approvals under the Road Vehicle Standards (RVS) legislation on 1 July 2021.

The ROVER system modified the import permit for an EPAC/Pedalec/power assisted cycle to an 'Advisory Notice' under the title of 'that thing is not a road vehicle' (although e-bikes are defined as road vehicles under the Act).

Prior to the ROVER system the importation of any shipment that included an EPAC/Pedal/Power assisted cycle required a permit. Under the ROVER system guidelines, this requirement was withdrawn with the following advice offered:

While you don't need permission to import vehicles that are not road vehicles, you may like to apply for an advisory notice through ROVER, the Department's online application and approval portal. The advisory notice will confirm that the thing you are importing is not a road vehicle. You'll have to answer questions about the e-scooter and provide the manufacturer's specifications. The fee for an advisory notice is \$55.

In March 2023, the NSW Minister for Metropolitan Roads introduced Road Transport Legislation Amendment (Electric Skateboards and Bicycles) Regulation 2023, introducing a 500w continuous rated power limit, and creating a variation between NSW and all other Australian jurisdictions, including importation regulations and sales regulations, along with road use regulations.

The combination of speed and power (25km/h and 500w) adopted by the Minister is a unique combination to NSW from any other jurisdiction in the world.

The decision was made against industry advice, as it was advised that it would promote confusion and increase the risk of poor-quality, higher-powered units in NSW.

The change to NSW regulations created the fundamentally flawed situation whereby there are currently different definitions of a Pedalec/EPAC/power assist pedal cycle/power assisted bicycles across the federal and state departments involved in the 'life' of an e-bike.

- Federal Department of Transport – relating to import
- Standards Australia/ACCC – relating to sale
- Transport for NSW – relating to use

This change has created the situation that importers cannot legally declare a 500W e-bike as a road legal EPAC or Power Assisted Bicycle at the point of import, but they are 'road legal' to utilise in NSW.

The NSW Minister identified this concern and wrote to the Federal Minister requesting changes to the import process. However, this request was not supported at a federal level.

This clash of definitions has created confusion for importers, retailers and consumers.

The changes to the definition also created the situation that the largest mainstream suppliers of drive units and batteries into the Australian LEV market do not supply an e-bike built to NSW unique specifications as it would be 'more trouble than it's worth.'

Further to the concerns regarding importation, sale and use, an e-bike drive system that is restricted electronically, mechanically or otherwise to a lower restriction is not considered 'road legal' in Victoria and Queensland. Therefore, a 500W e-bike sold as 'road legal' in NSW, cannot be restricted to 250w to be sold in another state.

With the modifications of the ROVER import platform, the withdrawal of the tariff exemption and the variations between state and federal definitions of an EPAC/Pedalec/power assisted cycle for import, sale and legal road use, significant confusion has been created and this has made it easier and cheaper to import inferior quality products (including batteries) that are more susceptible to malfunction.

This process has also decreased the clarity for those responsible for policing or enforcing the legislation.

This history has unfortunately been a demonstration of poor consultation, communication and implementation over the last 5 years.

The industry believes that the attempts to improve the definition of an EPAC/pedalec/power assisted cycle were implemented in good faith, but we are aware that many of the actors involved in the process have not previously examined an LEV prior to making the modifications, resulting in a poorer quality outcome.