

Maximise Your Battery ROI How Sympower Brings Value to BESS Projects

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As Europe's energy systems rapidly shift toward renewables, battery energy storage systems (BESS) are becoming essential to enable a flexible, stable, and efficient grid. Whether in mature energy markets or emerging ones, developers and asset owners face growing complexity in capturing value from their batteries. Sympower partners with these stakeholders to unlock the full potential of BESS assets - through technical integration, market access, and top-notch optimisation.

This case study outlines how Sympower works with BESS clients to deliver revenue-generating, future-proof projects.



Our End-to-End Strategy for Profitable BESS Optimisation

Sympower's engagement with BESS clients follows a structured, hands-on process designed to maximise returns while reducing complexity and risk. Our approach includes:



Step 1:

Early Engagement and Business Case Modelling

We begin with a deep-dive into the local market and specific project characteristics. Sympower builds tailored revenue forecasts, including sensitivity analysis and risk assessments, across relevant balancing and wholesale markets. This guides key decisions around sizing, technology, and co-location.



Step 2

Structuring the Commercial Offer

Depending on the client's risk appetite and investment goals, Sympower proposes a commercial structure. Options include tolling models, revenue share, SaaS subscriptions, or revenue floors - each designed to balance upside participation with bankability.



Step 3:

Prequalification and Onboarding

We handle the technical and regulatory onboarding process, including prequalification (PQ) for relevant market programs. This covers testing, documentation, and direct coordination with TSOs or DSOs. Sympower's team has extensive experience in managing PQ timelines and avoiding go-live delays.



Step 4:

Grid Integration and Controls

The BESS is connected using our EMS and local controller, providing compliant and secure communication between asset and market. Our "top-layer EMS" allows local control for ancillary services, and ensures seamless dispatch across markets. For assets facing transformer or grid subscription limits, Sympower's MaxGuard module ensures compliance without curtailing value.



Step 5

Go-Live and Market Participation

Once the asset is live, Sympower executes the agreed trading strategy across all accessible markets. This includes day-ahead, intraday, mFRR, FCR, and other balancing services, depending on the location and asset configuration.



Step 6

Continuous Optimisation and Reporting

Sympower's algorithms continuously update bidding behaviour based on forecasts, historical data, and asset performance. Clients receive transparent performance reports, including market benchmarks, availability, battery health, and captured revenues.





Sympower uses a mix of historical data, forward-looking market projections, and scenario modelling to estimate gross revenues for each BESS asset. We account for technical constraints (such as duration, degradation, efficiency), and build forecasts that simulate market dynamics across timeframes.

We offer flexible commercial models that align with client needs:

SaaS Subscription

The client retains operational control and pays for access to Sympower's optimiser and analytics.

Revenue Share

The asset owner receives a percentage of the revenues earned, aligning incentives for both parties.

Revenue Floors

Sympower guarantees a minimum annual revenue, often used to support project financing or de-risk merchant exposure.

Tolling

Sympower pays a fixed rate for use of the asset, taking on market risk and optimisation responsibility.





Beyond software, Sympower delivers the infrastructure to connect and control BESS units effectively. Our integration kits include frequency meters, Modbus TCP connectivity, 4G and LAN redundancy, and built-in compliance with market-specific requirements.

We also support site-level constraints, such as grid subscription caps or transformer limits. In these cases, MaxGuard ensures real-time adherence to DSO limits without compromising on market opportunities.



Unlocking Full Value Through Market Optimisation

Sympower does more than provide a route to market, we act as a specialist optimiser. Our trading algorithms forecast market prices, activation probabilities, and SoC levels to create optimal bids in real time. This approach outperforms generic trading platforms and enables advanced strategies such as:

- Market stacking: simultaneous participation in multiple services
- Strategic SoC cycling to protect battery health
- Intraday repositioning to enhance mFRR availability
- Bid modulation to reduce unwanted activations in long-duration markets

Sympower's optimiser evolves over time, learning from market conditions and past results to improve bid accuracy and performance. In complex markets, this difference can translate to double-digit gains in gross revenue compared to average operators.



Precision Management of Charging, Discharging, and State of Charge

Charging and discharging strategies are core to long-term profitability. Sympower ensures that BESS units avoid excessive cycling and energy waste through active SoC management. Our optimiser considers activation duration, historical grid behaviour, and future market opportunities to schedule charging in low-price windows and discharge when value is highest.

For markets with unpredictable activations, such as mFRR, we design trading strategies that balance availability with energy preservation, helping BESS assets avoid energy depletion during long activation runs.

In tandem, our Asset Health Management tools track degradation, temperature profiles, and performance indicators to ensure battery longevity and compliance with warranty conditions.



Sympower's philosophy is based on transparency, collaboration, and long-term alignment. We are independent - we do not own BESS assets or prioritise our own portfolio - and we operate in partnership with local teams, TSOs, and developers.

Our goal is not just to get assets online, but to make them outperform, sustainably and consistently. Whether you are a first-time BESS investor or managing a large-scale fleet, Sympower provides the tools, expertise, and flexibility to future-proof your energy storage business.



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Powering Change Together





