



**FIRE +
RESCUE**

FRNSW safety in clean energy transition

Fire Australia Innovation & Disruption: The Importance of Knowledge and Collaboration

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Commissioner

Fire and Rescue NSW

Our history

Serving the community for over 140 years

Responded to **140,827** emergency incidents in 2023-24



1884 v
2025



1884 v
2025



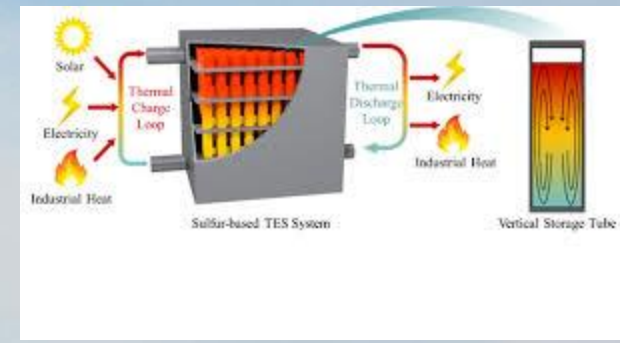
Major Hazards Facilities



Clean energy transition



Jemalong sodium fire



Heat activated bolts



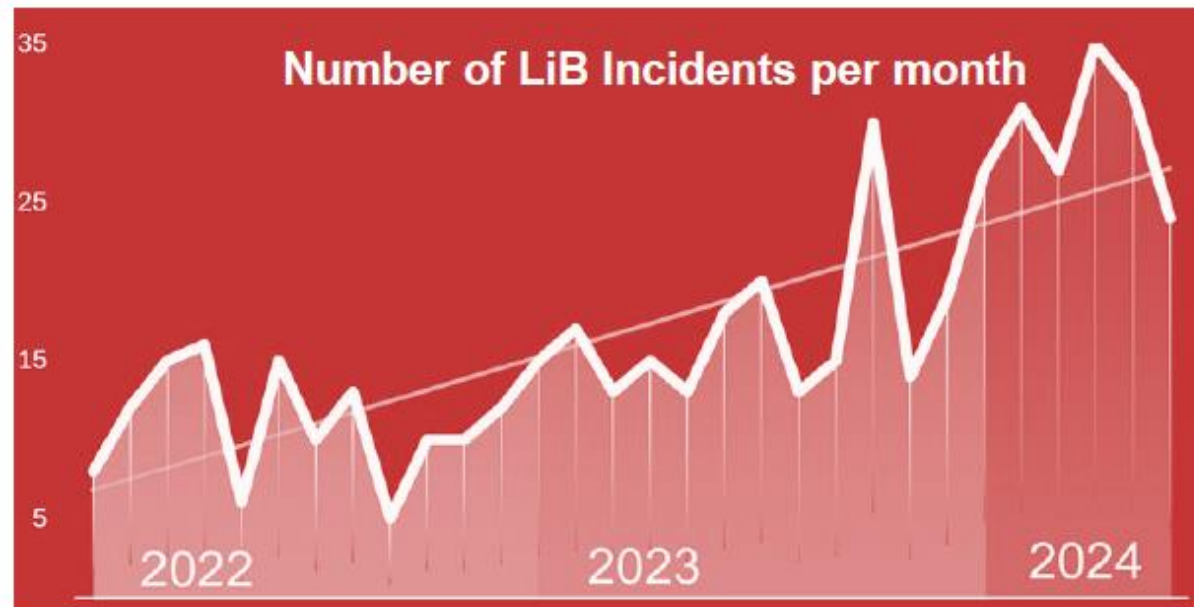
Innovative solution but negative safety outcome

Lithium-ion battery incidents



	2022	2023	2024	2025 (1 Jan – 26 Feb)	Total
LiB incidents	171	285	324	47	827
Injured persons	14	38	33	11	96
Fatalities	0	0	2	1	3
Evacuations	829	1320	1125	406	3680
Rescues	3	3	4	4	14

Ratio of fire and explosive incidents attended caused by lithium-ion batteries	
2022	1 in 100
2023	1 in 76
2024	1 in 62
2025	NA



