

APSE Scotland Building & Housing Seminar – Building and maintaining sustainable housing for the future

H100 Fife

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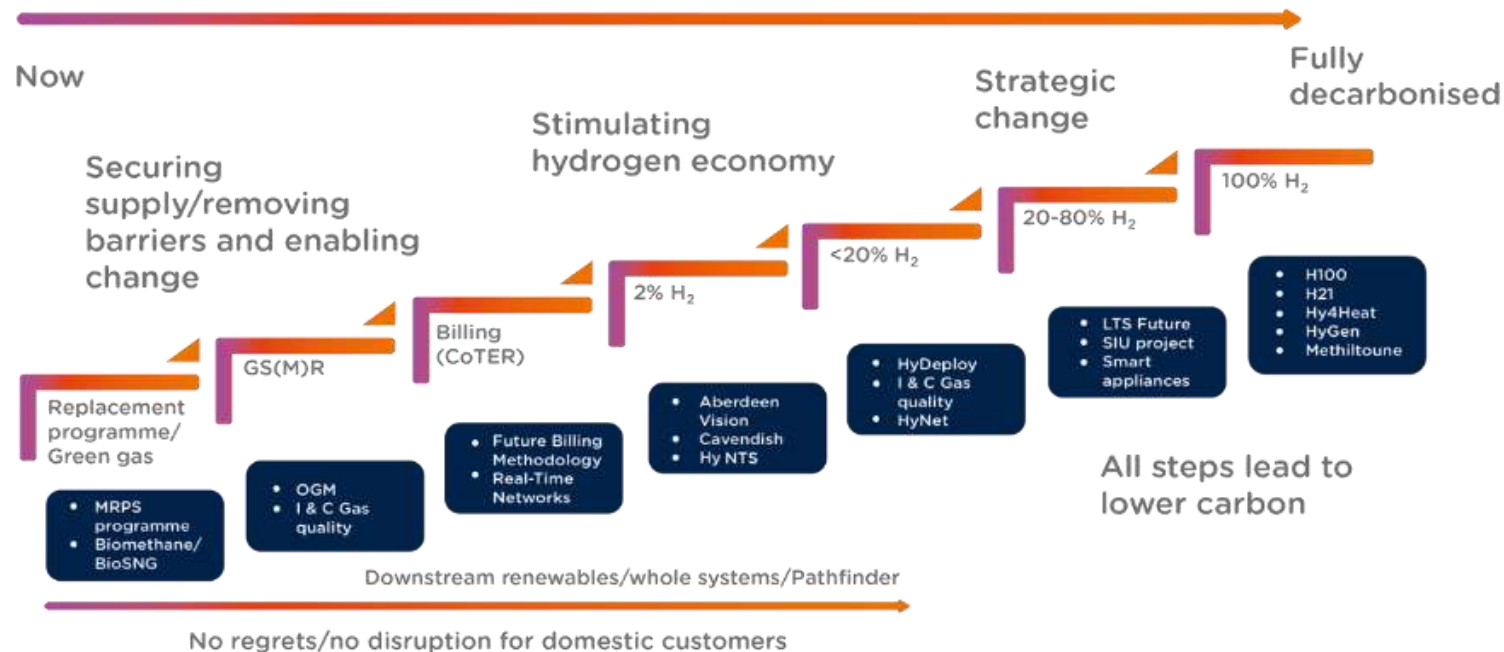
SGN

Your gas. Our network.

