

Avoid Failure. Make It Last.



PDP Technologies. Optimizing Electrical Power Supply Reliability & Cost of Maintenance for MV transformation facilities

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Who We Are



PDP Technologies (PDP) is an early-stage technology company that introduces an innovative, cost-effective solution to disrupt the manner in which the most **critical electrical equipment is monitored and maintained in transformation facilities** around the world.

PDP aims to thwart the majority of unexpected power supply **outages that occur at MV/LV transformation facilities due to equipment insulation degradation**. Such equipment failures and supply outages cost hundreds of millions of dollars per year in maintenance, replacement and disruption of operations.



Solution



PDP's unique, patent-pending solution uses sophisticated **Ultra-Wide Band RF sensing, signal processing and machine learning technologies** to detect, measure and analyze parameters of PD - the leading indicator of electrical equipment insulation degradation.

- ❖ Detects and processes electromagnetic (EM) waves generated by the PD process in transformers, switchgears, distribution panels, etc.
- ❖ Enables optimized **Condition Based Maintenance (CBM)** to prevent power supply failure.
- ❖ Unique value proposition vis-à-vis alternative solutions:
 - ✓ Non-invasive
 - ✓ Equipment agnostic
 - ✓ **Smart-grid** compliant
 - ✓ Complies with **IoT, big data** trends
 - ✓ Easy modularity & scalability
 - ✓ Superior price performance
 - ✓ Continuous monitoring/real time data
 - ✓ Facilitates condition-based maintenance (**CBM**)

Product

1. An end-unit that houses a broadband RF antenna, an analog amplifier for the electromagnetic signals and a digital processing module that includes a signal converter, processor and communications component.

2. A software component for control center to process the real-time data and manage the endpoints.



Opportunity

PDP's technology has a wide array of industry applications that include transformation facilities across the entire electrical grid.



- Cast Resin Dry Transformers



- Switch Boards



- Busbars



- Critical Meter Rooms



- Substations

Summary - Benefits of Predictive Maintenance



Quote from a White Paper by Schneider Electric

According to the U.S. Department of Energy, independent surveys indicate the following average industrial savings when a functional predictive maintenance program is implemented:

- 10 times Return on investment
- 25-30% Reduction in maintenance costs
- 70-75% Elimination of breakdowns
- 35-45% Reduction in downtime
- 20-25% Increase in production



Thank You