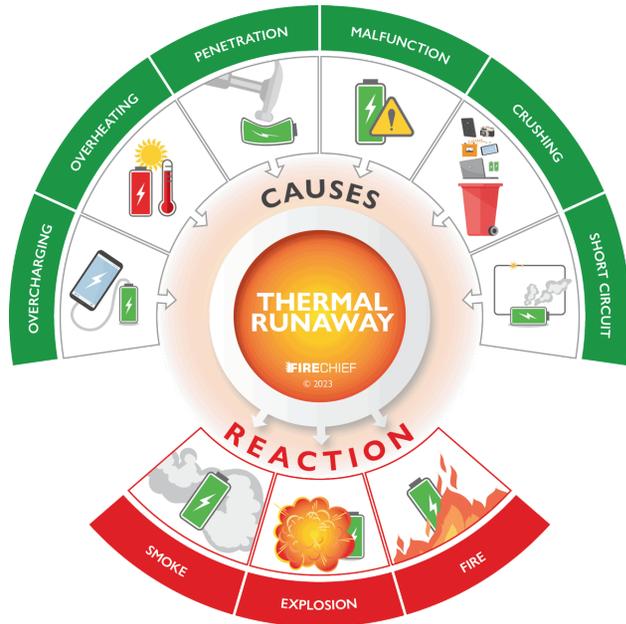


BEWARE OF THERMAL RUNAWAY



Thermal runaway is a situation where a lithium-ion battery gets too hot, leading to a dangerous chain reaction. It starts when one part of the battery gets overheated, which causes it to release energy that heats up other parts of the battery. As the heat builds up, it can cause the battery to catch fire or even explode.

In a residential energy storage system, this could happen if the battery is damaged, improperly installed, or if there's a fault in the system. It's why proper installation, regular maintenance, and monitoring are so important—these steps help prevent the battery from getting too hot in the first place. If you ever notice your battery getting unusually hot or hear any strange noises, it's important to turn off the system and contact a professional immediately.



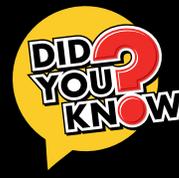
ENERGY STORAGE SYSTEM (ESS) •• Fire Safety

As more homeowners adopt Energy Storage Systems (ESS) powered by lithium-ion batteries, it's essential to understand the fire safety measures that come with this advanced technology. This brochure provides crucial information on how to keep your home and family safe, covering best practices for maintenance, and emergency preparedness. Learn how to harness the benefits of ESS while minimizing risks, ensuring that your home's energy solutions are as safe as they are sustainable.



Woodland Fire Department

Maintenance and Preventative Actions for Homeowners with Residential Energy Storage Systems (ESS)



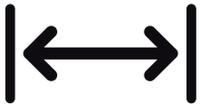
The lifespan of a lithium-ion solar battery typically ranges from **10 to 15 years**, depending on usage patterns, environmental conditions, and maintenance.



- **Regular Visual Inspections:** Periodically inspect the ESS unit for any visible signs of wear, damage, or corrosion. Look for loose connections, exposed wires, or any physical damage to the battery casing or associated components.



- **Check for Overheating:** Monitor the temperature around the ESS unit, especially during high-demand periods. If the unit feels excessively hot or if you notice unusual noises or smells, contact a qualified service provider immediately.



- **Maintain Clearances:** Ensure that the manufacturer's recommended clearances around the ESS unit are maintained. Avoid placing any items, particularly combustible materials, near the ESS to prevent fire hazards.



- **Keep the ESS Clean:** Regularly dust and clean the area around the ESS unit to prevent the buildup of dust and debris, which could affect the system's performance or pose a fire risk.



- **Battery Health Monitoring:** Use the monitoring system provided with the ESS to regularly check the health of the batteries. Pay attention to any alerts or notifications regarding battery performance or potential issues.



- **Check Ventilation:** Ensure that the ESS unit is adequately ventilated, especially if installed in an enclosed space. Proper ventilation prevents overheating and the accumulation of potentially hazardous gases.



- **Schedule Professional Maintenance:** Arrange for annual inspections and maintenance by a qualified professional to ensure the ESS is operating correctly and safely. This includes testing the system, checking connections, and performing any necessary repairs or upgrades.



- **Test Safety Alarms and Equipment:** Regularly test smoke alarms, heat alarms, and any other safety devices connected to the ESS to ensure they are functioning properly. Replace batteries or devices as needed.



- **Review the Operations and Maintenance Manual:** Familiarize yourself with the ESS operations and maintenance manual provided by the installer. Follow any specific maintenance instructions outlined by the manufacturer.



- **Prepare for Emergencies:** Know the procedures for safely shutting down the ESS in case of an emergency. Ensure that emergency contact information for service providers is readily available.



- **Avoid Direct Sunlight and Water Exposure:** Ensure the ESS is not exposed to direct sunlight or water spray from sprinklers or faucets. Exposure to these elements can damage the system and reduce its efficiency.



- **Monitor System Alerts:** Pay attention to any alerts or warnings issued by the ESS monitoring system. Address any issues promptly by contacting a professional if necessary.



- **Maintain Access to the System:** Ensure that access to the ESS is unobstructed for both you and emergency responders. Keep the area around the system clear and free of clutter.

By following these maintenance and preventative steps, homeowners can ensure their Residential Energy Storage System (ESS) operates efficiently and safely, reducing potential fire risks and prolonging the system's lifespan.