Inquiry into e-mobility safety and use in Queensland

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E-scooters & bicycles and lithium batteries.

The Danger and Impact of Electric Scooters (e-scooters) and Electric Bicycles (e-bikes) :

In recent years, e-scooters and e-bikes have surged in popularity as convenient, eco-friendly alternatives to traditional transportation. These are especially attractive in urban areas, offering efficient travel for short to medium distances. However, the widespread use of e-scooters and e-bikes has sparked significant concerns about safety, infrastructure, and broader social and environmental impacts. While they offer potential benefits, it is critical to examine the dangers and implications associated with their use.

The primary danger associated with e-scooters and e-bikes lies in their safety profile. Unlike traditional bicycles or pedestrians, e-scooter and e-bike riders often travel at higher speeds—up to and exceeding 25 to 40 kilometres per hour, without the physical protection that cars offer. This makes accidents particularly dangerous. Many users operate these devices without helmets, increasing the risk of head injuries. The number of injuries related to e-scooter and e-bike use has risen sharply, including fractures, lacerations, and even fatalities.

Another issue is the frequent use of sidewalks and pedestrian areas by e-scooter and e-bike riders, which can endanger both the riders and pedestrians. In cities where infrastructure has not caught up with the popularity of these devices, riders often share space with cars, buses, and pedestrians, increasing the risk of collision.

Electric scooters and bikes have also exposed significant regulatory and infrastructure gaps. Many cities were unprepared for the influx of these devices and struggled to implement adequate rules or designate proper lanes. As a result, e-scooters and e-bikes are often parked haphazardly on roads and footpaths, blocking walkways and access for pedestrians and disabled individuals. Enforcement of traffic laws for e-scooters and e-bikes is often inconsistent or lacking, creating a sense of lawlessness that contributes to unsafe behaviour. It is not uncommon to see up to three young people on an e-scooter speeding along footpaths, especially around school times. It is also not uncommon to see users of e-scooters and e-bikes using mobile phones while travelling along roads or footpaths at speed.

The absence of dedicated lanes in many cities means that riders must choose between unsafe roadways or illegally using sidewalks. This mismatch between vehicle capabilities and available infrastructure not only endangers users but also undermines the effectiveness of public transportation planning.

On the surface, electric scooters and bikes appear environmentally friendly as they are electric, emit no emissions, and reduce reliance on fossil fuels. However, the full environmental impact is more complex. Many shared e-scooter services have a high turnover rate for vehicles, with units lasting only a few months due to vandalism, wear and tear, and accidents. The manufacturing and frequent replacement of these vehicles can offset the environmental benefits of their use.

Lithium batteries:

The lithium batteries, commonly used in e-scooters and e-bikes, pose a growing fire risk in Australia. As the use of these devices become more widespread, so does the number of incidents involving overheating, combustion, and even explosions.

The popularity of electric mobility devices has surged in Australian cities. However, incidents of fires caused by charging these devices—often with incompatible or non-certified chargers have increased. These fires often occur in homes, garages, or apartment buildings, where they can spread quickly.

Also, lithium batteries discarded in general waste streams can ignite fires in garbage trucks or landfills. These incidents are on the rise in Australia, prompting state governments to advocate for separate battery disposal and recycling programs.

Some notable incidents include:

- In Sydney, 2023 saw over 180 fires linked to lithium battery failures, a 20% increase over the previous year.
- A major fire at a battery storage site in Victoria raised concerns about the safe deployment of large-scale energy storage solutions.
- Multiple apartment fires in Queensland and New South Wales were traced back to charging e-scooters or e-bikes indoors.

In conclusion, the use of e-scooters and e-bikes need further and stricter regulation to ensure safer use of the devices to reduce the risk of further deaths and serious injuries from occurring.

Also, as Australia transitions further into an electrified and battery-dependent society, the fire risks associated with lithium batteries must be proactively managed. Public education, improved regulation, safe product design, and proper disposal practices will be essential in reducing the growing threat of lithium battery fires in homes, workplaces, and public spaces.