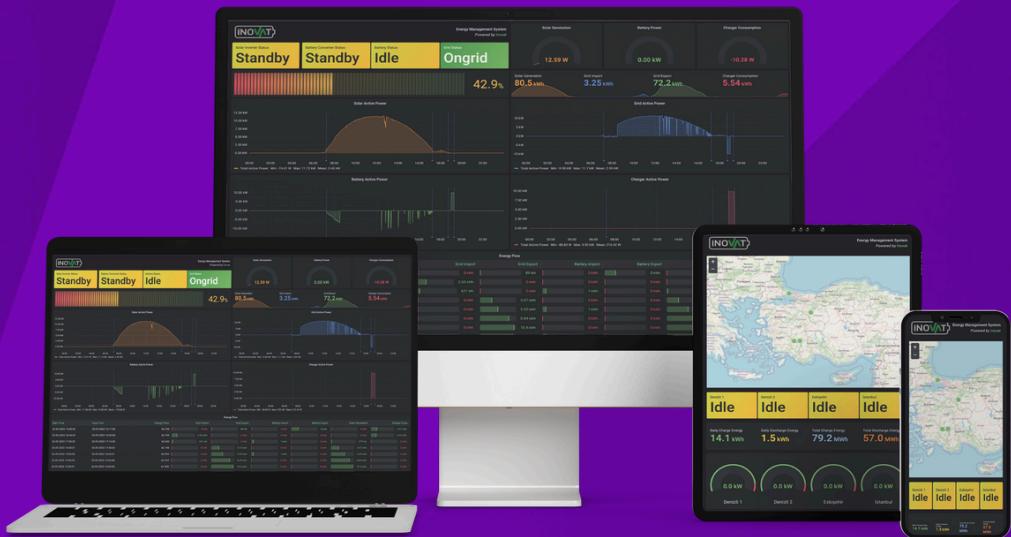




PowerKonnekt

Frequency Control

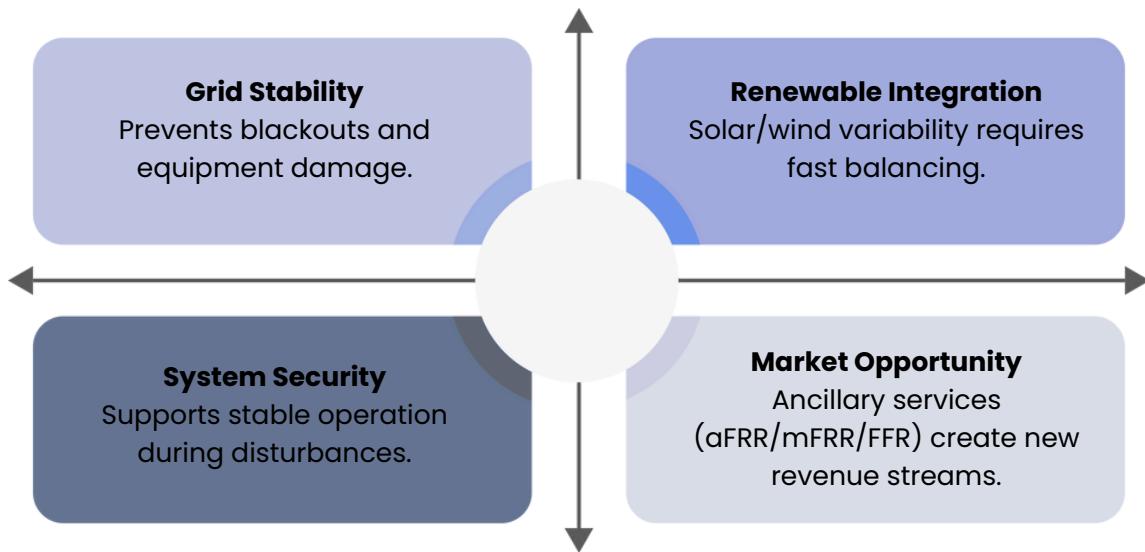


www.powerkonnekt.com

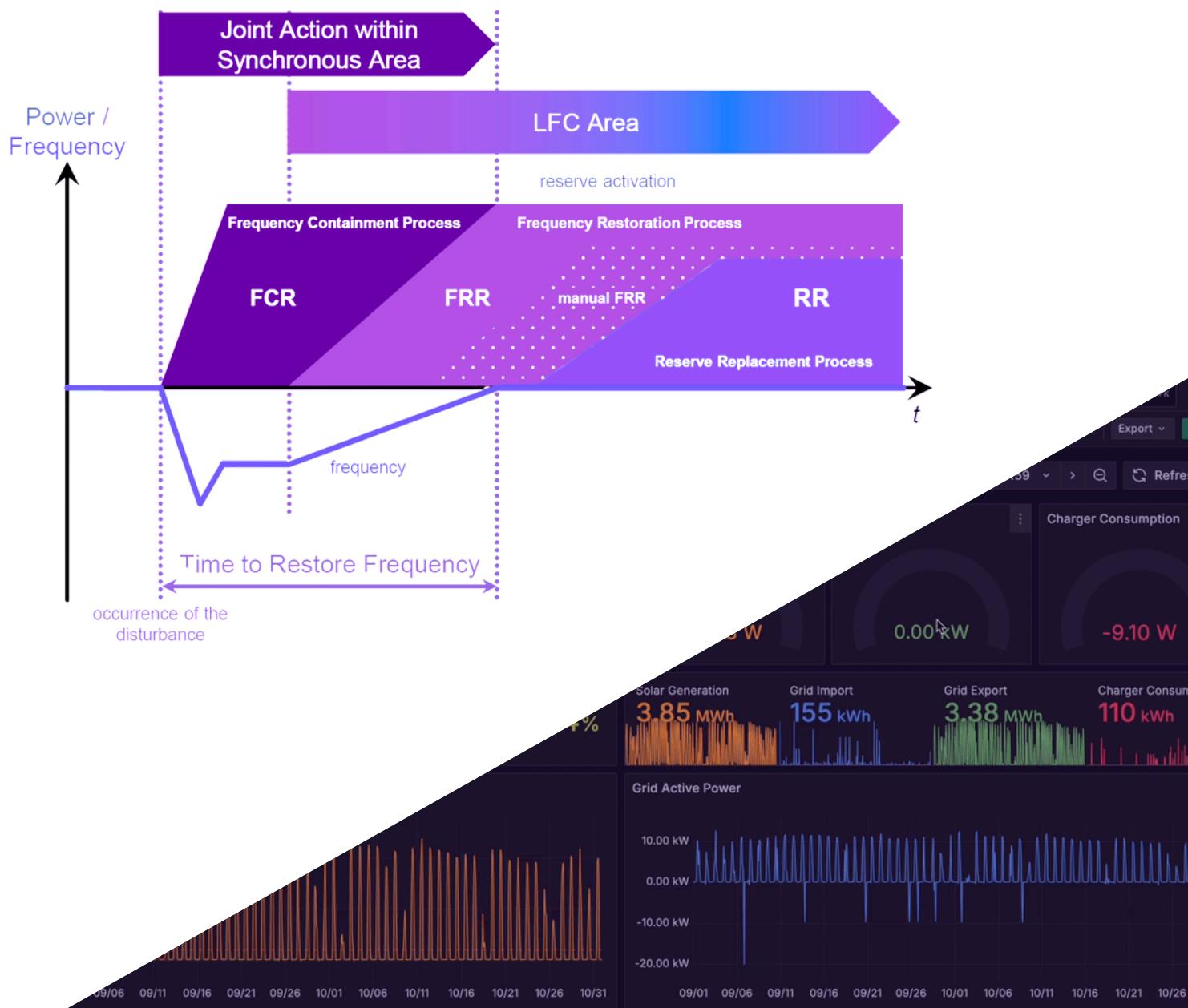
Frequency Control



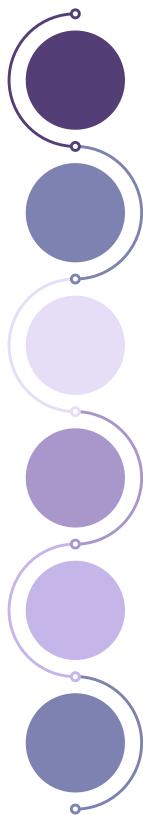
Frequency control ensures that grid frequency is kept within safe limits by rapidly balancing supply and demand.



Frequency Control Reserve Architecture



PowerKonnekt Offers



Instant Fleet Response: Distributed assets react together to any frequency drift within seconds.

Adaptive Power Adjustment: Output is continuously reshaped based on system needs and asset limits.

Centralized Frequency Intelligence: One platform analyzes deviations and orchestrates the entire fleet's behavior.

Continuous Stability Support: Assets provide sustained regulation until frequency returns to nominal.

Safe Operating Control: Every activation respects battery health, temperature, and lifecycle boundaries.

Event-Aware Automation: The system detects disturbances and activates predefined response strategies automatically.

CASE STUDY

Project: FCR-N with C&I Scale BESS

Size: 200kW/430kWh

Location: Finland



Key Capabilities Demonstrated

- Zero-Injection Enforcement
- Grid Code-Compliant Frequency Response
- Arbitrage based on dynamic market prices
- Multi location application enabling operation as one system as well as individually

Outcome

- Protect the grid while stabilizing customer operations
- Deliver grid-code-compliant frequency response for lucrative ancillary services income
- Lowering energy costs by time-of-use optimization and self consumption
- Avoid penalties by upholding strict zero-export requirements
- Transparent, auditable system behavior

