



☎ (810) 337-8788

🌐 www.concepts.codes

➦ 9032 Rosemary Ln
Brighton, MI 48114

March 26, 2025

Charles Schwertner Chair
Texas Senate Business and Commerce Committee
P.O. Box 12068
Capitol Station
Austin, TX 78711

RE: Technical Review of Senate Bill 1825 – Battery Energy Storage Fire Safety

Chair Schwertner

Code Concepts Group was engaged by the Advanced Power Alliance and Texas Solar + Storage Association to review and provide expert input on battery energy storage safety legislation in Texas. Our team brings over 60 years of combined experience in fire service, emergency management, hazardous materials, and code development and enforcement. Based on our review, we believe Senate Bill 1825 represents a significant step forward in the safe installation and operation of battery energy storage systems (BESS) in Texas. This legislation incorporates national best practices and addresses a critical gap in safety oversight for this rapidly growing technology.

Drawing from our professional background in code development and enforcement, we offer the following observations on how SB 1825 will improve BESS safety if enacted:

1. **Establish Clear, Modern Fire Safety Standards.** The bill directs the state to adopt and regularly update BESS fire safety standards based on leading model codes, including **NFPA 855** and **UL 9540A**. This ensures new facilities are designed and built using the latest technical guidance for fire prevention, hazard mitigation, and emergency preparedness.
2. **Provide Independent Oversight for New Installations and Ongoing Operation.** By requiring independent third-party evaluations at local authorities' request and recurring safety inspections to ensure proper maintenance, SB 1825 provides expert review and accountability without overburdening public agencies. These expert reviews will verify compliance with all design, safety, and operational requirements and recommend corrective action where needed.
3. **Require Site-Specific Emergency Operations Plans.** SB 1825 requires developers to develop emergency operations plans tailored to each site, addressing risk identification, emergency procedures, hazard mitigation, and protection protocols for the public, the environment, and first responders. These plans must be shared with local fire departments before commercial operations begin and kept on-site for ongoing access.
4. **Deliver Annual Training for First Responders.** Crucially, SB 1825 requires battery operators to offer annual, no-cost education and training to local fire departments. This includes instruction on BESS technology, response protocols, site hazards, protective measures for firefighters, and physical site orientation. As former Fire Marshals and current national code advisors, we know firsthand how essential this is for safe and effective emergency response.

Senate Bill 1825 is a thoughtful, forward-looking policy that promotes energy growth while prioritizing safety at every stage—from design and permitting to operation and emergency response.

Michael O'Brian
Managing Partner, Code Concepts Group
Chair, IAFC Lithium-Ion Battery Committee

mobrian@concepts.codes

Robert Davidson
Partner, Code Concepts Group
Project Technical Panel Member, FPRF Li-ion
BESS Explosion Guidance
rjd@concepts.codes



(810) 337-8788

www.concepts.codes

9032 Rosemary Ln
Brighton, MI 48114

Code Concepts Group, LLC is the combination of Davidson Code Concepts, LLC and Code Savvy Consultants, LLC where Mr. Davidson and Mr. O'Brian have brought their expertise together to tackle some of the largest building and fire code complexities found in the built environment today.

Code Concepts Group, LLC has experience working alongside building officials, fire code officials, design professionals, and communities as a whole. They work diligently in the application of fire and building codes and standards. Their experience in code development aids in providing safe, compliant projects by providing the concepts behind, and the intent of code requirements.

Mr. O'Brian and Mr. Davidson are well known for their efforts in code development, education and training programs, keynote lectures and much more.

Major Projects recently include:

- Multiple battery manufacturing, laboratory and storage facilities.
- Lab and storage facilities.
- Energy Storage System installations including navigating code requirements from design to permit review and commissioning.
- Transition to A2L refrigeration.
- Deployment of hydrogen fuel-cell and hydrogen motor fueling technology.
- Hazardous material compliance.
- General code navigation for various building and fire code projects.

Michael O'Brian, Managing Partner mobrian@concepts.codes

The owner/CEO of Code Savvy Consultants, LLC since 2001. Code Savvy Consultants, LLC specializes in third party plan review services with communities., Mr. O'Brian has more than thirty years of experience in both volunteer and career fire service as well as, emergency management and EMS experience with an emphasis in his career in public and private service. Mr. O'Brian has risen through the ranks serving as Fire Marshal and Fire Chief through his career service. Mr. O'Brian has a bachelor's degree from Eastern Michigan University and is a Graduate of the Eastern Michigan Fire Staff and Command Program.

Mr. O'Brian is known for his ability to navigate complex situations and his strong work ethic. This was truly demonstrated in his leadership of the International Code Council (ICC) Fire Code Action Committee for over 8 years. His actions as chair led to increased collaboration across the code community and navigated some of the most significant code changes in the last 10 years. He is the recipient of the IAFC/ICC Excellence in Fire Safety in 2021 and the Robert W. Gain Fire Prevention Leadership Award in 2021.

