

Grid-Scale Battery Safety and your Community

Why Batteries? Our Commitment

As the world shifts towards cleaner, more sustainable energy, grid-scale batteries—like Tesla's Megapack—play a key role in storing renewable power and keeping the grid stable. Tesla doesn't just design every product for safety—we analyze and improve it every day, backed by decades of data, testing, and real-world experience.

If you have questions, we're here. This is your community—and we're committed to being good neighbors.



How Tesla Approaches Safety

The safest incident is one that doesn't happen. The next safest is one where the hazards have no effect on anything or anyone. Tesla understands that things happen. We want to be prepared, which is why we design to minimize the chance of an incident. We also design so that when the worst happens, the risks are known, and everyone is ready.

To deploy anywhere on earth, we must be prepared for anything. Our goal is to do the thinking, so you don't have to worry.

We take a layered approach:

- 1. Built-In Safety:** Non-occupiable enclosures designed to stop problems before they start to minimize risks to personnel and property.
- 2. Fire-Safe Site Design:** Sites are built on non-flammable ground, resilient to wildfire risks.
- 3. 24/7 Monitoring:** Our always-on software watches every Megapack to detect and correct issues.
- 4. Working with First Responders:** We partner with local fire departments, regulators, and government officials to train, plan, and share learnings. From code development to hands-on drills—we're in this together.



Megapack is a giant rechargeable battery (about the size of an RV!) that stores clean energy from sources like solar and wind. It helps keep the power on when demand is high or the sun isn't shining or the wind isn't blowing—like a big energy backup for the whole community.

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When it Comes to Battery Safety, Let's Debunk Myth vs. Reality

Myth

"Batteries are dangerous—they easily catch fire."

"If one battery catches fire, the whole site is doomed."

"Battery fires release toxic smoke and pollute the air."

"Nothing can prevent batteries from catching fire."

"First responders aren't prepared."

"Companies downplay battery risks."

"The technology is too new to be trusted."

Reality

Grid-scale battery systems are engineered with a focus on safety. Megapacks are 10x less likely to catch fire than a U.S. home and 300x less likely than a car on the road.

Each Megapack is an independent unit designed to limit fire spread, and both testing and real-world events show incidents remain localized with minimal impact to property and operations.

Emissions from battery fires are similar to a typical house fire. And with proper training, emission exposures are safely managed. Public health agencies have found no toxic health risks due to incidents.

Risks of battery fires are addressed through built-in prevention mechanisms and real-time safety monitoring. Trained service teams are on call 24/7 to respond to issues before they can escalate.

We actively train firefighters, work with local officials, and follow the latest fire codes and standards. We share knowledge that empowers informed responses and keeps communities safe.

Safety comes first. Our design and testing are validated by independent third-party reviews. We communicate risks honestly, investigate every event, and apply improvements across our fleet to protect people and communities.

Our battery technology benefits from 20+ years of design improvements, resulting in a global fleet of thousands of sites operating safely every day. Rigorous testing ensures that when failures happen, they are predictable and safe.