

SGN H100 Fife

APSE Scotland Climate Change and Renewables network meeting

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SGN

Your gas. Our network.

H100 Fife – The Background

H100 Fife Overview

Hydrogen Trials

- First 100% hydrogen-to-homes zero carbon network anywhere in the world.
- The Hydrogen Neighbourhood, Village and Town project established in the UK Government's 'Ten Point Plan'

DESNZ Evidence

- Evidence into over 92 of 104 Evidence Strands identified by DESNZ

Timeline

- Commenced in 2021 following 5 years of cross industry evidentiary work
- Now in construction and live in autumn 2025
- Trial runs until 2027

Funding

- Funded by SGN, OFGEM, Scottish Government, Cadent, NGN, WWU

Project Partners

- Project Partners include Baxi and Bosch



The Ten Point Plan for a Green Industrial Revolution

Building back better, supporting green jobs, and accelerating our path to net zero



November 2020

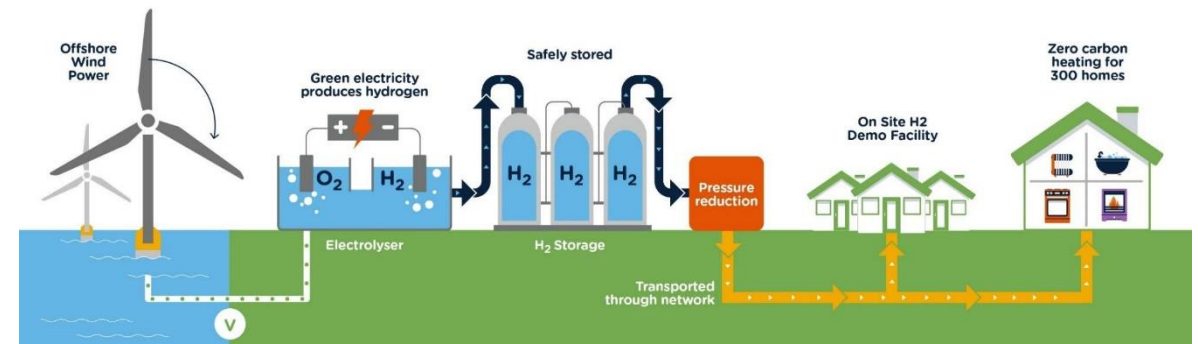
H100 Fife - Overview

Fife Energy Park

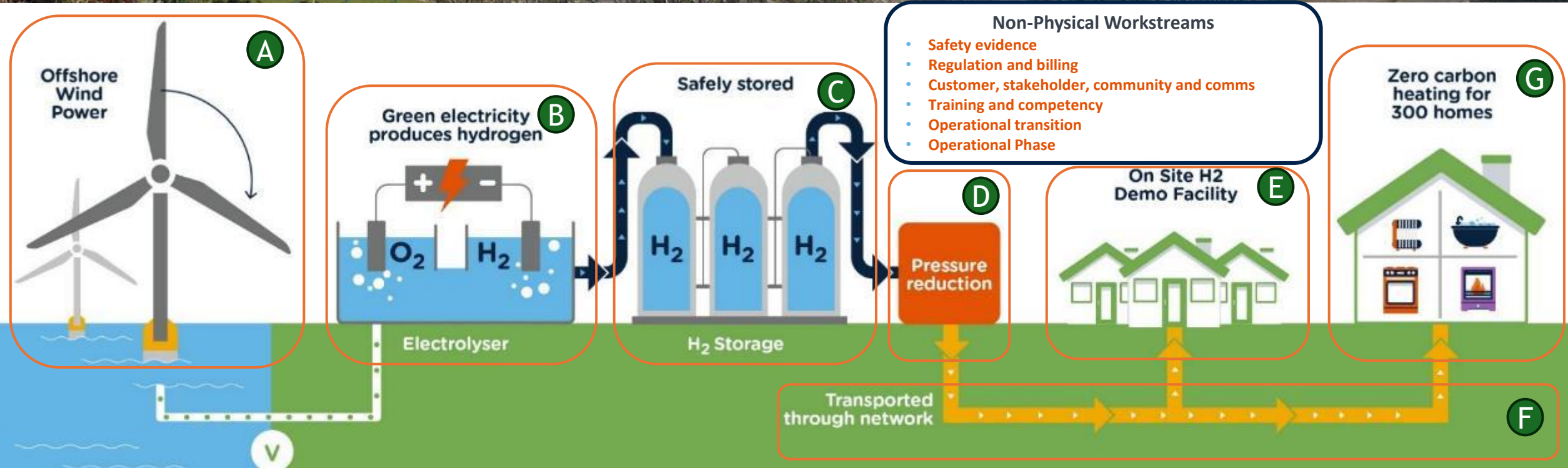


Production & Storage Overview

- Utilising the existing Fife Energy Park to build P&S Site
- Offshore Renewable Energy Catapult's (OREC) 7MW offshore wind turbine will supply clean energy for electrolysis
- 5MW Electrolyser, supplied by NEL ASA
- Six storage vessels, supplied by WEFCO, will store green hydrogen
- Newly built demonstration facilities



End to end system – How to we make the Hydrogen...





H100 Fife How do we get Hydrogen to homes...



Network Overview

- Parallel network running past 1,000 homes, businesses, schools and a hospital
- 8.4km of newly built parallel hydrogen gas network from Fife Energy Park
- Construction will last May 2023 – September 2024
- Construction will take place in phases to minimise disruption
- Hydrogen Pipework - Differs to natural gas with blue stripe for easy identification by third party utilities
- Smart Utilities registered under the **Considerate Contractor Scheme**
 - Independently audited on: Respecting the community, Caring for the environment and Valuing the workforce



H100 Fife – Who can take part?

H100 Fife Network Area



Who can take part?

Our new parallel hydrogen gas network will run past 1,000 homes.

Up to 300 Homes meeting the following criteria will be considered for a hydrogen gas supply:

- Natural gas customers
- Domestic properties
- Customers need to opt-in to participate in the project (Homeowners, Fife Council and Housing association tenants, Private tenants)
- Terraced, semi-detached or detached houses, Ground floor and first floor flats

**All homes that opt-in to the project will be assessed on a case-by-case basis to validate their eligibility to participate.*

H100 Fife – How do we convert customers homes...

