

U.S. Grid-Scale Battery Storage Incidents

Briefing Binder — 15 One-Page Incident Briefs

Scope: every significant failure incident at stationary, grid-connected battery energy storage systems of 1 MW or larger in the United States, January 2018 through July 5, 2026. Each brief covers what happened, community impact, investigation status, and what the event signals for technology and regulation. All Tesla Megapack incidents are flagged. Compiled July 5, 2026; full sourced database (23 incidents) with per-row citations at [research/bess-incidents/](#).

#	Incident	Date	Location	Size	Notes
1	McMicken (APS)	Apr 19, 2019	Surprise, AZ	2 MW / 2 MWh	Injuries; RCA published
2	Moss Landing Phase I & II (Vistra)	Sep 2021 / Feb 2022	Moss Landing, CA	400 MW total	Non-fire overheating; RCA published
3	Dorman (AES / SRP)	Apr 18, 2022	Chandler, AZ	10 MW / 40 MWh	2-week smolder; no RCA
4	Elkhorn (PG&E / Tesla)	Sep 20, 2022	Moss Landing, CA	182.5 MW / 730 MWh	TESLA · RCA published
5	Valley Center (Terra-Gen), x2	Apr 2022 / Sep 2023	Valley Center, CA	139 MW / 560 MWh	Repeat-incident site
6	East Hampton	May 31, 2023	East Hampton, NY	5 MW / 40 MWh	NY trio; PFAS lawsuit
7	Warwick (Convergent), x3 fires	Jun 2023 / Dec 2025	Warwick, NY	12 MW / 57 MWh	Water-ingress defect; compliance lapse
8	Chaumont (Convergent)	Jul 27, 2023	Town of Lyme, NY	5 MW / 15 MWh	NY trio; multi-day rural fire
9	Melba (Idaho Power)	Oct 2, 2023	Melba, ID	2 MW / 8 MWh	Commissioning; RCA via county
10	Gateway (LS Power)	May 15, 2024	Otay Mesa, CA	250 MW / 250 MWh	2-week reignitions; EPA cleanup
11	Escondido (SDG&E)	Sep 5, 2024	Escondido, CA	30 MW / 120 MWh	Oldest system to fail (7.6 yrs)
12	Moss Landing 300 (Vistra)	Jan 16, 2025	Moss Landing, CA	300 MW / 1,200 MWh	Largest BESS fire in history
13	California Flats (Arevon)	Aug 30, 2025	Parkfield, CA	~60 MW / 240 MWh	TESLA · contained in 24h
14	Townsite (Arevon)	Sep 23, 2025	Boulder City, NV	~90 MW / 360 MWh	TESLA · 2 units, let burn
15	SRP Bolster Substation	Oct 1, 2025	Peoria, AZ	25 MW / 100 MWh	TESLA · substation siting

Not given briefs (insufficient public substance; in database only): Santa Ana, CA (Jul 2024, 6 MW, owner unidentified) and three EPRI-only records with no news coverage: Standish, MI (2021); Mojave, CA (Feb 2024); Kearny Mesa, CA (Apr 2024).

Tesla equipment outside the US (for completeness): Victorian Big Battery, Australia (Jul 2021) — coolant leak during commissioning, 2 of 212 Megapacks; Bouldercombe, Australia (Sep 2023) — fault initiated on the grid/AC side, not in cells.

Read First — How to Use These Numbers

1. Every count is a floor, not a ceiling

There is no mandatory federal incident reporting for battery storage. The de facto national record (EPRI's BESS Failure Incident Database) is voluntary and media-based, and EPRI itself carries seven anonymized US events it cannot publish. California became the first state to require incident reporting — 24 hours, to the CPUC — only in March 2025. Quote totals as 'at least.'

2. The safety arc, stated fairly

- 23 grid-scale incidents in 8.5 years, against a fleet that grew from ~0.9 GW (2018) to ~45 GW (2025).
- One incident with injuries — McMicken, 2019, four firefighters, a pre-code design. Zero fatalities. (UL's cross-sector tracker counts 340 micromobility deaths in the same era.)
- The failure rate per gigawatt deployed fell ~97-99% from 2018 to 2025 (EPRI / PNNL / TWAICE), even as absolute counts rose from one a year to about five.
- Published root causes cluster in water intrusion, suppression-system faults, installation and integration errors — not spontaneous cell failure. Most causes were never published at all (6 of 23).

