

Lithium-Ion Battery Fire Incidents

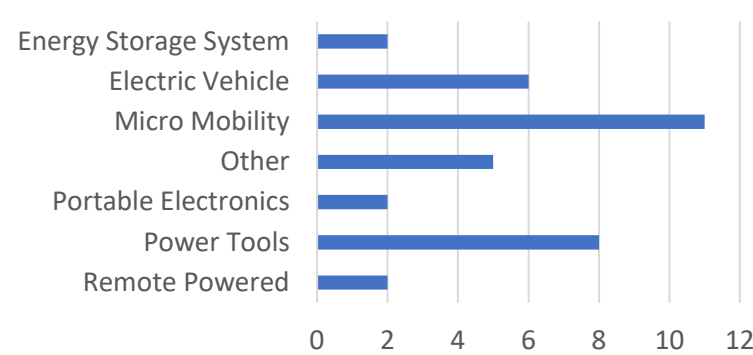


In the month of July, 12 lithium-ion battery fires were entered into the statewide database. There are a total of 37 lithium-ion battery fires entered year-to-date.

Agencies that have contributed to the data collection include Phoenix, Glendale, Mesa, Tempe, and Tucson Fire Departments. Below is a summary of the data collected so far in the database.



Type of Device Powered



YTD there have been 3 incidents with injuries/fatalities

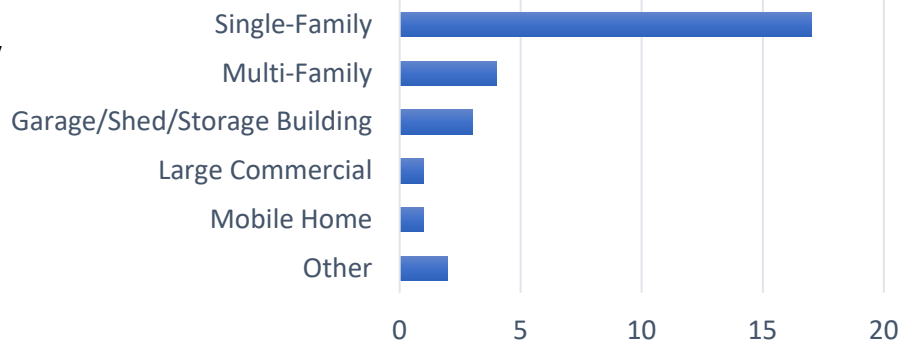
In July, there was one lithium-ion battery related injury that resulted in second degree burns.

A battery pack the size of a cell phone was sitting on the floor in the victim's car, on top of a pile of clothes in direct sunlight. The vehicle caught fire and spread to the house and other vehicles.

In **66%** of the incidents reported, the lithium-ion battery involved was indoors at the time of the fire. It was also reported, the lithium-ion battery involved was primarily stored indoors.

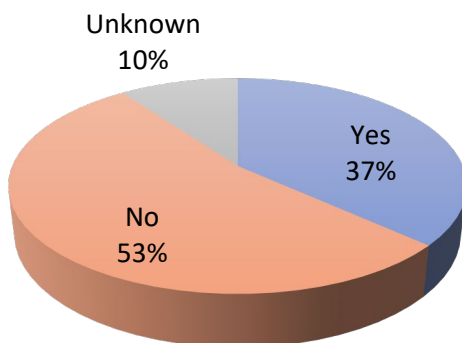
Of the 12 incidents where the lithium-ion battery was outdoors at the time of the fire, there were **5** instances where the battery was in direct sunlight.

Structure Type



Structural involvement reported in 28 of 37 incidents

Charging at Time of Incident



Undetermined mobile home fire with multiple potential ignition sources, to include a Dewalt lithium-ion battery fan



Notable Incidents Reported

- Dispatched on 7/2/2023 at 0813 hours
Phoenix Fire #23279242
Working Garage Fire – Energy Storage System

A resident was testing a prototype energy storage system for a company he worked for. It was installed in his garage when it exploded and blew the garage door off the frame.



