Northern Gas Networks

Accurate Asset Planning and Information for Pre-Construction – EIP139

Lewis Kirkwood – Northern Gas Networks

ENA Basecamp – 11th February 2025

we are the network

Background

- The lack of accurate asset information for UK energy networks has broad implications for operational efficiency, safety, regulatory compliance, risk management and the ability to adapt to future energy needs. Addressing the issue is crucial for maintaining service reliability through the transition, reducing costs and supporting the broader transition to a more sustainable energy system.
- Throughout the energy systems transition, energy networks will be required to adapt their existing infrastructure. Accurate asset information is critical to integrating new technologies into the existing network, assessing areas of the network for repurposing, ensuring that future energy demands can be met while maintaining reliability and safety.
- During operational activities networks need precise asset information to optimise resource allocation, streamline maintenance schedules and plan for future growth of infrastructure. Without accurate information, operators might waste resources on unnecessary work or miss opportunities for cost saving measures, eg predictive maintenance.

Importance of Accurate Asset Data

Asset Information:

- Material
- Location
- Condition
- Age

Benefits of Accurate Data:

- Cost Efficiency: Reduces errors and rework in the construction phase
- Improved Safety: Reduces time locating assets
- Future use: Detailing the viability for repurposing of asset
- Regulatory Compliance: Meeting regulatory and safety standards

Misplaceed assets or inaccurate records can lead to delays or safety hazards during site works