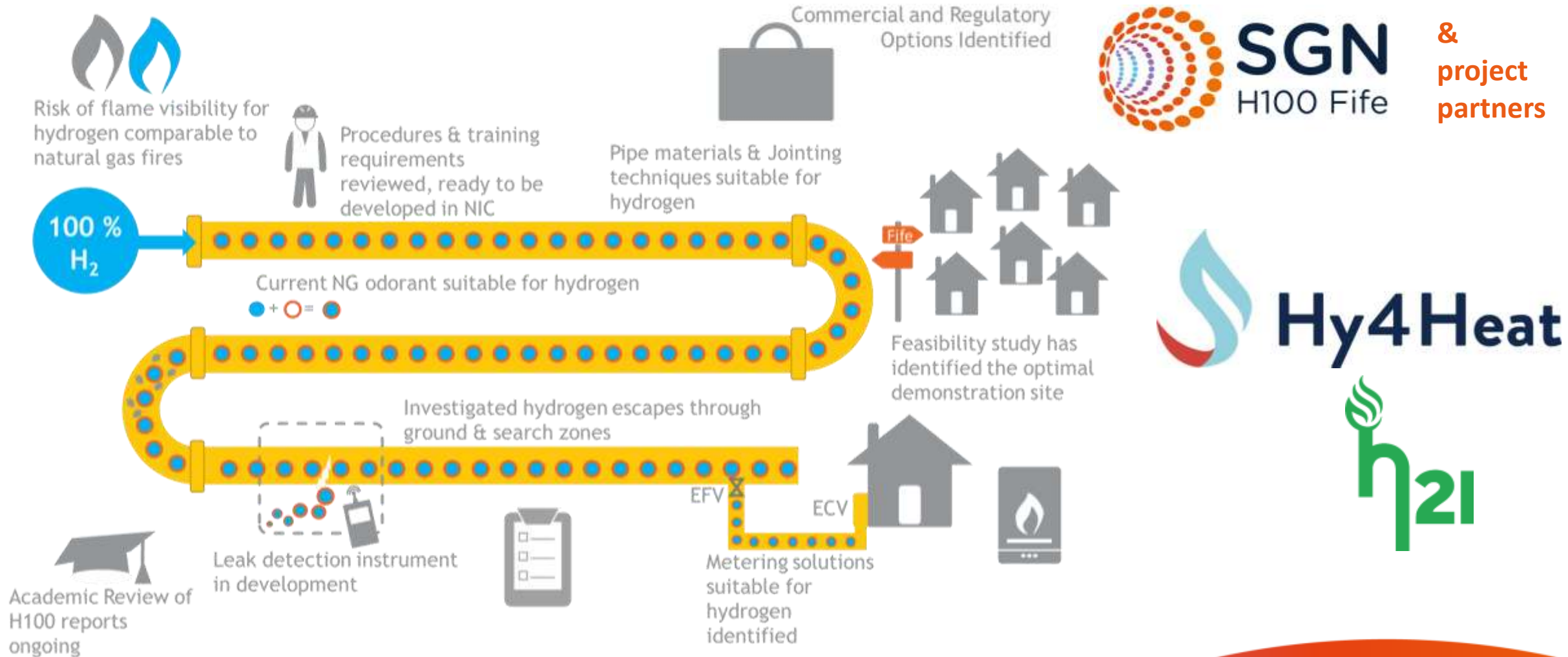
Hydrogen Context

- H100 Fife is a key demonstration project with national significance in evidencing the role of hydrogen to decarbonise the gas networks.

