

Seattle Permits

—part of a multi-departmental series on City services & permitting

Lithium-Ion Battery Safety for Personal Mobility Devices and Other Personal Devices

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Lithium-ion batteries provide a good source of clean power and they are being used in more devices every year. Lithium-ion batteries are found in smart phones, laptops, scooters, e-bikes, e-cigarettes, toys, and electric vehicles. In rare cases, the batteries fail, and this condition can quickly lead to a fire. The Seattle Fire Department responds to roughly one fire a week related to Lithium-ion batteries.

This Client Assistance Memorandum provides safety tips for purchasing, using and storing Lithium-ion batteries as well as information about how to safely dispose of them.

Purchasing and Using Devices

Purchase and use devices that are “listed” by a qualified testing laboratory. This means that the battery has passed a rigorous safety test. Look for “UL-Listed” on the battery.

Only use the battery that is designed for the device. Do not swap batteries.

Put batteries in the right way and always follow the manufacturer’s instructions.

Charging and Storing Devices

Only use the charging cord that came with the device. An incompatible charging cable may continue to charge the battery to the point of overheating, which can cause a fire. Do not leave the device plugged in once fully charged.

Do not charge a device under your pillow, on your bed, or on a couch. A fire that starts where you are sleeping can be more likely to cause injury or death.

Do not charge your e-bikes or other batteries in your bedroom or by your front door or other exits.

Do not leave batteries in the sunshine or hot vehicles. Keep batteries at room temperature.

Batteries that are damaged are more likely to fail and should not be used.

Signs of a Problem

Lithium-ion batteries show signs that they need to be replaced if they get hot, expand, or take longer than usual to charge. They may also have an unusual odor or change in color or make odd noises. Stop using the battery if you notice these problems and take steps to safely dispose of it (see section below). Do not throw Lithium-ion batteries away in household garbage.

Right before failing, a battery will make a popping noise and then a hiss during which gas is released. If you notice these signs, quickly move away from the battery to a safe location, notify others around you to leave, and call 9-1-1 immediately.

Safely Recycling Old and Damaged Batteries

Old Batteries

Never dispose of Lithium-ion batteries in regular trash.

Seattle Public Utilities (SPU) transfer stations in Seattle will recycle Lithium-ion batteries including AAA/AA/C/D, button batteries, household rechargeables, and batteries inside laptops, tablets, phones, or power packs for cordless drills and other tools. SPU may not take damaged batteries or larger batteries such as for e-bikes. <https://atyoursevice.seattle.gov/2021/09/30/dead-batteries-recycle-them-with-spu/>

Call2Recycle is a non-profit where businesses who sell battery-containing products can offer no-cost takebacks. There are several options in Seattle, including batteries for e-bikes. <https://www.call2recycle.org/locator/>

Damaged Batteries

Very few places take damaged batteries. Contact customerservice@call2recycle.org to arrange for special handling options.

