

# Acceptance requirements for fire protection systems of energy storage containers

Are energy storage systems required in the 2015 NFPA 1?

While the 2015 versions of the IFC and NFPA 1 do contain some requirements for energy storage systems, they are few compared to the 2018 and 2021 versions. The ESS requirements in the 2018 version, while certainly more restrictive than the 2015 version, are relatively modest.

What are non-residential storage requirements?

For storage capacities that exceed these limits, non-residential requirements come into play (NFPA 855 Chapters 4-9). Fire detection, including smoke and heat alarms, vehicle impact protection with approved barriers, and ventilation requirements for chemistries that produce flammable gas during normal operation are addressed.

What are fire codes & standards?

Fire codes and standards inform ESS design and installation and serve as a backstop to protect homes, families, commercial facilities, and personnel, including our solar-plus-storage businesses.

What is battery energy storage fire prevention & mitigation?

In 2019, EPRI began the Battery Energy Storage Fire Prevention and Mitigation - Phase I research project, convened a group of experts, and conducted a series of energy storage site surveys and industry workshops to identify critical research and development (R&D) needs regarding battery safety.

What is NFPA 855?

The first version of NFPA 855 sought to address gaps in regulation identified by participants in workshops presented by the U.S. Department of Energy and the Fire Protection Research Foundation. The 2021 versions of IFC, IRC, and NFPA 1 base their ESS fire code requirements on this document.

Are battery energy storage systems safe?

Owners of energy storage need to be sure that they can deploy systems safely. Over a recent 18-month period ending in early 2020, over two dozen large-scale battery energy storage sites around the world had experienced failures that resulted in destructive fires. In total, more than 180 MWh were involved in the fires.

Jan 28, 2023&nbsp;&#183;&nbsp;&#183;&nbsp;In energy storage scenarios with a relatively high risk factor, a targeted fire extinguishing scheme is designed. The construction of the ...

The Technical Guide have high requirements for enterprises involved in the preparation of the standard, requiring excellent overall qualities in the design and construction of energy storage ...

