



PASSENGER EV LIB FIRE INCIDENTS

Global, as of 30th APRIL 2023

EV HV battery fires are very rare...here's what we've been able to track & verify. Data is not exhaustive.

Why EV FireSafe?

Transport emissions account for:

25%

of global greenhouse gas emissions, which has led to the rapid electrification of vehicles

EV battery fire incidents have led to concerns about emergency responder safety when attending

EV lithium ion battery fires

To enhance emergency responder safety, we researched plug-in (BEV & PHEV) passenger electric vehicle battery fires from

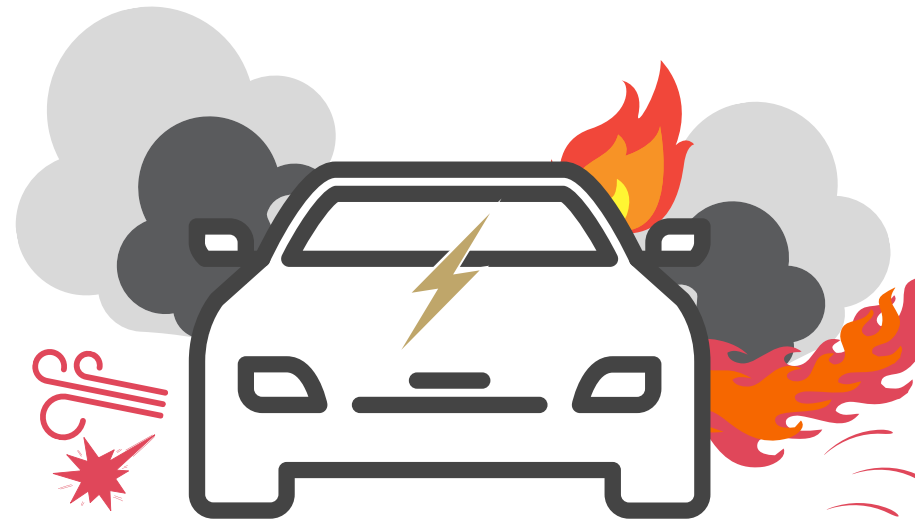
2010 - 2023

breaking down our findings here & at evfiresafe.com

How many EV battery fires?

Since 2010, the EV FireSafe research team found:

375 **+ 62** **+ 25**
verified* EV traction battery fires globally
investigating - online rumour, tip off, clickbait
unverified - from a reliable source, waiting on further info

