



Queensland Fire Department

Supplementary submission to the State
Development, Infrastructure and Works
Committee

Inquiry into e-mobility safety and use in Queensland

Term of Reference 3

*Issues associated with e-mobility ownership, such as risk of fire,
storage and disposal of rechargeable lithium-ion batteries*

**Updated data on lithium-ion battery
and e-mobility fires**

Respect

Integrity

Courage

Loyalty

Trust



This material supplements QFD’s submission to the Inquiry into e-mobility safety and use in Queensland.

Data in QFD’s original submission covered incidents up to 30 April 2025.

This report covers data up to 30 June 2025.

QFD data on incidents involving lithium-ion batteries and e-mobility devices

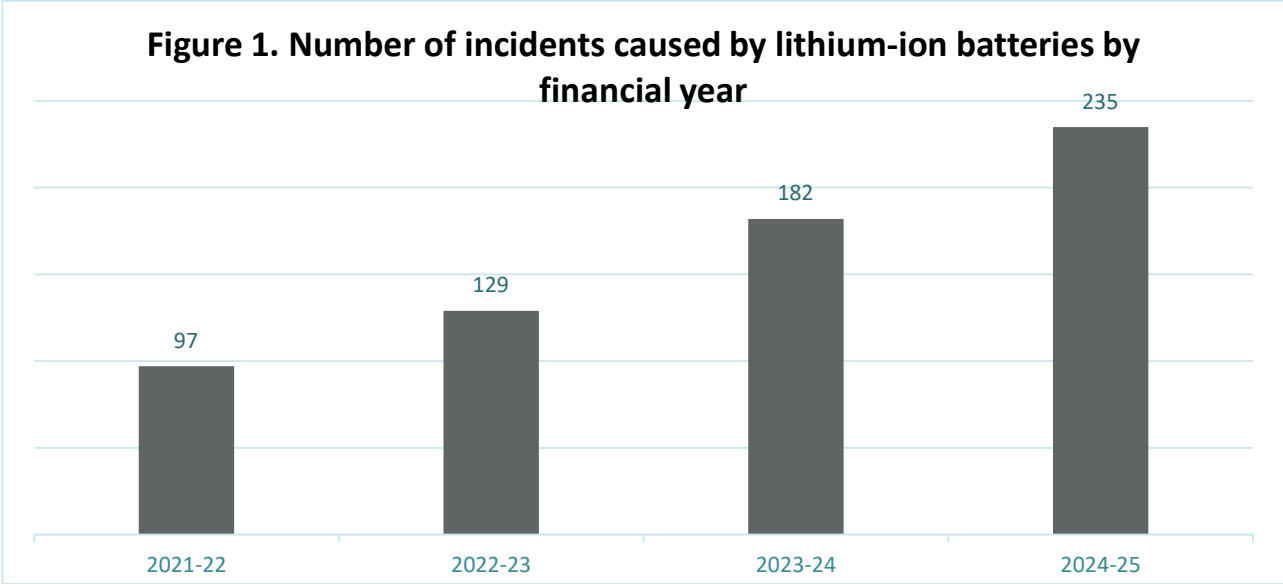
All fire incidents involving lithium-ion batteries

Figure 1 shows incidents attended¹ by QFD between 1 July 2021 and 30 June 2025 that were caused by lithium-ion batteries.

As at 30 April 2025, there had been 200 lithium-ion battery fires since 1 July 2024².

By the end of the full 2024-25 year, this number rose to 235³.

This pattern of increasing numbers of lithium-ion battery-related fires is consistent across other Australian and international jurisdictions.



These numbers are likely to reflect an under-reporting of fires involving lithium-ion batteries.⁴

¹ QFD captures incident reports in its Operations Management System (OMS) using codes from the Australian Incident Reporting System (AIRS). The data reflects incidents where the *Form of Heat Ignition* was recorded in OMS as ‘201 Battery Dry cell rechargeable (e.g. Lithium Ion or NiCad)’. This code was introduced across Australia in July 2021. Therefore, little data on lithium-ion battery related fires is available prior to 2021.

² Data extracted 28 May 2025.

³ Data extracted 17 July 2025.

⁴ OMS reporting is based on information available to the recording officer at the time of the incident and may be supplemented by further information as it becomes available. Information may be subject to change as incident reports are edited as part of ongoing data quality practices, including if a fire investigation has occurred. Therefore, data may be subject to further updates and revisions.

Given the nature of the data collection, it is likely there are other incidents involving -lithium-ion batteries that have been recorded differently and are not captured in this dataset.

Incidents where the lithium-ion battery was not responsible for ignition, but became involved in the fire and contributed to the severity of the incident, are also not captured in this dataset.