3. Counting rules used here

- Warwick June 2023 (two adjacent systems, ~24 hours apart) is one brief and one database incident; EPRI lists two rows.
- Moss Landing September 2021 and February 2022 were destructive overheating/water events with no sustained fire — they are counted as incidents but not as fires.
- The February 18, 2025 Moss Landing flare-up is part of the January 16 event, not a separate incident.

4. The pattern worth internalizing

Old-design indoor NMC halls (McMicken-era containers, Gateway, Moss Landing) account for the severe outcomes. Modern outdoor containerized sites with unit-level isolation (Elkhorn, California Flats) lost 1-4 units with hour-to-day response times. The regulatory system has been catching up in real time: NFPA 855 (2020/2023/2026), UL 9540A large-scale testing (2026 edition), California GO 167-C and SB 283 (2025), New York's fire-code overhaul (2025). When residents cite Moss Landing, the honest answer is: real event, real impacts, cause still unpublished - and a design category that current codes and modern projects have moved away from.



Owner / operator	Arizona Public Service (APS)	Size	2 MW / 2.16 MWh
Integrator	AES Energy Storage / Fluence	Battery / chemistry	LG Chem, NMC lithium-ion
Enclosure	Prefab container at a substation	Age at incident	~2.1 years (in service 2017)
Injuries	4 firefighters, 2 critically	Root cause	PUBLISHED (DNV GL, Jul 2020)

What happened

An internal defect in a single cell (lithium-metal dendrites) started a thermal runaway that cascaded through one rack of 27. The clean-agent suppression system discharged but could not stop cell-to-cell spread, and with no ventilation, flammable gas filled the sealed container for roughly three hours. When the hazmat team opened the door, the gas mixture deflagrated, destroying the container interior and throwing responders — one more than 70 feet.

Community impact

- Four Peoria firefighters seriously injured (media tallies counted eight responders treated) — still the only US grid-scale BESS incident with serious injuries, and there have been no fatalities.
- No community evacuation; extended hazmat standoff before entry.
- APS paused its battery program pending the investigation.

Investigation & aftermath

DNV GL's public root-cause report identified five compounding failures: the cell defect, suppression unable to stop runaway, no thermal barriers between cells, gas accumulation without ventilation, and no safe-entry procedures. LG Chem (with Exponent) disputed the initiating cause, arguing external arcing; the dispute was never publicly resolved.

Signals — technology & regulation

- Directly shaped today's rulebook: NFPA 855, UL 9540A fire testing, deflagration venting, gas monitoring, cell-level barriers and responder training all trace to this event.
- Illustrates the gap between 2017-era design and what current codes require — the key context when comparing old incidents to new projects.
- A transparency model: full independent root-cause analysis on the public docket. Most later incidents never got one.

Key sources: DNV GL report via ACC docket: docket.images.azcc.gov/E000007939.pdf · UL FSRI responder study: fsri.org · utilitydive.com (APS 4-step plan)

2. Moss Landing Phase I & II — Moss Landing, California

Sep 4, 2021 & Feb 13, 2022

Overheating / water damage — no sustained fire · 300 MW + 100 MW · world's largest BESS at the time



Owner / operator	Vistra Corp	Size	300 MW/1,200 MWh + 100 MW/400 MWh
Integrator	Vistra / Fluence; LG racks	Battery / chemistry	LG Energy Solution, NMC
Enclosure	Indoor racks, former turbine hall	Age at incident	~9 months / ~6 months
Injuries	None	Root cause	PUBLISHED (Vistra, 2022)

What happened

Twice in six months, the buildings' own fire-protection systems damaged the batteries. Smoke detection triggered the water-based heat-suppression system far below design thresholds (the Phase I trigger traced to a failed air-handler bearing plus a detection programming error), and faulty hose couplings sprayed water directly onto energized racks. Water caused arcing, short-circuits and melting — about 7% of Phase I's ~100,000 modules were damaged. Neither event produced an open-flame fire.

