

Battery storage in Co-Locations

Turning flexibility into revenue opportunities

We drive energy



e2m is one of the largest marketers for energy and flexibility from decentralized and new energy sources in Germany.

2.600

 MW

Installed capacity from renewables



We enable renewable and decentralized plants to operate in line with the market and with optimal returns.



High-availability and fail-safe IT infrastructure connects the plants to the markets..

150

Employees



EDF is e2m's strong partner for successful synergies.

We drive synergies



e2m – Your partner for profitable storage marketing

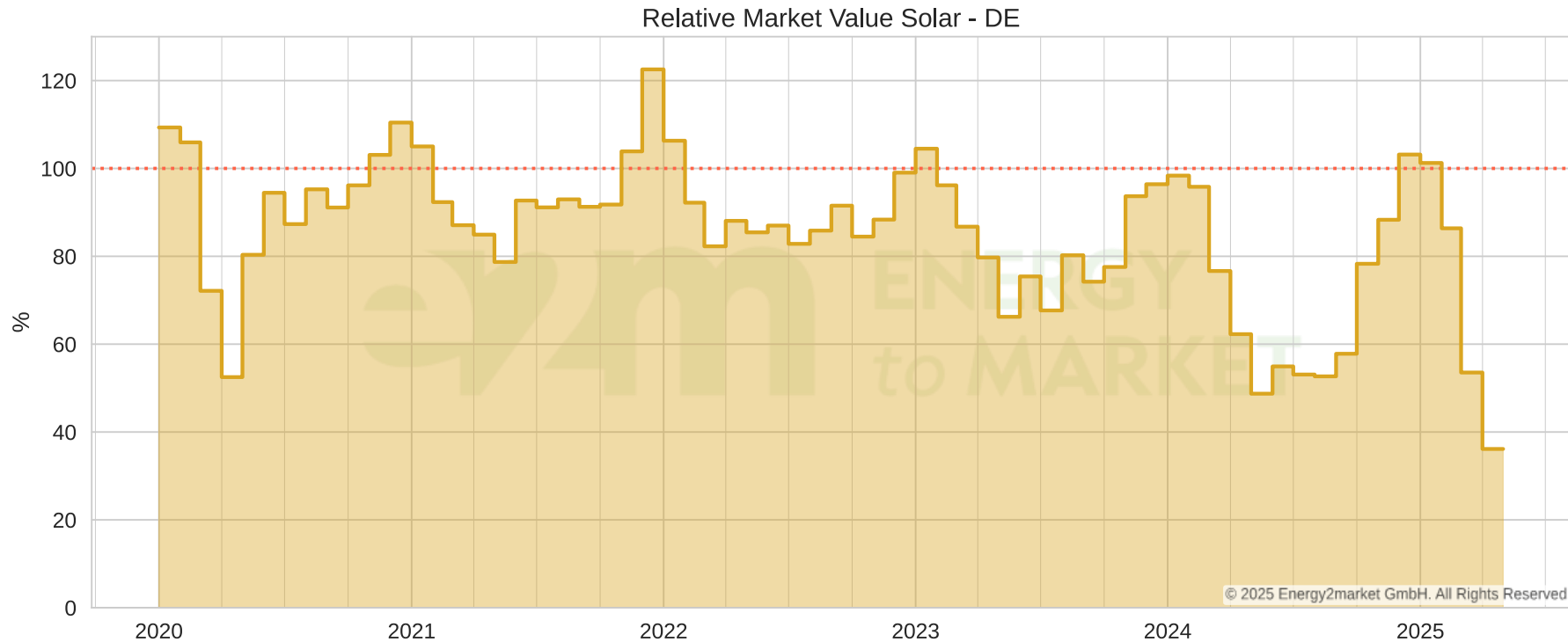


- **10 year & >2GW experience** – Proven track record with EDF across Europe
- **System excellence** – Technical & economic optimization from design to dispatch
- **Fast market entry** – Prequalified & connected via our VPP
- **One-stop solution** – Own platform, no third-party frictions
- **Flexible contracts** – Tolling, profit-sharing, floors – tailored to your needs
- **Bankable partner** – Backed by EDF – strong, transparent, creditworthy

The battery advantage in Co-location

Risk mitigation meets market opportunity

Stand-alone PV faces increasing challenges – curtailment is inevitable



Market value PV

Summer 2024 < 50 %

Development negative hours:

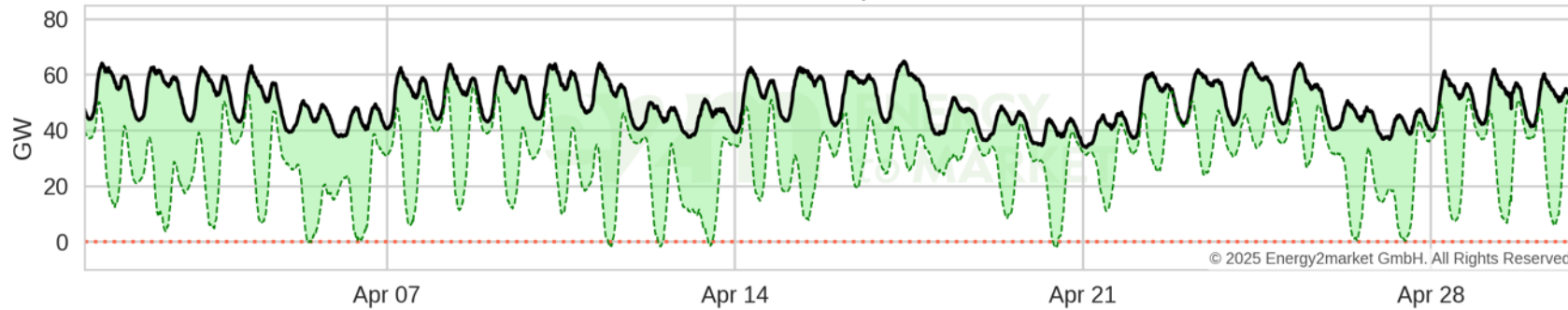
2022: 69 h

2023: 301 h

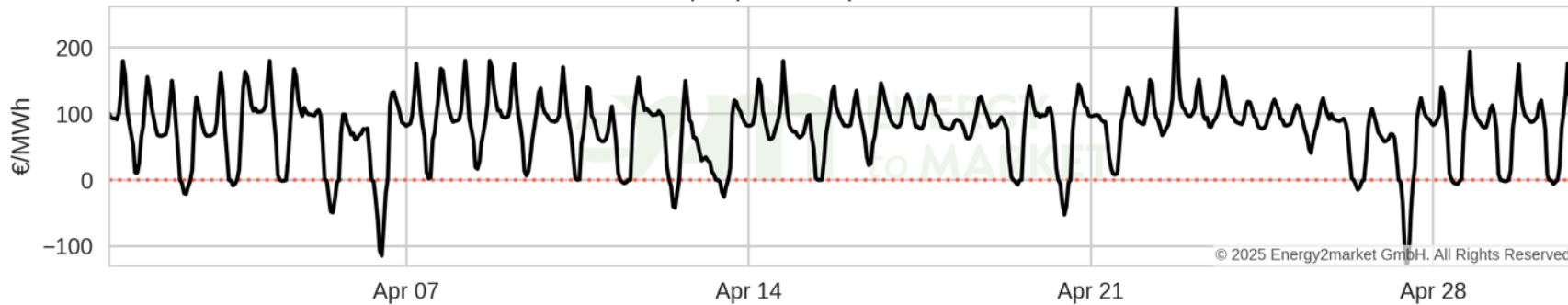
2024: 459 h

Expansion of renewables drives volatility in market prices

Residual Load in April 2025 - DE

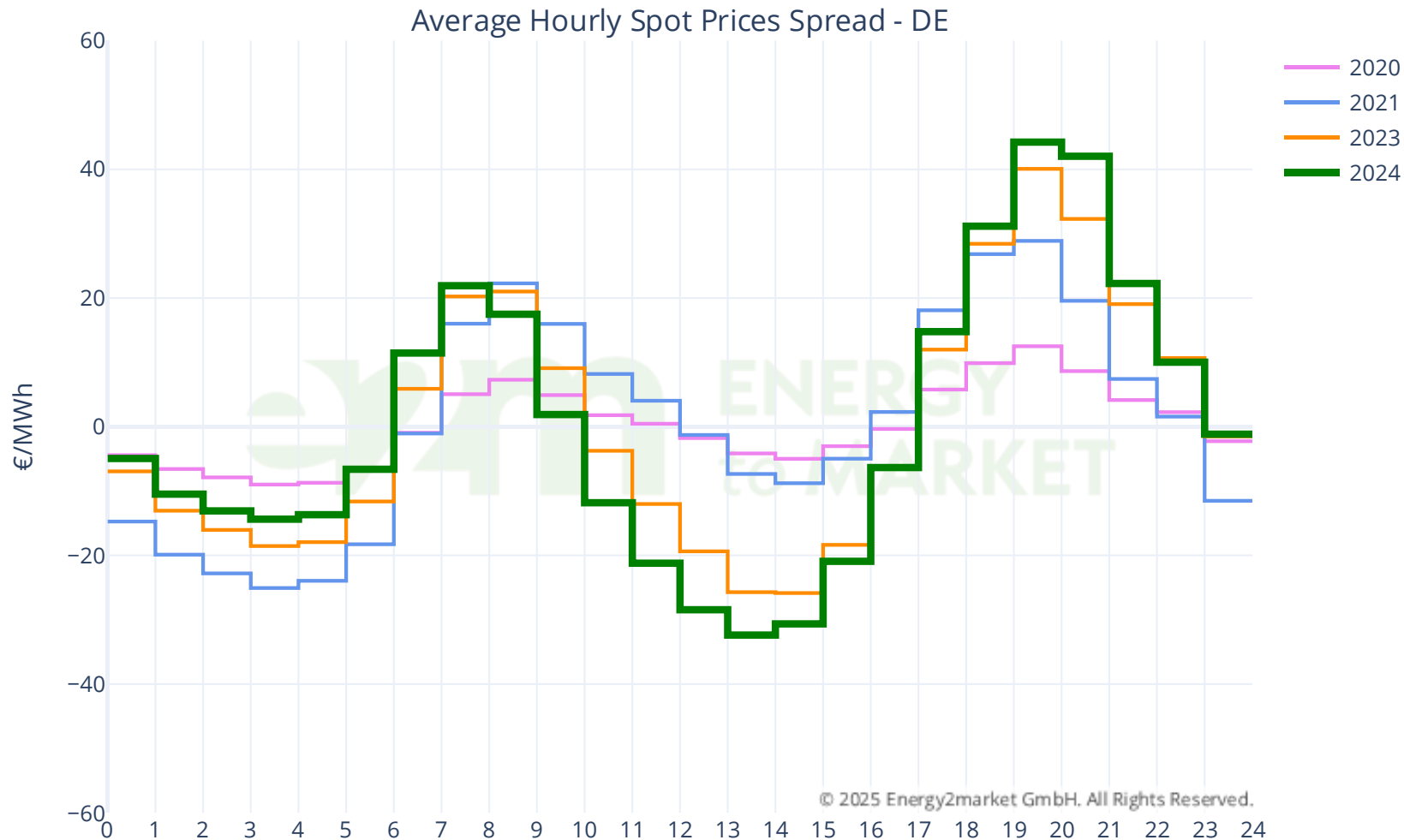


Spot price in April 2025 - DE



- Growing grid constraints force frequent curtailment of stand-alone PV