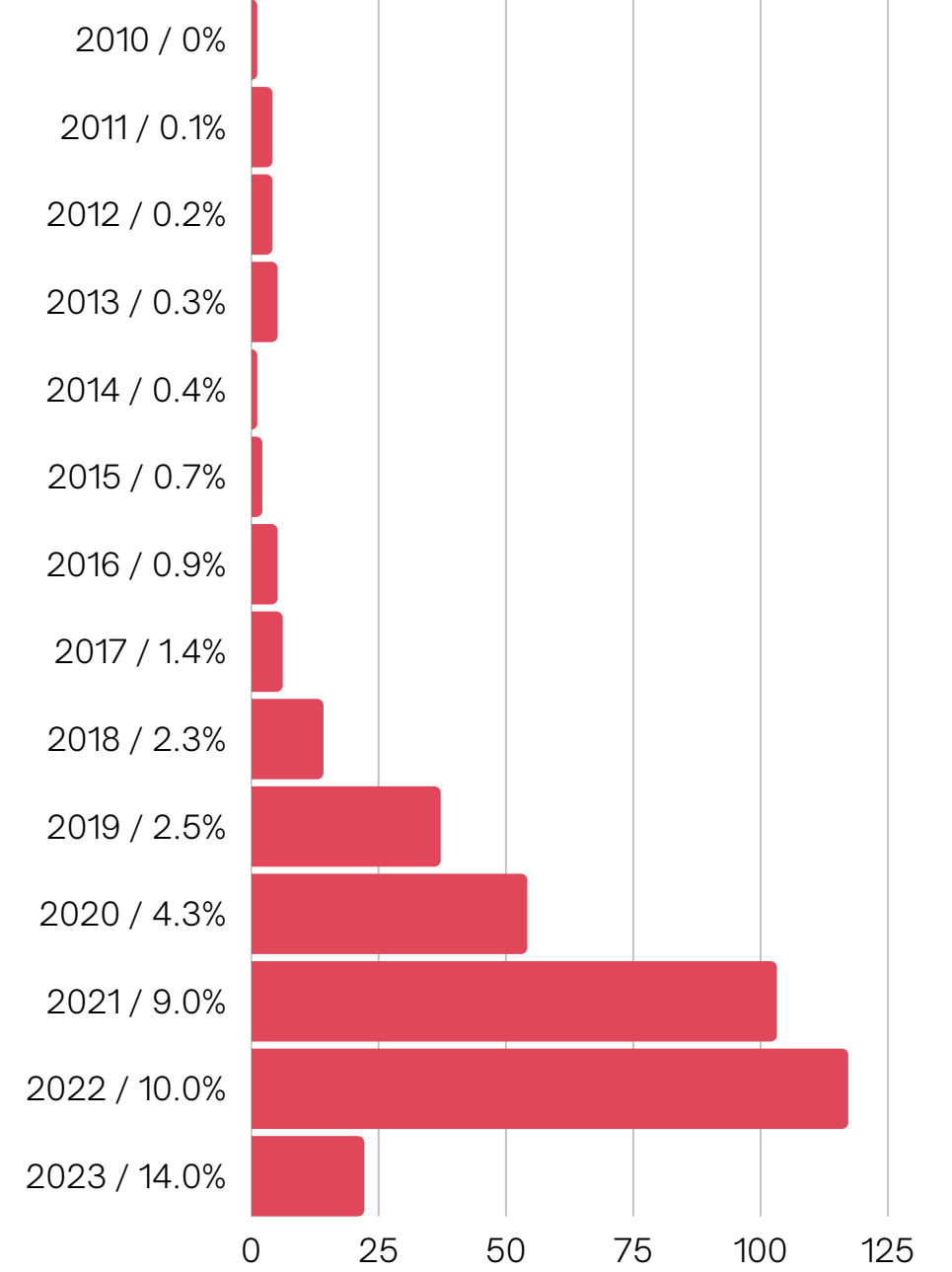


'...more than 10 million electric cars were sold worldwide in 2022 and...sales are expected to grow by another 35% this year (2023) to reach 14 million.

International Energy Agency, April 2023

When did they occur?

By year & EV global market share:

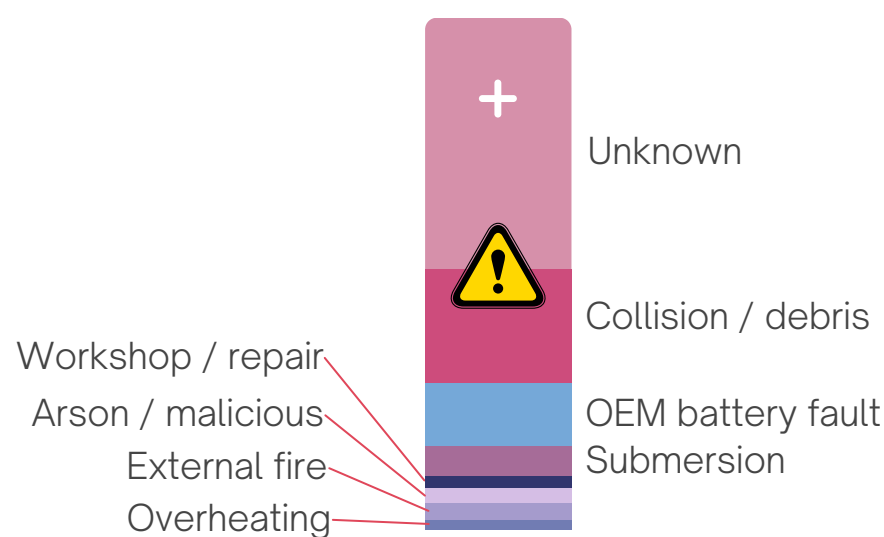


*Not exhaustive. From more than one online source, interviews, first hand accounts, videos, images, academic & fire agency reports & online training