Community impact

- No injuries and no evacuations in either event.
- Phase I offline about nine months; ~7,000 modules damaged. Phase II damage was limited.
- Full restart completed August 2022 after the suppression system was reworked site-wide.

Investigation & aftermath

Vistra published both root-cause analyses: detection programming and mechanical coupling failures — the batteries were not the initiating source. Corrective actions included reprogrammed thresholds, pressure-tested plumbing, and added detectors.

Signals — technology & regulation

- Fire-protection systems are safety-critical equipment in their own right: detection thresholds and suppression plumbing need the same commissioning rigor as the batteries.
- Both events were balance-of-system failures, not cell failures — consistent with EPRI's finding that most BESS failures originate outside the cells.
- Foreshadowed the 2025 debate over dense, indoor battery halls (see brief 12 — same building).

Key sources: Vistra findings: hub.vistracorp.com · mosslandingresponse.com/previous-incidents · utilitydive.com

Fire with ~2-week smolder · 10 MW / 40 MWh



Owner / operator	AES (20-yr offtake to SRP)	Size	10 MW / 40 MWh
Integrator	AES / Fluence	Battery / chemistry	LG Chem, NMC lithium-ion
Enclosure	Dedicated building	Age at incident	~3 years (built 2019)
Injuries	None	Root cause	Never published

What happened

Batteries inside the building began overheating and smoldering. Sprinklers ran for days to hold temperatures down while crews used robots for reconnaissance and to open doors; hazardous-gas concerns prompted voluntary evacuation of nearby businesses. Sprinklers were shut off April 29 and the fire was declared out May 1 — roughly two weeks after it began. Trade press reported about 4 MW of batteries burned; the extent was never officially detailed.

Community impact

- Voluntary evacuations of nearby Chandler businesses for several days; prolonged air monitoring.
- No injuries; facility offline through at least the following summer.
- Arizona's second major BESS event, three years after McMicken.

Investigation & aftermath

AES said the origin may have been external to the battery system and promised a determination, but no public root-cause report has appeared — four years on. This remains one of the clearest US examples of the post-incident transparency gap.

Signals — technology & regulation

- Long-duration smolder is a distinct response mode: two weeks of resources, monitoring and business disruption without visible flames.
- No published cause after four years is the strongest argument in this binder for mandatory investigation-and-disclosure rules (California adopted 24-hour incident reporting only in 2025).
- Drove Phoenix-metro fire services to formalize BESS training and pre-incident planning.

Key sources: [pv-magazine-usa.com](#) · [azfamily.com](#) (two-week smolder) · [energy-storage.news](#) (AES investigation)

4. Elkhorn Battery — Moss Landing, California

September 20, 2022

Single-unit fire, no spread · 182.5 MW / 730 MWh · 256 Megapacks ■ **TESLA MEGAPACK EQUIPMENT**



Owner / operator	Pacific Gas & Electric	Size	182.5 MW / 730 MWh
Integrator	Tesla (built with PG&E)	Battery / chemistry	Tesla Megapack, lithium-ion
Enclosure	Outdoor Megapack cabinets	Age at incident	~5 months (Apr 2022 COD)
Injuries	None	Root cause	PUBLISHED (Tesla / ESRG for PG&E)

What happened

At about 1:06 a.m., one of 256 Megapacks caught fire. The facility automatically disconnected from the grid, and per the pre-fire plan the unit was allowed to burn under monitoring. Highway 1 was closed and a shelter-in-place advisory issued for the Moss Landing area; both were lifted by early evening the same day. The fire never spread beyond the single unit.

Community impact

- No injuries; one day of road closure and precautionary advisories.
- 1 of 256 units destroyed; facility returned to service December 30, 2022.
- Offline again after the January 2025 Vistra fire next door; a June 2025 restart was aborted when recommissioning checks found a cooling-system leak — return now planned for 2026.

Investigation & aftermath

The published investigation found an improperly installed deflagration vent shield had dislodged a valve, letting rainwater into the unit and triggering thermal runaway. Fleet inspection found the same defect had let water into 88 of 256 units — all repaired and re-tested — and controls were updated to de-energize automatically on alarm.

