

Life After Balancing Market Crash

Navigating Saturated Markets and Building Profitable BESS Strategies for
the Future

Gridle

ELISA INDUSTRIA

Markus Logren (M.Sc. Tech, Power Engineering)

12+ years of expertise in energy business:

- BESS Optimization and route-to-market services (Gridle)
- Fleet optimization and trading operations development (Helen)
- EV charging services (Helen)
- Industrial demand response (Helen)
- Energy management services (L&T)
- Certified Energy Auditor



What is Gridle?

- Multi-market optimization & trading for utility-scale BESS with +500 MWh contracted capacity
- 5+ years of navigating Finland's evolving markets with a +4-hour battery fleet
- Backed by Elisa's €3.5 billion balance sheet and 140 years of critical infrastructure expertise
- Part of Elisa's global software business, Elisa Industrio, with customers in 60 countries



Forus
15 MW / 30 MWh



Vantaan Energia
10 MW / 10 MWh



Nivos
10 MW / 20 MWh



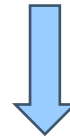
AkkuX
5 MW / 10 MWh



Loviisan Lämpö
1 MW / 100 MWh

Heavy BESS influx generated distinctive reserve market supply shock

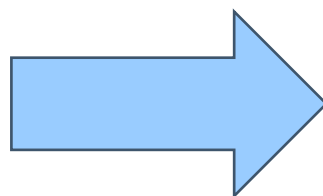
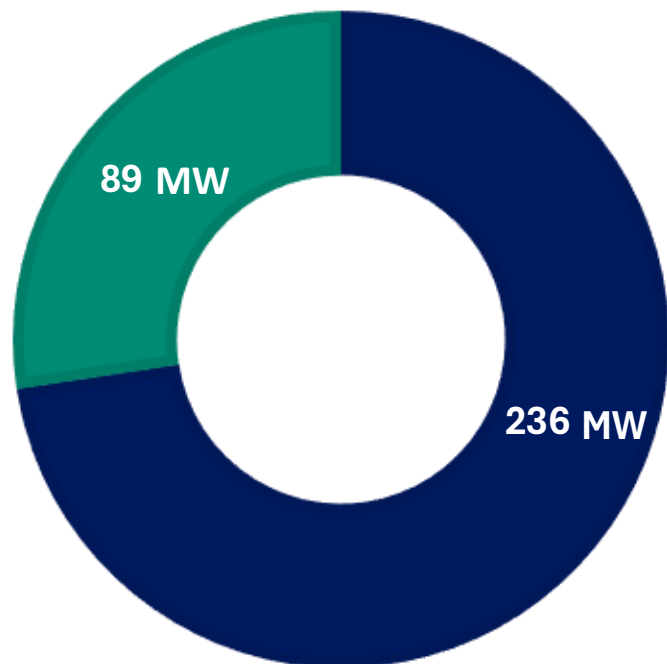
- Very attractive reserve market prices in Finland caused a supply (or gold) rush to **relatively shallow reserve markets**
- **2+ GW** grid-connected MW-scale BESS and **105** BSP's registered in a relatively small system (15GW / 85 TWh)
- Reserve market capacity prices (aFRR, mFRR, FCR) went down **90%** in just three months
- Even increasing demand for reserves wasn't able to balance the price erosion



BESS covers 50% of aFRR

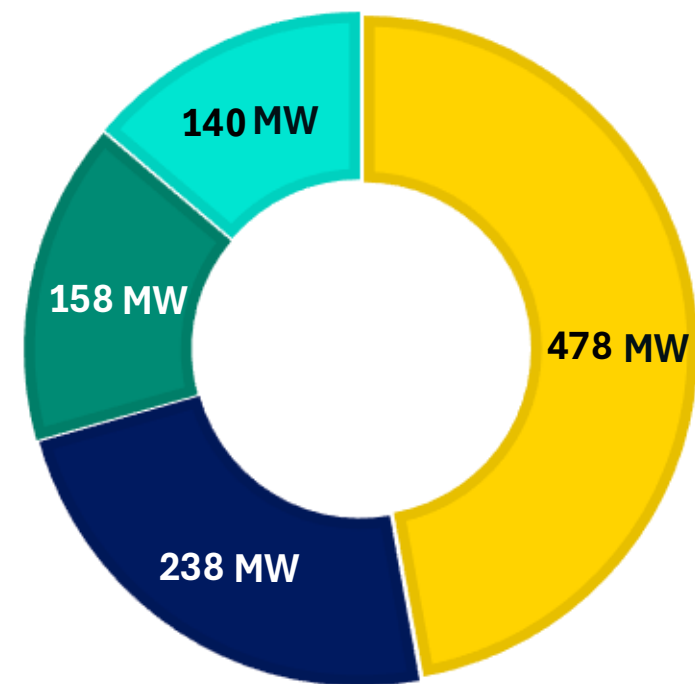
**FINGRID 2024:
PREQUALIFIED AFRR CAPACITY (MW)**

