

Large Grid Events

Blackout Protection – Layers of Defense

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We enable **transmission and distribution** grid operators to measure **grid inertia and system strength** to accelerate the transition to a low-carbon grid.



📍 Sales and project delivery teams close to our customers

Trusted by...



Layers of Defense

People, processes, and tools!



Recent Large Event factors

- Largely driven by voltage/stability with higher IBR systems
- Accuracy/Complexity of modelling (now and future)
- Challenges of system awareness
- Questions on extreme event protection



Layers of protection

- Long-term planning, incl. IBR and large loads
- Standards and protection coordination cross-industry
- Modelling accuracy and new dynamic modelling
- New real time data and system awareness
- People and training
- Control and planning tools



Summary

- Whole organization effort – long term and real time
- New critical variables of voltage stability (system strength), inertia, and oscillations



Net Zero – **Safer, Faster.**