Signals — technology & regulation

- Installation quality is a failure vector even with sound engineering — a bolt-and-panel error, not chemistry, caused this fire.
- The modern-design case study: outdoor unit-level containment plus a rehearsed defensive plan held the loss to one unit in under a day.
- A model outcome for transparency: independent report published, defect fixed fleet-wide, findings shared with the county.

Key sources: ESRG report: pge.com/assets/.../esrg-elkhorn-fire-report-09.2022.pdf · pge.com/newsroom/findings · [cnn.com](https://www.cnn.com)

Two incidents, 17 months apart · 139 MW / 560 MWh



Owner / operator	Terra-Gen	Size	139 MW / 560 MWh
EPC	Mortenson	Battery / chemistry	LG Energy Solution, NMC
Enclosure	Outdoor containers	Age at incidents	~3 months / ~19 months
Injuries	None (both)	Root cause	Neither published (EPRI: design/controls, 2022)

What happened

April 2022: a single module produced smoke after a minor electrical failure and sprinklers doused the enclosure; Terra-Gen attributed the water release to a sensor fault. The site returned to service in about two days, but roughly 100 water-exposed LG packs had to be decommissioned. September 2023: one container burned in what the county fire marshal called a thermal-runaway event; residents within a quarter mile were evacuated and those within a half mile sheltered in place, all lifted within about four hours.

Community impact

- No injuries in either event; 2023 evacuation lasted roughly four hours.
- Containment held to a single module (2022) and a single container (2023).
- The 100 decommissioned packs were later stolen from storage — an unusual disposal-chain lesson.

Investigation & aftermath

No public root-cause report exists for either event. Accounts of the 2022 trigger conflict (module failure vs. sensor fault), and the 2023 investigation was never published.

Signals — technology & regulation

- Unit-level containment worked twice — but two incidents at one site compound community memory and helped launch San Diego County's BESS safety-standards work.
- Suppression false-positives carry real cost: water, not fire, wrote off ~100 packs.
- Repeat-incident sites, not single events, are what drive local opposition — worth planning for.

Key sources: valleycenter.com (Roadrunner) · energy-storage.news · nbcсандiego.com

6. East Hampton Energy Storage Center — East Hampton, New York

May 31, 2023

Contained building fire · 5 MW / 40 MWh · first of New York's summer-2023 trio



Owner / operator	NextEra / National Grid JV	Size	5 MW / 40 MWh
Integrator	Haugland Energy Group	Battery / chemistry	LG Chem lithium-ion
Enclosure	Building at substation	Age at incident	~4.8 years (COD 2018)
Injuries	None	Root cause	Obtained by NY State; never released

What happened

A fire that began with a smoldering battery broke out at the Cove Hollow Road substation BESS. The internal sprinkler system contained it before escalation; nearby roads closed and Long Island Rail Road service on the Montauk branch was halted for about an hour. No residential evacuation was ordered.

Community impact

- No injuries; road and rail disruption of roughly an hour.
- System offline for an extended period afterward.
- State sampling found no harmful off-site contaminant levels.

Investigation & aftermath

New York's Inter-Agency Fire Safety Working Group secured a manufacturer root-cause analysis but never published per-site findings. In 2025 the Suffolk County Water Authority sued the operator, alleging PFAS above state limits in nearby public wells from fire-suppression water runoff — litigation is ongoing.

Signals — technology & regulation

- Suppression-water runoff is an emerging liability frontier: agent selection and runoff capture now belong in emergency planning.
- A first-generation (2018-vintage) indoor system: the aging early fleet deserves distinct scrutiny from new-build designs.
- With Warwick and Chaumont, triggered the NY working group, statewide inspections of 57 systems, and the 2025 state fire-code overhaul.

