

Welcome

Energy Innovation Basecamp

28 February 2023 ICC Birmingham



Can We Better Identify Fluid Ingress?

EIP010 (NGN)

28 February 2023

Background

- Fluid Ingress events are a common form of unplanned supply interruptions on the gas distribution network, this can range from interruption of supply to individual properties through to impacting 10,000s. The most common cause of fluid ingress on the gas distribution network is water ingress from fractured/burst water mains in the vicinity of the gas distribution network, this is followed by groundwater entering the gas distribution network via undetected points of ingress.
- Water Ingress events can have significant difficult impacts for all customers, both residential and commercial, with remedial work often requiring extensive resource to rectify. Rectifying water ingress incidents can involve the requirement to vent significant volumes of gas into the atmosphere to enable re-commissioning of the system, it can also require multiple large excavations across a local community to enable this re-commissioning.
- Additional to water ingress, other fluid ingress events that impact the gas distribution network, can also include; odorant pooling during times of low gas flow, hydrate/oil deposits as a result of variable causes.
- NGN is seeking solutions to improve the networks capacity for predicting potential fluid ingress scenarios, to enable prevention, this methodology will also support future distribution of low carbon gases across the network.

Enablers and Constraints

- Fluid ingress events present significant challenges to network operators, including customer disruption, resourcing and financial impacts, making this challenge a priority to investigate suitable solutions.
- Previous project - NIA_NGN_168 – Water Ingress Investigation. Learnings can be taken from this previous work to understand how to apply technological advances since completion.
- Key constraints to this problem, include ensuring engagement with Operational Teams to ensure smooth and effective implementation of any solution.
- If fluid ingress events can be better predicted and mitigated then overall impact on day-to-day operations should be limited.

Involvement and Implementation

Key Stakeholders

- Other GDNs, DNOs, Water Network Operators, Environment Agency, Customer Vulnerability Groups, Operational Teams

Target Market

- AI Solution providers, Technology Partners

Target Implementation Date

- RIIO GD3 and beyond, dependant on proposals. Solutions could be scalable across Network Operations, Investment Planning, Strategy & Customer Safeguarding Initiatives

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Participant joining code
[Slido.com](https://www.slido.com)

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