

Energy Innovation Summit

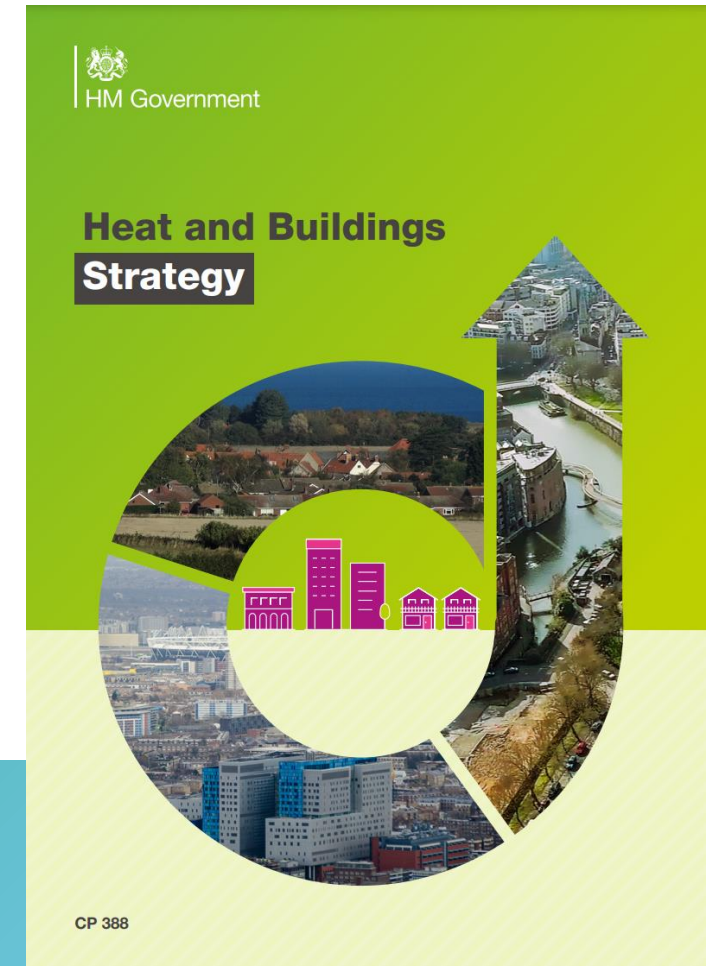
Redcar Hydrogen Community

Neil Travers – Northern Gas Networks

Hydrogen for heat:

UK Government overview

The Government's commitment to grow the low-carbon hydrogen economy is significant:



Hydrogen for heat:

UK Government overview

Ten Point Plan	Evidence for hydrogen blending – 2023
	Hydrogen village trial – 2025
	10GW of hydrogen production – by 2030
	Hydrogen town trial – 2030
Hydrogen Strategy	Hydrogen could represent up to 35% of the future energy mix
	Attract £4bn of private investment
	Consultations on low carbon hydrogen standard and vital economic models
Heat and Buildings Strategy	Heat Policy Decision – 2026

H21 – Phases 1 & 2

Mini distribution network tested operational procedures on hydrogen at **DNV Spadeadam**



An unoccupied and undisturbed section of our network trialled with hydrogen at **South Bank, Teesside**.