Key sources: [governor.ny.gov](https://governor.ny.gov/working-group-findings) (working-group findings) · [eastendbeacon.com](https://eastendbeacon.com/pfas-suit/) (PFAS suit) · EPRI event page: storagewiki.epri.com

Three fires across one portfolio · 12 MW / 57 MWh in three 4 MW systems



Owner / operator	Convergent Energy + Power	Size	12 MW / 57 MWh portfolio
Utility context	Orange & Rockland non-wires alternative	Battery / chemistry	Powin (Centipede/Stack), LFP
Enclosure	Outdoor cabinets / containers	Age at incidents	~1 month (2023); mid-life (2025)
Injuries	None (all three fires)	Root cause	2023 PUBLISHED: water infiltration via Powin manufacturing defect; 2025 not public

What happened

June 2023: fire struck a one-month-old system on school-district property, and the adjacent system burned about 24 hours later; both were allowed to burn down under control. Schools were evacuated and closed; hydrogen cyanide peaked near the site at about half the federal limit, with zero readings downwind. December 2025: a container burned at the separate Church Street site. The Village then disclosed the system had been energized without its required Certificate of Compliance because enhanced safety-monitoring conditions were unmet.

Community impact

- No injuries across all three fires; school closures in 2023.
- December 2025: facility shut down under a Notice of Violation and Condemnation Order, with village cost-recovery demands.
- Renewed momentum for BESS moratoria across New York — the state with the most local restrictions.

Investigation & aftermath

The 2023 cause was published: a manufacturing defect in Powin Centipede enclosures let water in and triggered an electrical fire. The 2025 cause is unconfirmed (moisture after severe weather is suspected). Powin entered bankruptcy in 2025.

Signals — technology & regulation

- Water ingress through enclosure defects is a recurring national failure mode — factory QA and sealing standards matter.
- Failures at one month old point to commissioning-era risk, not aging.
- The 2025 compliance lapse shows codes only work with enforcement — NY’s new certificate and peer-review regime exists because of this portfolio.
- Vendor bankruptcy raises a stewardship question communities should ask: who maintains the system in year 15?

Key sources: villageofwarwickny.gov (official updates) · oru.com · energy-storage.news (unauthorised system)

8. Chaumont Solar + Storage — Town of Lyme, New York

July 27, 2023

Multi-day rural fire · 5 MW / 15 MWh with 7.7 MW community solar



Owner / operator	Convergent Energy + Power	Size	5 MW / 15 MWh
Integrator	Convergent; GE Reservoir units	Battery / chemistry	General Electric lithium-ion
Enclosure	Containers	Age at incident	Recently commissioned
Injuries	None	Root cause	Obtained by NY State; never released

What happened

Fire engulfed battery containers at the rural solar-plus-storage site: four enclosures and two transformers were involved. About 30 mostly-volunteer fire departments rotated through the response; residents within a mile sheltered in place for several hours under a toxic-smoke warning. The fire was declared contained after roughly four days, with smoldering for up to six.

Community impact

- No injuries; shelter-in-place within one mile for several hours.
- Days of sustained demand on volunteer fire departments.
- State air, soil and water sampling found no harmful toxin levels.

Investigation & aftermath

The working group obtained a manufacturer root-cause analysis that was never published per-site. Days after this fire, Governor Hochul created the Inter-Agency Fire Safety Working Group; its recommendations became the 2025 state fire-code updates, and over 2,000 first responders received BESS training by the end of 2023.

Signals — technology & regulation

- Rural and volunteer response capacity is the binding constraint — NY's new 4-hour on-scene technical-support requirement answers exactly this gap.
- Multi-enclosure involvement made this an outlier versus the single-unit norm; enclosure spacing and spread analysis deserve scrutiny in permitting.
- Municipal readiness (training, pre-plans, vendor support contacts) is as decisive as hardware.

Key sources: northcountrypublicradio.org · firerescue1.com (4-day fire) · governor.ny.gov · convergentep.com/portfolio/chaumont-5

Commissioning-phase fire · 2 MW / 8 MWh distribution battery



Owner / operator	Idaho Power	Size	2 MW / 8 MWh (4-hour)
Supplier	Not publicly named (EPRI lists Powin)	Battery / chemistry	Lithium-ion
Enclosure	Outdoor stacks at substation	Phase	Pre-commissioning testing
Injuries	None	Root cause	PUBLISHED via county briefing: water intrusion

What happened

A 5:20 a.m. fire broke out in the small distribution-deferral battery during pre-commissioning testing. On the supplier's advice it was allowed to burn out without water, burning intermittently for about three days as fire spread between segments and destroyed several stacks. The substation itself kept operating. Neighbors were offered voluntary lodging; third-party air monitoring found nothing above health-based action levels.

