



SGN

SGN is a major gas distribution company in the UK, playing a leading role in Scotland's transition to a low-carbon future through whole system and green gas innovation. One of its flagship projects, H100 Fife, is the world's first to supply 100% green hydrogen to homes using offshore wind power.

Our focus is on using the knowledge, infrastructure and capabilities developed through projects such as H100 Fife and LTS Futures to support future innovation. These efforts, alongside collaborations help shape informed decisions as hydrogen policy and markets develop.

Key Capabilities / Centres

Descriptions

Hydrogen production, storage, distribution infrastructure, public engagement.

Hydrogen Distribution Network : SGN is leading the development of a dedicated hydrogen pipeline network in Fife. This new infrastructure will deliver 100% hydrogen to homes, toward the H100 Fife project with production and storage capability.

Infrastructure Repurposing & Planning : SGN have a program on assessing whether existing gas transmission and distribution assets can safely transport hydrogen and other green gases, supported by materials testing, asset compatibility assessment and live operational trials.

Demonstration & Public Engagement : SGN has built hydrogen demonstration homes showcasing hydrogen appliances and heating systems. These serve to educate the public and build confidence in hydrogen that inform future hydrogen standards.

Skills and workforce development: Developing specialist green gas knowledge, operational procedures and training capability.

Value Chain Areas	Testing & validation	Pilot manufacturing	Digital tools & simulation	Open innovation spaces	Skills development
Production	X	X	X	X	X
Networks	✓	✓	✓	✓	✓
Storage	✓	X	✓	X	X
Transport	X	X	X	X	X
Industry	✓	X	✓	X	✓
Power	✓	X	✓	X	X
Heat	✓	X	✓	✓	✓

*Tick = yes, O = potential, X = no

Collaboration opportunities

Collaboration opportunities with SGN in Scotland around hydrogen are diverse and strategically aligned with Scotland's net zero goals. These include:

- **Infrastructure Development:** Partner on projects to design and repurpose hydrogen-transportation across Scotland.
- **Technology Testing & Validation:** Collaborate on trials to test hydrogen compatibility with existing gas infrastructure.
- **Demonstration Projects:** Engage in public-facing initiatives to trial hydrogen appliances and heating systems for domestic, commercial and industry customers.
- **Community Engagement & Policy Support:** Work with SGN on public education, stakeholder engagement, and shaping policy frameworks for hydrogen adoption across whole system.

Centre location



Hydrogen case studies

- **H100 Fife:** A first-of-a-kind, end-to-end green hydrogen demonstration covering production, storage, distribution and use in homes.
- **LTS Futures:** A programme that completed a live hydrogen trial on a 30 km pipeline to demonstrate how existing transmission infrastructure and operational procedures could be adapted for hydrogen.
- **Velocity Design with Hydrogen:** A programme using a full-scale test rig to examine erosion, particle movement, vibration and noise at higher hydrogen flow velocities.
- **MASiP Development:** Qualification of an innovative flexible pipeline capable of transporting hydrogen and other low-carbon gases.

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