Notting Dale Heat Network
Introduction

28 January 2021

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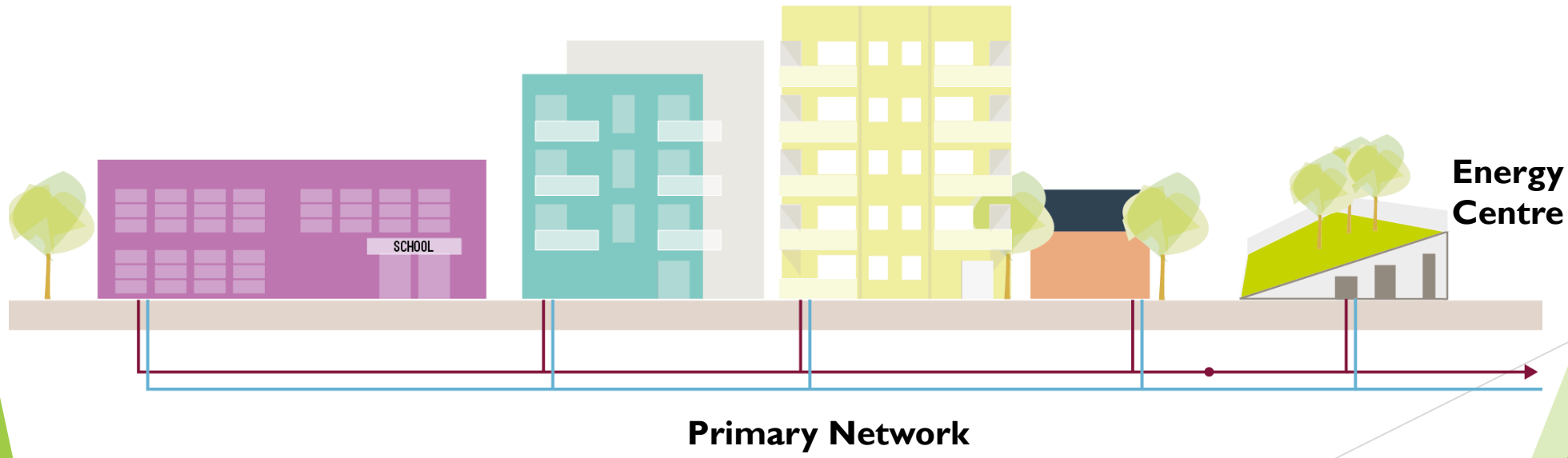
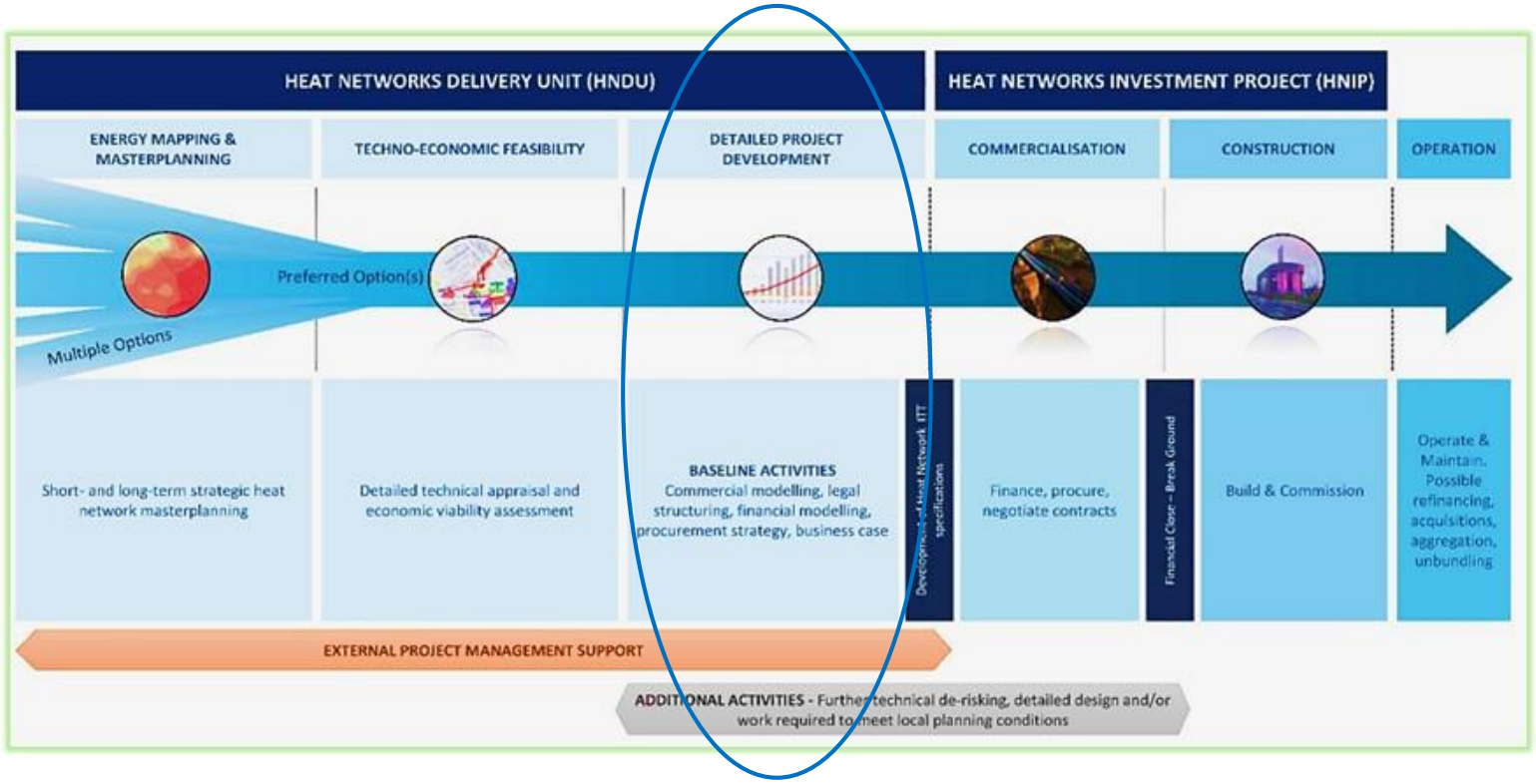
What is a heat network?

