

Strata Safety Alert: Mitigating Lithium-Ion Battery Fires

In multi-unit strata schemes, a single lithium-ion battery fire can compromise shared building structures, block critical fire exits, and release toxic gases across common corridors.

Because high-density living amplifies structural and fire safety risks, owners corporations, strata committees, and strata managers cannot afford a reactive approach.

Establishing a robust, tailored lithium battery by-law provides your scheme with clear legal authority to regulate common property charging, enforce safe storage practices, mitigate escalating insurance excesses, and safeguard lives.

Why Are Lithium-Ion Batteries Uniquely Dangerous?

Unlike conventional fire risks, lithium-ion battery failures are chemical in nature and escalate with extreme speed:

- **Thermal Runaway:** When a cell fails due to manufacturing defects, physical impact, or overcharging, it triggers an unstoppable, self-sustaining chemical reaction that generates extreme heat exceeding 1,000C.
- **Vapour Explosions & Debris:** Rapid internal pressure build-up can cause violent casing ruptures, ejecting molten metal, toxic gas clouds, and sharp shrapnel.
- **Lethal Toxic Gas Release:** Thermal runaway releases high volumes of dense, highly toxic gases—including hydrogen fluoride and carbon monoxide—that quickly fill

apartments and fire stairwells.

- **Stranded Energy & Reignition:** Even after visible flames are extinguished, residual electrical energy in neighbouring undamaged cells can cause the battery to reignite hours or even days later.
- **Rapid Flame Spread:** Lithium battery fires accelerate to maximum intensity within seconds rather than minutes, leaving residents virtually no time to evacuate safely.

Everyday Lithium-Ion Products in Strata Apartments

Residents rely on lithium-ion technology across a vast range of daily devices:

- **E-Mobility & Personal Transport:** E-bikes, e-scooters, electric skateboards, hoverboards, and mobility scooters.
- **Power & Garden Tools:** Cordless drill battery packs, lawnmowers, line trimmers, leaf blowers, and hedge trimmers.
- **Household Appliances:** Cordless stick vacuums, robot vacuum cleaners, portable rechargeable fans, and electric mops.
- **Personal Tech & Wearables:** Laptops, smartphones, tablets, smartwatches, wireless earbuds, and portable power banks.
- **Grooming & Lifestyle Devices:** Electric toothbrushes, shavers, hair straighteners, massage guns, and e-cigarettes / vapes.
- **Hobbies & Entertainment:** Wireless gaming controllers,

handheld consoles, drones, action cameras, and portable speakers.

- **Apartment Infrastructure:** Video doorbells, wireless security cameras, smart door locks, uninterruptible power supplies (UPS), and solar battery energy storage systems (BESS).

Fires Are Rising and Difficult to Extinguish

Lithium-ion battery fires are now recognised as the **fastest-growing fire hazard** in high-density schemes. Traditional extinguishers cannot stop thermal runaway because the chemical reaction generates its own heat and oxygen internally.

Because battery fires erupt within seconds, protecting residents depends entirely on prevention and keeping escape routes clear. Unmanaged charging in corridors or stairwells creates lethal toxic gas clouds that trap residents during an evacuation.

This escalating danger directly impacts building insurance. Insurers are now raising excesses and scrutinising claims where unmanaged charging occurs. Implementing clear protocols is an owners corporation's primary line of defence to safeguard lives, prevent catastrophic loss, and satisfy insurer requirements.

How Can Strata Schemes Reduce Battery Risks?

To manage liability and protect high-density communities, owners corporations and strata managers should implement a clear operational risk strategy:

1. **Keep Egress Pathways Clear:** Strictly enforce a zero-tolerance policy for storing or charging e-bikes, e-scooters, or batteries in common corridors, stairwells, or near main apartment exit doors.
2. **Mandate Safety-Certified Equipment:** Require all devices, replacement batteries, and chargers brought onto the scheme to display mandatory Australian electrical safety approval marks (such as the Regulatory Compliance Mark / RCM).
3. **Prohibit Unattended Overnight Charging:** Educate residents never to leave high-capacity devices charging overnight, while unattended, or on combustible surfaces like carpets, sofas, or bedding.
4. **Establish Battery Disposal Protocols:** Advise residents that household batteries are strictly prohibited from apartment rubbish chutes and wheelie bins, directing them instead to approved council or B-cycle drop-off points.
5. **Enact a Dedicated Lithium Battery By-Law:** Register an enforceable, legally sound by-law that grants the owners corporation direct regulatory powers, clear compliance pathways, and cost-recovery mechanisms if breaches occur.

Protect Your Scheme with a Specialist Lithium Battery By-Law

Educating residents is essential, but education alone does not provide legal authority. Without a registered by-law, strata committees lack the statutory leverage needed to enforce charging restrictions, remove hazardous items from common property, or hold non-compliant lot owners accountable for insurance liabilities.

A robust, scheme-specific Lithium-Ion Battery By-Law bridges this gap providing clear legal grounds to safeguard common property and maintain building compliance.

[Protect Your Scheme with a Specialist Lithium Battery By-Law](#)



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Since 2002 Adrian has specialised almost exclusively in the area of strata law. His knowledge of, and experience in strata law is second to none. He is the youngest person to have been admitted as a Fellow of the ACSL, the peak body for strata lawyers in Australia. [Profile](#) I [Linked](#)

Need Expert Strata Law Advice?

Whether you are navigating a complex dispute or looking to protect your scheme, our specialist NSW and Sydney strata lawyers are here to help. We provide clear, practical advice on all aspects of strata law, including by-laws, strata disputes, building defects, and fast levy debt collections. Call our team on 02 9562 1266 or [email us here](#) today.