

Case Study

Live Alert

Background

In many areas of operation across the electricity network, workers are at risk when machinery makes contact with overhead power lines. This applies not only to power industry staff, but also to construction workers, farmers and anyone else working in close proximity to overhead power lines.

However, it is not always immediately obvious when a connection has been made, as many vehicles, such as fork lift trucks and JCBs act as a Faraday Cage, channeling the current around the outer skin of the vehicle, leaving the operator relatively safe. It is not until the operator steps down from the vehicle, earthing themselves and creating a new path for the current, that the power connection becomes painfully, often fatally, obvious.

The project

To protect operators in this situation, Live Alert has created a product called The Energised Alert. This simple to install device contains a voltage detector that will sense when the electrical potential of the vehicle exceeds a preset limit. No connection to earth is required. This means that the vehicle operator is warned of the electrical connection immediately, and can ensure that they move their vehicle to safety before they step out.

The Energised Alert is a two part device consisting of a remote battery powered sensor which communicates to the second part by radio. This preserves any insulation barrier that might exist on the vehicle. The sensor is encapsulated in plastic and would be attached to the part of the vehicle that requires protection. The size of the sensor is 170mm long, 80mm wide and 40mm high. The second part is mounted in the vehicle cab and consists of a plastic/metal enclosure approximately 200 x 100 x 100mm in size, with sockets for external power, external audio amplifiers and external warning lights. It also features a USB connection, allowing the download of recorded incident data.

How the Energy Innovation Centre Helped

Live Alert had been developing the Energised Alert for ten years when they approached the Energy Innovation Centre with their idea. They had run out of both funds and interest from external parties. The Centre helped them breathe new life into their project by bridging the gap between Live Alert and their potential customers, including DNOs.

"The Energy Innovation Centre were exactly the right people, at the right time, to move our project forward," explains David Lloyd Jones of Live Alert. "They provided a well ploughed and fertilised furrow for the seed of our idea to drop into."

Although Live Alert have an initial working prototype of the Energised Alert, this requires refining. The Energy Innovation Centre have been working with Live Alert to create a proposal for funding in the region of £65,000, for a four stage development project aimed at delivering ten pre-production prototypes for full testing and evaluation.

Live Alert have made significant progress since joining the Energy Innovation Centre and remain committed to this important area of health and safety.

"There is a strong flare for innovation in the UK," says David. "The Energy Innovation Centre structures these businesses in a way that has a better chance of success".

Supported by



in partnership with

