Maximizing Battery Storage Revenue in New York

Capturing VDER's Value Stack with Stem

New York established energy storage as a key part of its clean energy strategy in 2018 and remains a leading U.S. storage market today. The state's Value of Distributed Energy Resources (VDER) tariff, or Value Stack, compensates solar and storage based on when and where they supply power, making project economics highly location dependent. Battery storage projects may also qualify for additional programs and incentives, including the Dynamic Load Management (DLM) Program, NYISO wholesale market participation, and the Retail Storage Incentive Program (RSIP).

As an expert in the New York market and a global leader in intelligent energy storage systems, Stem collaborates closely with developers to identify and design high-potential projects, track policy changes, navigate complex application processes, manage asset performance, and maximize project returns.

The VDER Opportunity

1. Price Stability & Revenue Forecasting

The VDER Value Stack provides fixed compensation periods, reducing financial risk and improving long-term revenue predictability.

2. Holistic, Value-Based Compensation

Storage is compensated for multiple grid benefits, including energy exports (LBMP), capacity (ICAP), emissions reductions (E), and demand relief (DRV/LSRV).

3. Strong Policy & Program Support

VDER is a core part of New York's Energy Storage Roadmap with ongoing expansions and regulatory backing to support deployment.

4. Stackable Incentives & Market Participation

Projects can combine VDER with NYISO market participation, Dynamic Load Management (DLM), and the Retail Storage Incentive Program (RSIP) for enhanced returns.

The Stem Difference

Stem's Managed Programs team provides full support for VDER projects; including asset enrollment support, performance monitoring, reporting, and ongoing management. For VDER Alternative 3 assets, where standalone storage revenue depends on discharging during peak demand events, we carefully balance ICAP peak revenue and DRV earnings. To navigate these tradeoffs, our AI enabled software engine dynamically calculates potential revenue each hour, optimizing between ICAP and DRV opportunities. Meanwhile, our dedicated Programs team continuously monitors asset performance and load forecasts, stepping in manually when necessary to ensure peak demand events are accurately captured.

Proven Performance

5+ GWh of storage across 1,000+ sites and
25+ GW of solar across 200,000+ sites worldwide

100% success rate in capturing the
Alt 3 ICAP peak hour in NYC

AI-Driven Optimization

Stem's optimization software dynamically balances ICAP peak revenue and Demand Reduction Value (DRV) for maximum returns. Real-time monitoring and manual intervention ensure peak capture

Scalability & Support

Stem provides expertise across C&I and utility-scale projects with comprehensive services from project evaluation to operations & revenue management

Flexible, End-to-End Solutions

Our modular and interoperable platform integrates with both new and legacy systems

Open Architecture

Our open architecture works seamlessly with third-party systems, PPC, SCADA, and non-proprietary edge solutions

About Stem

Stem is a global leader in AI-enabled software and services, empowering customers to plan, deploy, and operate clean energy assets for large-scale energy storage projects. Whether deploying standalone systems or storage paired with renewables, Stem offers a comprehensive suite of software, edge, and services solutions that support clients throughout the entire project lifecycle.

With project economics hinging on multiple VDER value streams and key rules on dual participation in wholesale and retail markets still evolving, developers need a flexible and proven solution. Stem's software, powered by advanced AI, operates the world's largest energy storage network and brings more optimization and market participation experience than any other storage software. Athena® maximizes value for project developers through industry-leading forecasting, optimization, and controls, ensuring access to the highest-value revenue streams as regulations and energy markets continue to evolve.

Project Highlights

BQ Energy
Mt. Kisco, NY

Facility Type: FTM Solar + Storage
Storage System Size: 522 kW / 2.1 MWh

DSD
Rotterdam, NY

Facility Type: FTM Solar + Storage
Storage System Size: 2.5 MW / 10 MWh

NineDot Energy
Staten Island, NY

Facility Type: FTM Standalone Storage
Total Capacity: 6 sites totaling 110 MWh

**To learn more about Stem's solutions for
the New York market, email sales@stem.com**

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