Community impact

- No injuries; voluntary evacuation offers and a 200-foot perimeter.
- Several battery stacks destroyed; system written off before it ever entered service.
- Substation service was never interrupted.

Investigation & aftermath

The supplier's root-cause analysis — relayed publicly by Idaho Power in a presentation to Canyon County — found water intrusion into a defective unit caused a short circuit that ignited cells. Idaho Power then inspected its whole battery fleet for water intrusion and tightened supplier diligence.

Signals — technology & regulation

- Commissioning is a distinct risk phase: three briefs in this binder involve systems weeks or months old.
- Water ingress again — the single most repeated cause across published US root-cause findings.
- A small utility briefing its county with the actual RCA is a cheap, replicable transparency model larger operators have not matched.

Key sources: Idaho Power incident review: [agenda.canyoncounty.id.gov \(doc 1526\)](https://agenda.canyoncounty.id.gov/doc/1526) · ktvb.com · newsdata.com

Two-week fire with repeated reignitions · 250 MW / 250 MWh, building-housed



Owner / operator	LS Power (Gateway Energy Storage LLC)	Size	250 MW / 250 MWh
Layout	~6,700 racks in a ~95,000 sq ft building	Battery / chemistry	LG Chem, NMC lithium-ion
Enclosure	Building (indoor racks)	Age at incident	~3.7 years (COD Aug 2020)
Injuries	None	Root cause	Not public; EPA cleanup settlement (2025)

What happened

Fire broke out inside the building-housed facility — briefly the world's largest BESS at its 2020 debut — and kept reigniting, with flare-ups until about May 28. Crews mounted a defensive, cooling-focused response over roughly two weeks (about 8 million gallons of water by some accounts), and fire breached part of the roof. Evacuation orders and warnings covered nearby Otay Mesa businesses until May 21.

Community impact

- No injuries; about six days of evacuation orders/warnings for the surrounding business area.
- Thousands of modules damaged; EPA documents cite roughly 14,800 NMC batteries at the facility needing assessment.
- Two weeks of fire-service commitment and intermittent road closures.

Investigation & aftermath

No cause has been published. The US EPA stepped in under CERCLA, ordering and then settling (July 2025) a cleanup requiring LS Power to monitor and remove fire-damaged batteries at its own cost. San Diego County funded a fire-protection-engineering review of BESS standards but declined a moratorium.

Signals — technology & regulation

- Dense, building-housed NMC halls from the 2019–2020 design era are the worst-case geometry: reignition risk, firefighting-water management, and roof-breach exposure.
- Establishes the federal environmental template — owner-funded, EPA-supervised cleanup.
- The county's engineering-review-instead-of-moratorium response is a useful middle-path precedent.

Key sources: [epa.gov newsrelease \(Gateway cleanup\)](https://www.epa.gov/newsrelease/gateway-cleanup) · [response.epa.gov site 16485](https://www.epa.gov/response-epa-gov-site-16485) · [fox5sandiego.com](https://www.fox5sandiego.com)

Single-container fire, large precautionary evacuation · 30 MW / 120 MWh



Owner / operator	San Diego Gas & Electric	Size	30 MW / 120 MWh (24 containers)
Integrator	AES (Advancion 4 platform)	Battery / chemistry	Samsung SDI NMC-type cells
Enclosure	Containers	Age at incident	~7.6 years (COD Feb 2017) — oldest US failure
Injuries	None	Root cause	Not public (electrical fault or cell defect, preliminary)

What happened

A fire confirmed at 12:09 p.m. in one of 24 containers was confined to that container and allowed to burn out — about 13 hours, out and cold by 1 a.m. Mandatory evacuations covered a surrounding commercial zone of roughly 500 businesses, three schools closed the next day, and all orders were lifted by noon September 7. When it entered service in 2017, this was the world's largest lithium-ion BESS.

