

Using UltraTEV® Plus² to detect Partial Discharge



Background

RWE Renewables has first-class resources, experience, and expertise in covering the entire onshore and offshore wind energy value chain from development to construction and operations.

EA Technology's client, RWE Renewables, use the UltraTEV Plus² handheld partial discharge (PD) detection device across multiple onshore and offshore sites.

The UltraTEV Plus² is the latest innovation in the UltraTEV range. The easy-to-use instrument has been designed to make asset inspection simple, enabling you to distinguish between true PD, noise and other interference. Allowing you to make better decisions while saving time, money and enhancing the safety of your staff and your HV electrical assets.



Figure 1: 33kV switch contact which was the source of the PD.

Our Approach

During a routine PD survey of assets at one of RWE Renewables offshore wind farms, high levels of PD were recorded at one location. These levels were recorded, and the data was stored on the UltraTEV Plus² device.

Initially, the source of PD was thought to be one phase of the 33kV cable terminations. Upon further inspection using the UltraTEV Plus² it was discovered that the PD was coming from the insulation around a faulty 33kV three position switch contact, located between the switchgear busbar and the circuit breaker pole.



Figure 2: Solar Windfarm.

Client Benefits

Upon the identification of the source of the PD, RWE Renewables replaced the affected component and successfully returned the switchgear to service.

Without regular inspections carried out by RWE Renewables with the UltraTEV Plus², this partial discharge would have gone unnoticed, increased, and eventually resulted in a failure.

For more information, please contact us on:

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Global Footprint

EA Technology is an engineering and technology business that provides intelligent energy solutions for designers, installers, operators, and owners of power network assets.



Founded in 1966 we have over 50 years' experience in the industry and 6 regional offices around the world to support our global customer base.

We help clients to safeguard their networks. Advising them on strategy and implementation of a range of technology solutions to manage power assets, delivering maximum life and minimising cost

Safer, Stronger, Smarter Networks

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