



# PASSENGER EV LIB FIRE INCIDENTS

## Global, as of 30th JUNE 2024

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 - June 2024

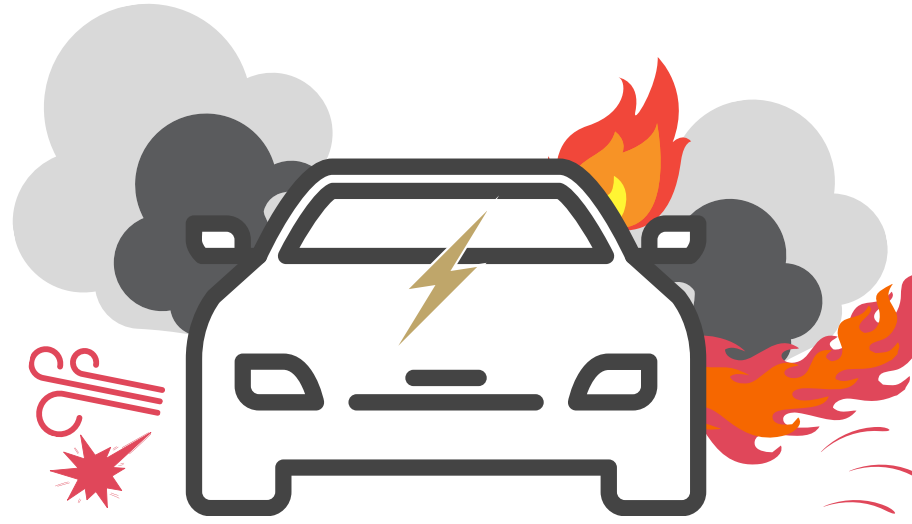
breaking down our findings here & at [evfiresafe.com](http://evfiresafe.com)

### How many EV battery fires?

Since 2010, the EV FireSafe research team found:

