

VR in Power and Utility Sector

A Virtual Reality based Simulation for HTLT troubleshooting using HTC Vive Headset



Dorado Learning
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Case Study 2026-27

Executive Summary and Project Overview

Overview

The power sector has been one of the early adopters of AR/VR technologies. Although there's always been a reliance on traditional methods for carrying out standard procedures, some of the steps taken by power companies for improving their learning and development process has been very encouraging. The implementation of any technology involves a capital investment, which may not be feasible for every power company. Such a burden does not need to be the case with implementing

immersive technologies. As some companies in this sector are beginning to realize the benefits of using advanced technologies in operations, they are experiencing an improvement in operational efficiency and processes to serve customers and learners. The use of virtual reality and augmented reality in a power plant has the potential to minimize operational costs, improve safety, and broaden the types of services provided in these industries.

Project Details

Project type:
Virtual Reality Simulation

Industry:
Power and Utility

Start Date:
August 2025

Completion Date:
January 2026



Problem Statement

The power and utilities sector generally experiences the following challenges:

Plant Safety and Emergency situations

Emergency situations are those that mandate the repair or replacement of any element that may affect the plant personnel safety and cause the actual or imminent shutdown of the plant. Any scenario that threatens to seriously reduce the ability of the plant monitoring devices at the control boards, or the alarm signals to give indication of possible type and location of trouble and procedures, requires troubleshooting.

Hands-on experience

It is costly and practically not possible in power plant maintenance and repair related tasks.

Physio-Spatial Environments

An inability to access certain technical functions from within the physical world.

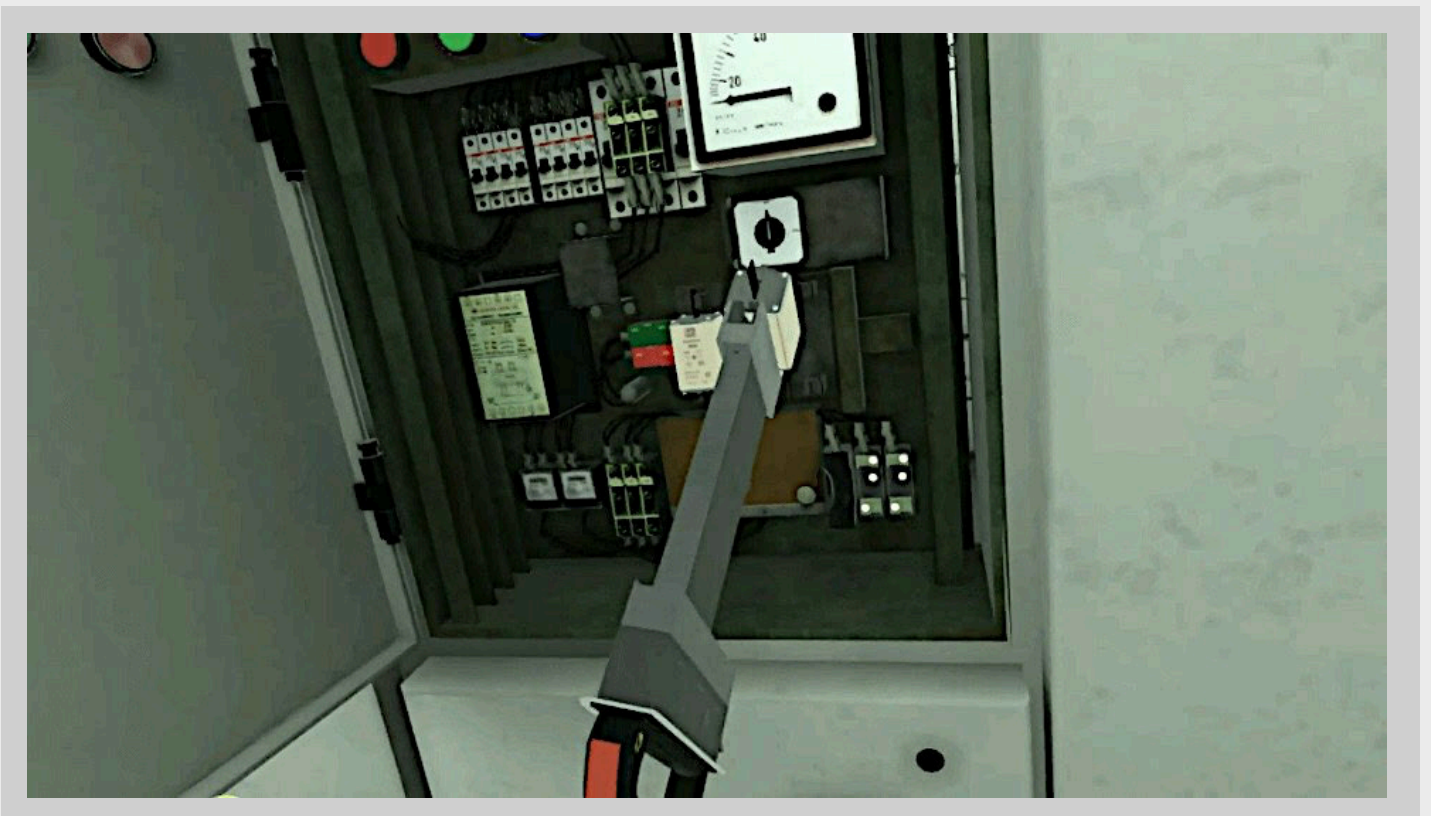


Solution

We've developed a simulation for a leading power company involved in electricity generation and related activities. In addition to power production, the company provides consultancy and turnkey project solutions, including engineering, project management, construction management, and power plant operations. Looking to enhance employee training, they wanted to explore new technologies for a more effective learning experience.

To meet this need, we created an immersive HTLT (High Tension Low Tension) simulation for one of their power plants. Users navigate different areas of the facility, starting with safety procedures before virtually performing an isolation switching process. They follow a structured set of instructions while engaging in various training scenarios.

The simulation was designed for the HTC Vive platform and has been successfully deployed at the company's Learning & Development center.



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