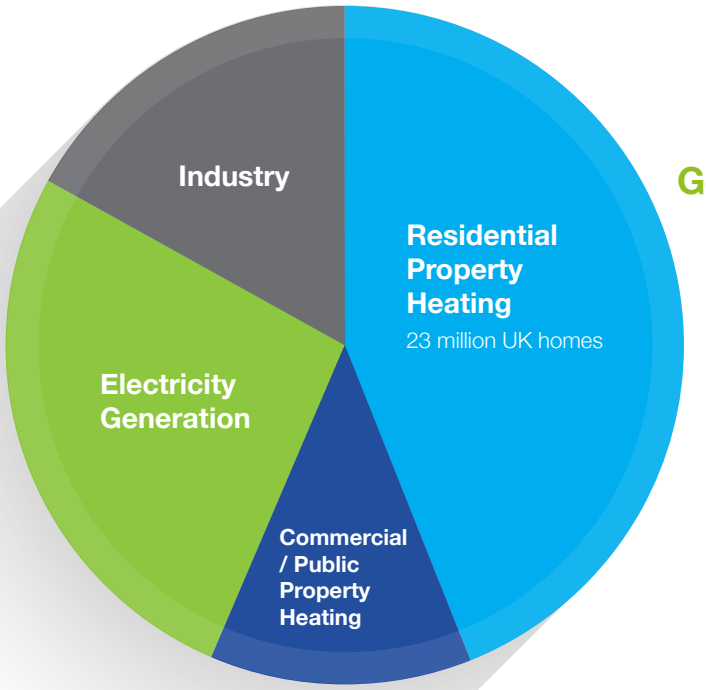
Gas: A Vital Transition Fuel

How gas is used in the UK:



Source: National Grid for 2023

Heating 80% of UK Homes

Generating 30% of UK Electricity

The Climate Change Committee forecasts 2050 UK gas demand to be at 25% of current demand.

Gas's flexibility allows the UK to maximise its use of solar and wind.

How does gas help clean up the world's energy?

Gas is a relatively clean fossil fuel but still contributes to global warming so it will be phased down as the energy transition progresses, however, AI and other technologies are increasing global energy demand.

45% of bitcoin creation is powered by coal (unu.edu) which has a greater environmental impact than homegrown gas.

1. **Gas enables more wind and solar power generation.**
Gas is highly flexible and steps in to provide electricity when the wind is not blowing and the sun is not shining. Gas literally "keeps the lights on".

2. **Countries like China, India, Germany, Japan and the US still burn a significant amount of coal to make electricity.**
Switching to gas, alongside wind and solar power, will help reduce these nations' carbon emissions. UK electricity supply emissions have fallen by 75% since 1990 due to replacing coal with gas and renewables.

3. **The energy transition will take time and money.**
In the medium term, gas will be replaced by industrial batteries, hydrogen and other flexible and clean power sources.

4. **The transition to hydrogen fuel is accelerated by gas.**
Gas is unlocking industry's investment in hydrogen power.

www.kellasmidstream.com

Get in touch at GasFacts@kellasmidstream.com

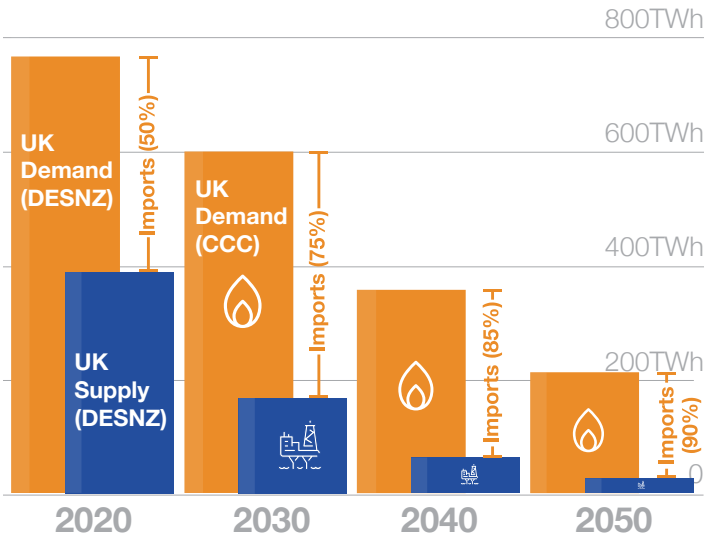
Summer 2024 | Sources: NSTA, CCC, DESNZ, GOV.UK, National Grid, NOD

