

Tyne and Wear Fire and Rescue Service

Creating the Safest Community



EV Battery Fires 01/06/2019 - 30/06/2023

Data, Intelligence and Safety

Date: July 2023

Data and Information Audit	
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Approved for Publication	
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1 Request

Details of Request:

- Number of EV battery fires that have been tackled by this fire brigade from June 2019 - June 2023
- Please include a breakdown of types of vehicle in the data (car, bus/coach, e-bike/e-scooter, etc)
- Please include details on month, year, cause of fire, fire spread and injuries/fatalities as a result of the fire
- If possible, can you provide any details on how many of the batteries were certified by the vehicle OEM, or if the batteries had a battery management system or state of health monitoring?

2 Reply

- 2.1 The following information is taken from Tyne and Wear Fire and Rescue Service (TWFRS) Incident Recording System (IRS). An IRS incident record is completed by the Officer in Charge for every incident attended.
- 2.2 Firefighters record the suspected motive (reason) for the start of a fire. Fires are categorised as: accidental, deliberate or unknown according to the probable cause, as observed at the scene.
- 2.3 Sometimes, it is not possible to determine a motive. In such cases the motive will be recorded as 'not known'. As a general rule, fires where the motive is 'not known' are counted with accidental fires. So, accidental fires will include a small number of fires where the motive cannot be determined with any reliability.
- 2.4 This is the number of accidental and not known ev battery fires attended by TWFRS within Tyne and Wear over the six fiscal years from (1st June 2019 to 30th June 2023).
- 2.5 The type of vehicle is obtained from the property types in our IRS incident recording system.
- 2.6 Makes and models of vehicles are not always recorded on the incident reports. This involves a manual search on the free text on section 10 of the incident reports.
- 2.7 Our incident reports do not ask for the fuel type of the vehicle so this data is not available.
- 2.8 Our incident reports do not ask if the batteries were certified by the vehicle OEM, or if the batteries had a battery management system or state of health monitoring.

3 Data

3.1 All accidental/not known EV battery fires in Tyne and Wear over the four year period of this report.

Number of Incidents involving EV batteries						
Month	2019/2020	2020/2021	2021/2022	2022/2023	2022/2023	Grand Total
January	0	0	0	1	0	1
February	0	0	2	0	0	2
April	0	1	0	1	0	2
May	0	0	0	2	1	3
June	1	0	0	1	0	2
July	1	0	0	0	0	1
August	0	0	1	0	0	1
September	1	0	0	2	0	3
October	0	1	0	1	0	2
November	1	0	0	2	0	3
Grand Total	4	2	3	10	1	20

3.2 EV Battery fires by the property type in the Incident Recording System (IRS).

Incidents by property type			
Property Type	Accidental	Not known	Grand Total
Building	13	0	13
Road Vehicle	5	2	7
Grand Total	18	2	20

3.3 7 of the 20 EV battery fires resulted in fire spread which damaged adjacent property.

3.4 1 of the 20 EV battery fires resulted in casualties with 0 fatalities recorded.

3.5 Make and Model of **5** vehicles involved, all vehicles listed below are recorded as hybrid:

Nissan Qashqai

Toyota Corolla

Toyota Prius

Toyota Auris

3.6 The remaining **2** vehicles recorded were:

E-scooter – make and model recorded as unknown

2 mobility scooters were located outside of a property, on charge, make and model also recorded as unknown.