



Case study

# UKPN transforms site inductions with Virtual Reality learning scenarios



# Background

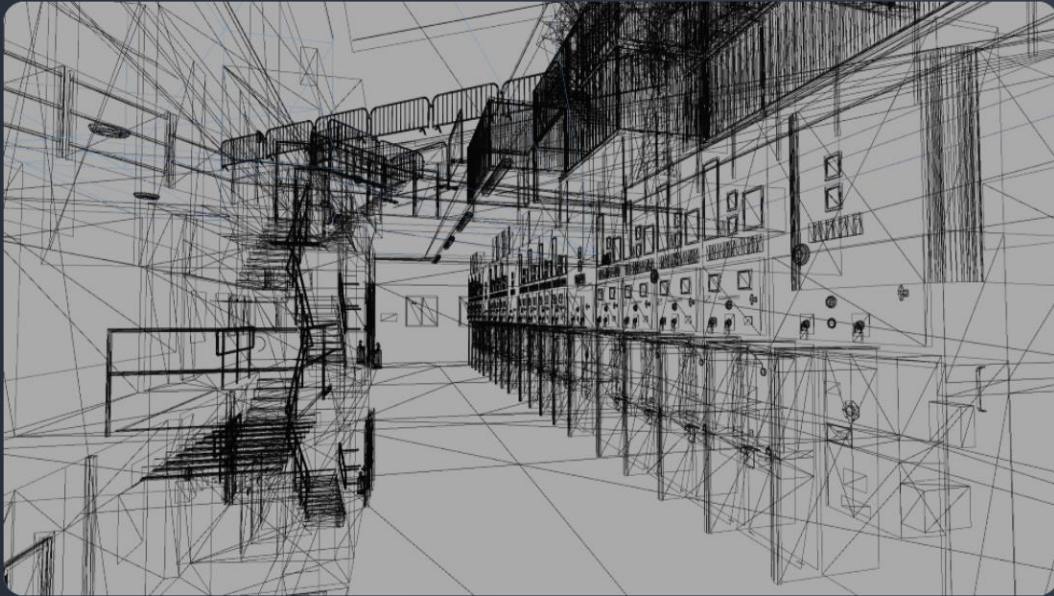
UK Power Networks (UKPN) delivers power to 8 million of the UK's population. It had recently identified the need to use technology and innovation to bring a competitive edge to its processes and workflows, by setting new standards for the power industry. The operator had a long-term view of applying this approach to everything from its site inductions to digital twinning and more.

The key requirements for a new trial included, the need to use advanced innovative technology, the ability to enhance contractor and visitor experiences, ensure covid restrictions on access to inductions are met and save induction time and costs by delivering by replicating 'real-life' scenarios.



London's Leicester Square





3D wireframe of the site

## Challenges

UKPN wanted a solution that would provide an engaging, interactive and innovation-driven site experience for one of its major London substation sites based at Leicester Square. This induction was to be aimed at site visitors as well as UKPN staff and contractors to help visitors understand and be familiar with the following:

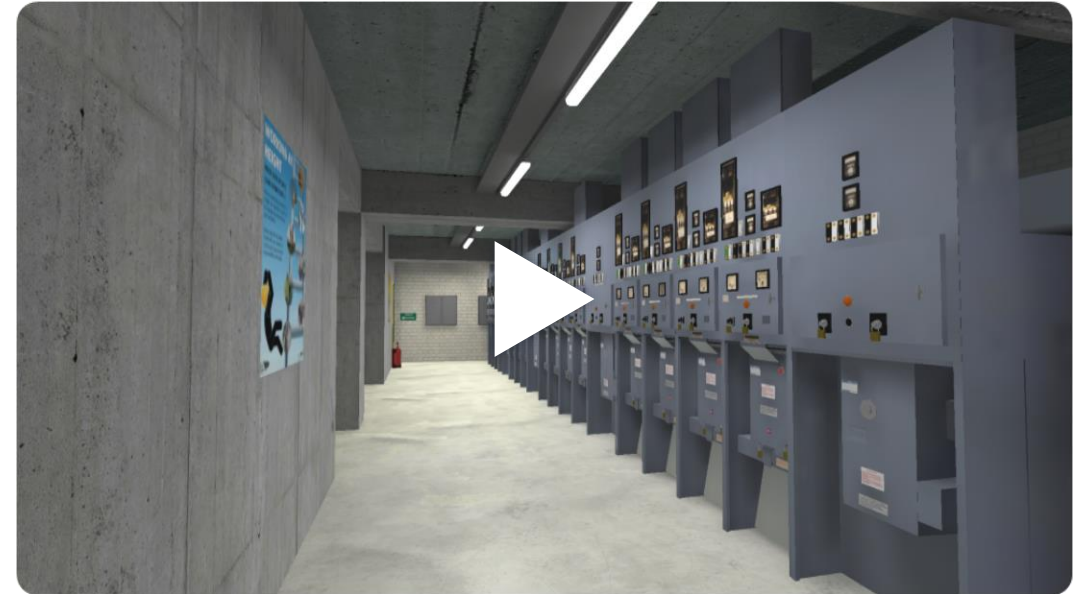
- The above-ground site layout and facilities
- The below-ground site layout and facilities (including all sub-levels)
- The main entrance, exit routes and secondary exit routes
- Important safety information and guidance before entering and while in the substation