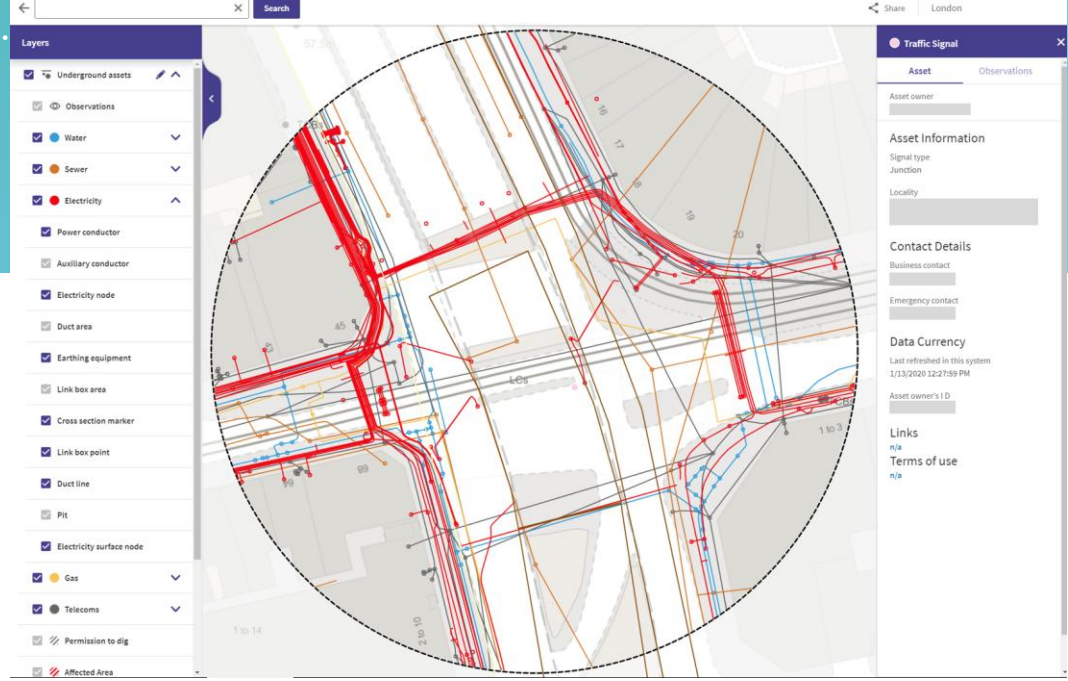
Related projects

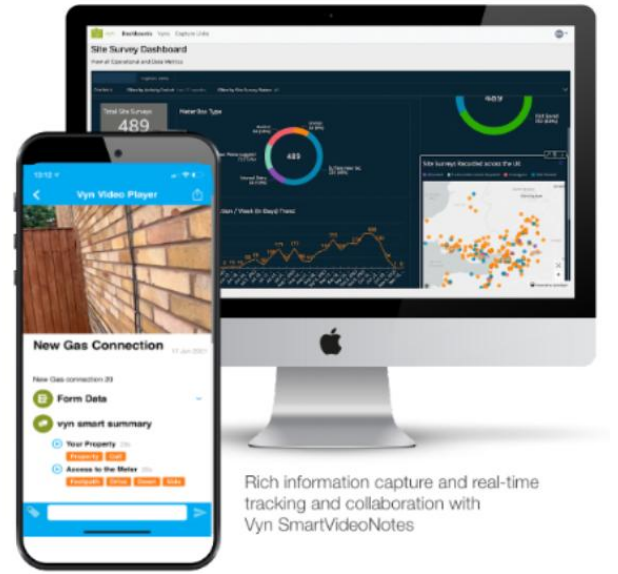
National Underground Asset Register

- Hosting multiple underground asset owners data on one accessible platform
- NUAR sets out to improve the efficiency and safety of the way asset owners install, maintain and repair buried infrastructure

Vyntelligence

- Customers and Developers can be kept engaged throughout the planning phase, through a combination of automated reports and augmented reality (AR) live video calls





Challenges

- Legacy Data: Outdated or incomplete records can hinder decision making
- Complexity of underground infrastructure: Energy Networks often have complex and hidden assets
- Coordination between stakeholders: Contractors, local authorities and utilities must work together effectively
- Majority of accurate ‘As Laids’ completed within recent years have measurements, services only digitised in recent years
- Repurposing the networks is seen as a cheaper alternative at 10-35% of the cost of new pipelines
- Large volume of assets buried below ground

Desirable outcomes

- Greater understanding of below ground asset base
- Utilise existing key metrics and data to find the gaps
- Detailing the viability of areas of the network for conversion to hydrogen
- Predictive modelling for service location

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63

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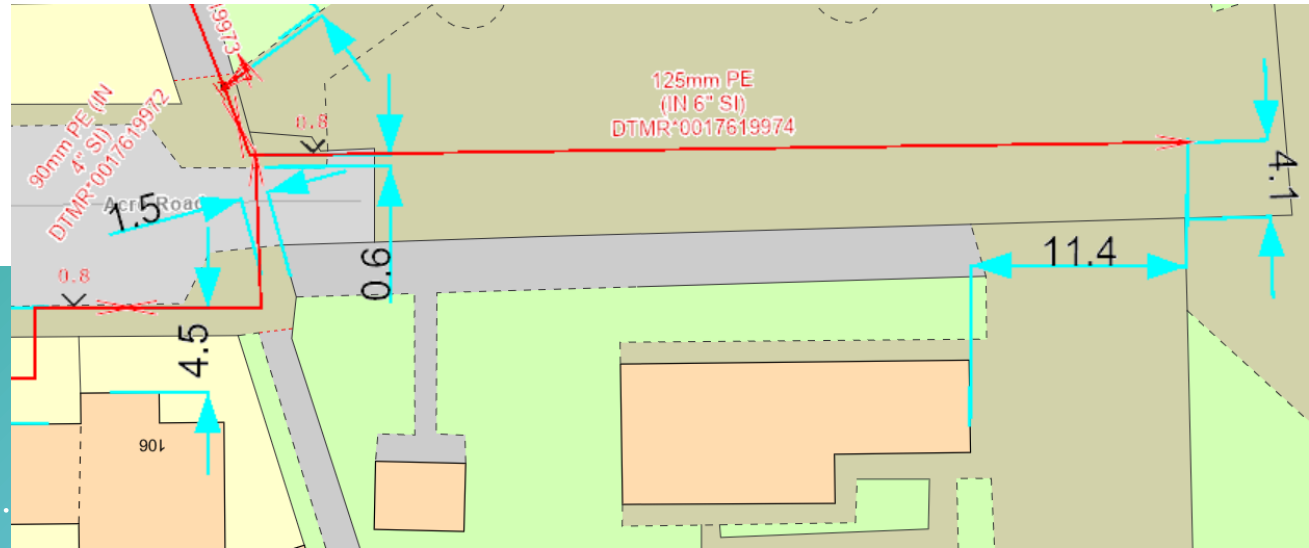

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Thank you

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