Energy Storage Response Group (ESRG) brings nearly 50+ years of combined experience in firefighting, training, fire and failure investigation, risk assessment, hazardous materials, and energy storage safety and testing. ESRG is uniquely qualified to help you prepare for, prevent, and manage the unthinkable incidents we all hope to avoid.

ESRG is well-versed in UL standards, NFPA code, and IFC requirements, including risk and hazard assessment, training, disposal planning, subject matter expertise, and document management. In addition, ESRG provides training services for local first responders, performs site inspections, and reviews for safety beyond code requirements. Failure and fire investigation services are also provided should incidents occur.
ESRG WORKS WITH CUSTOMERS TO DEVELOP
PRODUCT SAFETY FROM THE INITIAL DESIGN

ESRG supports the incorporation of safety from the earliest stages and can minimize expensive and time-consuming redesigns and modifications. In support of this goal, ESRG provides cost-saving pre-certification testing where products can be quickly tested before certification testing for a fraction of the price. When it comes time for certification, ESRG, with extensive product certification experience, works with clients as they engage with their certifiers to ensure a smooth and efficient certification process. Further, ESRG can support the development of FMEAs and functional safety reviews, an increasingly important part of the certification process. Finally, ESRG can also perform all aspects of UL9540A certification along with our accredited and nationally recognized partners, ESRG can guide designing not just for the standards, but also how your product will work within the bounds of current and pending fire codes.

With extensive experience in product testing and certification, ESRG’s experts have seen failures in all forms, anticipated and otherwise. With over 50+ combined years of firefighting experience, ESRG’s knowledge of the fire service, failure investigation, and the qualification processes of other industries, ESRG can help your experts envision design weaknesses not intuitive to most in this burgeoning industry. Alongside this expertise, ESRG has worked with clients to move many systems through the certification process through nationally recognized test labs (NRTLs) and is intimately involved with the development of over a half dozen UL and NFPA standards, including UL1973, 9540, 9540A, and NFPA 855.

SMALL AND LARGE-SCALE TESTING
UL CERTIFICATION TESTING
RESEARCH AND PRODUCT DEVELOPMENT TESTING
PRE-CERTIFICATION TESTING

CERTIFICATION ADVISORY SERVICES
FUNCTIONAL SAFETY REVIEW AND ASSISTANCE
DESIGN FOR CODES AND STANDARDS COMPLIANCE
FMEA, HMA, AND FUNCTIONAL SAFETY ANALYSIS

In support of product certification, ESRG operates a battery fire testing facility, the Alternative Energy Fire Research and Training Facility, where ESRG has performed dozens of medium and large scale tests to complement their experience with over 100 small-scale, cell-level tests on a range of chemistries, lithium-based or otherwise. With this experience and capability, ESRG frequently recommends, and supports, pre-certification testing on new products. With three to nine-month lead times on certification testing delaying projects across the board, pre-certification research testing allows you to know almost immediately how your product will perform, at a fraction of the cost.

Along with this work, ESRG also provides access to a network of experts and academics who can support basic research and large-scale research projects focused on battery emissions, protection, and firefighter safety and operations. Alongside partner Rescue Methods, and the State Fire School at Bowling Green State University. ESRG can bring world-class firefighting capabilities to bear for any testing needs.
Once your system is engineered, certified, and ready for deployment, ESRG can help you select your site, receive permitting, and build your system safely and in compliance with code to ensure a smooth and unencumbered path to operation. Having experience with Authorities Having Jurisdiction (AHJs) across the country, ESRG can help select sites based on the requirements of local code officials and can help you build a functional relationship with the local fire department to ensure their comfort with permitting, inspecting, and responding to your system.

In addition, ESRG has experience with converting UL9540A results into meaningful reports and analysis for code officials and can work with fire protection engineering partners to ensure those reports become code compliant reality. Once the system is built, ESRG can provide additional support for disposal and HAZMAT pre-planning, training, and documentation support as required by the fire code in your state or municipality.

Leveraging strong existing relationships with the fire service and energy storage industry — including over 50+ years of combined firefighting experience between the three founders and almost two combined decades of experience with energy storage — ESRG works with their clients to proactively engage local fire departments and ensure clear, honest, and forthright communication between entities. With trust built immediately into the relationship, ESRG works to ensure maximum efficiency in the permitting process by rapidly educating the fire service with what they need to know and helping the developers avoid costly and time-consuming mistakes, which will delay the process. Furthermore, ESRG can work with their fire protection engineering partners to convert UL9540A testing reports into a meaningful analysis of the systems which helps to satisfy code officials and results in the quick and efficient design of fire protection, ventilation, and deflagration protection systems.

Once the system is permitted, ESRG continues to work with all stakeholders to ensure code compliance through to operation. This activity includes site reviews of the as-built system looking for issues beyond code, such as firefighter access and operations, OSHA compliance, and other factors. Along with proper training for subject matter experts (SMEs) and the fire department, ESRG can also help manage required documentation and can provide 24/7 onsite monitoring through cloud-based, emergency situational awareness partner, PrePlan Live.
NFPA 855 and the International Fire Code require subject matter experts (SMEs) available at all times to guide the fire department and first responders in the case of an emergency. However, the term subject matter expert remains undefined and non-standardized. The fire department may still find themselves lacking the critical information necessary for safe and effective response. To counter this, ESRG may provide training to SMEs for system owners with local staff or remote call center available 24/7. With personnel around the country, including key urban markets, ESRG may have SMEs on site within two hours in some cases, such as required by New York City code. Offering a tiered plan to fit your needs based on local code and corporate requirements, ESRG can act as SME for your system, available in minutes, hours, or days as needed. Backed by their 24/7 cloud-based emergency awareness platform, Pre-Plan Live, which offers real-time insight, document management, and critical data from inside the container, allowing ESRG to guide fire service response from anywhere on the globe or provide the same situational awareness to the first responders.

Along with this insight, ESRG can provide immediate risk management and fire investigation services. With a focus on balancing continuity of operations along with the need for a thorough investigation, ESRG can ensure expensive mistakes are not made following emergencies. ESRG can work with all stakeholders, including insurance companies, attorneys, and fire service personnel to ensure investigations are conducted in a safe and legally compliant manner. Once the investigation is complete, ESRG can work with HAZMAT disposal partner, Buckeye Elm Contracting, to ensure proper environmental and HAZMAT remediation, safe decommissioning of the system, and compliant transportation and disposal.