UK Homegrown Gas vs Imports

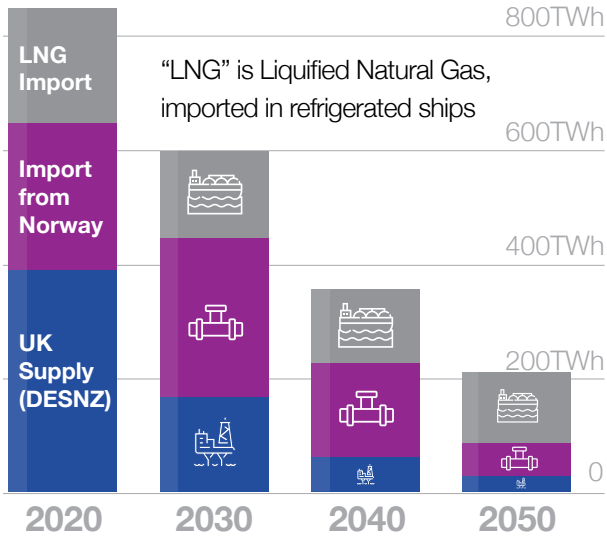
New UK Gas: lower emissions, more control, more jobs and higher tax revenue

- **UK Homegrown gas currently meets less than 50% of UK demand and is declining fast**
- **LNG imports using large refrigerated ships have far higher supply emissions**
- **Norwegian gas will decline from 2035 and has strategic customers to serve in the EU (incl. Germany where gas is required to replace coal usage)**
- **The UK could invest to produce more gas between 2027-2045 in order to reduce imports**
- **New UK gas fields can be low emissions, even lower than Norway, and improve the UK economy**

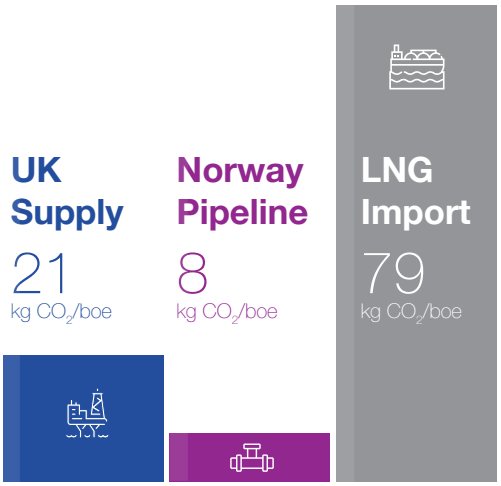
1 UK Gas Supply is Falling Faster than UK Gas Demand



2 Gas imports will soon dominate UK supply

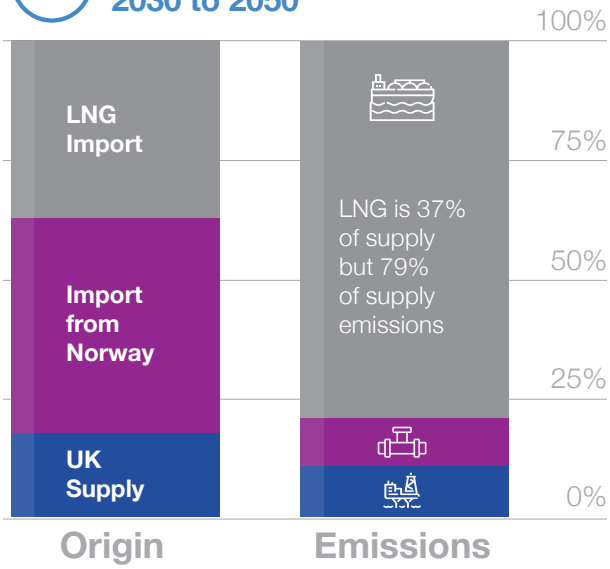


3 LNG has a larger carbon footprint than UK Homegrown Gas



- UK Southern North Sea current gas production: 10kg CO_2/boe
- New UK gas fields can be 5kg CO_2/boe

4 UK Gas Supply & Emissions 2030 to 2050



Gas exports:

- UK imports will be 5x more than UK exports in 2024
- Ireland accounts for 50% of 2024 UK exports

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