1a

Leakage Testing



1b

Consequence Testing



Operational Procedures

2a



Unoccupied Trial

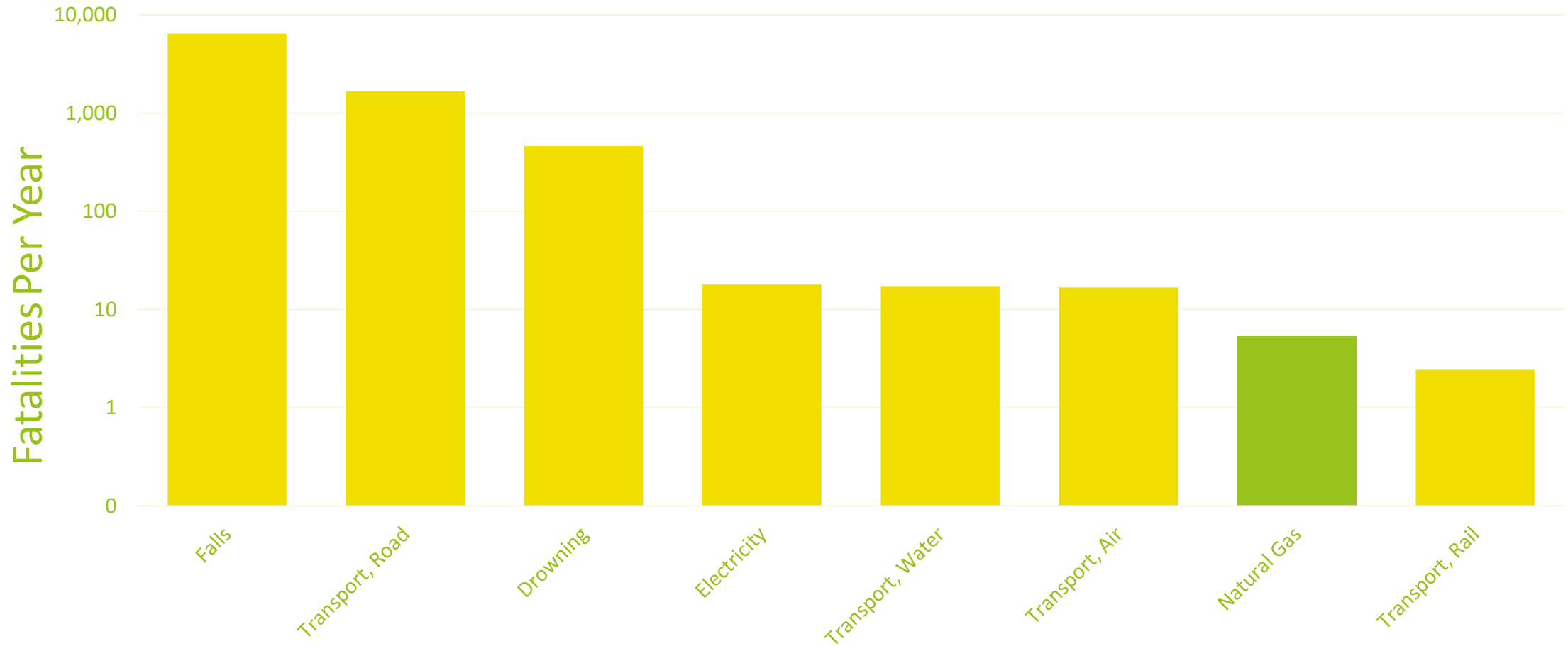
2b

Comparing leakage rates between natural gas and hydrogen at **HSE-SD Buxton**



Societal Risks

The current societal risk of natural gas is very low (10⁻⁷) and we will ensure the risk of hydrogen is as low if not lower than it is now



Fatalities
(per year)

6,434

1,663

462

18

17

17

5

2



Redcar Hydrogen Community

with Northern Gas Networks



Teesside off shore wind farm

Coatham

Warrenby

Redcar & Cleveland Leisure and Community Heart

Town Centre

Redcar & Cleveland College

Dormanstown

A1085

A1042

REDCAR

Kirkleatham

A174

Yearby

Wilton

Lazenby

Wilton International

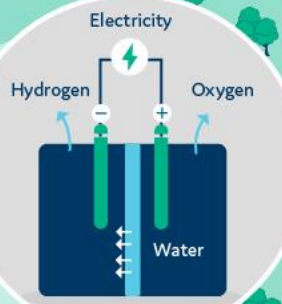
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The Redcar area boasts a skilled workforce, with strengths across engineering, process and energy, logistics, professional and business services and health related industries

