

# Energy Innovation Basecamp 2025

## Problem Statement EIP141

### Optimise Riser Management

The following problem statement has been developed by the innovation teams within the UK's Gas and Electricity Networks for the 2024 Energy Innovation Basecamp.

**Theme: Building Better and Faster**

**Network Areas: Gas Distribution,**

#### What is the problem?

Managing gas riser assets in multi-occupancy buildings presents significant challenges, particularly in minimizing service interruptions during maintenance and repairs. Traditional methods often necessitate gas supply cut-offs, adversely affecting residents, especially vulnerable individuals. The goal is to develop advanced live repair techniques that ensure safety, cost-effectiveness, and long-term durability while maintaining continuous gas flow.

With this complex asset, how do we expand beyond current repair techniques like heat shrinks and micro stop, that will reduce the need to cut off the riser?

#### What are we looking for?

We seek new and creative innovative ideas that will:

- Enable live maintenance and repair of gas risers without disrupting service to occupants.
- Utilize advanced materials, technologies, or methodologies to enhance repair efficiency and effectiveness.
- Ensure compliance with safety regulations and industry standards.
- Are scalable and adaptable to various building types and configurations.
- Prioritize the needs of vulnerable customers by minimizing inconvenience and potential hazards.

#### What are the constraints?

Solutions must be:

- Adherence to stringent safety standards is paramount to prevent hazards or future issues within the building.
- Techniques must align with industry standards and legal requirements, including those set by bodies like the Gas Safe Register in the UK
- Solutions should be applicable to various types of gas risers and compatible with existing infrastructure.
- Solution must be feasible in various environments, including areas with limited access or confined spaces, without causing significant disruption.
- Solution must be durable and effective to prevent any recurring issues and additional costs.

#### Who are the key players?

- Gas Distribution Network Operators (DNOs): Companies responsible for the maintenance and operation of gas distribution networks.
- Regulatory: Organizations like the Health and Safety Executive (HSE), Building Safety Regulator (BSR) and the Gas Safe Register
- Industry Associations: Institution of Gas Engineers and Managers (IGEM) that provide guidelines and best practices.

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- Technology Providers and supply chain: Companies specializing in advanced repair materials and techniques, including robotics and non-intrusive repair methods.
- Academic and Research Institutions: Entities conducting research on innovative gas infrastructure maintenance solutions that could be applied to gas risers for multiple occupancy buildings.

### **Does this problem statement build on existing or anticipated infrastructure, policy decisions, or previous innovation projects?**

This problem statement builds upon existing policies and innovations:

- Regulatory Frameworks: Aligns with safety and operational standards set by regulatory bodies, ensuring compliance with current legislation.
- Industry Standards: Adheres to guidelines such as IGEM/G/5 Edition 3, which outlines best practices for gas installations in multi-occupancy buildings.

### **What else do you need to know?**

**Innovator submissions to this problem statement will be open [here](#) during March and April, but we encourage you to submit your response as early as possible, as networks will be able to review submissions as soon as they come in.**

**You can also use the virtual Q&A on the Smarter Networks Portal to ask for more information about this problem statement. Questions may be answered online or at the ENA Problem Statement Launch in March 2024. More information on last year's Basecamp programme can be found [here](#).**