



## PRESS RELEASE

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# New UltraTEV Alarm™ gives early warning of switchgear failure and danger

**EA Technology has added a new product to its market-leading portfolio of instruments for detecting, monitoring and locating partial discharge (PD) activity in medium and high voltage (MV and HV) power assets.**

**The UltraTEV Alarm™ is a unique and cost effective early warning system, providing continuous monitoring of MV switchgear for signs of deterioration which are likely to lead to failures and danger to personnel.**

The system is simple to install and comprises an alarm box hub, linked to a series of alarm nodes, which are placed on switchgear panels. When an individual alarm node detects critical levels of partial discharge activity, it displays a warning light and also triggers a light on the alarm box, so operators can immediately identify which alarm node detected the discharge. There is no practical limit to the number of alarm nodes that can be connected to each alarm box.

EA Technology Product Director Neil Davies said: "The UltraTEV Alarm™ is especially valuable when deployed on switchgear panels which are essential for maintaining network performance and production. Alarm levels are pre-set to identify problems before they lead to failure or expose personnel to danger."

The instrument uses two technologies for measuring partial discharge activity – electromagnetic detection of transient earth voltages (TEVs) and ultrasonic detection. The combination ensures that discharge activity is accurately identified, both internal to or on the surface of the switchgear insulation.

The threshold indicators of the UltraTEV Alarm™ are based on EA Technology's database of thousands of records of partial discharge surveys, carried out on MV switchgear over 25 years. This has enabled the company to identify when an asset has reached a critical point of deterioration, requiring active maintenance or replacement.

The UltraTEV Alarm™ can provide local indication of partial discharge activity and can also interface directly to a SCADA system. An optional GPRS addition enables users to receive alarm messages via SMS or email.

Mr Davies added: “The UltraTEV Alarm™ will certainly deliver excellent return on investment as a simple failure warning system – but it will add even more value as a tool for managing assets more cost-effectively, based on an accurate understanding of their condition.

“With no alarm lights showing, operators can be confident that their switchgear assets are continuing to work safely and reliably – even when they have been scheduled for maintenance or replacement. They can be equally confident that they will be alerted immediately when the condition of an asset reaches a critical point, in terms of reliability and safety, and maintenance or replacement are actually needed.

“The result is that the UltraTEV Alarm™ will enable managers to make more financially intelligent decisions on when to actively maintain or replace their assets, based entirely on their true condition.”

More details on [www.eatechnology.com](http://www.eatechnology.com).

Ends

For high resolution JPEGs contact [John Hartford](mailto:John.Hartford@eatechnology.com).



UltraTEV Alarm™ nodes (right) attach to the outside of switchgear casings and monitor TEV activity. The system's ultrasonic sensors (left) are positioned next to air gaps. When significant PD activity is detected, the alarm node displays a warning light and triggers another light on the central hub unit.



The UltraTEV Alarm™ hub unit is usually positioned next to a substation entrance. It gives a warning when any of the sensor node alarms have been triggered.



UltraTEV Alarm™ nodes are daisy-chained and connected to the central hub unit.

There is no practical limit to the number of alarm nodes that can be connected to each alarm box hub. Each alarm node uses both ultrasonic and TEV detectors. The hub can transmit alarm messages externally by connecting to a SCADA system, or by email or SMS, using an optional GPRS module.

## Notes to editors

Based at Capenhurst in the UK, EA Technology is a world market leader in condition-based maintenance and management of electricity assets, with clients in the power distribution and transmission sectors, and the petrochemicals, process, manufacturing and transport industries.

EA Technology's range of instruments for detecting, measuring, monitoring and locating partial discharge activities includes the handheld UltraTEV Detector™ and UltraMET™ tools, together with its UltraTEV Alarm™, PD Locator™, PD Monitor™ and PD Monitor Plus+™ systems.

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