Mr. O'Brian currently serves on the following Boards and Committees:

- International Association of Fire Chiefs, Board Member IAFC, Fire and Life Safety Section, International Director
- Chair, IAFC Lithium Ion Battery Committee
- International Code Council, Building Code Committee
- National Fire Protection Association NFPA 1, Technical Correlating committee and Fundamentals Committee
- NFPA 855 Technical Committee (Energy Storage and Battery Storage)
- International Code Council, Codes and standards Committee
- International Code Council Code Correlating Committee
- National Fire Protection Association, Residential Sprinkler Committee
- Chair, Eastern Michigan Fire Staff and Command Advisory Board
- Underwriters Laboratory-Member of Fire Council

He previously served on the following:

- NFPA 101 Technical Coordinating Committee
- ICC Administration Committee
- ICC-Fire Code Action Committee
- Various ad-hoc committees and task groups
- Past President Michigan Association of Fire Chiefs Past President Michigan Fire Inspector's Society

Robert Davidson Partner, rjd@concepts.codes

The Managing Partner of Davidson Code Concepts, LLC since 1990, Mr. Davidson has more than thirty-five years of experience in both volunteer and career fire service as well as law enforcement, emergency management and EMS experience. With over 25 years as a code enforcer, he retired as Fire Marshal in charge of the Fire Safety Division of the South Brunswick Township Code Enforcement Department with responsibilities including enforcement of the NJ Uniform Fire Code, managing the Office of Emergency Management, along with firefighting and technical rescue safety officer response. He has experience teaching a variety of subjects involving health, safety and code enforcement for the International Association of Fire Fighters, the International Code Council, Rutgers, The State University of New Jersey, The NJ University of Medicine and Dentistry, Middlesex County College, Middlesex County NJ Fire Academy, University of North Carolina School of Architecture, Charlotte Campus and University of Texas-Arlington Campus. He has been a speaker at numerous NFPA World Safety Conferences as well as at state and regional code official and SFPE conferences.

He gained national recognition as the Chair of the International Code Council's International Fire Code Development Committee. In September of 2006 he was the recipient of the International Code Council's annual 'ICC Fire Service Award' which is presented in recognition of untiring support of and dedication to professional code enforcement and the fire protection profession. In 2011 he was awarded an ICC Honorary Membership which is granted to an individual who has been recognized as having rendered outstanding service to the International Code Council. These were in addition to previous Middlesex County, NJ and State of New Jersey Fire Prevention inspector of the Year awards.

Mr. Davidson currently serves on the following Boards and Committees:

- Project Technical Panel Member, Fire Protection Research Foundation (FPRF) project on the "Development of Li-ion BESS Explosion Control and Prevention Guidance - Phase I
- ICC Ad Hoc Battery and Energy Storage
- ICC Fire Code Action Committee representing IAFC Fire & Life Safety Section
- NFPA 1 Fire Code Committee
- NFPA 401 Hazardous Waste Recommended Practice Committee
- NFPA 855 Energy Storage Systems & Lithium-ion and Lithium Metal Battery Storage
- IAFC Lithium-Ion Battery Committee
- New York City Fire Department's Fire Code Revision Project Advisory Committee
- NJ State Fire Safety Commission, Codes Advisory Council
- Construction Fire Safety Coalition
- UL 3741 STP - Standards Technical Panel for Photovoltaic Hazard Control
- Interstate Renewable Energy Council (IREC), Sustainable Energy Action Committee (SEAC) Assembly
- California Fire Chiefs Association SoCal FPO Code Committee
- CSA C800 Testing protocol for ESS Reliability and Quality Assurance Program
- CSA C22.2 350 Thermal Barrier Safety for Batteries

Mr. Davidson has also served on:

- ICC Fire Code Interpretations Committee
- NFPA Fire Research Foundation PV Stakeholder Group
- NFPA Task Group on Fire Fighter Safety and PV Systems
USDOE Biomass Industry Panel on Codes and Standards
- FCHEA/NREL Hydrogen Code Improvement Team
- ICC Building Code Action Committee
- ICC Fire Code Committee, including serving as Chair
- ICC IBC-Fire Safety Committee
- ICC IRC Building Committee
- ICC Northeast Regional Fire Code Committee
- ICC Joint Fire Service Review Committee
- ICC/NFPA/USDOE Hydrogen Industry Panel on Codes
- BOCA Building Code Interpretations Committee
- NFPA 232 Guide for Protection of Records

In addition, he serves on various workgroups for the ICC Fire Code Action Committee, and the ICC Building Code Action Committee. He has served in the past on workgroups for the ICC Tall Wood Buildings Ad hoc Committee, ICC Ad hoc Healthcare Committee, the ICC Code Technology Committee, and the ICC International Green Construction Code Committee.

Besides his heavy involvement in drafting, submitting, and testifying on the provisions in the International Code Council's series of codes and various NFPA Codes & Standards, Mr. Davidson has specialized in addressing renewable energy topics including energy storage systems, PV roof systems, the use of hydrogen as a fuel and flammable refrigerants. Mr. Davidson has presented lectures on a multitude of firefighter safety & code related topics in addition to conducting ESS, PV, hydrogen energy and biofuel workshops for building code and fire code officials throughout the United States.