- Curtailment reduces revenue and hampers project economics
- Need for expert marketers who can optimize and manage these constraints

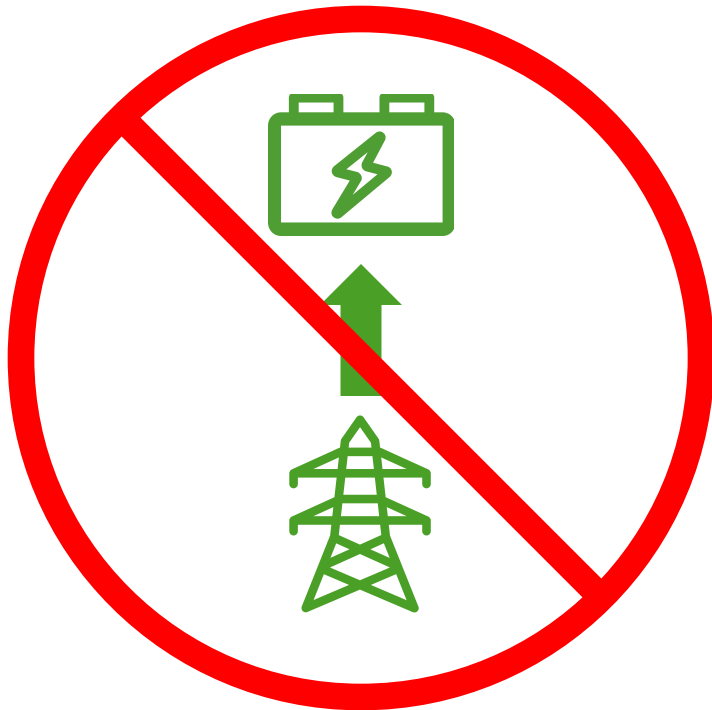
Average spot price spread in Germany



- Growing price spreads between midday and shoulder hours indicate an increasing need for flexibility