EV HV battery fires are very rare, but present new risks & challenges for emergency responders. From these verified incidents, we found:

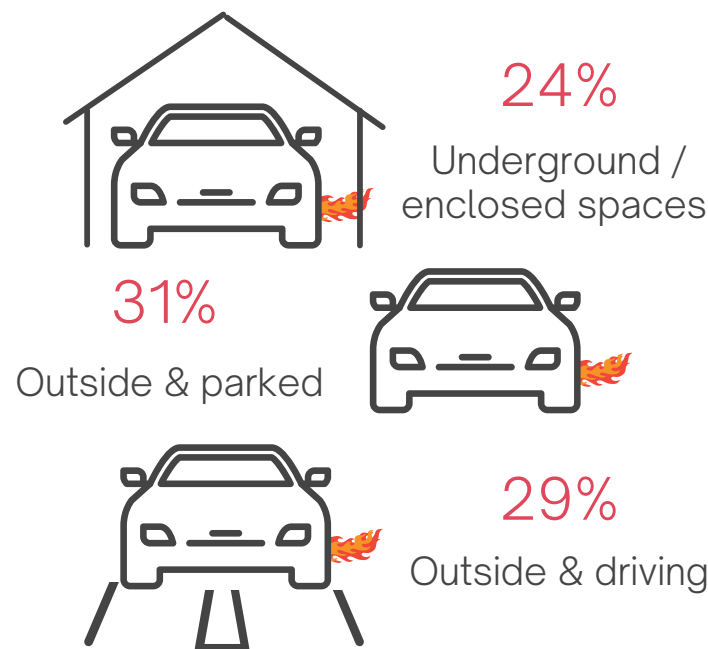
Cause

Battery cell abuse, leading to thermal runaway & ignition or explosion, caused by:

