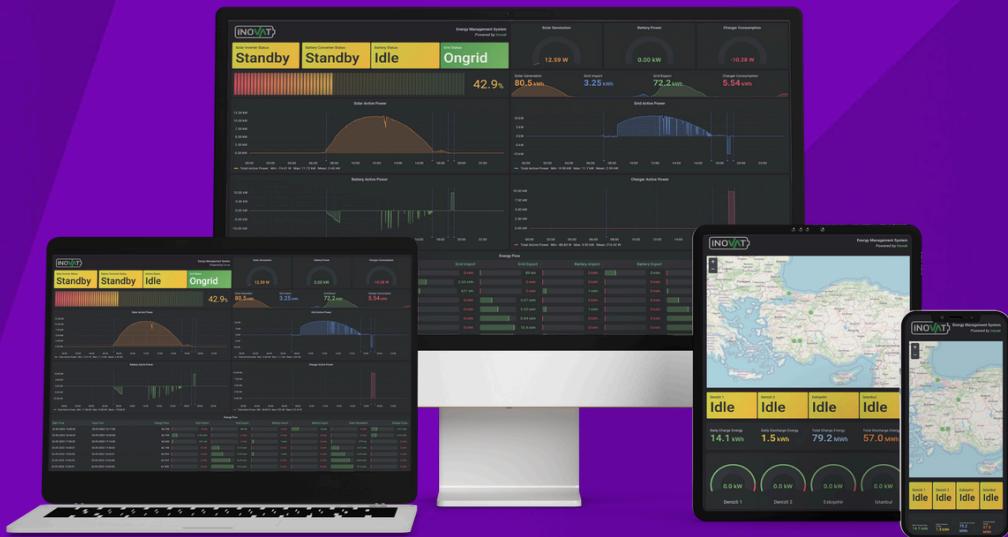




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Frequency Control

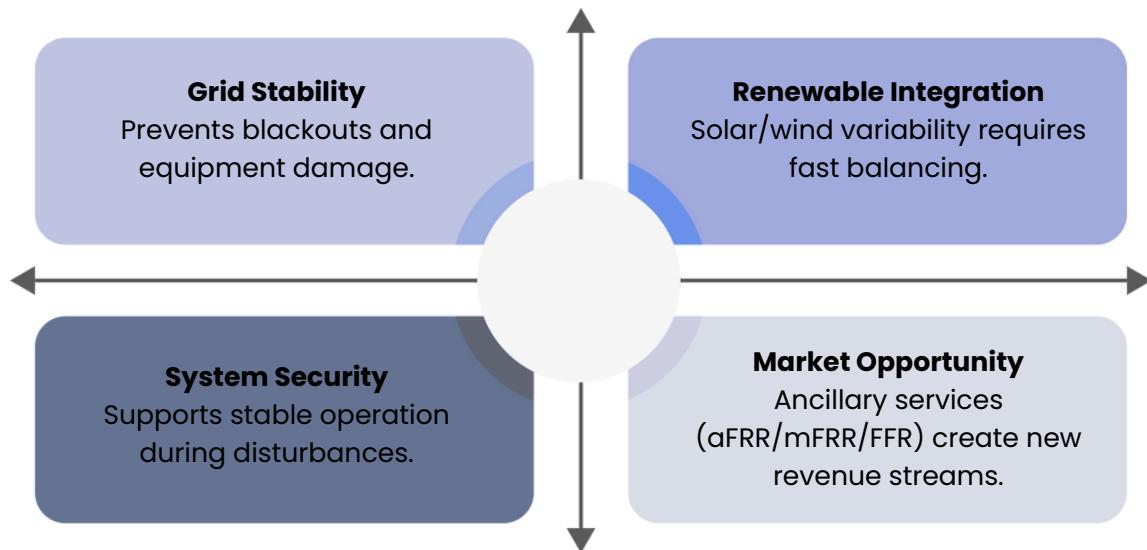


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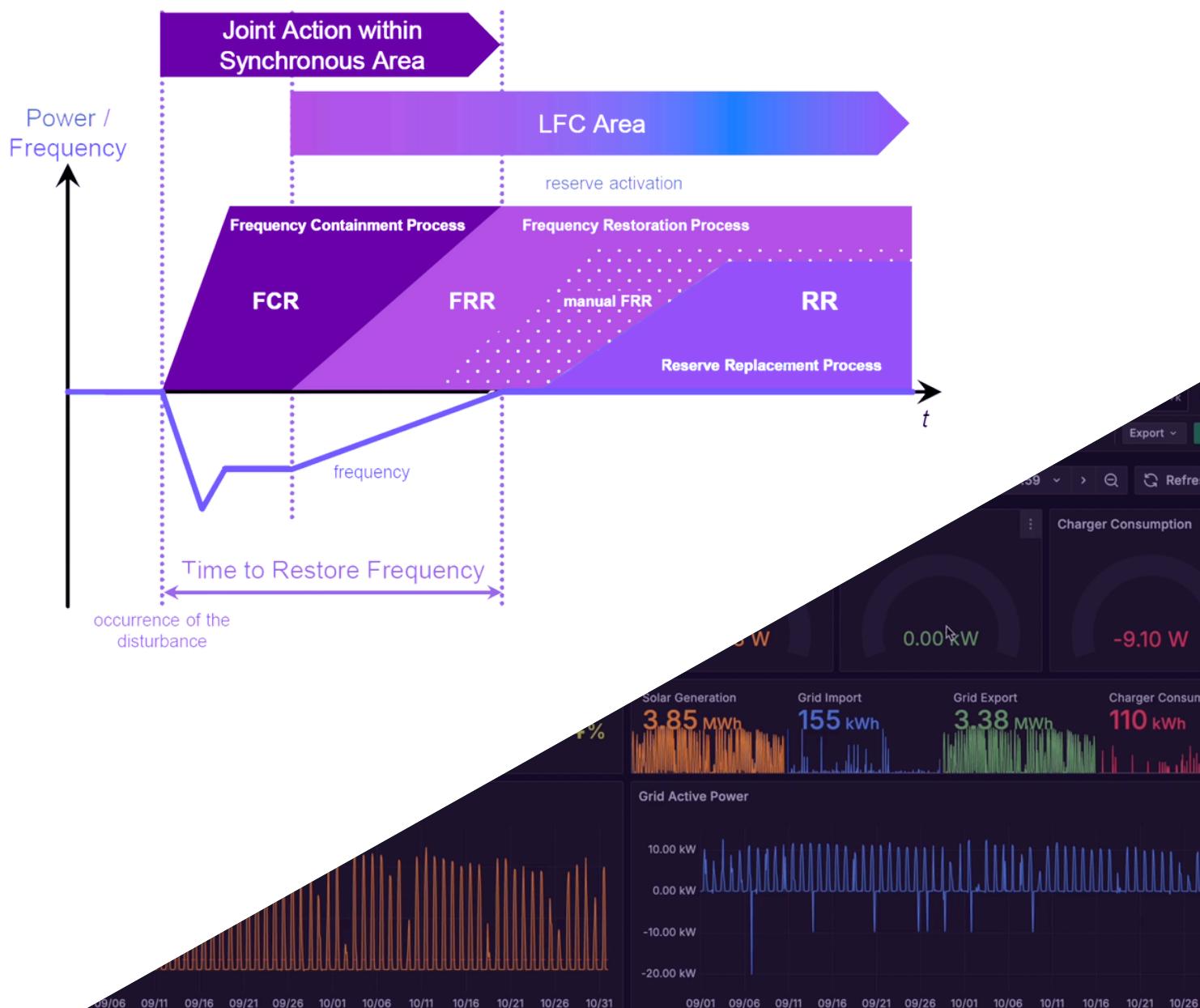
Frequency Control



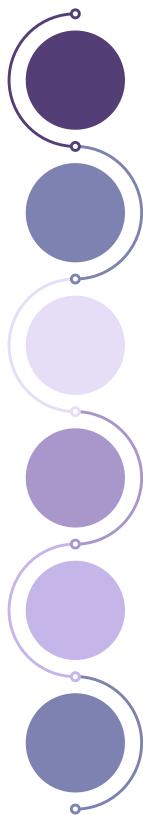
Frequency control ensures that grid frequency is kept within safe limits by rapidly balancing supply and demand.



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





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