

Reducing Utility Strikes through Digital Transformation at Balfour Beatty Group UK | July 2025

Introduction

Balfour Beatty Group UK, has long recognised the serious risks posed by utility strikes — incidents where utilities like gas or electricity lines are unintentionally damaged during construction. These incidents not only pose significant safety risks but can also lead to project delays, cost overruns, and reputational damage.

The rollout of the **Digital Permits** along with **EUSR** (Energy and Utility Skills Register) training has proven to be a transformative initiative in reducing utility strikes. The significant drop in strike rate and high success rate in utility operations highlight the effectiveness of a data-driven, standardised approach.

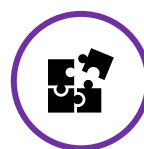


Overview

In 2022, Balfour Beatty recorded **208 utility strikes**, including **10 High Potential (HiPo)** events.

Balfour Beatty categorised Electricity and Utility Avoidance as one of its Ten Fatal Risks.

The number of service strikes underlined the urgency for improved practices in utility detection and avoidance including the roll out of a digital permit system, Site Assist, for Service Avoidance and increased the level of competency for excavation workers.



Challenges

- Inaccurate or outdated utility mapping
- Improper or non-use of detection technology
- Failure to adhere to Safe Systems of Work (SSoW)
- Human error and poor decision-making on site
- Inadequate training and competency





Action Taken

In response, Balfour Beatty increased competency requirements to include EUSR Category 1 & Category 2 and **mandated the use of Digital Permits** for all 'Service Avoidance' activities including overheads, this digitisation aimed to:

- Standardise the planning and approval process
- Increase accountability
- Enhance real-time oversight of utility avoidance efforts
- Reduce dependence on paper-based or informal practice
- Standardise training and competency to 'best in class' EUSR Category 1 & Category 2



Results

Quantitative Improvements (2022–2024)

Year	Hours Worked	Utility Strikes	HiPo	Utility Strike Rate (USR)	Digital Permits Raised
2022	60.3M	208	10	0.35	3,020
2023	64.4M	162	9	0.25	11,500
2024	65.4M	119	2	0.18	40,490

- **Service Strikes reduced by 49%** from 0.35 in 2022 to 0.18 in 2024.
- **HiPo incidents fell by 80%**, from 10 in 2022 to just 2 in 2024.
- Digital permit adoption increased by **over 1,200%** in two years.
- In 2024, **99.7% of utility operations** were successfully completed without a strike (1 in 340 operations)



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