

## EIP030

# Can we minimise unplanned supply interruptions?

### Problem Statement Details

During Year One of RIIO-GD2, the average unplanned gas supply interruption duration for NGN was 5 hours across a total 10,778 interruptions. Unplanned Gas Supply Interruptions are commonly caused by:

- Network supply issues (poor pressure, water ingress)
- Third party interference damage
- Unforeseen Network Interruptions during REPEX Activities.

There is an appreciation also that during any future gas network conversion activities, there will be an increase in excavation activities within the vicinity of buried utilities, increasing the risk of damage and subsequent interruption. Gas Supply Interruptions have significant impacts across all customer bases; however, it is known that supply interruptions have a greater detrimental impact for Customers in Vulnerable Situations. The Energy System Transition will result in varying impacts following unplanned interruptions, dependent on the type of energy system to which they are connected.

NGN are seeking a greater understanding of what future supply energy system supply interruptions may involve and how we can work to minimise and eliminate future supply interruption.

### Key Stakeholders

Other GDNs, DNOs, Customer Vulnerability Groups

### Target Market

Technology Partners

### Enablers and Constraints

No previous projects that primarily focus on developing a greater *understanding* of future unplanned interruption scenarios & the support required for customers in vulnerable situations.

### Scalability and Target Implementation Date

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

## Innovation Strategy Target Areas

Innovation Theme	Target Area	Primary or Secondary
<b>Data and Digitalisation</b>	<p>The shift to data-driven, digitally-enabled networks is critical as we move towards Net Zero.</p> <p>We need your help to drive standardisation, interoperability, security and digital skills whilst accelerating our transformation to data-driven networks by the mid 2030s.</p>	Secondary
<b>Flexibility and Market Evolution</b>	<p>Energy networks must quickly and efficiently respond to the rapidly evolving needs of the energy system transition. We need your support to eliminate barriers to new market entrants, deploy novel commercial and network management solutions whilst ensuring fair participation and eliminating regulatory barriers within the RIIO-2 price control periods.</p>	
<b>Net zero and the energy system transition</b>	<p>In order to meet the UK net zero targets of 2050 we must start converting our networks to deliver low carbon fuels today. We want to work with you to develop the role of our gas networks into the future by investigating, trialling, implementing and delivering safe, low carbon alternatives to natural gas such as Hydrogen.</p> <p>Net Zero requires connection of more low and zero carbon sources of energy generation, storage and demand to both the transmission and distribution networks. We need your innovative methods for effective network management and accessing flexibility to improve visibility, forecasting and modelling of low carbon technologies.</p>	Secondary
<b>Optimised assets and practices</b>	<p>Innovation has a key role to play in ensuring our networks continue to remain reliable, safe, secure and resilient to our changing climate. We are constantly looking to improve and welcome support to identify methods to prevent interruptions, ensure resilience, reduce climate impact and future-proof our networks.</p>	
<b>Supporting Consumers in Vulnerable Situations</b>	<p>Equality and fairness are the foundations of a just transition to Net Zero. We hope you can provide insight into the transient and situational nature of vulnerability and how we can overcome the impact the energy system has on consumers, building strong relationships for the future.</p>	Primary
<b>Whole Energy System Transition</b>	<p>The energy system must consider the full range of opportunities, risks and interdependencies that exist across the energy networks to integrate and optimise them in a way that best serves the consumer. We are looking for ways to improve visibility of the networks and transitional options, co-ordinate approaches and collaborate across the UK.</p>	