The gas quality decarbonisation pathway



Hydrogen Evidence Base





H₂

H100 Fife

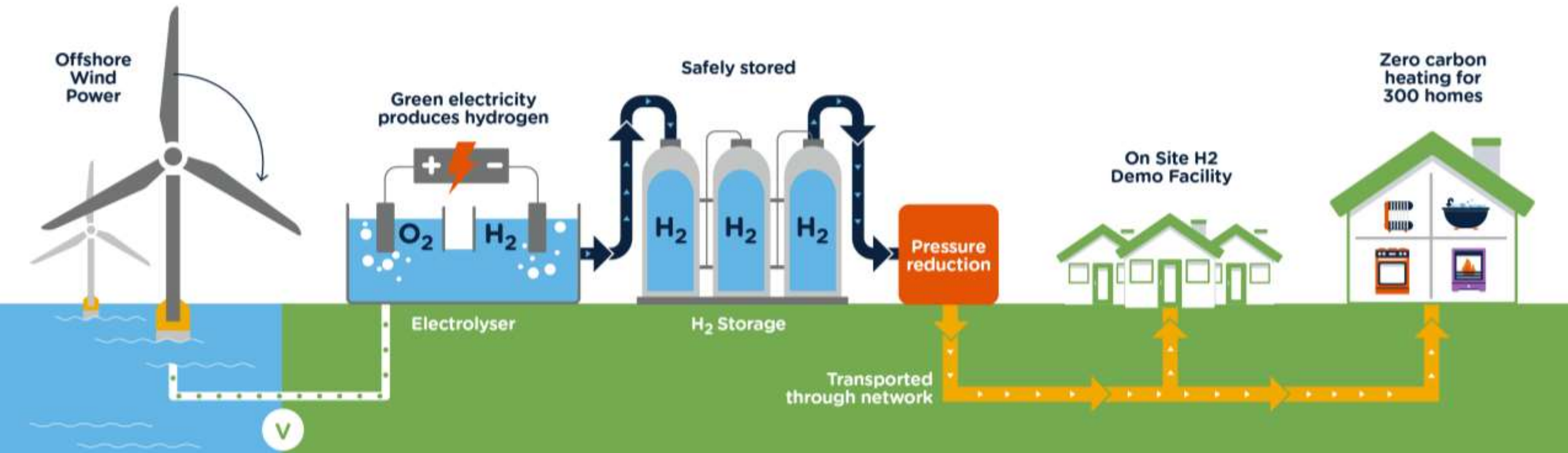
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Future of gas