Community impact

- No injuries; containment held to one container of 24.
- Roughly 500 businesses under mandatory evacuation for about two days; three schools closed one day.
- Air and water sampling found no contaminants at public-health levels (ACP/FRA case study).

Investigation & aftermath

SDG&E and the Escondido Fire Department opened a joint investigation; preliminary reporting pointed to an electrical fault or a cell manufacturing defect, but no final public cause has been released.

Signals — technology & regulation

- Fleet aging is now a live question — the oldest-at-failure US system (7.6 years) sits mid-life for a typical 20-year contract.
- Evacuation-zone sizing, not fire spread, drove the community impact: siting near commercial density has costs even when containment works.
- Landed the same week San Diego County took up new BESS rules — timing amplifies policy response.

Key sources: kpbs.org · sdgetoday.com (utility updates) · energy-storage.news ('well managed')

12. Moss Landing 300 Fire — Moss Landing, California

January 16, 2025

Largest BESS fire in history · 300 MW / 1,200 MWh, indoor hall · reignition Feb 18



Owner / operator	Vistra Corp	Size	300 MW / 1,200 MWh
Layout	~100,000 LG modules, former turbine hall	Battery / chemistry	LG Energy Solution JH4, NMC
Enclosure	Building (indoor racks)	Age at incident	~4.1 years
Injuries	None acute during response	Root cause	Still not public (CPUC + Vistra, 18 months on)

What happened

Fire began mid-afternoon inside the battery hall; suppression could not stop the cascade and the blaze destroyed most of the system (EPA initially estimated 55% of batteries; later reporting put it near 80%), leaving the building a total loss. About 1,200–1,500 residents were evacuated overnight and Highway 1 closed for days; a major flare-up followed February 18. Smoke deposited nickel, cobalt and manganese across surrounding areas — San Jose State researchers documented roughly 55,000 pounds of metals in Elkhorn Slough marsh soils.

Community impact

- Evacuations of ~1,200–1,500 residents; ~6-day highway closure; widespread resident symptom reports now in litigation.
- Vistra took a \$400M write-off, is demolishing the building, retired the adjacent Moss 100, and canceled a proposed 600 MW Morro Bay BESS.
- Mass-tort litigation against Vistra, LG and PG&E consolidated before one judge.

Investigation & aftermath

No root cause has been published 18 months later; CPUC and Vistra investigations continue as cleanup grants access. EPA air monitoring during the fire found no ground-level hydrogen fluoride above health thresholds; the EPA–Vistra settlement governs battery removal (finished ~mid-2026) and demolition.

Signals — technology & regulation

- The design outlier: a dense indoor NMC hall predating NFPA 855 — not representative of modern outdoor, containerized, unit-isolated projects, which is the comparison every community now asks about.
- Triggered California's regulatory reset: CPUC GO 167-C (24-hour incident reporting, maintenance standards), SB 283, state fire-code updates — plus ~160 local moratoria nationally.
- Eighteen months without a published cause is itself the policy argument for mandated investigation timelines.

Key sources: epa.gov/ca/moss-landing-vistra-battery-fire · readymontereycounty.org · [SJSU: blogs.sjsu.edu](https://blogs.sjsu.edu) · insideclimatenews.org

13. California Flats Energy Storage — Parkfield, California

August 30, 2025

Contained Megapack fire · ~60 MW / 240 MWh in 84 Megapacks ■ **TESLA MEGAPACK EQUIPMENT**



Owner / operator	Arevon Energy	Size	~60 MW / 240 MWh (84 Megapacks)
Integrator	Tesla (Megapack)	Battery / chemistry	Tesla Megapack, NMC-era build
Enclosure	Outdoor containers	Age at incident	~4 years (online 2021)
Injuries	None	Root cause	Not public (Tesla Field Services responded)

What happened

A late-morning fire broke out in the Megapack yard at the California Flats solar-plus-storage plant on remote ranchland; the site's thermal detection system automatically alerted authorities. Four of 84 Megapacks were involved. With CAL FIRE as lead agency the fire was contained and extinguished within about 24 hours, with no injuries and no off-site property damage.

Community impact

- Precautionary 2-mile-radius evacuation order for about three hours in a sparsely populated area.
- 4 of 84 units lost; monitoring continued afterward and Arevon added 24/7 site monitoring.
- No off-site damage reported.

