

Lithium-Ion Batteries and Associated Risks

Preparing for the safe and responsible use, storage and charging of lithium-ion batteries it is essential for residents, lot owners, tenants, strata committees, and building managers to understand the risks associated with lithium-ion batteries within strata communities and the potential implications for insurance, safety, and property protection.

Lithium-ion batteries are increasingly common in modern residential buildings and can be found in daily items such as, E-bikes, E-scooters, Power tools, Mobile phones, Laptops and tablets along with Motor Vehicles. While generally safe when used correctly, lithium-ion batteries present a heightened fire risk when damaged, improperly charged, modified, poorly manufactured, or stored incorrectly.

Understanding the Risk

What Makes Lithium Batteries Different?

Lithium-ion batteries store a high amount of energy in a compact space. If a battery fails, it can enter a process known as “thermal runaway,” where heat rapidly increases and may lead to Intense fire or explosion. These fires can be difficult to extinguish, re-ignite and may spread rapidly through common property, garages, storage areas, and apartments.

Common Causes of Lithium Battery Fires

The most common causes include:

- ▶ Use of non-compliant or counterfeit chargers
- ▶ Overcharging batteries
- ▶ Charging unattended overnight
- ▶ Physical damage to batteries
- ▶ Exposure to heat or moisture
- ▶ DIY battery modifications
- ▶ Poor-quality imported products
- ▶ Improper storage or disposal

Higher-risk devices commonly include modified e-bikes and e-scooters.

Residents and Lot Owners

Residents should as a guide:

- ▶ Only use compliant and certified products
- ▶ Follow manufacturer charging instructions
- ▶ Avoid charging devices near exits or combustible materials
- ▶ Never charge damaged batteries
- ▶ Avoid overnight unattended charging where possible
- ▶ Store batteries away from heat and direct sunlight
- ▶ Dispose of batteries through approved recycling programs

Suggested Risk Mitigation Measures

Strata communities are encouraged to consider implementing the following controls:

General Safety Measures

- ▶ Install smoke detection in garages and storage areas
- ▶ Ensure fire extinguishers are appropriate and maintained
- ▶ Conduct regular electrical inspections
- ▶ Provide resident education on battery safety

Product Compliance

Residents should only use products compliant with applicable Australian Standards and Regulatory Compliance Mark (RCM) requirements.

Avoid:

- ▶ Unbranded chargers
- ▶ Damaged charging equipment
- ▶ Modified batteries
- ▶ Cheap aftermarket replacements

Storage Recommendations

Do not store lithium batteries:

- ▶ In emergency egress areas
- ▶ Near combustible materials
- ▶ In direct sunlight
- ▶ In poorly ventilated areas

DISCLAIMER

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