

On-Line Partial Discharge Survey Prevents Potential Catastrophic Failure

The Challenge

In the UK, energy-from-waste facilities are helping to cut landfill use while generating reliable electricity and heat. By converting non-recyclable waste into energy, they support national sustainability goals and contribute to energy security. These facilities depend on resilient electrical infrastructure to ensure safe, efficient operations. Any failure within these systems can lead to unplanned outages, safety risks, and environmental consequences.

To safeguard the long-term durability of critical infrastructure, energy-from-waste operators must adopt proactive maintenance strategies and best practices in electrical asset management. Early detection of equipment degradation and partial discharge is essential for minimising the risk of costly outages, maintaining operational efficiency, and ensuring the ongoing safety of their operations.

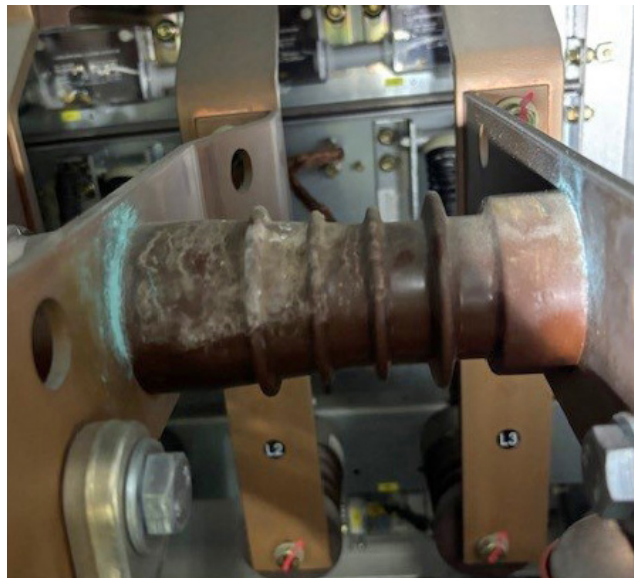
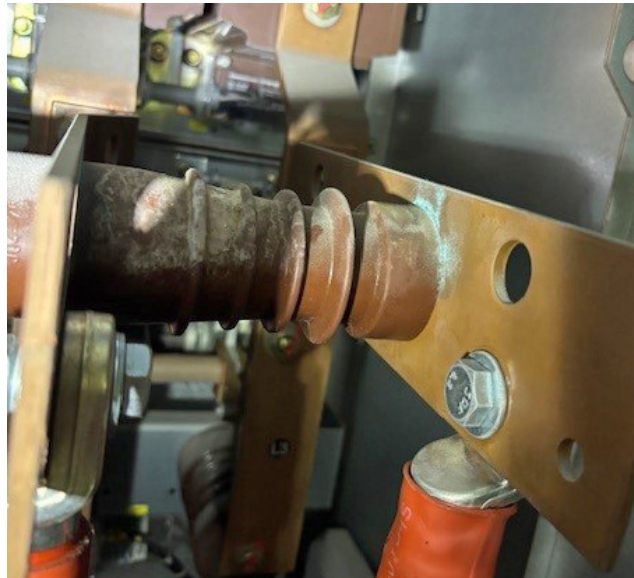
The Solution

To ensure the reliability of its critical electrical systems, a major UK operator in the energy-from-waste sector reached out to EA Technology's Partial Discharge Services team. With its primary aim to detect early-stage faults and asset degradation, the team supports organisations in protecting operations and avoiding costly failures.

The Results

Based on the customer's requirements, our PD Services team undertook the following:

- A routine on-line Partial Discharge (PD) survey, which led to the detection of PD activity and advanced insulation damage.
- Identification and diagnosis of 'treeing' on a bus-bar insulator inside a cable box using advanced diagnostic techniques.
- Immediate reporting of the issue to the customer, enabling rapid intervention and repair.
- Provision of targeted maintenance recommendations to eliminate the risk of future in-service failure.



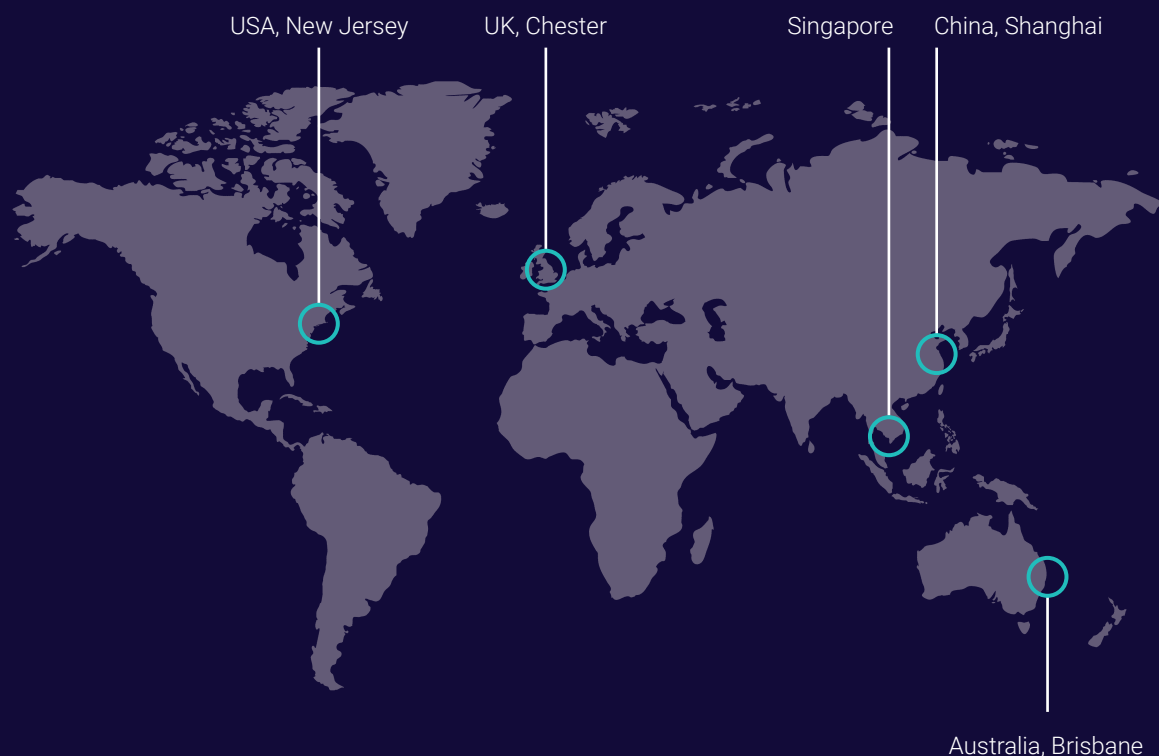
White oxides and 'Treeing' on a bus-bar insulator, verdigris on copper bus-bars.

Conclusion

Thanks to support from EA Technology, the operator of energy-from-waste strengthened the reliability and efficiency of their critical electrical assets and avoided a potential costly and unplanned in-service failure. This proactive approach enhanced risk management, protected their investment, and helped prevent a potentially major incident.

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 5 regional offices around the world to support our global customer base.

We work with a lot of our clients on a long-term basis to help them safeguard their power networks.

We advise our clients on strategy and implementation of a range of technology solutions to manage power assets, delivering maximum life and minimise cost.

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