Planning for the Rollout of Hydrogen for Heat

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Gas networks in the UK Hydrogen Strategy

Early 2020s (2022-2024) | Mid-2020s (2025-2027) | Late 2020s (2028-2030)
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**Hydrogen economy ‘archetype’**
- **Production**
  - Small-scale electrolytic production
- **Networks**
  - Direct pipeline, co-location, trucked (non-pipeline) or onsite use
- **Use**
  - Some transport (buses, early HGV, rail & aviation trials), industry demonstrations, neighbourhood heat trials

- **Production**
  - Large-scale CCUS-enabled production in at least one location; electrolytic production increasing in scale
- **Networks**
  - Dedicated small-scale cluster pipeline network, expanded trucking & small-scale storage
- **Use**
  - Industry applications; transport (HGV, rail & shipping trials), village heat trials, blending (GDI)

- **Production**
  - Several large-scale CCUS-enabled projects & several large-scale electrolytic projects
- **Networks**
  - Large cluster networks, large-scale storage, integration with gas networks
- **Use**
  - Wide use in industry; power generation & flexibility; transport (HGVs, shipping), heat pilot town (10k)

**Key actions and milestones**
- Launch NZH-F early 2022
- Phase 1 CCUS cluster decision 2021
- Finalise low carbon hydrogen standard 2022
- Finalise business model 2022
- Heat neighbourhood trial 2023
- Value for money case for blending Q3 2022

- Aiming for 1GW production capacity Q2 2025
- At least 2 CCUS clusters by 2025
- Heat village trial 2025
- Hydrogen heating decision by 2026
- Decision on HGVs mid-2020s

- Ambition for 5GW production capacity in 2030
- 4 CCUS clusters by 2030
- Potential pilot hydrogen town by 2030
- Ambition for 40GW offshore wind by 2030

Source: UK Hydrogen Strategy 2021
Policy decision on 100% hydrogen for heating in GB

Gas networks building the evidence base for the 2026 policy decision
The Town Pilot

Plans for a country-wide rollout of hydrogen, pending a positive policy decision in 2026

**STEP 1: First hydrogen Town by 2030**
- Start in 2030
- >10,000 connections
- All users
- Repurposing existing network, potential reinforcement

**STEPS 2, 3: Further rollout (additional hydrogen Towns, expansion in adjacent areas)**
- After 2030
- Gradual expansion of hydrogen networks
- Implementation of national hydrogen rollout plan

Points on this map are examples unrelated to potential Town locations
### Town Pilot timeline

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- **Interim plans for town available**
- **Policy decision**
- **First hydrogen town goes live**

- **Planning**
- **Construction**
- **Operation**

Full deployment timeline to be determined
Town Pilot planning before 2025

**Outline plans:**
Initial view of how a hydrogen town can be delivered. These plans will then be refined in the next phase.

**Detailed plans:**
The outputs will represent a key element that will feed into the 2026 policy decision by Government.
Forward look

Key dependencies

- Neighbourhood Trial and Village Trial
- Project Union by National Gas
- Network modelling of potential hydrogen demand scenarios

Upcoming milestones

- Early 2024: Announcement of selected outline plan locations by DESNZ
- 2025: Completion of detailed plans
- 2026: Policy decision on hydrogen for heat
- 2030: First hydrogen town goes live
- 2030+: Further national rollout