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Standalone batteries yield significant revenue but face grid connection hurdles



- Multi-market optimization unlocks ~€270k revenue per MW annually
- Network connection remains a major bottleneck delaying deployment
- High CAPEX and complex grid approval processes challenge standalone batteries

Turning constraints into capabilities: The power of co-location



Advantages of co-location projects

- ✓ Lower grid connection costs
- ✓ Shared infrastructure
- ✓ Faster permitting and deployment
- ✓ Future-proof setup aligned with renewables growth

Combining PV and storage transforms volatility into value

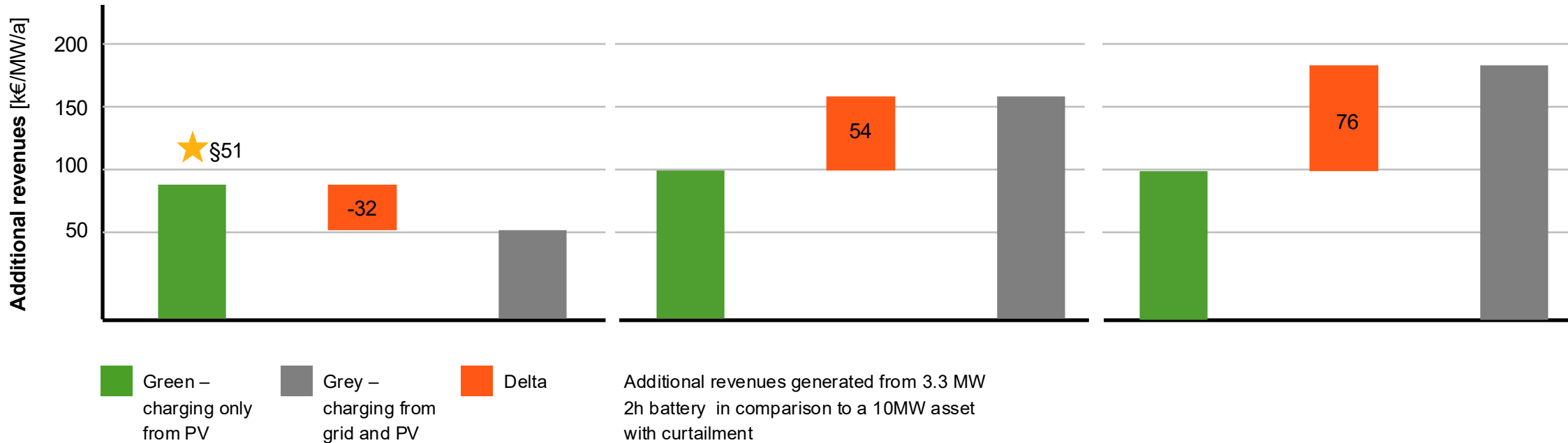
Green vs. grey: 3.3 MW 2h battery



No negative-hour-rule
AW: 91.7 €/MWh

4 h-rule
AW: 62 €/MWh

15 min-rule
AW: 47.6 €/MWh

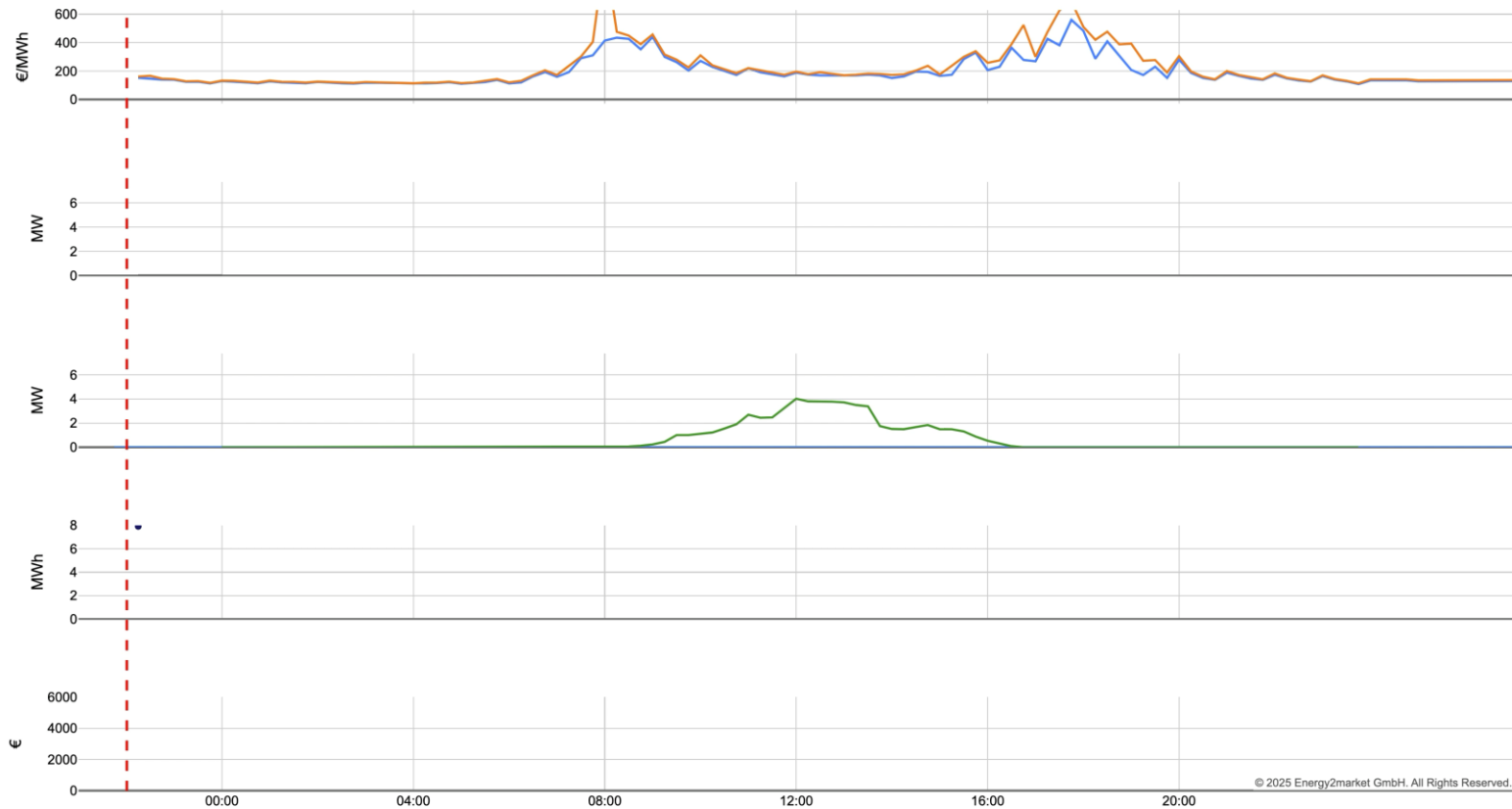


Start with green power – upgrade later

- **Profitable today:** Attractive revenues through feed-in or direct marketing, proven and incentivized technology
- **Faster grid connection:** Lower grid impact enables earlier approval and connection
