Redefining Oscillation Monitoring:
The Future of Renewable Grid Stability

Tackling The Growing Challenge Of Grid Oscillations

Oscillations on power grids are not a new phenomenon, but with the rapid evolution of the grid driven by renewable integration, they have become increasingly critical to address. What was once hidden is now coming to light as grid complexity rises, interconnectivity grows, and the demand for stability increases. Tackling these challenges is crucial to build a resilient, low-carbon power grid, safer and faster.

Disruptive Technology Today For The Modern Grid Of Tomorrow

Reactive Technologies, a global leader in Grid-Enhancing Technologies (GETs), is at the forefront of solving the challenges of the renewable energy transition. Our cutting-edge oscillation monitoring solution, a core component of the GridVerix®, formerly known as GridMetrix®, platform, delivers unparalleled precise detection, in-depth analysis, and actionable insights to mitigate power system oscillations in real-time.

Designed for fast deployment with a vendor-managed device approach, the solution enables customers to start collecting actionable, high-definition data from day one - minimizing upfront cost, simplifying operation, and accelerating return on investment.

800x Higher Sampling Rate

800+ times higher data collection sample rate compared to existing solutions

High Frequency

High-frequency oscillation detection in real-time with precision and accuracy

High Definition

High-definition, fully GPS time-aligned data for post-event analysis and insights

Future-Proof Your Grid System For Renewable Integration

Our Key Advantages

Real-time measurement and situational awareness

With our comprehensive data visualization interface, grid operators gain exceptional visibility into localized events, with seamless scalability to a grid wide view. This real-time insight empowers operators to respond proactively to emerging issues, ensuring grid stability.

High-frequency oscillation detection

Our Grid Edge Measurement Devices (XMUs) sample up to 48,000 frequency measurements per second, delivering the granularity required to detect even the smallest and fastest fluctuations.

Post-event analysis

Our advanced automatic data capability provides critical insights for post-event analysis, helping grid operators assess oscillation characteristics while saving time. These insights also support future operational policies and improved grid planning.

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Benefits

Enhanced operational efficiency

Essential power quality and grid performance monitoring, including frequency stability and transient events.

Informed decision-making

Provides real-time insights for analyzing oscillation patterns, identifying root causes, and implementing effective operation policies.

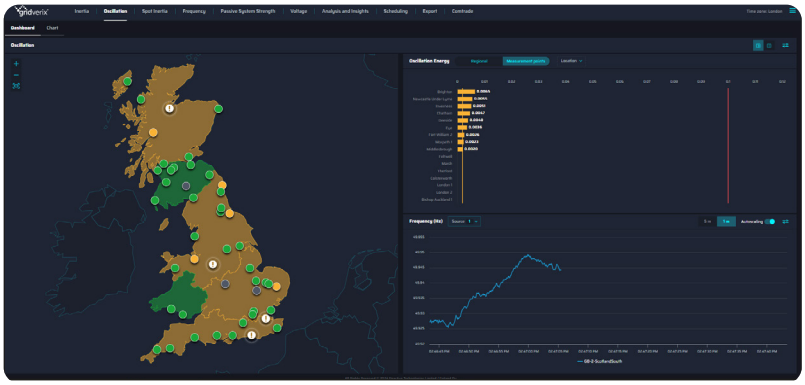
Proactive risk mitigation

Anticipates and prevents grid instability issues before they escalate, ensuring system stability and reliability.

Key Functionalities/User Interface

Comprehensive dashboard view for oscillation visualization

The “Dashboard” integrates multiple visualisation tools—interactive maps, a running bar chart, and a frequency trace—into a cohesive interface designed to help users effectively monitor and understand oscillations at scale.



Detailed view page with comprehensive oscillation insights

The detailed view page “Chart” provides an in-depth analysis of oscillatory behavior by displaying key metrics: Oscillation Energy, Damping Ratio, Frequency, and Amplitude. This feature-rich page is designed to help users explore the dynamics of oscillations with precision.

High-Frequency Oscillations Made Visible

Get in touch

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