



ENERGY VAULT®
Enabling a Renewable World



VAULT-BIDDER™

Optimize dispatch and revenue across markets

Revenue optimization matters. Maximizing an asset's lifetime financial returns requires advanced automated bidding capability paired with predictive modeling and simulation to ensure robust long-term results. Staying ahead of the curve means accounting for physical and contractual constraints to co-optimize across assets and regulated markets.

Vault-Bidder™ provides the intelligence required to enhance asset revenue stacking across forward and real-time markets for energy and ancillary services. Learning algorithms prepare compliant bidding blocks based on user parameters, as well as historical and forecast data. Vault-Bidder™ utilizes this information to ensure market-conscious maintenance windows, resulting in high-value uptime.



INTELLIGENT

Leverage advanced optimization of rolling forecasts and diverse data inputs to recommend and update bids



FLEXIBLE

Harness advanced bidding capabilities for diverse storage technologies, across individual assets or entire fleets



ADAPTABLE

Stay up to date as market rules, customer-defined parameters, and regional dynamics change



INFORMED

Bid confidently with storage asset status data from VaultOS™ to fulfill market and contract obligations while safeguarding system health



SECURE

Ensure your data is protected and secure to manage bids and integrate with scheduling coordinators

BIDDER

Vault-Bidder™ starts with a high-level summary of all assets within an operating portfolio, allowing at-a-glance operational views by region, market, and custom asset group. It also offers head-to-head site comparisons, allowing direct benchmarking across assets.

Users can drill down to targeted operational views for each site to get summary status for onsite EMS, equipment, and key performance indicators. Single site performance is rolled up against perfect knowledge after-the-fact to highlight daily metrics and long-term trends.



BID SIMULATOR

Leverage a controlled testing environment to understand how a given asset could have performed using diverse bid strategies and perfect knowledge.

Accelerate long-term performance optimization at both site and portfolio levels by enabling deep machine learning capabilities.



MARKET BIDDING

Participate in and easily adapt to a variety of wholesale markets with advanced co-optimization of market products. Layer user-selected risk posture with expected state of health (SoH) impact, 3rd party forecasts, physical constraints, and contractual requirements to optimize bids.

Submit bid blocks automatically while maintaining manual override capability.

ANALYTICS



TAILORED OPERATIONS

Enable full user control of market risk posture based on performance of the model against real historical data.

Customize operational preferences to adjust incoming forecasts and enable operator insights to modify confidence parameters of incoming model data.



MAINTENANCE PLANNING

Optimize revenue with a 6-day market price forecast to avoid downtime during peak revenue market intervals. Incorporate maintenance plan baselines into long-term scheduling to allow for site staging of maintenance personnel and equipment prior to a major outage.



REPORTING

Get insight into lifetime site performance, trend analysis, and historical event tracking with a one-stop-shop for key operational and executive reporting.