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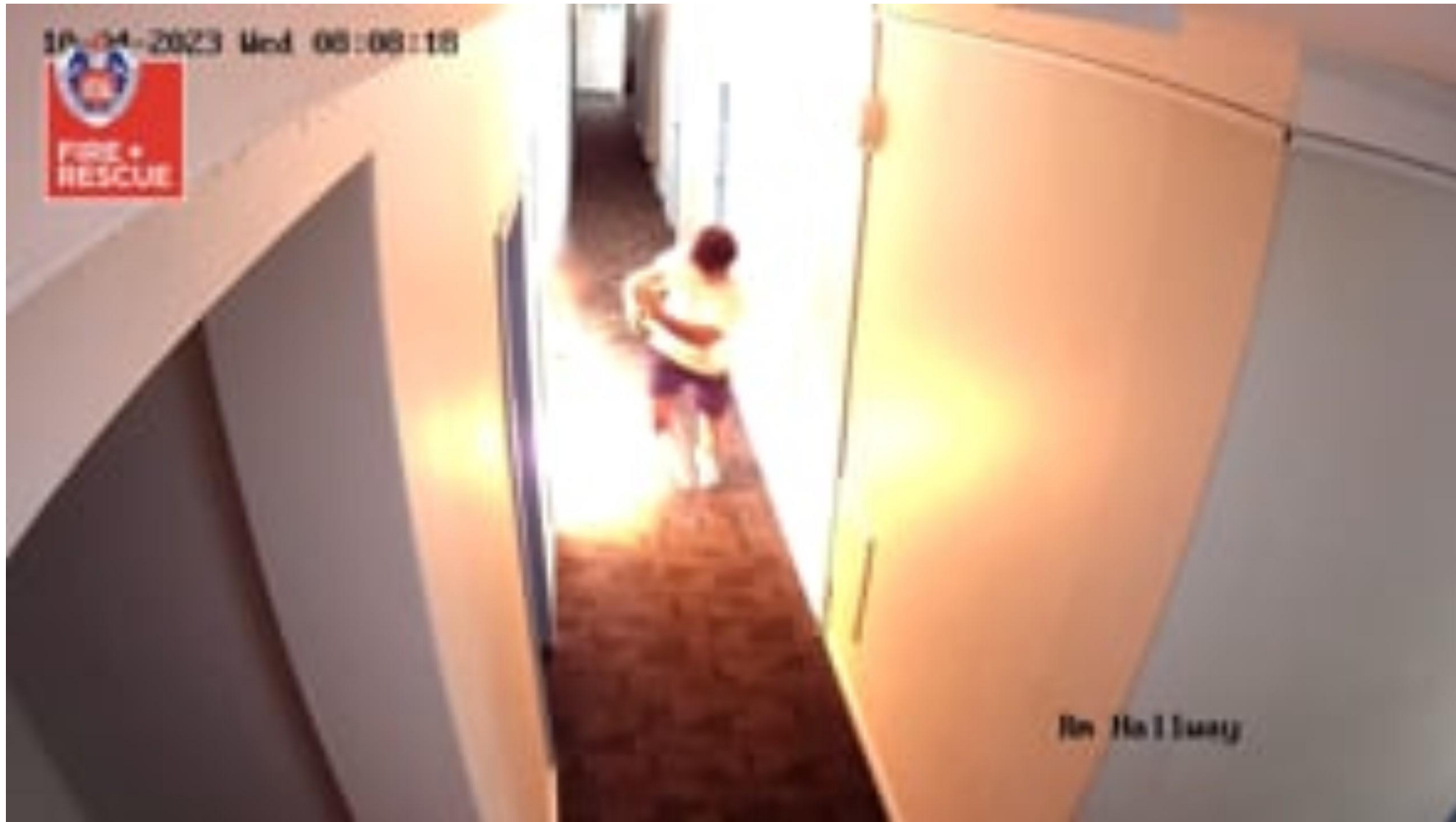
Incidents by device

INCIDENTS BY DEVICE INVOLVED

Material Ignited First	2022	2023	Jan – Jun 2024	Total
Electric bike, mobility scooter, ride-on toy	23	67	43	133
Charger (device), battery charger	19	27	6	52
Energy storage - battery, power supply, UPS,	16	21	5	43
Hand tool, power tool (battery powered)	15	10	17	41
Mobile phone	10	13	9	32
Powerpack / portable charging device	8	10	22	32
E-cigarettes, vape pens	4	12	4	20
Laptop / Tablet	7	6	7	20
Lamps, lights, torches (battery powered)	5	7	3	15
Remote control toy / craft - cars, drones, robots, watercraft	4	7	4	15
Vacuum cleaners - handheld, robotic (battery powered)	4	5	5	14
Audio devices, speakers (battery powered)	3	5	1	9
Battery pack, battery system (hybrid vehicle, electric vehicle)	4	3	3	10
Rubbish, trash, waste, chimney waste, vent waste	2	4	2	8
Personal care device - toothbrush, shaver, epilator (battery powered)		4	4	8
Sensor / control device (battery powered)	2	1	1	4
Phone handset, two-way radio, microphone (battery powered)	1	2	1	4
Automated / robotic equipment (battery powered)	2	1		3
Camera, camcorder, photographic equipment (battery powered)	2		1	3
Gaming devices (battery powered)	1			1
Personal device - watch, tracker, medical aid	1			1
Other battery, unspecified	38	80	36	154
Total	171	285	217	673