Investigation & aftermath

No cause has been released. As the second Monterey County battery fire of 2025 (after Moss Landing), it prompted the county Board of Supervisors to advance a moratorium on new BESS within days.

Signals — technology & regulation

- The modern-design contrast case: automatic detection, unit spacing and outdoor containment held the loss to 4 units in 24 hours.
- Contained is not community-neutral: post-Moss-Landing, even a well-handled event moved a county to advance a moratorium.
- Second Arevon/Tesla site fire in a month (see Townsite) — pattern questions about 2021–22 NMC-era Megapack fleets were immediately raised.

Key sources: [energy-storage.news](#) · [montereycountynow.com](#) · [newtimesslo.com](#)

Two Megapacks burned under let-burn doctrine · 90 MW / 360 MWh ■ **TESLA MEGAPACK EQUIPMENT**

Owner / operator	Arevon Energy	Size	~90 MW / 360 MWh
Integrator	Tesla (Megapack)	Battery / chemistry	Tesla Megapack, NMC-era build
Enclosure	Outdoor containers (114 units)	Age at incident	~3.8 years (online ~2022)
Injuries	None	Root cause	Undetermined — including whether unit 2 was spread or independent

What happened

One Megapack caught fire around 7 p.m. and burned for hours; a second ignited shortly before midnight while crews monitored. Per protocol, responders protected surrounding equipment and let the units burn; both smoldered for about two days. The multi-agency response drew Boulder City fire and police plus Henderson Fire. No resident evacuations were ordered; the nearby I-11/US-95 corridor closed briefly.

Community impact

- No injuries and no resident evacuations; brief highway-corridor closure.
- 2 of 114 units lost; days of visible smolder.
- Fueled the southern Nevada BESS siting debate; no regulatory action identified.

Investigation & aftermath

The cause remains undetermined, and investigators have not said whether the second unit ignited by spread from the first or failed independently — the technically important open question.

Signals — technology & regulation

- Adjacent-unit second ignition is the open engineering question: spacing and heat-shielding assumptions (UL 9540A test conditions) deserve field validation.
- Let-burn doctrine trades duration for avoided water contamination — but days of smoke shape public perception in ways hour-scale events do not.
- With California Flats a month earlier, sharpened scrutiny of the 2021–22 NMC-era Megapack fleet.

Key sources: fox5vegas.com · electrek.co (two Megapacks) · reviewjournal.com

15. SRP Bolster Substation BESS — Peoria, Arizona

October 1, 2025

Substation Megapack fire · 25 MW / 100 MWh · Arizona's third major BESS event ■ **TESLA MEGAPACK EQUIPMENT**



Owner / operator	Salt River Project (SRP)	Size	25 MW / 100 MWh
Integrator	Tesla (Megapack containers)	Battery / chemistry	Tesla Megapack, NMC-era build
Enclosure	Outdoor containers at substation	Age at incident	~4 years
Injuries	None	Root cause	Not public / under investigation

What happened

A large fire broke out shortly before 4:15 p.m. at SRP's battery system at the Bolster Substation, adjacent to the Agua Fria Generating Station on the Peoria–Glendale border. Crews from Peoria, Phoenix and Glendale responded; Northern Avenue was closed near 75th Avenue for hours as extended operations ran into the night. The battery was offline at the time and no electricity outages resulted.

Community impact

- No injuries and no reported evacuations.
- Hours-long closure of an arterial road during evening operations.
- No grid impact — the system was already offline.

Investigation & aftermath

No cause has been made public. Local coverage framed the event against 2019's McMicken explosion, crediting improved training, pre-incident planning and system design for the far better outcome.

Signals — technology & regulation

- Substation siting along arterial roads means traffic and response disruption even when nothing else goes wrong — worth modeling in siting studies.
- Arizona's arc is the industry's argument: 2019, four injured firefighters; 2025, a managed incident with none.
- Utility-owned substation batteries need the same emergency planning and disclosure as merchant sites.

Key sources: fox10phoenix.com · ktar.com (SRP confirmation) · azfamily.com