



**LITHION**  
TECH

**Utility &  
Commercial  
Battery Energy  
Storage  
Solutions &  
Support**

**Life Uninterrupted.**

# The Future of Energy is with Industry Leading BESS Technology.

Lithion Tech is a battery manufacturer & industry-leading partner of best-in-class utility-grade LFP Battery Energy Storage (BESS) technologies & support.



## Smart Battery Designs for High Demand Applications.

- Proprietary Battery Management System
- Pioneers of Lithion Iron Phosphate Battery Technology
- Cobalt-free LFP Battery Chemistry
- Intuitive & customizable dispatching for ideal economic operation



Soon to be manufactured in USA.



## Unparalleled Reliability, Unparalleled Quality.

- UL1741SA, UL9540, UL9540A tested
- Outdoor ratings IP65, IP55, IP54
- 10 yr warranty
- Scalable & cyber secure
- 25+ years of R&D

Uncompromising battery solutions & technology.

## Achieve Power & Energy Goals with Gridbox.

### Best-In-Class, Utility-Grade LFP Battery Storage

- Giga-scale projects
- All-in-one system
- 40% less space
- Fully-integrated system
- Advanced real-time monitoring
- Low-cost, high density

### Peak Shaving & Demand Response

Discharge at times of peak load to reduce demands on distribution & transmission infrastructure.

#### Microgrids

Build a localized grid that can disconnect from the main power grid.

#### Renewable Energy Smoothing

Increase load during off-peak (charge) & discharge during peak hours.

### T&D Investment Deferral

Postpone costly grid infrastructure upgrades by supplying power at distributed locations.

#### Virtual Power Plant

Ability to aggregate multiple energy assets (DERs).

#### Frequency Regulation

Maintain grid stability.

#### Increased EV Charging

Build a localized grid support for increased charging demand.



## Engineered Solutions & Support.

Lithion Tech enables low-cost, high power density residential to gigawatt-hour scale battery & cell solutions. Our BESS solutions are focused on reliability at the lowest cost of ownership.

Lithion Tech's LFP battery offerings are the safest & smartest in the market. Our scalable solutions are available with significantly shorter lead-times than any other product on the market.



## Partnership & Support at Every Step of the Process.

With more than 50 years of combined engineering & battery technology experience, our solutions provide maximum safety, reliability, optimized performance & long-lasting lifecycles. 24/7 US-based support.

Our team supports projects that include energy storage for any capacity with cross-functional scopes. Lithion Tech's world-class solutions are implemented globally to help achieve power goals & resiliency.

## Scalable Solutions for Any Size.

- Isolates every module & pack for redundant safety.
- Each battery pack has built in sensors in the circuitry to monitor temperature & voltage for continuous operation at correct & safe ranges.

## Pre-assembled & Pre-Tested.

- Includes battery modules
- Bi-directional inverters
- Isolation transformer
- Thermal management system
- AC main breaker & control system
- Energy capacities are highest single container capacity on the market
- 1 GWh+ scale projects enabled
- Up to 2.7MW discharge / unit
- Multiple voltage interconnection
- Black start / grid connected with off-grid capability
- Fully embedded Analytics
- Best-in-class connectivity & cyber security



We create *Total Optimization* by bringing together application engineering & expertise in Battery Energy Storage Solutions.



*So the lights stay on when the power goes out.*

# 200MWh+ Installed to Date.



## Project Profiles:

### Dominion Energy (DVP) Community Solar Program

**Overview:** DVP contracted with Lithion Tech to support a variety of tasks critical to developing 30MW of solar photovoltaics. To date, Lithion Tech has completed screening assessments for more than 50 sites, providing detailed studies and bid reviews.

**Project Scope:** *Lithion Tech executed the following:*

- High level screening assessment of prospective sites using aerial & GIS imagery
- Preliminary project design & performance analysis
- Site & structural assessment, including roof inspections & utility distribution equipment
- Developed project specifications to be provided to EPCs as part of the bid process
- Completed a preliminary economic analysis of expected project capital, in addition to est. O&M costs
- Reviewed EPC bid packages and final design, providing detailed financial & risk review for all vendors & proposed equipment
- Continued support on project inspections, performance evaluations & reporting
- Completed projects include ground mount & floor arrays

### Cupertino Energy Customer 3.5MWh

**Overview:** Our integration customer needed a 1MW, 3.5 MWh battery energy storage solution for microgrid with solar and fuel cell technologies at a large corporate headquarters in Cupertino, CA. The project was completed in 2018. The primary uses were for peak shaving, frequency regulation, backup power, and load shifting.



### United States Navy (5MWh + ESS Project)

**Overview:** The United States Navy hypervelocity weapons experts use powerful and reliable batteries to power the electromagnetic railgun. Stewart Graham, of Lithium Tech and Lithion Battery, developed the design of the Lithium Iron Phosphate Cells used in this ESS system and oversaw the manufacturing.

**Project Scope:** *Lithion Tech executed the following:*

- Designed the fully, self-contained ESS solution needed to provide energy to power the capacitor banks for the future electromagnetic railgun
- The LFP battery chemistry used in the system was the first of its kind to address the following: safety, life, power, and environmental friendliness.
- Electromagnetic railguns shoot nonexplosive shells at a speed of Mach 8 - eight times the speed of sound, or roughly 6,000 miles per hour. At that speed, the weapon does not require explosives as it uses the kinetic energy. Lithion Tech's batteries provide the power and resiliency needed to accomplish this in some of the most unforgiving conditions that exist.

#### **Headquarters:**

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#### **Manufacturing:**

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