H100 Fife – End to End Demonstration



H100 Fife – Levenmouth Site



ORE Catapult 7MW Turbine



Energy Park Fife



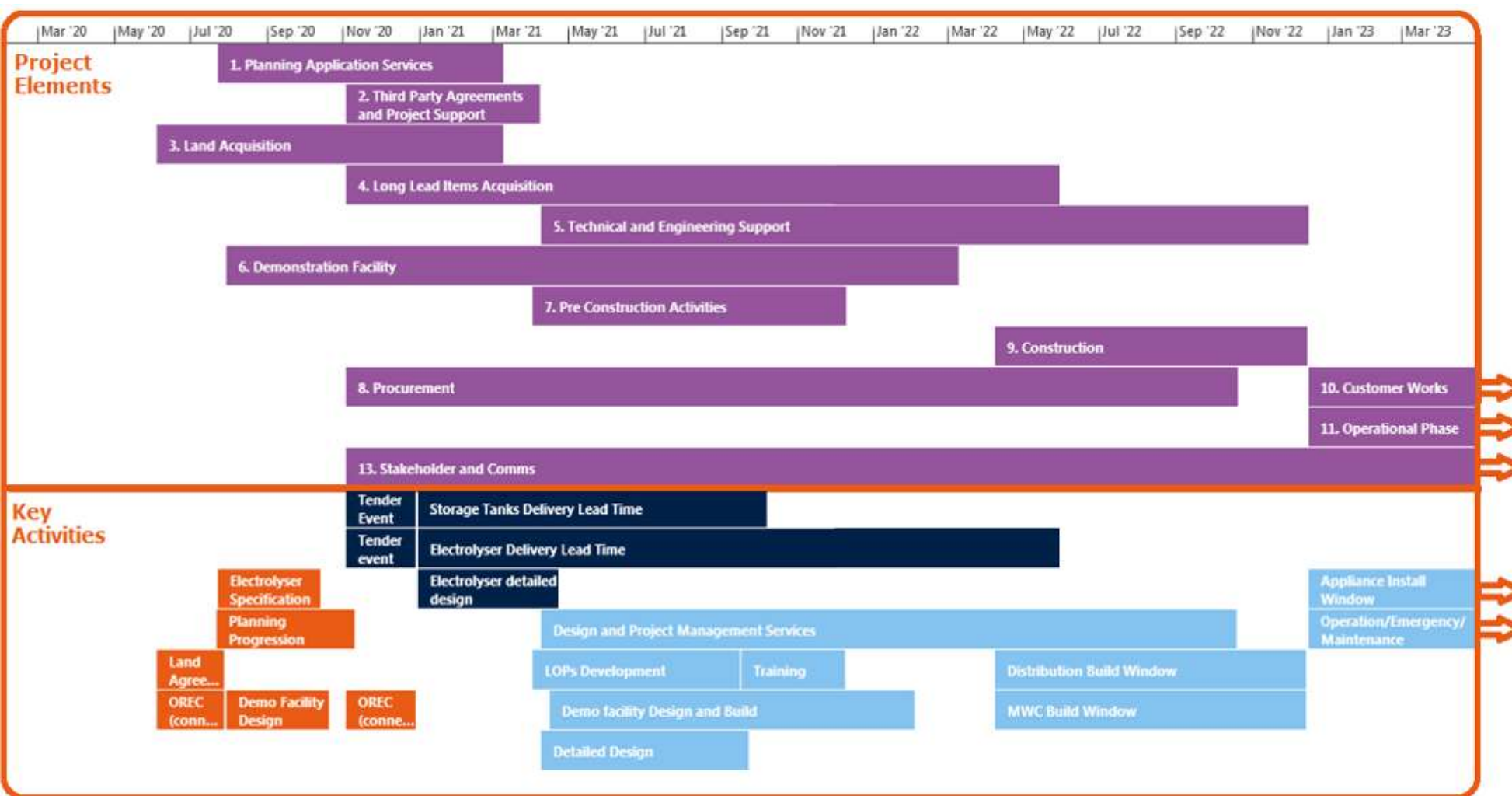
Hydrogen Demonstration Facility



Key Principles:

- Building customer confidence
- Providing interactive customer experience with hydrogen
- Maintaining customer choice model throughout project
- Customers can opt-in for a hydrogen supply or remain with existing natural gas supply
- Cost neutral to participate

Current Programme Update and Milestones



Milestones

- Funding announced Nov 2020
- Planning submitted end of 2020
- Design & development 2021
- Hydrogen Demonstration Facility opens Q1 2022
- Customer sign up process commences Q1 2022
- Safety management framework complete Q1 2022
- Construction commences Q2 2022
- Network operational Q4 2022
- All customers connected Q2 2023

Critical H100 Fife Outcome Examples

- Prioritised learning to inform hydrogen system transformation
- Validation of 80% of 280000km network materials, components, construction and operation on a live network.
- Quantifying and qualifying customer and social acceptance of hydrogen for heat in real-world trial
- End to end system interfaces management and learning across the whole system
- Statistically significant and scalable
- Future demand forecasting through heat profile data
- Informs heat policy decisions and future regulation
- Shared learning & knowledge transfer to facilitate hydrogen projects & roll out
- Market creation



Future Expansion Opportunities

- Phase 1: 300 homes new network
- Phase 2: Increased homes & conversion
- Phase 3: Industrial & Commercial
- Phase 4: Transport
- Phase 5: Whole Systems & Hydrogen Coast



Fife Council Involvement in H100 Fife

Benefits:

- Local Housing Strategy & Climate Fife delivery.
- Decarbonise wet central heating systems & cooking
- Engage Fifers in climate transition conversations
- Investment in the area
- Jobs creation and Skills development



Fife Council activities include:

- Council housing options for trial:
 - Data – EPC surveys of voids
 - Impacts on heating replacement & maintenance
 - Support engagement of tenants & other landlords and householders
- Political & public engagement
- Input to SGN funding reports
- Statutory functions: Roadworks & Planning

Thank you

H100 Fife video link -

<https://www.sgn.co.uk/H100Fife>



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