- **Priority for future grid supply:** Early projects are better positioned for future access to grey power
- **Strategic flexibility:** Green setups can transition to grey power later as regulation evolves

Combining PV + battery storage = transforming volatility into value

Intraday optimization of a PV-storage Co-location without grid connection



- Price
- Bid Price
- Ask Price
- Intraday schedule
- PV + curtailment
- PV forecast
- Battery charging level
- Revenue

- Combined PV + Battery projects benefit from balanced cash flows
- Battery value increases with more negative price hours; PV value rises with fewer
- Overall more stable revenue reduces financing risk and improves bankability





Let's talk co-location success!

Unlock the full revenue potential of your system with optimized flexibility marketing.

- Smart optimization unlocks battery value
- Co-location reduces barriers and increases ROI
- Contact us to explore your project potential!

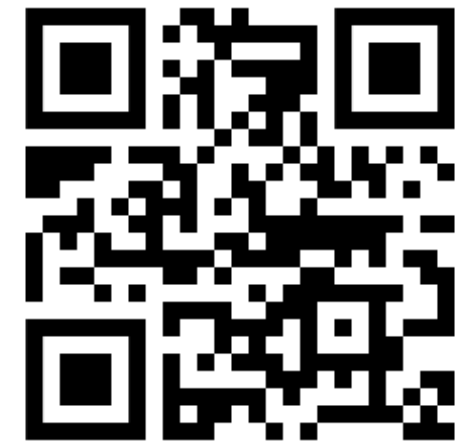
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