- Production (Hydro, Wind power)
- Consumption & Energy storage

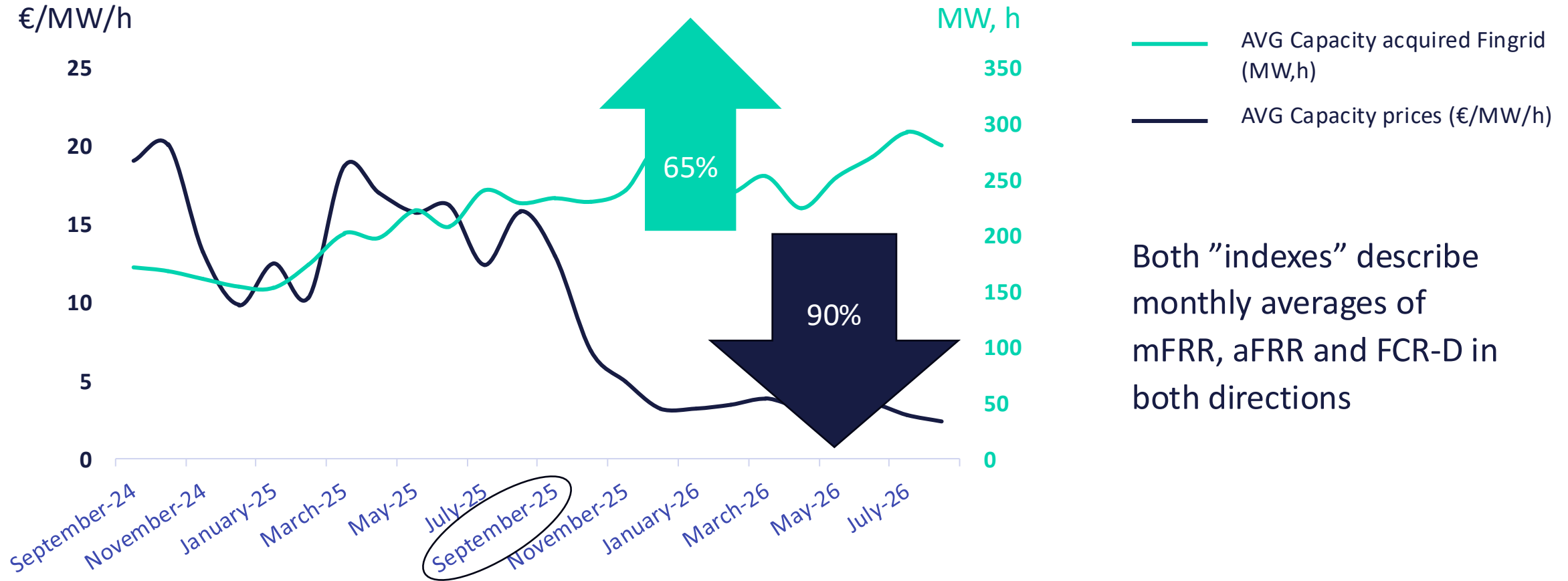


**FINGRID 11.5.2026:
CERTIFIED AFRR CAPACITY (MW)**

- Energy storage
- Consumption
- Hydropower
- Other production (Wind, CHP)



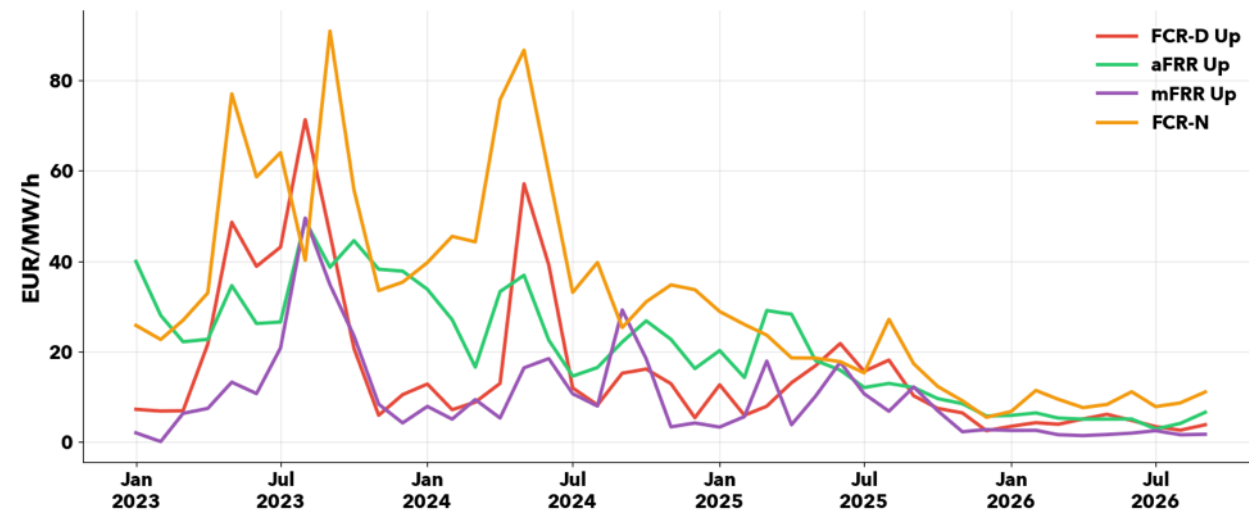
aFRR, mFRR and FCR capacity prices tipping point reached in Sep-25