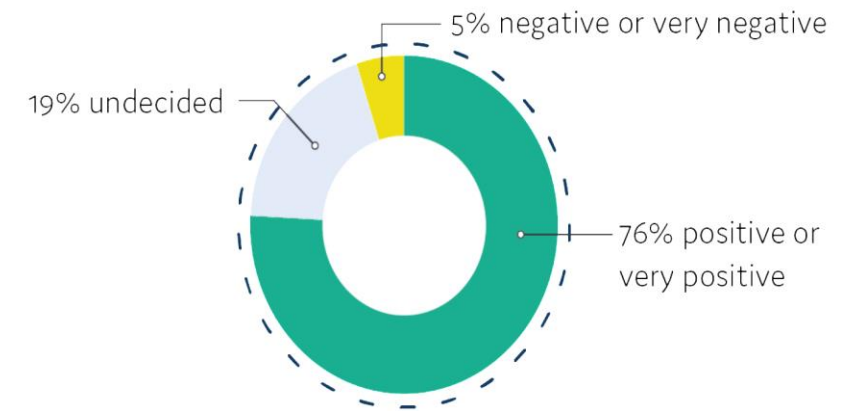
Above ground hydrogen storage

This hydrogen is produced by using electricity to split water into hydrogen and oxygen via electrolysis

