# SAFEGRID<sup>®</sup>

## Intelligent Grid System® LOCATE. PREDICT. PREVENT.

Safegrid provides a simplified and scalable fault management solution for electric transmission and distribution grids.

#### Safegrid's Intelligent Grid System®

Safegrid's **Intelligent System**<sup>®</sup> (IGS) employs instant-on sensors and cloud-based analytics for capturing and analyzing grid events. It utilizes sensors for overhead lines and underground cables, accurately locating events. It uses transient detection coupled with GPS time synchronization based triangulation. With proprietary algorithms, the system classifies grid events by type and severity, enabling customers to identify faults, anticipate future issues, and prevent them.

#### **Powerful Grid Monitoring**

Our solutions give utilities and grid operators complete 24/7 visibility into the grid. When the fault locations are known, the crews can navigate and fix faults instantly, decreasing costs and downtime. The resulting fast FLIRS and minimized **SAIDI** and **SAIFI** improve customer satisfaction and operational economics.

Safegrid hardware is designed for fast installation and deployment. The devices operate on a fully standalone basis without time-consuming integrations. Yet, they feature powerful APIs for connecting them with other systems at any time, when needed.



#### Safegrid GridGuardian<sup>®</sup> - Cloud-Based Monitoring System

**GridGuardian**<sup>®</sup> – the brain of our technology - is the essential core part of our **Intelligent Grid System**<sup>®</sup>. It provides instant actionable alerts about common grid faults in real-time.



Safegrid's **Intelligent System**<sup>®</sup> (ICS) employs instant-on sensors and cloudbased analytics for capturing and analyzing grid events. It utilizes sensors for overhead lines and underground cables, accurately locating events using CPS time synchronization.

Key GridGuardian<sup>®</sup> features:

- Secure communication with the cloud server
- Visual GIS-based real-time monitoring
- Browser and mobile user interfaces
- G Fast and reliable
- D Instant SMS alerts with location information
- **G** Fully customisable reports
- Easy integration with dashboard systems

# Locate faults with 100 m accuracy.



**GridGuardian**<sup>®</sup> is the core of Safegrid's Intelligent **Grid System**<sup>®</sup>. It collects measurement data from both **Grayhawk**<sup>®</sup> and **Grayfox**<sup>®</sup> sensors. By utilizing this data **GridGuardian**<sup>®</sup> generates reports, alerts, and other key features, using deep learning and data enrichment techniques providing visual GIS-based real-time monitoring.

It includes as standard **Smart Fault Location**<sup>®</sup> - a suite of tools capable of providing accurate fault location to within +/- 100 m accuracy within seconds. With **Smart Fault Location**<sup>®</sup>, grid operators can identify faults quickly and dispatch work crews faster, thus minimizing both costs and downtime. Fast FLISR and minimised SAIDI/SAIFI improve customer satisfaction and economics.

## From REACTIVE to PROACTIVE fault prevention.



#### **Smart Fault Prediction®**

The ability to monitor grid components and conditions enables effective predictive maintenance measures which improve the reliability and service life of the components.

**Smart Fault Prediction**<sup>®</sup> is Safegrid's suite of applications designed to assist grid operators in making the transition to predictive maintenance routines. With 24/7/365 partial discharge detection, **Smart Fault Prediction**<sup>®</sup> complements Safegrid's existing **Smart Fault Location**<sup>®</sup> capabilities by pinpointing signs of trouble in distribution networks before outages can occur.

#### **Grayhawk®** For Overhead Lines

Grayhawk<sup>®</sup> is an overhead line sensor that utilizes wireless current and highfrequency transient measurements, making it non-intrusive and non-contact.



## Non-intrusive and non-contact:

Grayhawk<sup>®</sup> measures the magnetic field created by the overhead line without a connection to the conductor. Also for covered conductors.

#### **Fast deployment:**

Crayhawk<sup>®</sup> can be deployed in 30 minutes or less without the need for any alterations or system shutdowns, ensuring that your operations can continue uninterrupted. No configuration needed.

#### Sensitive and accurate:

Grayhawk<sup>®</sup> has highly accurate and reliable high-frequency measuring technology up to 1 MHz. Grayhawk<sup>®</sup> can sense even minor grid anomalies with maximum accuracy and speed.

#### Wireless communication:

Grayhawk<sup>®</sup> built-in wireless multiprovider cellular communication.



#### **Grayfox**<sup>®</sup> For Underground Cables

Grayfox<sup>®</sup> is a cable sensor that employs rogowski-coils for non-intrusive current and high-frequency transient measurements





#### Non-intrusive:

Crayfox<sup>®</sup> employs rogowski-coils for non-intrusive current and highfrequency transient measurements for screened cables.

#### Fast deployment:

Crayfox<sup>®</sup> is used for cable monitoring. It can be deployed in 30 minutes or less without the need for any alterations or system shutdowns, ensuring that your operations can continue uninterrupted. No configuration needed.

#### Sensitive and accurate:

Crayfox<sup>®</sup> has highly accurate and reliable high-frequency measuring technology up to 1 Mhz. Grayfox<sup>®</sup> can sense even minor grid anomalies with maximum accuracy and speed.

#### Wireless communication:

Grayfox<sup>®</sup> integrated wireless multiprovider cellular communication.





#### **About Safegrid**

Safegrid provides a simplified and scalable fault management solution for electric transmission and distribution grids. We are enabling the electric transition worldwide and elevating electrical grid performance through unrivaled visibility, speed, and accuracy.

All Safegrid products ultimately improve your entire grid performance.

Read more: www.safegrid.io Get in touch: sales@safegrid.io

