

Preventing Wildfires

Improve situational awareness when and where you need it most. Aging utility infrastructure poses significant risks to wildfire-prone areas; faulty power lines, aging transformers and broken poles can spark fires, particularly in dry, windy environments. Moreover, up to 4% of distribution transformers are anticipated to cause a fire over a 40-year asset life. Edge Zero's grid monitoring solution offers a proactive approach to mitigating these risks, ensuring distribution transformers are operating - and aging - properly.

Utilizing advanced sensors and real-time data analytics, Edge Zero detects faults and potential hazards on the low voltage network before they escalate. Continuously monitoring infrastructure enables prompt transformer maintenance and repairs, thereby reducing the likelihood of equipment-induced wildfires.

Harness the Power of the EdgeSensor and EdgeConnected™ Platform

Real-time Monitoring & Fault Detection

- Utilizes advanced transformer-mounted sensors to continuously monitor the low voltage network
- Detects faults, such as equipment malfunctions, immediately
- Provides instant alerts to utility companies, enabling rapid response
- Minimizes the window of time during which a fault can ignite a fire

Predictive Maintenance Capabilities

- Analyzes data trends to predict equipment age factors, alerting to risk of failures before they occur
- Identifies where maintenance is needed, avoiding unnecessary truck rolls
- Ensures timely replacement of aging infrastructure components
- Helps to prioritize distribution transformer upgrades

Maximize Preparedness through Charging Optimization

- Optimizes EV charging before a power shutoff using real-time data
- Seamlessly integrates with intelligent charging platforms via open RESTful API
- Leverage transformer data to protect assets while meeting EV drivers' needs
- Improves customer satisfaction and drives continued participation

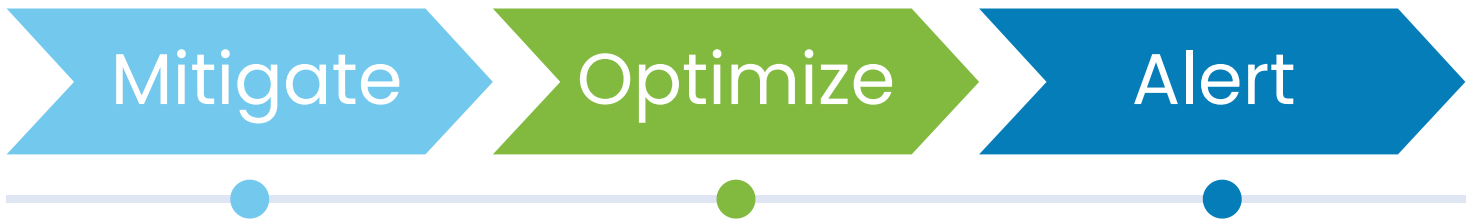
Identify Failure Risks Before They Escalate

Transformer overloading significantly increases the risk of faults and wildfires for two primary reasons:

- Excessive heat generation caused by system overloading degrades the transformer insulation, reducing the transformer's ability to regulate extreme temperatures. This leads to potential faults like short circuits.
- Continuous thermal cycling may cause metal components to expand and contract, resulting in loose connections that can spark fires.

Edge Zero monitoring solutions ensure transformer loading stays within safe limits by measuring tank temperature and providing real-time network monitoring. This continuous oversight allows utilities to promptly detect and address overloading issues, maintaining operational safety and preventing catastrophic failures.

Put Public Safety First



Identify areas where the low voltage network is consistently overloaded putting assets, like transformers and wires, at risk.

Spot hotspots and faults in real time, getting service staff to lines before issues escalate. Then, recognize transformers that are aging at an advanced pace and may require additional maintenance to prevent wildfires.

Ensure that customers' local battery systems are charged and ready to power their homes in the case of public safety power shutoffs (PSPS).

More critically, optimize charging programs to make sure customers' EVs are charged and ready to go in case of an emergency - all without contributing to system overload.

In the event of an emergency, receiving real-time fault data to ensure the control room staff see the geographic scope of wildfire impacts on utility infrastructure.

Integrate Edge Zero monitoring with existing IT systems so that, in the event of an evacuation, you're there to alert customers and help them get to safety.

Global Customers Include



Edge Zero Solution Set



Real time, 4G transformer monitoring hardware



EdgeConnected live visibility platform



Live power quality data
Safety and fault alerts
Asset management planning

Grid Edge Power Quality Monitor

EdgeSensor (600 Series)

The Edge transformer monitor is a compact grid power quality monitor that incorporates EdgeZero grid edge technology. It is an intelligent, software-driven, full power quality grid monitoring sensor that reports live transformer data and status alarms.

Low Voltage Monitoring Platform

EdgeConnected

Edge Zero gives grid operators, distribution utilities, and embedded network operators the tools to maintain reliability and power quality during wildfire season. EdgeConnected utilizes live data from low-cost, simple-installation transformer monitoring instrumentation to provide a smart digital twin of network power flows and asset performance.