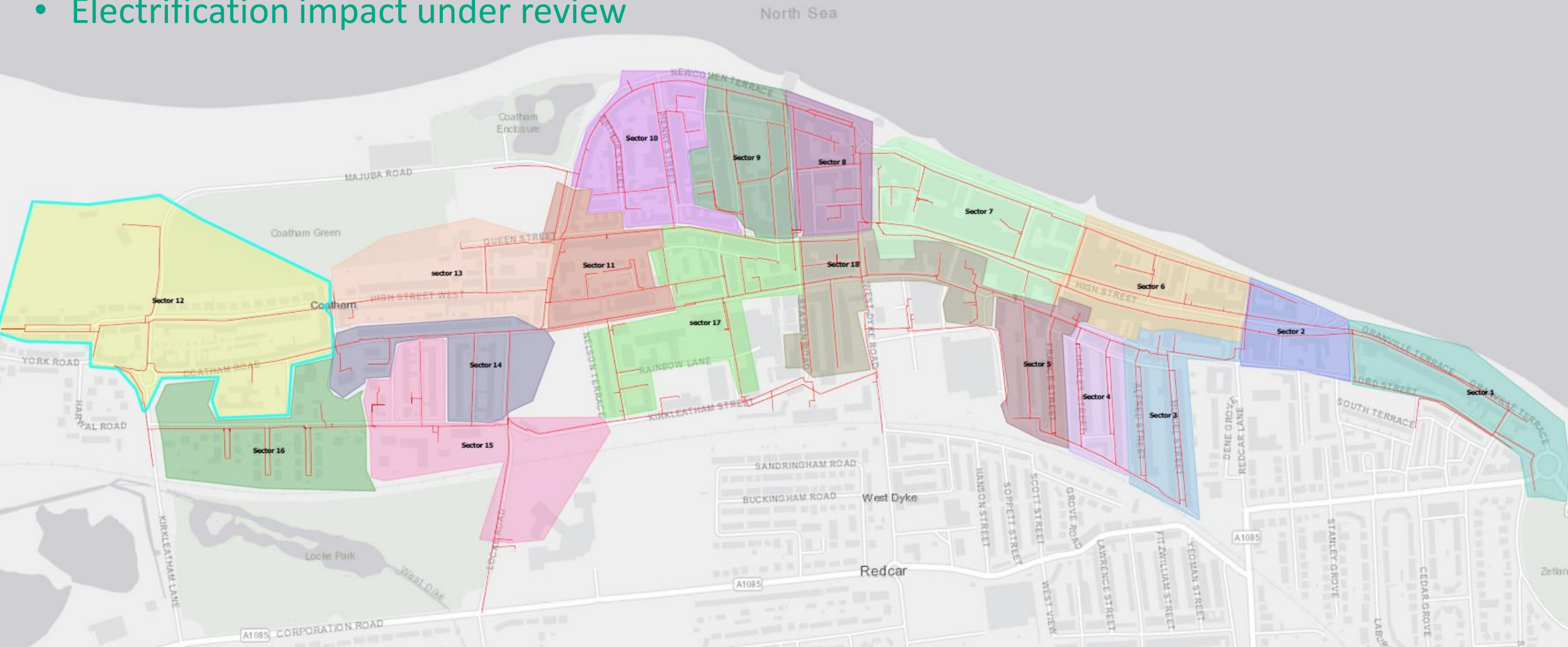
Green hydrogen production facility



- Approximately 2,000 gas users including homes and businesses of varying sizes
- Engineering & consultation surveys completed
- Citizen's Panel and Consultation Meetings held
- Our Hydrogen Hub is located on the High Street



- Gas distribution network sectorised for conversion
- Phased conversion to minimise interruption periods
- Reinforcement requirements identified to maintain supply
- Electrification impact under review



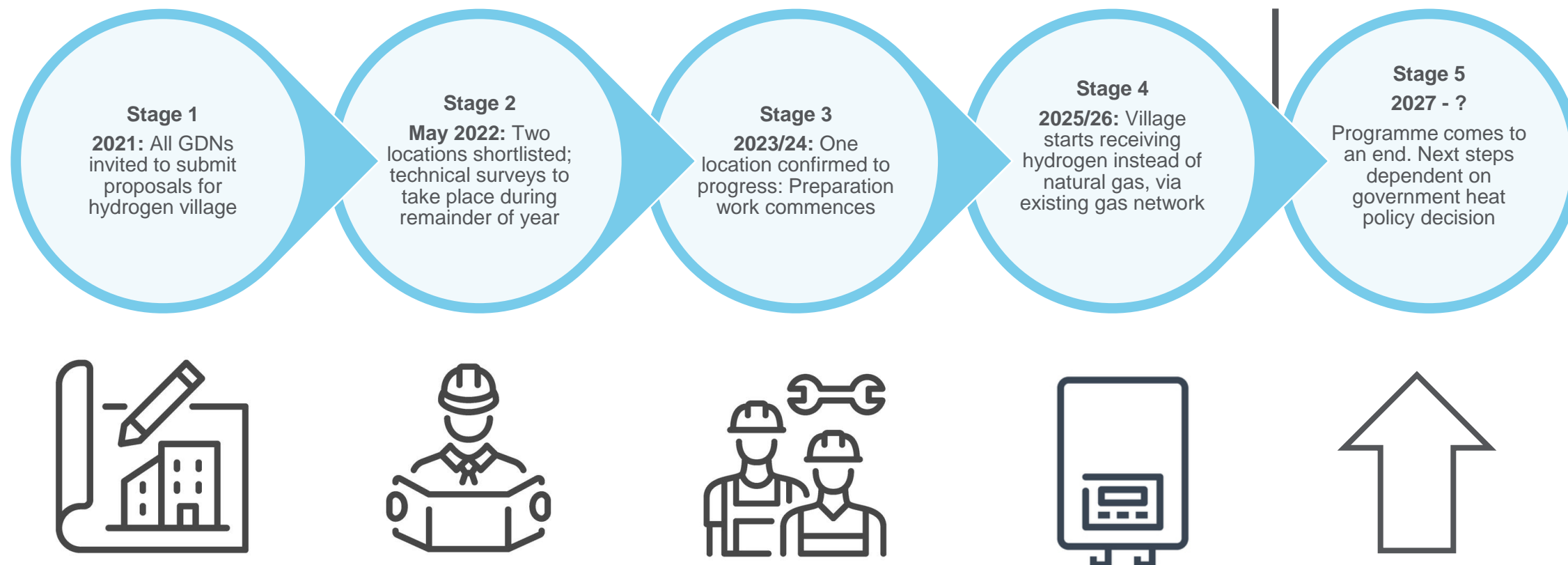
The homes showcase
100% hydrogen
appliances and meters.
Since opening in
August 2021 over 2,500
visitors have crossed
the threshold.





Department for
Business, Energy
& Industrial Strategy

Hydrogen Village Timings



Questions?