Further, the destructive nature of fires initiated by lithium-ion batteries can preclude definitive determination of the cause of some fires.

Fire incidents involving e-mobility devices

During 2023, QFD introduced additional codes to help identify specific devices involved in fires caused by lithium-ion batteries. The new codes included a specific code for '*electric recreational vehicle/device, e.g. e-scooters, e-bikes, hoverboards (battery powered)*'.⁵

Since these reporting codes for specific devices were introduced, it has become clear that e-mobility devices are the largest single cause of lithium-ion battery-related fires in Queensland.

Focusing on the period during which this additional coding has been available, i.e. from 1 July 2023 to 30 June 2025, there were 417 lithium-ion battery-related fires⁶ (this is up from 382 as at 30 April 2025⁷).

Of these, 145 were from a e-mobility device, e.g. e-scooters and e-bikes⁸ (this is up from 124 as at 30 April 2025⁹).

Figure 2 shows the number of incidents by 'Equipment Involved in Ignition', i.e. the type of device identified as the cause of a lithium-ion battery fire.

⁵ While the code for lithium-ion batteries was introduced across Australia in July 2021, there are currently no national standards for codes to differentiate between products within this category. Therefore, in 2023, Queensland introduced its own additional codes into OMS to identify products and devices powered by lithium-ion batteries. These codes are used to identify *Equipment Involved in Ignition*.

⁶ Data extracted 17 July 2025.

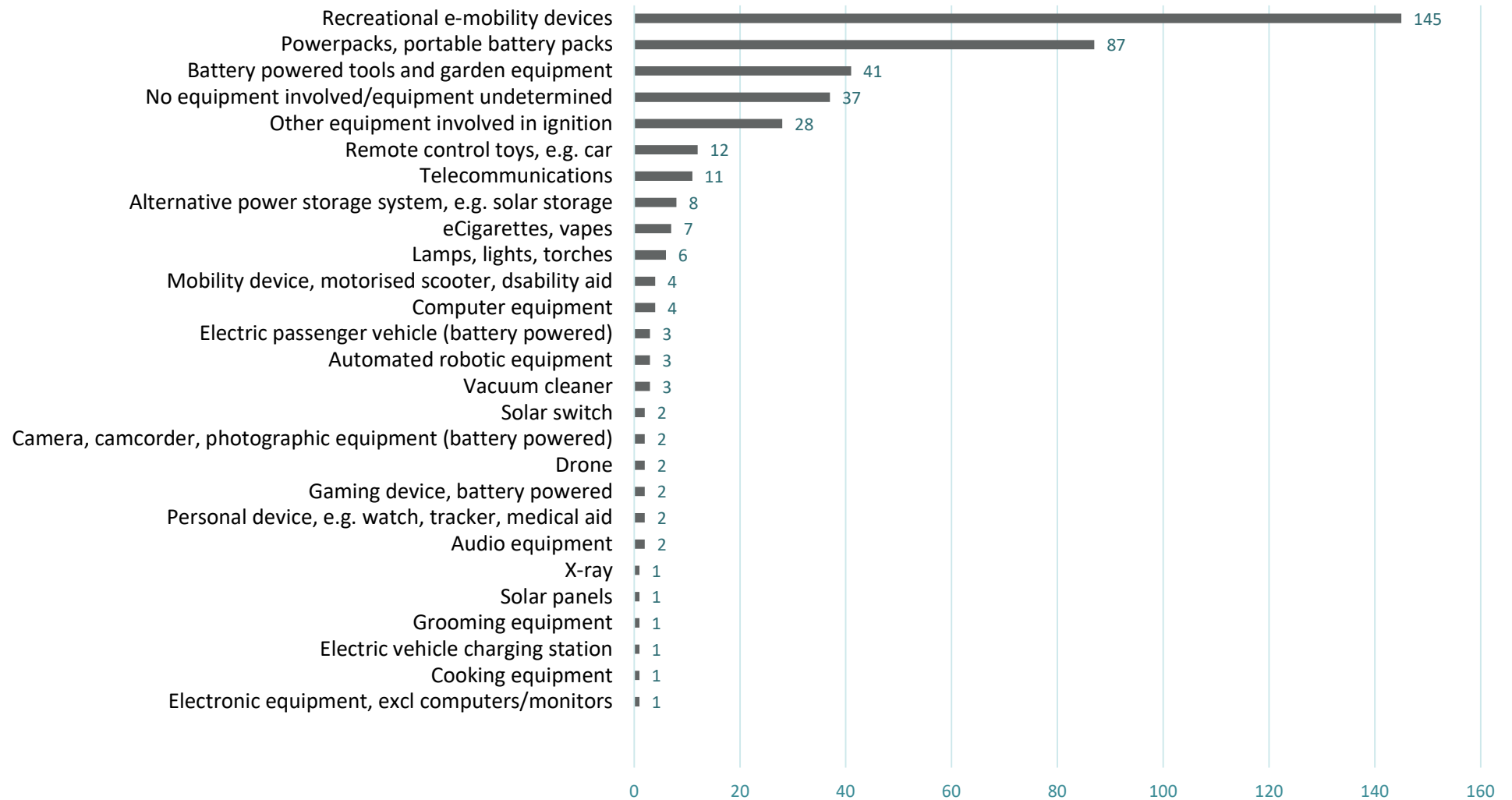
⁷ Data extracted 28 May 2025.

⁸ Data extracted 17 July 2025.

⁹ Data extracted 28 May 2025.

Figure 2. Most common devices involved in lithium-ion battery fires

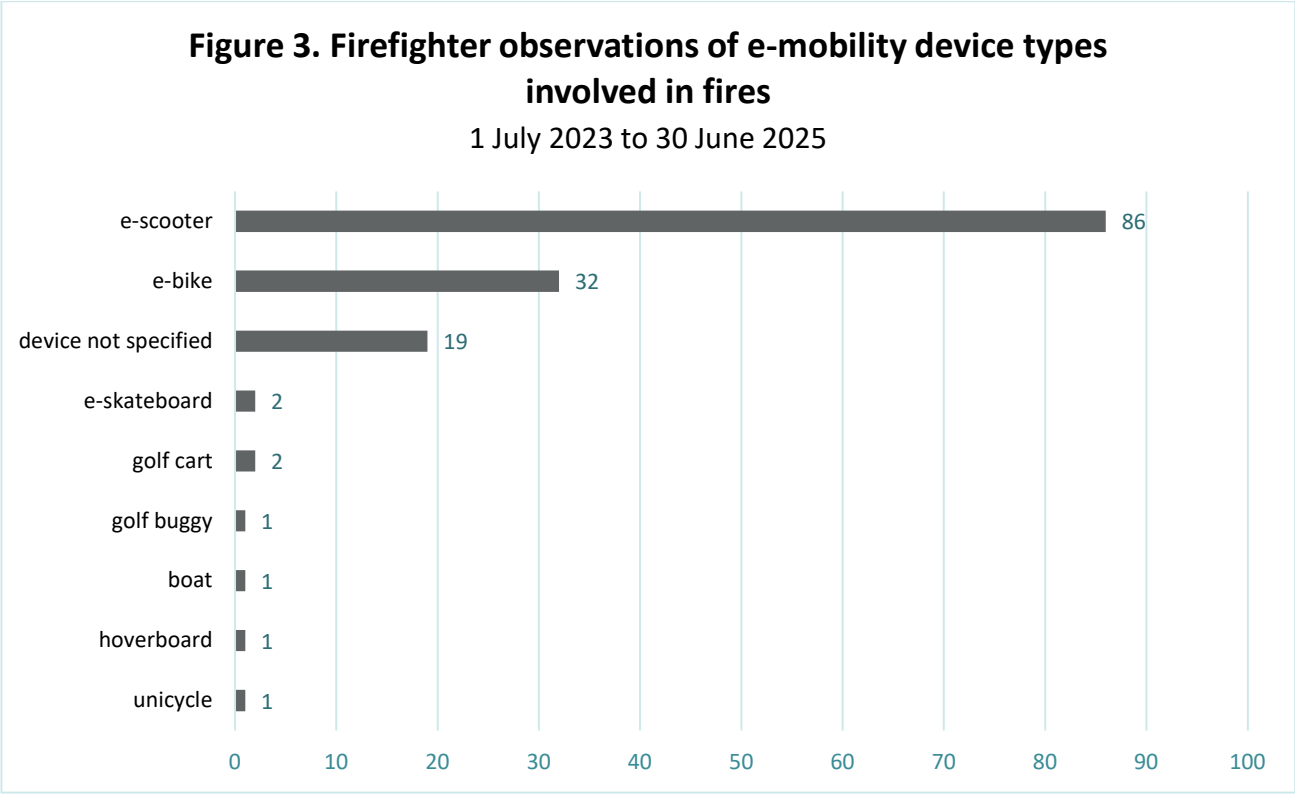
1 July 2023 to 30 June 2025



Device types

A manual review of firefighters’ notes from incidents involving recreational e-mobility devices shows that more than half were e-scooters.¹⁰

Figure 3 shows the specific e-mobility devices identified in firefighter notes as the cause of lithium-ion battery fires, i.e. the devices involved in the 145 incidents within ‘Recreational e-mobility devices’ in Figure 2.



¹⁰ Data extracted 15 July 2025.