

## INFOGRAPHIC

# Lithium-ion Battery Incident Reporting

In 2023, battery energy storage systems (BESS) experienced notable fire accidents across various stages of their lifecycle, with the root causes distributed among design, manufacturing, integration and construction, operation, and other factors. The most significant contributor to these failures was the operation phase, accounting for 26 incidents, highlighting operational challenges as a primary concern. Design flaws were also prominent, with 13 failures attributed to this phase. Integration and construction, as well as manufacturing, showed moderate issues, with 8 and 4 incidents respectively. Other unidentified causes contributed to a smaller number of failures, totalling 7 incidents. This data emphasizes the critical need for robust operational protocols and careful design considerations in BESS projects to minimize the risk of failures. The detailed incident analysis can be found in the report by UL on lithium-ion battery incident reporting,

## Incidents over time by battery status

