NFPA 855-Proposed 2026 Edition
Standard for the Installation of Energy Storage Systems
TIA Log No.: 1852
Reference: 2.3.4, 9.2.1, and A.9.2.1
Comment Closing Date: October 17, 2025
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www.nfpa.org/855

1. Add a new publication to 2.3.4 to read as follows:

2.3.4 CSA Group Publications. 178 Rexdale Boulevard., Toronto, ON M9W 1R3, Canada.

…

CSA/ANSI C800, *Testing protocol for energy storage system reliability and quality assurance program*, 2025.

2. Revise paragraph 9.2.1 and Annex A.9.2.1 to read as follows:

9.2.1 Where required elsewhere in this standard, fire testing in accordance with Section 9.2 shall be conducted on a representative ESS in accordance with UL 9540A and large-scale fire testing in accordance with Section 9.7 of ANSI/CSA C800 to collect data for gas production at a cell level, thermal runaway propagation potential at a module level, and thermal runaway propagation and fire potential between ESSs.

A.9.2.1 See Section G.11 for test objectives of the large-scale test.

[…]

The data generated by the fire testing is intended to be used by manufacturers, system designers, and AHJs to determine the need for fire and explosion control and prevention required for an ESS installation.

A large-scale fire test in accordance with Section 9.7 of ANSI/CSA C800 is used to determine the fire spread characteristics of a fully involved fire within a battery ESS. Additional guidance can be found in Annex G.11.

Substantiation: Fire and explosion testing is a tool in NFPA 855 for AHJs and system owners to justify relaxation from the Maximum Stored Energy requirements, reductions of spacing between units and exposure, reduction in clearance to paths of egress, and the omission of fire suppression for ESS in open parking garages. For approvers to make an informed decision while minimizing risks to property and life safety, fire and explosion testing must be properly defined and consistently performed. In the past, UL 9540A has been the primary test to assess the hazard of fire spread, but many AHJs are requesting additional large-scale fire tests to determine the risk to faults and external fire exposures not included in a UL9540A test program. The 2026 draft of NFPA 855 includes new guidance on the need for large-scale fire testing to supplement UL9540A, but at the time the second draft was developed, no consensus standard existed that could be referenced. As a result, the methods for large-scale fire testing are not currently defined in NFPA 855. Not having an accepted consensus standard for large-scale fire testing results in confusion, inconsistent testing results and increases fire risk of ESS installations. Since the 2026 NFPA 855 second draft meeting, CSA/ANSI C800:25 has been published, approved by ANSI and contains a consensus method for large-scale fire testing in Section 9.7 “Large-scale test procedure”. Use of this procedure will provide consistent testing leading to more accurate

assessment of fire risks so that the hazards of ESS installations are properly addressed.

Emergency Nature: The proposed TIA intends to accomplish a recognition of an advance in the art of safeguarding property or life where an alternative method is not in current use or is unavailable to the public.

Large-scale fire testing is critical to property and life safety of BESS and is required by many AHJs although the testing procedure is not defined in current codes. Without any state of the art testing procedure defined in codes, there has been confusion in the industry about what test method to follow which will cause inconsistences in performing this critical test. Without this TIA edition, this confusion will exist until the next NFPA revision after 2026. With a consensus standard available, it will address this critical gap by referencing the accepted procedure which is a common practice per NFPA standards manual of style.

Anyone may submit a comment by the closing date indicated above. Please identify the TIA number, state whether you SUPPORT or OPPOSE the TIA along with your comment, and forward to the Secretary, Standards Council. SUBMIT A COMMENT