



# Predictive Intelligence for Critical Infrastructure

**AFL**







As the demand for infrastructure reliability intensifies, electric utility and data center operators require solutions that reduce unplanned outages, extend asset life, and minimize total cost of ownership.

AFL and VIE Technologies have partnered to deliver intelligent infrastructure monitoring solutions that empower utilities and data centers to proactively manage high-value, mission-critical assets. This collaboration combines AFL's deep expertise in fiber optic connectivity with VIE Technologies' non-invasive, AI-powered predictive monitoring platform—enabling smarter, more resilient operations.

### How It Works — Non-invasive, AI-powered Monitoring

VIE Technologies' platform is built on a foundation of advanced IoT sensors and machine learning. These smart sensors continuously monitor critical parameters—such as temperature, vibration, and electrical stress—on power transformers and other mechanical systems. The data is transmitted securely via LTE, satellite, or Bluetooth to a cloud-based analytics engine that detects subtle anomalies and predicts failures before they occur.

This non-invasive approach eliminates the need for intrusive installations or equipment downtime. With a 10+ year battery life and ruggedized design, the sensors are engineered to perform reliably in harsh environments, making them ideal for both utility and data center applications.

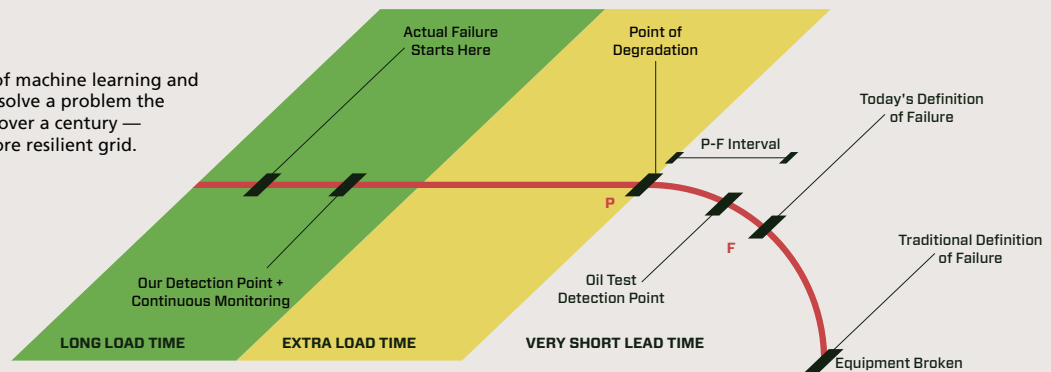


#### Features

- **Advanced IoT Sensors**  
Smart sensors continuously monitor critical parameters such as temperature, vibration, and electrical stress.
- **AI-Powered Predictive Analytics**  
Detects patterns and anomalies, predicting failures weeks or months in advance.
- **Real-Time Data**  
Always-on monitoring for instant visibility into transformer health and performance.
- **Seamless Connectivity**  
LTE, Satellite, and Bluetooth options for uninterrupted data transmission.
- **Durable Design**  
Engineered to withstand high temperatures, moisture, and other harsh environmental factors.
- **Easy Installation**  
Designed for direct integration with transformers, ensuring accurate and reliable data collection.
- **Cloud-Based Platform**  
Provides real-time insights, enabling operators to make data-driven decisions and optimize maintenance schedules.

# CONTINUOUS MONITORING

Unlocking the power of machine learning and continuous sensing to solve a problem the industry has faced for over a century — enabling a smarter, more resilient grid.



PATTERN RECOGNITION  
BEYOND HUMAN CAPABILITY



CONTINUOUSLY ADAPTING  
& EVOLVING MODELS



AI-DRIVEN FLAGS FOR  
POTENTIAL FAILURES



24/7 CONTINUOUS  
MONITORING

## Smarter Maintenance, Greater Efficiency

Traditional time-based maintenance often leads to unnecessary service or missed warning signs. VIE Technologies replaces this guesswork with real-time intelligence, enabling condition-based maintenance that reduces operational costs and extends asset lifespan. By shifting from reactive to proactive maintenance, operators can:

- Reduce unplanned outages and emergency repairs
- Optimize maintenance schedules based on actual equipment condition
- Scale infrastructure with confidence through predictive capacity planning

This data-driven approach not only enhances reliability but also supports sustainability goals by minimizing energy loss and maximizing asset utilization.



About the size of a hockey puck, the small and unobtrusive sensor adheres to crucial equipment and allows for real-time data.



To learn more about how predictive monitoring can support your infrastructure goals, contact:  
Spencer Beamer, Business Development Manager – Predictive Infrastructure Solutions  
[Spencer.Beamer@AFLglobal.com](mailto:Spencer.Beamer@AFLglobal.com)  
865.705.3527





Founded in 1984, AFL is an international manufacturer providing end-to-end solutions to the energy, service provider, enterprise, hyperscale and industrial markets. The company's products are in use in over 130 countries and include fiber optic cable and hardware, transmission and substation accessories, outside plant equipment, test and inspection equipment, connectivity and fusion splicers. AFL also offers a wide variety of services supporting data centers, enterprise, wireless and outside plant applications. Learn more about AFL, its products and services by visiting [www.AFLglobal.com](http://www.AFLglobal.com).



VIE Technologies is revolutionizing transformer monitoring with the industry's first non-invasive, AI-powered predictive maintenance solution. Using advanced IoT sensors and predictive analytics, VIE can detect equipment issues early and recommend repairs well before human operators or traditional methods can, enabling energy companies, data center operators, and industrial facilities to increase the reliability of their power systems. This innovative approach replaces guesswork with real-time intelligence, making maintenance proactive rather than reactive. For more information, visit [www.vietechnologies.com](http://www.vietechnologies.com).