- Ventilation – natural / mechanical
- Life risk – immediate and delayed
- Ability to escape
- Fire suppression and detection



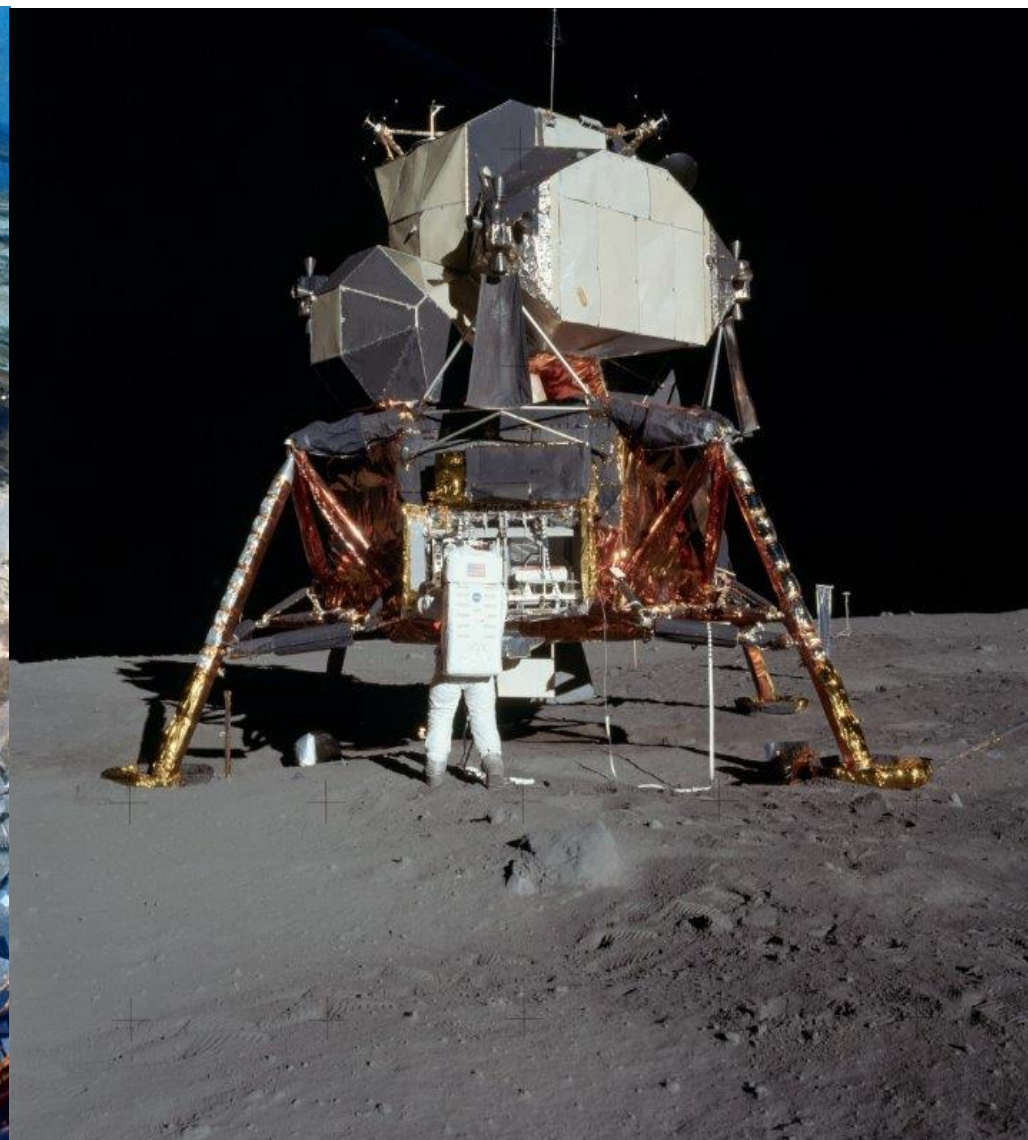
Lithium- ion battery garbage fire



FRNSW research and education



Apollo 11



The human element





Thank you