

Welcome

Energy Innovation Basecamp

28 February 2023 ICC Birmingham



Can we trial hydrogen assets without using hydrogen

EIP034

28 February 2023

Background

- Gas Transmission assets need to be trialled with hydrogen and to reproduce those conditions in a safe environment demonstration facilities are needed.
- Large quantities of gas (both natural gas and hydrogen) are needed at these locations at a time when prices are increasing.
- Repeating tests to gain certainty on hydrogen effects further increases the costs
- Different methods such as modelling could be developed to help provide the evidence we need.



FutureGrid test facility

Enablers and Constraints



High-pressure materials testing



- Hydrogen charging has been used to conduct materials testing. How representative is this?
- What relationships can be derived to allow extrapolation eg for pneumatic testing?
- To what extent can modelling be used to substitute live testing? How much validation is required for this?
- What new tools and techniques are underutilised for hydrogen testing?

- A certain level of live testing will always be required – how do we do this cheaply and effectively?

Involvement and Implementation

- Beneficiaries would be all pipeline operators
 - Onshore transmission and distribution companies
 - Gas terminals
 - Offshore pipeline operators
- Target Market size – Globally, Large
- Target Implementation Date – As the gas network transitions to net zero

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

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