Safe, responsible, regulated utility-scale energy storage

We are dedicated to safety and sustainability – these are among our Core Values – and we uphold these standards in every single solar and storage project.

Storage benefits the grid in that it:

- Has the potential to reduce customer utility costs because storage helps defer the need to upgrade transmission systems.
- Storage provides back-up power during emergencies and helps to diversify our energy generation portfolio.
- Balances power supply and demand instantaneously, making the electrical grid more resilient and efficient.

All Lightsource bp solar and storage projects are designed, constructed and operated to the highest possible standards, and monitored 24/7. We run analytics and reporting on each site constantly, to make sure everything is performing safely and optimally, and we have the following protocols in place to ensure the safety of our projects:

Safety

Every Lightsource bp energy storage project is designed according to applicable local codes and standards such as International Fire Code (IFC), International Building Code (IBC), International Electrotechnical Commission (IEC), National Fire Protection Association (NFPA), and Underwriters Laboratories (UL).

All battery technologies deployed by Lightsource undergo large scale UL 9540A testing procedures to inform a hazard mitigation analysis, failure modes and effect analysis, and ultimately the design of required safety features. Lightsource engineering and procurement perform rigorous qualification and review of our equipment and integrator partners against compliance with such standards and procedures.

Typical safety features included in Lightsource bp energy storage projects include:

- 24/7 monitoring
- Visual and audio alarm systems
- Smoke detection
- Fire suppression systems as required
- Emergency shutoff F-stop

Local Partnerships

In addition to providing energy storage systems in accordance with globally recognized standards and procedures, Lightsource bp works with regional Governmental Authorities such as the local fire marshal to understand their requirements and concerns as it may relate to battery safety. Such requirements and expectations are ultimately included in Lightsource design, resulting in safe, reliable and community accepted energy storage projects. After project construction, Lightsource bp ensures that the local first responders are appropriately trained to respond to any emergency event.

Recycling

Lightsource bp is also committed to reusing and recycling as much of our materials as possible, at the end of our projects and throughout their lifespan, as part of our global commitment to sustainability, reducing waste and creating a true circular economy. Lightsource bp has initiatives dedicated to understanding the most sustainable and lowest cost solution to battery recycling, and repurposing batteries for second life applications. As part of that, Lightsource bp is continuously surveying the existing and upcoming market for recycling and second life applications to ensure the impact to the environment is the lowest when a project is decommissioned.

Relevant National and International Standards

- NFPA 855: Standard for the Installation of Stationary Energy Storage Systems: Standard provides the minimum requirements for mitigating the hazards associated with energy storage systems.
- International Fire Code: Code contains regulations to safeguard against fires and other hazards and addresses general precautions, emergency planning and preparedness, fire department access and water supplies, automatic sprinkler systems, fire alarm systems, special hazards.
- UL9540: Energy Storage Systems and Equipment: A safety standard for energy storage systems and equipment intended for connection to a local utility grid or standalone application.
- UL9540A: Test Method: Method delineates procedures for testing the fire safety hazards associated with propagating thermal runaway within battery systems.

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