# Solution

MX Reality, a leading provider of advanced mixed reality technology-enabled solutions worked with UKPN's team to develop two programs to support site induction at its Leicester Square site. With its immersive learning platform mXlearn, it created a custom-built Virtual Reality (VR) induction solution and a separate Augmented Reality (AR) app to help reinforce worker learning post-induction.

The VR experience delivered on the Oculus VR headset was produced as a guided tour around the site, with a virtual guide called John, who introduces the site, the scope of the works undertaken and key locations. This is all at the user's own pace, based on their interactions with various hotspots, while the tour guide provides information on their surroundings, health and safety considerations and emergency procedures.

As part of the trial MX Reality developed a site reinforcement app featuring AR to be used on-site after the induction. It allows staff and contractors to use their smartphones or tablet devices to access site-specific information, including emergency numbers, site rules and health and safety messages. As users walk around the site, the app can be used to scan QR codes so they can easily visualise a 3D representation of their current location.



Demo video of the site induction in VR

# Benefits

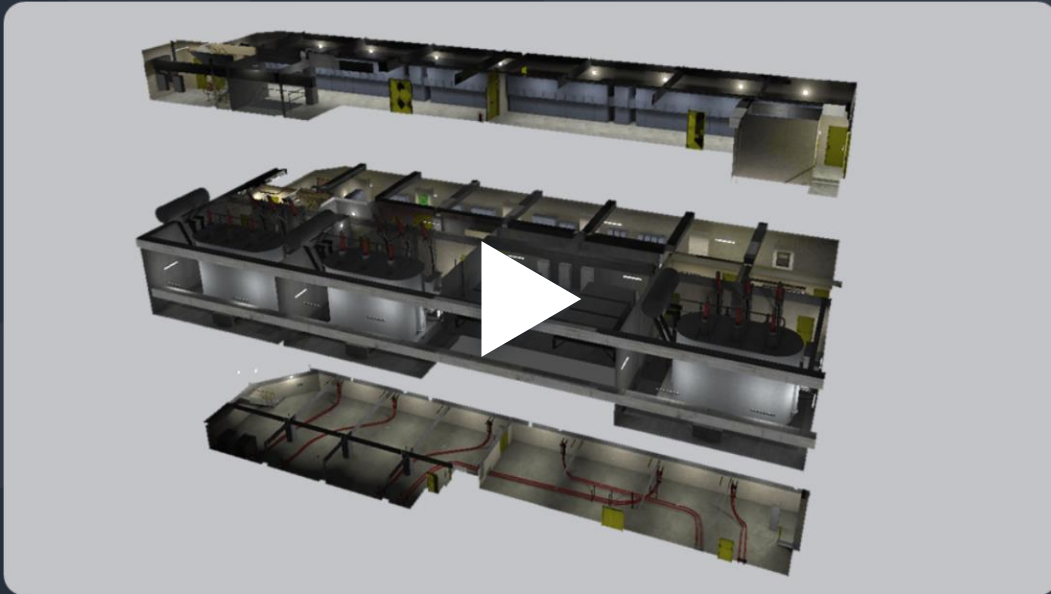
Hannah Bailey, Head of Business Development, MX Reality, said:

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Custom-built VR learning scenarios with mXlearn are not only safer, but are incredibly engaging and proven to be more effective than the traditional learning methods still used by many power companies today. They can also be repeated, cost-effectively on demand to speed up the induction process.

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The VR site induction and AR app are currently being used by 100 UKPN contractors at the Leicester Square site. It has transformed the way UKPN handles and delivers site inductions, speeding up its induction process and increasing the number of people that can be inducted simultaneously. But most importantly, it reduces the risk and danger to visitors by allowing them to experience all levels of the site without physically being present on site.



Demo video of the site induction mobile app with AR





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