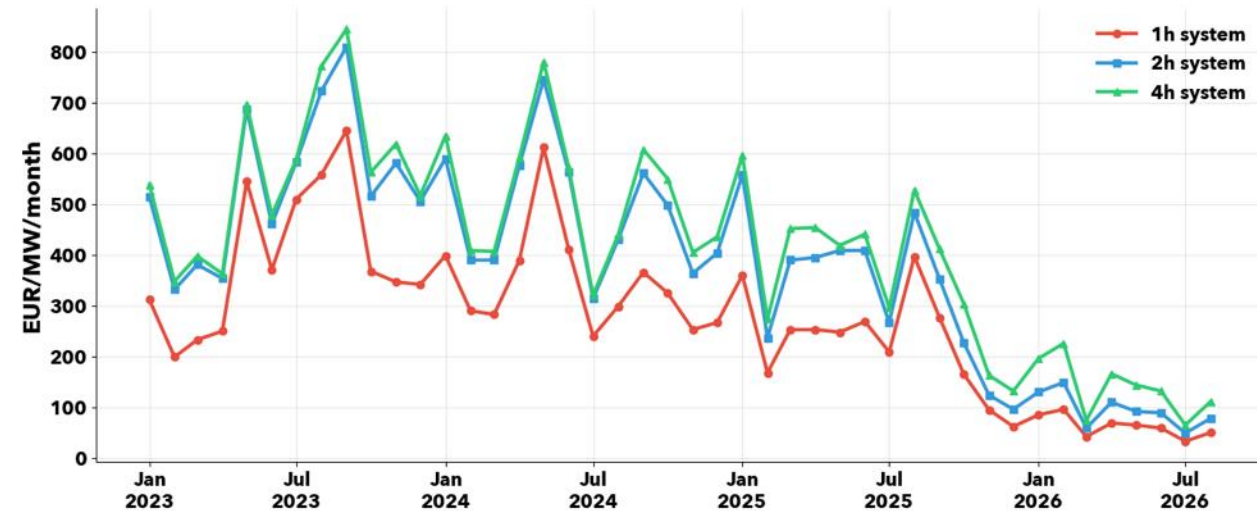
The market reached its tipping point around Sep-25

Clean Horizon index follows evolution of capacity prices

Average Reserve Capacity Prices (EUR/MW/h)



CleanHorizon BESS Revenue Index (EUR/MW/month)



How to navigate the saturated market?

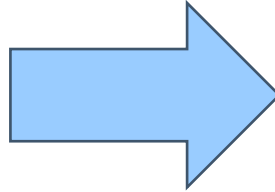
- Capacity products saturated $\neq$ everything saturated
- Optimal revenue stack moved towards energy products and wholesale market
- The ability to react fast and move between the markets and products is vital



"Old fashioned" vs. future-proof optimization

"OLD FASHIONED" OPTIMIZATION

- Secure market access
- Allocate capacity to attractive reserve market products
- Simple bidding strategies
- Limited need to move between markets



FUTURE-PROOF OPTIMIZATION

- Continuously compare cross-market opportunities
- Instant reaction to market changes
- Manage revenue, risks, availability and battery constraints together

