Sent:	Wednesday, 7 June 2023 9:39 AM
To:	ESPolicy
Subject:	Feedback on Queensland's Electrical Safety Act 2002 Final Report

Hi,

I am writing to provide feedback on the Review of Queensland's Electrical Safety Act 2002 Final Report, I had noticed that personal mobility devices (e-scooters, e-skateboards, e-unicycles, e-boards) and the associated electrical safety risks are not specifically stated in this report. I believe it is crucial to consider the following points for the government's consideration, along with relevant Australian incidents data:

**Classification of Personal Mobility Devices (PMDs):** The report should emphasize the importance of classifying PMDs based on their electrical components, power sources, and intended use. Categorizing these devices correctly will enable the development of appropriate safety regulations and standards tailored to their specific characteristics.

**Compliance and Certification:** Implement a robust system to ensure that PMDs available in the market comply with established safety standards. Mandatory certification processes should be established, requiring manufacturers to meet specific electrical safety criteria before their products are allowed for sale. Regular inspections and audits should also be conducted to verify ongoing compliance.

**Consumer Education and Awareness:** Recognise the importance of educating PMD users about electrical safety practices. Develop informative campaigns to raise awareness about the potential risks, safe charging practices, and the importance of using authorized charging equipment. Empowering consumers with knowledge will help prevent accidents and promote responsible usage.

**Reporting and Incident Data Analysis:** Establish a centralized reporting mechanism for incidents related to PMDs. Encourage consumers, manufacturers, and relevant authorities to report any electrical safety issues promptly. Regular analysis of this data will provide valuable insights into emerging risks, trends, and areas that require further attention.

**International Standards and Collaboration:** Explore international best practices and collaborate with other jurisdictions to share information and align safety regulations. Engaging in a global conversation on PMD electrical safety will ensure a more comprehensive approach and enhance the overall effectiveness of regulatory measures.

**Ongoing Review and Adaptation:** Recognize the need for continuous monitoring and adaptation of safety regulations. Electrical safety standards and technology are subject to rapid advancements. Therefore, it is vital to establish a framework for periodic review and updating of regulations to keep pace with emerging risks and new developments.

## Electrical safety risks associated with personal mobility devices (PMDs) primarily revolve around their electrical components, power sources, and charging systems. Here are some common electrical safety risks to consider:

**Battery-related Hazards:** PMDs are typically powered by rechargeable batteries, such as lithium-ion batteries. If these batteries are defective, damaged, or not handled properly, they can pose serious risks. Common battery-related hazards include overheating, thermal runaway, explosion, or fire. These risks can arise from poor battery quality, improper charging practices, using incompatible chargers, or damage to the battery itself.

**Charging System Risks:** PMDs require regular charging, and the charging systems involved can introduce electrical safety risks. Improperly designed or low-quality charging cables, adapters, or power sources can lead to electrical malfunctions, short circuits, or overheating during the charging process. Faulty wiring or inadequate insulation in charging infrastructure can also pose risks.

**Electrical Component Failure:** PMDs contain various electrical components, such as motors, control systems, and circuitry. If these components are of substandard quality, improperly installed, or subjected to excessive stress, they can fail, leading to electrical hazards. Component failure can result in sudden loss of power, erratic operation, or electrical malfunctions that may pose risks to the user or others nearby.

**Insufficient Electrical Protection:** PMDs should have appropriate electrical protection mechanisms to safeguard against overcurrent, overvoltage, and short circuits. Lack of or inadequate electrical protection can increase the likelihood of electrical accidents or failures, potentially causing harm to the user, damaging the device, or leading to electrical hazards.

**Ingress of Water or Moisture:** PMDs are often used outdoors and may encounter exposure to water or moisture. If the electrical components or connections are not adequately protected against water ingress, it can lead to short circuits, corrosion, or electrical shock hazards.

**Counterfeit or Non-compliant Components:** The use of counterfeit or non-compliant electrical components, including batteries, chargers, or other critical parts, can significantly increase electrical safety risks. These components may not meet safety standards, have inferior quality, or lack proper safety features, thereby compromising the overall safety of the PMD.

## Safety Incident References :

- 1. (https://www.abc.net.au/news/2023-01-17/e-scotter-fire-ipswich-four-in-hospital/101863568)
- 2. https://www.abc.net.au/news/2022-12-21/lithium-ion-battery-fires-warning-issued/101569244
- 3. https://www.abc.net.au/news/2023-02-02/lithium-ion-battery-fire-experiment/101907714

By considering these points and addressing electrical safety risks through the implementation of stringent regulations, safety standards, and quality control measures. Queensland Government can address electrical safety risks associated with personal mobility devices effectively, This approach will contribute to enhancing consumer safety, reducing accidents, and promoting public confidence in the use of PMDs.

Thank you for your attention to these matters. I trust that you will carefully consider this feedback and incorporate it into the decision-making process.

Kind Regards,



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Children's Health Queensland acknowledges the Traditional Custodians of the land, and pays respect to Elders past, present and future.