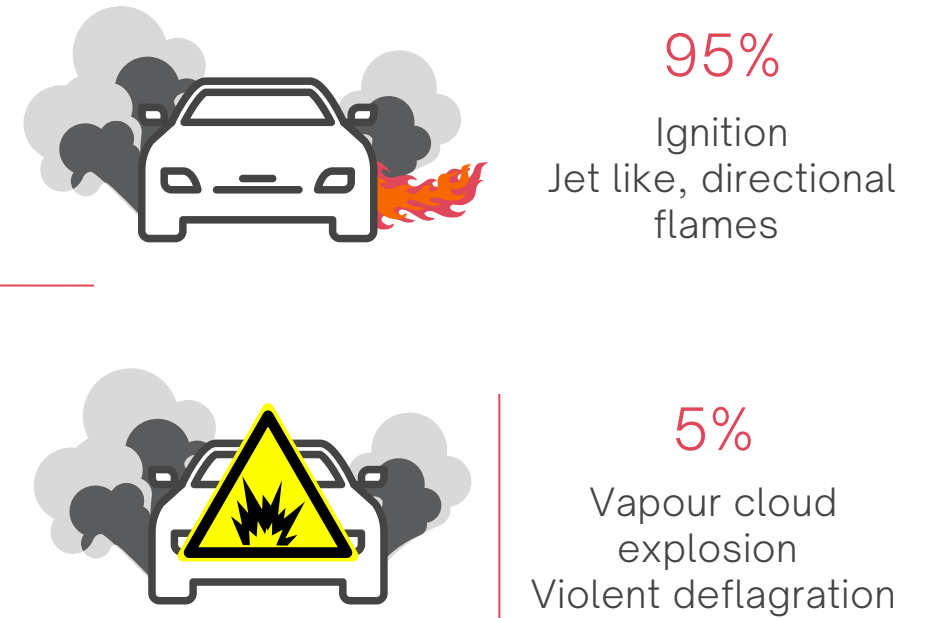


Location*

*16% unknown

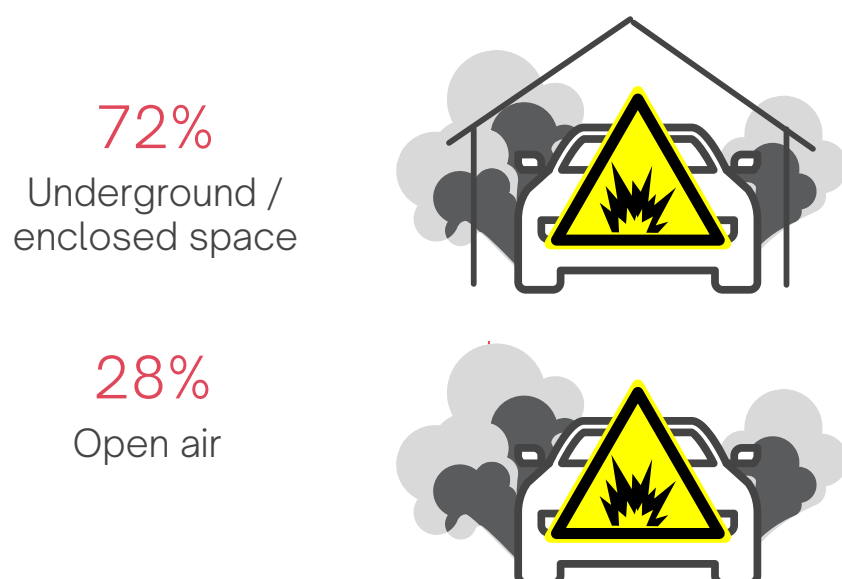


Ignition vs explosion



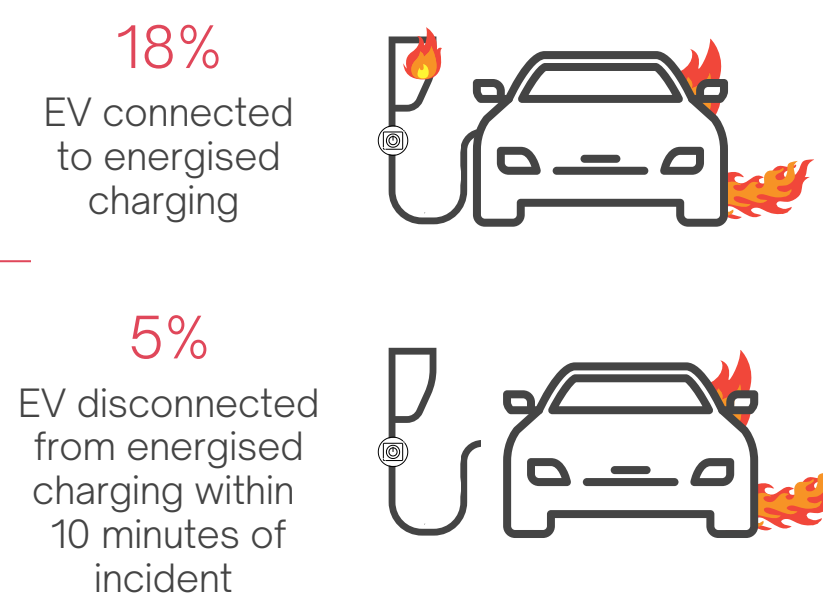
Vapour cloud explosion

Of total vapour cloud explosion incidents:



Charging

Of total EV battery fire incidents:



Electrocution

We found NO reports or evidence of electrocution or near miss of emergency responders from:

