ALL ELECTRIFIED TRANSPORT LIB FIRE INCIDENTS
Global, 1st January to 30th June 2023

A comparison of passenger electric vehicles (EVs), battery electric buses (BEB), battery electric trucks (BET) & light electric vehicles (LEV) such as e-bikes, e-scooters etc

Why EV FireSafe?
Transport emissions account for 25% of global greenhouse gas emissions, which has led to rapid electrification

EV battery fire incidents have led to concerns about emergency responder safety when attending lithium-ion battery fires

To enhance emergency responder safety, we researched electrified transport HV battery fires from 1st Jan to 30th June 2023

EV, BEB, BET & LEV LiB fires

**Passenger EVs**
- 44 Battery fires
- 15 Injuries
- 4 Fatalities

**Electric buses & trucks**
- 3 Battery fires
- 0 Injuries
- 0 Fatalities

**Light electric vehicles**
- 500+ Battery fires
- 138 Injuries
- 36 Fatalities (up from 9 in Q1)

Why are LEV battery fires more prevalent & a higher risk to life & property?

**Road-registered EVs:**
- **LiB pack size:** 10 - 300+ kWh
- **Avg incident duration for pack burn:** 3-5 hours (depending on a range of factors, incl SoC)
- **Risk profile:**
  - Very high quality LiB cells & BMS
  - Highly protective battery pack casing, low wear & tear in normal daily use
  - Primarily charged & operated in open spaces, posing a lower risk to life & property safety

**Light EVs:**
- **LiB pack size:** 1 - 2 kWh
- **Avg incident duration for pack burn:** 5-15 minutes
- **Risk profile:**
  - Low quality LiB cells &BMS in some brands
  - High wear & tear during normal daily use
  - Commonly charged inside homes, posing a high risk to life & property safety

*Not exhaustive. From more than one online source, interviews, first hand accounts, videos, images, academic & fire agency reports & online training

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