# 511

**verified\*** EV traction battery fires globally

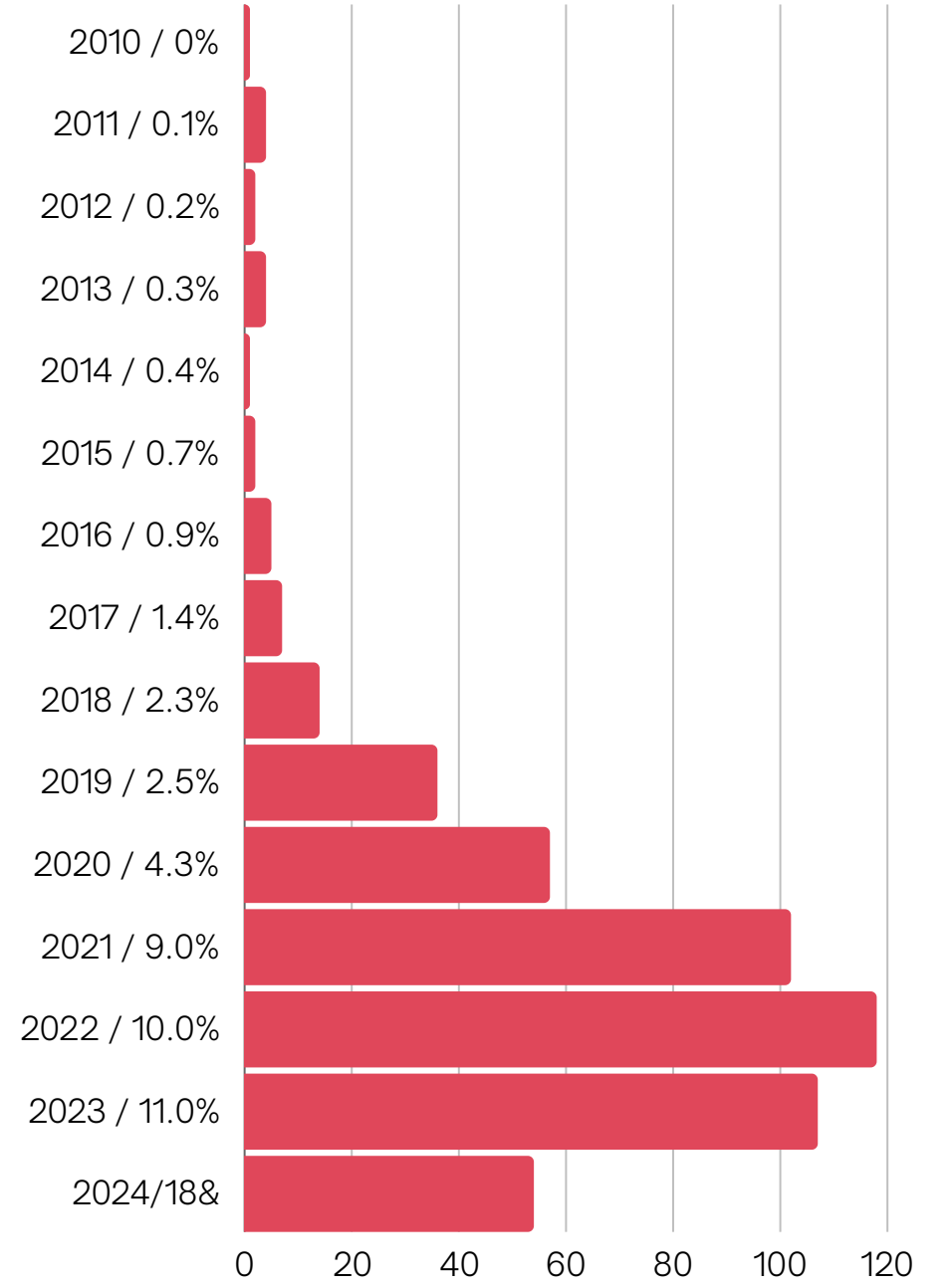


*'Nearly 14 million new electric cars were registered globally in 2023, bringing the total number on the roads to **40 million.**'*

International Energy Agency, April 2024

### When did they occur?

By year & EV global market share:

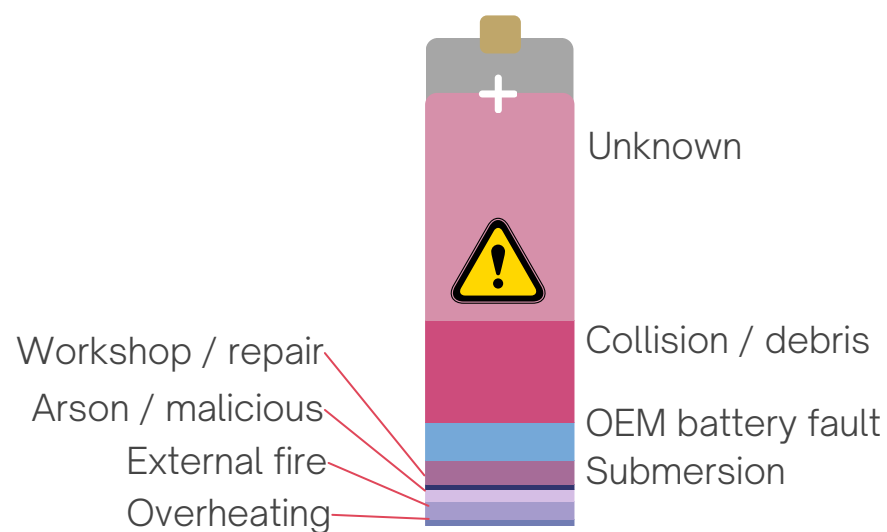


\*Not exhaustive. From more than one online source, interviews, first hand accounts, videos, images, academic & fire agency reports & online training

