# ALL ELECTRIFIED TRANSPORT LIB FIRE INCIDENTS

## Global, 1st January to 31st March 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 electrifed transport HV battery fires from 1st Jan to 31st March 2023

#### EV, BEB, BET & LEV LiB fires

Passenger EVs



23 Battery fires 8 Injuries

Electric buses & trucks



Injuries 

Injuries 

Light electric vehicles





4 Fatalities

**Fatalities** 

U

Fatalities

PLUS a further 9 fatalities in April 2023 (incl 5 children)

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

Road-registered EVs:

LiB pack size: 10 - 100 kWh

Avg incident duration for pack burn: 3-5 hours (depending on a range of factors, incl SoC)

#### Risk profile:

- Primarily charged & operated in open spaces; lower risk of fire spread to structures
- Very high quality LiB cells & BMS
- Protective LiB pack casing; lowers damage risk

### Light EVs:

LiB pack size: 1 - 2 kWh

Avg incident duration for pack burn: 5-15 minutes

#### *Risk profile:*

- Commonly charged in structures; high risk of fire spread, particularly in private homes
- Lower quality LiB cells &BMS in some brands
- Susceptible to LiB cell abuse in normal operation

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

All information remains the property of EV FireSafe & any misuse will result in our taking necessary steps to assert ownership of our intellectual property. Consent is given to republish information contained within this website subject to credit being given as 'Source: evfiresafe.com' with hyperlink - noting that by republishing information, you are deemed to have acknowledged & accepted the legal statement on our website.