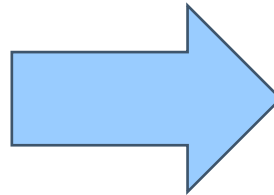
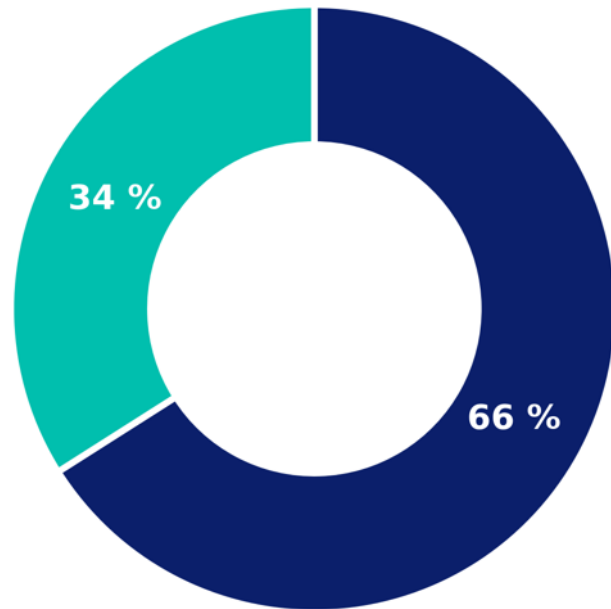
How Gridle's optimization endures

- Market is favoring longer duration assets
- Despite the market down-turn, Gridle's optimization has outperformed industry benchmarks month after month
- We didn't change our value-led ideology -> optimal revenue stack has changed
- Energy products, wholesale market and cross-market arbitrage makes ~80 % of the fleet revenues

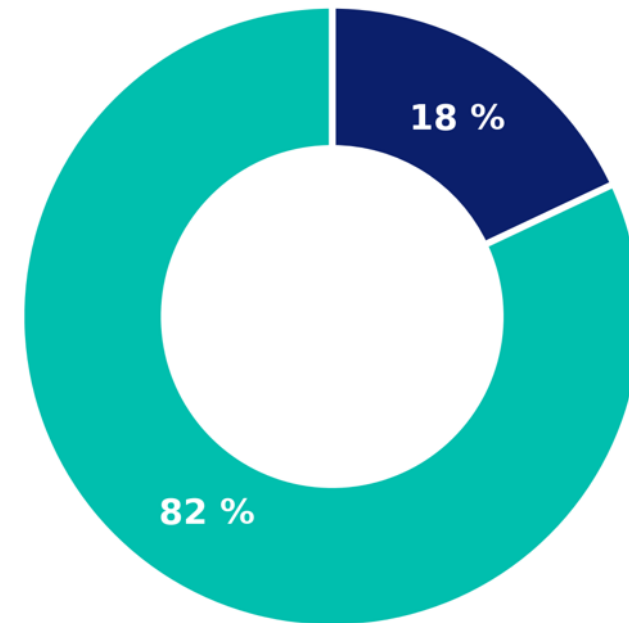


Optimal revenue stack changed fast

REVENUE IN 2025



REVENUE IN 2026



The Value of flexibility is not going away

Google announces €13bn additional investment in Finland

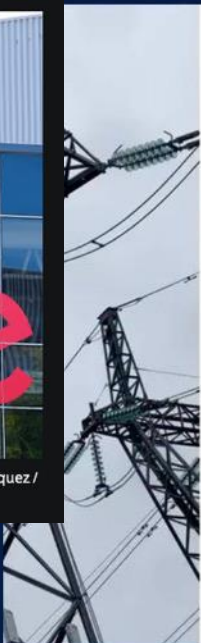
The money will be used to develop data centres as well as supporting infrastructure, and represents the search engine giant's largest single investment in Europe to date.



File photo of Google's headquarters in Mountain View, California. Image: Godofredo A. Vasquez / EPA

KL

Fingridin johtaja paljastaa: Sähkö ei mitenkään riitä kaikkialle Suomessa



Tomi Parkkonen

Sähkö kallistuu rajusti syksyllä: hinta nousee jopa yli yhdeksään senttiin

Pörssisähkön hintaan odotetaan syyskuusta alkaen selvää nousua.



Sähkönkulutus on kääntymässä voimakkaaseen kasvuun – rinnalle tarvitaan lisää säätövoimaa

Suomen sähkönkulutuksen kasvu on voimistumassa lähivuosina. Kasvua vauhdittavat erityisesti datakeskus- ja sähkökattilahankkeet. Samaan aikaan Suomessa on runsaasti pitkälle valmisteltuja tuuli- ja...

Sähkönsiirron yhteys Aurora Line valmistui Ruotsin ja Suomen välille – parantaa sähkön riittävyyttä jo tänä vuonna

Muhoksen Pyhänselästä Ruotsin Messaureen valmistunut 380 kilometrin pituinen voimajohtoyhteys yhdistää lisää tokapasiteettia Suomen ja Pohjois-Ruotsin välillä.



on 380 kilometriä pitkä. Kuva: Antti Ullakko / Yle



Gridle: Elisa's Energy Flexibility Unit

More than 40 electricity market experts, data scientist and software developers focusing on BESS optimization & trading.

THANK YOU!

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