Home Surveys & Installations

Our new parallel hydrogen gas network will run past 1,000 homes.



- Warmworks appointed as contractor for surveys and installation
 - Managing the Warmer Homes Scotland Scheme since 2015
- Surveys determining home eligibility criteria and work required
 - Completed between November 2022 and December 2023
 - Installation between 1 and 3 days
- All natural gas appliances replaced with alternatives
- **Bosch** and Baxi as project partners supplying boilers for all participants
- **BSH** supplying hydrogen hobs
- Installations will be carried out by Gas Safe Registered & Hydrogen trained engineers

H100 Fife – How do we train our Engineers...

Fife College – Preparing for the Future



Training at Fife College is due to begin in June 2024

- Open to Engineers who have a minimum level of 1 year experience working on Natural Gas systems
- 4-day training + 1 day assessment
- Proves competency and complies with the Gas Safety (Installation and Use) regulations
- Certification body (BPEC) uploads certificate onto the Gas Safe Register
- Training reviewed by IGEM and HSE
- 206 engineers will be trained

H100 Fife: How do we build trust with Customers & The Community

Engagement: Timeline & Progress

The background

- Area of high deprivation
- Unemployment & Social issues
- 34.5% of children live in food and fuel poverty

Our goals

- Understanding the community, their priorities and how to gain support > Shaping our Customer offer
- Unemployment > Employment
- No trust in large organisations > Investment & Community benefits

The engagement

- Community events to raise awareness of the project & its benefits
- 'Pay-what-you-can' sport camps over school holidays & School workshops to offer experiences otherwise unaffordable
- Sponsorship of foodbanks & community events at Christmas
- Participation in local organisations' events, meetings & forums
- Recruitment of local resources

Next steps

- Customer recruitment Ongoing - Social media campaigns, including videos of team & community champions at HDF
- Bringing existing and new customers to the demohome
- Continuation of local sponsorships & investment
- Continuation of CAP Days
- Hosting customers at our Hydrogen Demonstration Facility (HDF)
- Ongoing presence in local community



Arrival in the community

Informational postcards & Community partnerships

Face to face engagement (Campaign 1)
School workshops

Partnership door to door information
Regular customer events going forward
Community Engagement

Customer home surveys
Customer Welcome Pack (Bundle 1)

Customer connection Agreements
CAP Days
Savanta questionnaires

Community & Partnership
Further customer engagement (Campaign 2)

January 2021

March 2022

September 2022

November 2022

November 2023

April 2024

Ongoing