NASEO Powering Safely in the Lithium-Ion Era

Utility-scale Li-ion Battery Energy Storage

Eolian

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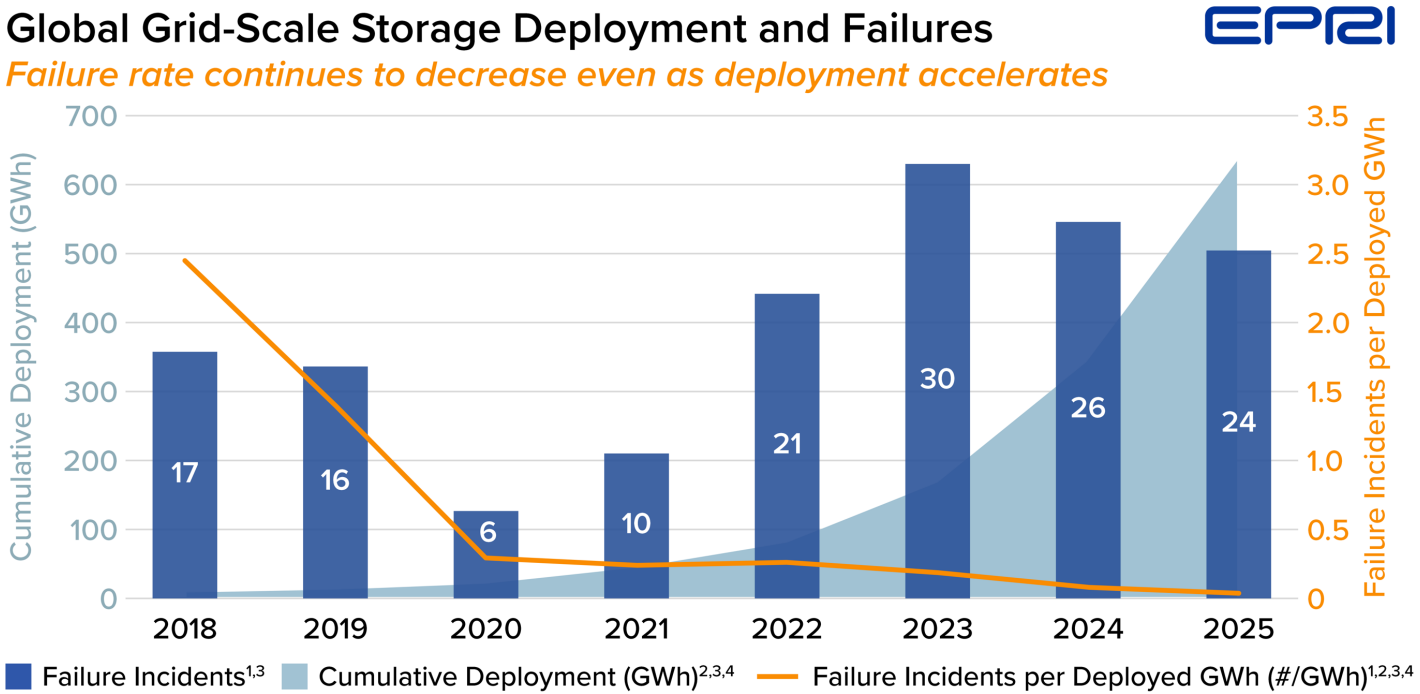
Padua – 400 MW / 1.9 GWh

San Antonio, Texas – utility contracted



Codes and Standards Lead to Safer Systems

"The failure rate of BESS is comparable to that of large oil-filled transformers, a well-understood technology." – *EPRI Battery Energy Storage System Failure Incident Database*



Sources: (1) EPRI Failure Incident Database. (2) Benchmark Mineral Intelligence, BESS Forecast. Data as of Q1 2026.
(3) China Energy Storage Alliance. (4) Korea Electrical Safety Corporation.

Responsible Development Process

- Start your project with a conversation with first responders
- Adhere to the latest codes and standards – NFPA 855 2026 edition
- Offer to pay to support third party independent reporting on the project's Hazard Mitigation Analysis and Emergency Response Plan
- Incorporate training for first responders
- Address community concerns about other safety and environmental impacts

State Leadership is Needed

- State Energy Offices along with State Fire Marshal Offices should support legislation to ensure safe deployment of lithium-ion battery energy storage systems

- Three key elements:
  - Code adoption
  - First responder training
  - Uniform statewide adoption

- Example: Oklahoma House Bill 3464 Oklahoma Energy Storage Resource Safety Act

Oklahoma Energy Storage Safety Bill

- **Safety standards:** Comply with the Oklahoma-adopted International Fire Code and NFPA 855 (2026); NFPA 855 controls if the standards conflict.
- **Permitting and compliance:** Fire authorities may require an owner-funded, independent engineering review. Identified noncompliance must be corrected before operations begin.
- **Emergency preparedness:** Maintain a site-specific emergency operations plan, provide it to fire/emergency authorities before operations, and offer free site-specific training to local first responders.
- **Uniformity:** political subdivisions in the state shall not adopt, enforce, or maintain any rules, regulations, codes, or standards that uniquely apply to energy storage resources other than those set forth in the OK Energy Storage Resource Safety Act



