

Meta-Alert™ Solutions For Distribution Networks

Who is EGM?

EGM is a technology company committed to making the world's biggest machine better. By adding telemetry to the existing T&D grid in a non-disruptive way, we give the utility accurate and timely information to optimize the operation of the entire Grid. We collect, securely transmit, and analyze the data in real-time giving the utility insights into the true performance of the Grid.

According to NREL

A study conducted by the National Renewable Energy Laboratory (NREL) concluded that an EGM system can provide "significantly improved [distribution system state estimation] DSSE accuracy with only a small number of lines with the sensors, and significantly improve fault detection speed and accuracy, and reduce downtime and energy lost due to faults, while improving customer load availability compared to the traditional approaches."

EGM's advanced grid monitoring solution is based on a suite of **3rd Generation sensors** that combine fault detection and current measurement capabilities found in earlier line sensors with **precision voltage** measurement, advanced physical environment measurements, and a secure communications network to provide the industry's first holistically designed grid monitoring solution that accurately locates problems across the Distribution network.



Importance of Precision Voltage

The next generation of Distribution applications – those applications needed to support distributed energy management, faster outage restoration, and awareness of the grid edge -- have one thing in common: the need for precise electrical parameter measurements in near real-time. And the most critical measurement? Precision Voltage. Precise voltage measurement combined with drastically improved current measurement allows the calculation of Power Factor, Phase Angle, Harmonics, Frequency and a host of other critical parameters with accuracy not available before.





Meta-Alert[™] Solutions Leading Grid Modernization

What Makes EGM Different?

Real-time, accurate data is so crucial to so many operational applications that, today, utilities are forced to rely on "estimates" or derived values. We feel it does not make sense to provide sensors for distribution and ignore transmission, or provide sensors for overhead and disregard underground, or provide only current-related data when accurate voltage related data is so vital. At EGM, we want to help our utility customers improve Grid Operations from the point of Generation to the consumer's house... and everywhere in between.

Contact Us

Electrical Grid Monitoring, Inc. (EGM) 9301 Oakdale Ave. Suite 170 Chatsworth, CA 91311 U.S.A.

www.egm.net

We look forward to discussing the state of the utility industry and the changing energy landscape with you. Additionally, we would welcome an opportunity to share with you how our technology provides increased safety, reliability and benefits while reducing costs

For more information: info@egm.net.

Real-Time, All the Time

Monitoring, and ultimately managing, a diverse energy mix at the edge of the grid will require more than intermittent measurements and involves more than just fault detection. Supporting renewables and EVs, and understanding the electrical effects of that equipment, requires real-time, all-the-time monitoring of more than just current but many precise, time-synchronized electrical parameters such as voltage, phase angle, power factor and frequency.

Improving ADMS with Advanced Analytics

Operational applications such as ADMS/DMS/OMS will benefit from accurate, timely data captured from many points on the network. Specifically, Fault Location, Isolation and Service Restoration (FLISR), Distribution Power flow (DPF), State Estimation, VVO and Outage Management (OMS) will benefit from real-time precision electrical data provided by Meta-Alert sensors and the alerts and notifications available from Meta-Alert advanced analytics.

MSU-1	MSU-X
Self-powered, Induction (14A)	Secondary (120v) or Solar
4kV - 240kV (Phase-to-Phase)	4kV - 34.5kV
14 - 1000A	0 - 1000A
1/0 - 1590 AAC (0.398" - 1.454" diam.)	1/0 - 1590 AAC (0.398" - 1.454" diam.)
± 1% V	± 1% V
± 0.1% A	± 0.1% A
± 1% A	± 1% A
± 5%	± 5%
± 1 deg	± 1 deg
± 1%	± 1%
± 0.1% Hz	± 0.1% Hz
Up to 63rd	Up to 63rd
15 yrs.	15 yrs.
Manual or Hot Stick	Manual or Hot Stick
Applications Available	
On-Demand Read	Voltage Issues
High-Impedance Fault Detection	ADMS / DMS / OMS Integration
Phase Identification	Broken Wire Detection
Threshold Alarms	DER Impact Analysis
	MSU-1 Self-powered, Induction (14A) 4kV - 240kV (Phase-to-Phase) 14 - 1000A 1/0 - 1590 AAC (0.398" - 1.454" diam.) 1/0 - 1590 AAC (0.398" - 1.454" diam.) ± 1/0 - 1590 AAC (0.398" - 1.454" diam.) ± 0.1% A ± 0.1% A ± 1% V ± 0.1% A ± 1% A ± 1% A ± 1% A Up to 63rd 15 yrs. Manual or Hot Stick On-Demand Read High-Impedance Fault Detection Phase Identification Threshold Alarms

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