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

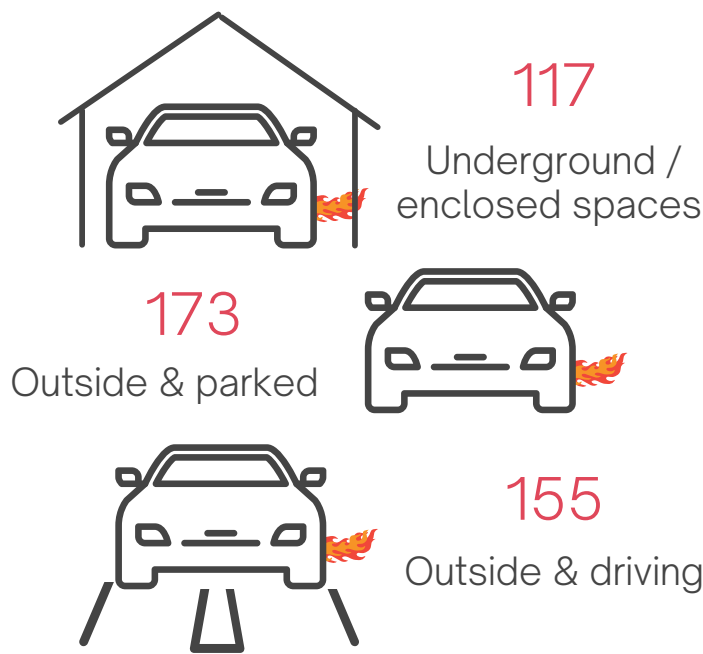
### Cause

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

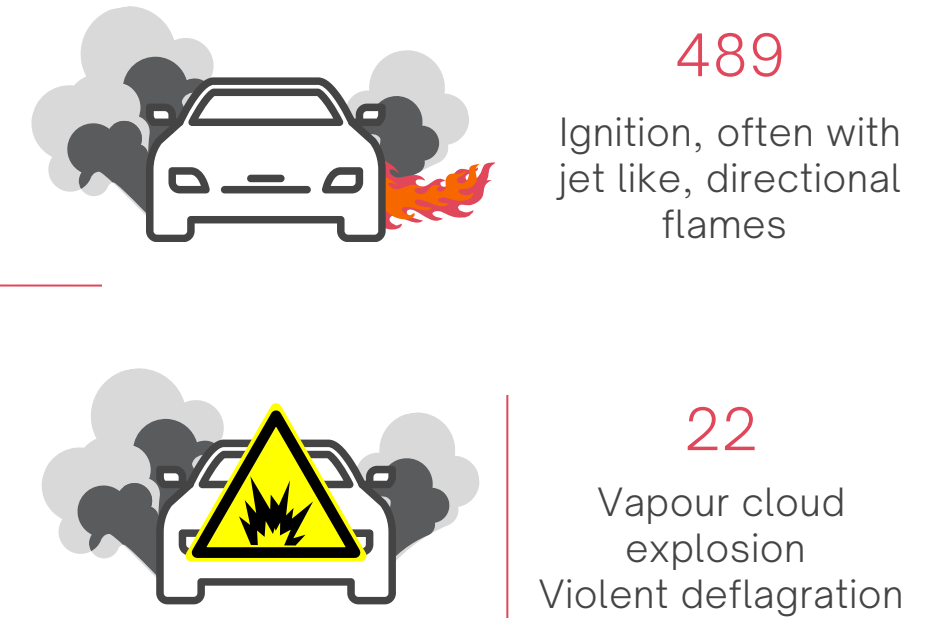


### Location\*

67 unknown

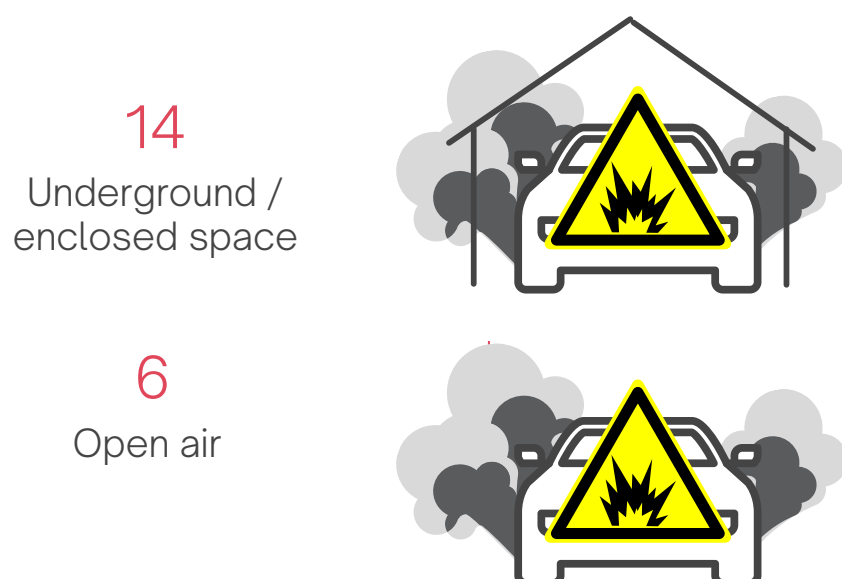


### Ignition vs explosion



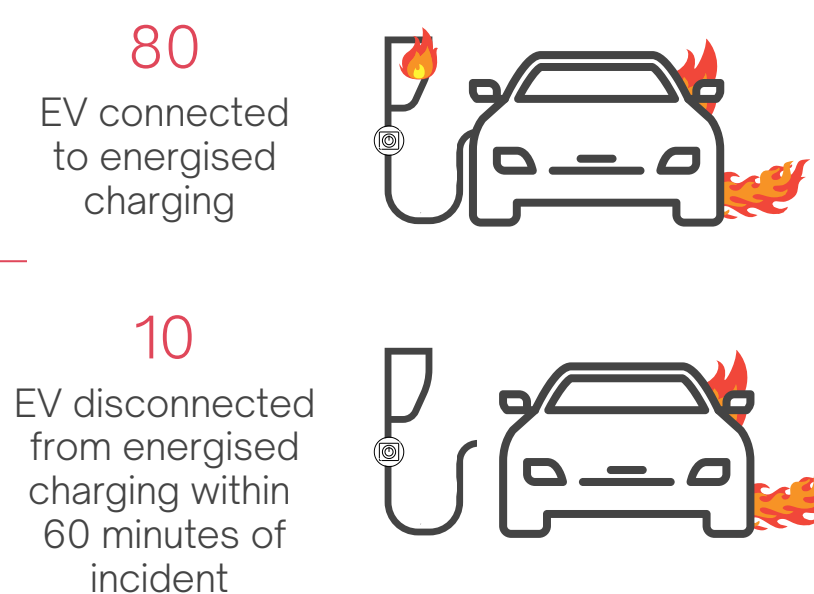
### Vapour cloud explosion

Of total vapour cloud explosion incidents. 2 unknown.



### Charging

Of total EV battery fire incidents:



### Electrocution

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