- Dispatched on 7/24/2023 at 1826 hours
Tempe Fire #23316217
Check Electrical - Solar Panel

A mobile solar panel equipped with Chevy Volt lithium-ion battery packs was being used to power a portion of a single-family residence.



- Dispatched on 7/23/2023 at 1356 hours
Phoenix Fire #23314140

On June 23rd, an electric truck fire occurred involving four Nikola semi trucks. On July 23rd, one of the previously damaged semi truck batteries went into thermal runaway.



PFD Image from the original fire on 6/23/23

There were three lithium-ion battery fires reported in July that involved an e-bike or e-scooter. In all of the incidents the battery/device was in the garage, two of them were charging at the time of the incident.

Lithium-Ion Battery Fire Investigations

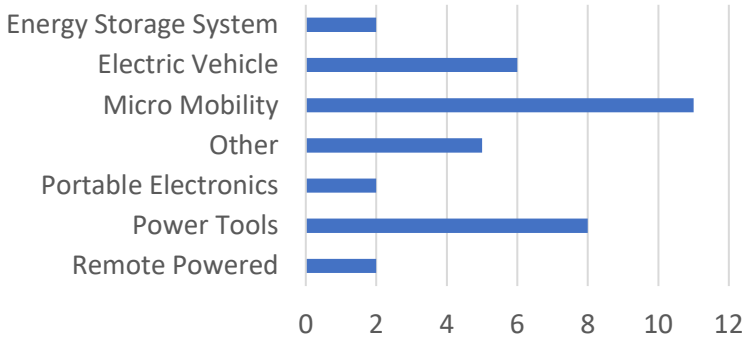
July 2023



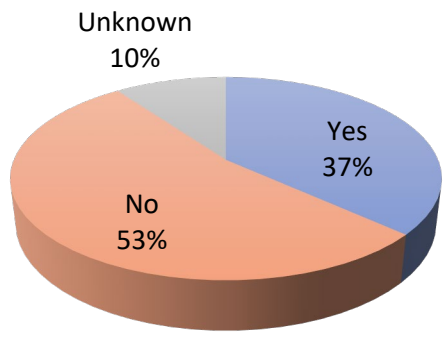
In June 2023, a statewide database was launched to collect lithium-ion battery fire data to be used for public awareness and firefighter training purposes. Through the month of July, there have been 37 fires reported where lithium-ion batteries were in the area of origin. There have been two injuries and one fatality as a result of these fires. Below is a summary of the information collected.



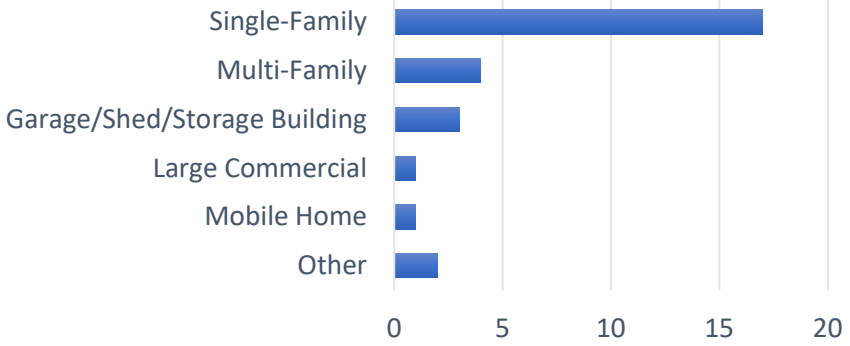
Type of Device Powered



Charging at Time of Incident



Structure Type



In **66%** of the fires investigated, the lithium-ion battery involved was indoors at the time of the fire.

Of the 12 incidents where the lithium-ion battery was outdoors at the time of the fire, there were **5** instances where the battery was in direct sunlight.

KEEP IN MIND: do not leave batteries on a bed or other area where there is no ventilation or

A structure was involved in 28 of 37 fires investigated

