

BATTERY ENERGY STORAGE AND MICROGRID SERVICES

127 Energy is a battery energy storage, solar PV, and microgrid finance and development company. We work with select customers to drive down energy costs and deliver resilient energy systems for grid-tied and off-grid applications. Our team has industry leading project experience and we're confident in our ability to deliver unique technology insights, project feasibility services, and actionable execution plans. Below you will find an illustration of how we work with customers to achieve their goals.

Project Feasibility

127 will analyze a facility's unique energy needs and provide a comprehensive, actionable report including design scenarios, project cost estimates, financial analysis and recommended approaches. In order to achieve this we will analyze:

- > Historical energy consumption including a minimum of 12 months of utility bills with interval data

- > Peak shaving/demand reduction, EV charging, energy shifting, TOU energy arbitrage and resilience

- > Project siting and schematic design including:
 - > Optimal solar and storage sizing and equipment layout
 - > Solar modules and racking solutions, battery energy storage systems and all related and ancillary equipment
 - > Power controls and grid isolation
 - > Interface with existing electrical service

- > Federal, state and utility incentives, rebates and tax credits

- > Optimal utility rate schedule

- > Third-party finance (hybrid power purchase agreements, roof and ground leases, solar operating leases)

Project Development

Following project feasibility, our team can take your project from design and engineering all the way through financing, permitting, interconnection, construction, commissioning, and O&M.

The following table illustrates our energy storage options and associated specifications. We offer various sizing and configurations, tailored to the unique needs of each customer in order to optimize the value of solar PV and energy storage.

BATTERY ENERGY STORAGE OPTIONS



System Options	Small Commercial	Medium Commercial	Large Commercial	Small Industrial	Medium Industrial	Large Industrial
Features	On-Grid or Off-Grid Peak Shaving TOU Energy Arbitrage Integrates with Solar PV and Back-up Generators					
Standard Components	Batteries Inverter Enclosure Microgrid Controller Battery Management System Transfer Switch					
Battery Inverter AC Rating (kW)	125	250	500	1,000	2,000	4,000
Battery Capacity (kWh)	128 256	256 512	500 1,000	1,000 2,000	2,000 4,000	4,000 8,000
Duration of Discharge*	1-2 Hour Minimum					
Dimensions (D x W x H)	76 in x 119.6 in x 32 in	76 in x 239.2 in x 32 in	20-Foot Container		1-2 40-Foot Containers	2-5 40-Foot Containers
Weight	2.6 tons 5.2 tons	5.2 tons 10.4 tons	10-20 tons [+/-]	15-35 tons [+/-]	35-65 tons [+/-]	60-120 tons [+/-]
Warranty	15 Years or 8,000 Cycles		10 Years 20-Year Warranty Extension Option			
Nominal Battery Voltage	819 VDC		666 - 1126 VDC			
Nominal AC Voltage	480V - 3 Phase					
Operating Altitude	100% Effective up to 6,500 ft. (2000m)					
Operating Temperature	-4 °F- 113°F		32 °F- 131°F			
Seismic	Seismic Wall and Floor Mount		PE Certified IBC Seismic Zone 4			
Certification**	UN38.3, UL 1973, UL 1741-SA, UL 1973 & UL 9540					
Enclosure Type	Indoor (NEMA 1) or Outdoor (NEMA 3R)					
Operation Mode	Grid-tied Island Mode/Off-Grid Black Start					

*Increased capacity is available upon request

**Additional state or utility requirements based on customer location