It is a system that supplies heat to several buildings via pipes connected to a local energy source.

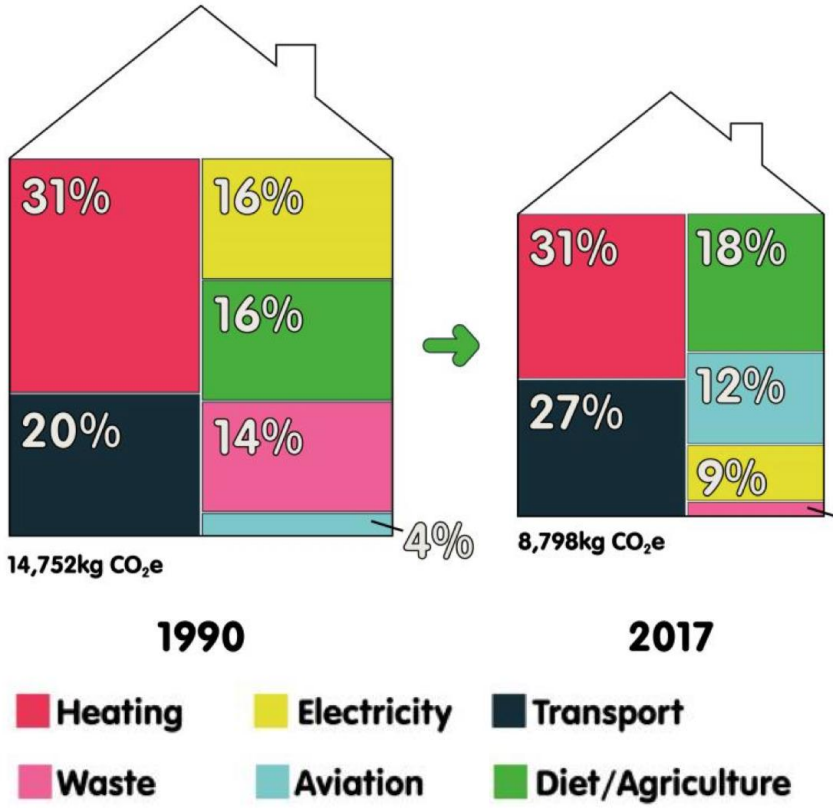


Independent Project Evaluation



Carbon Emissions and Heating

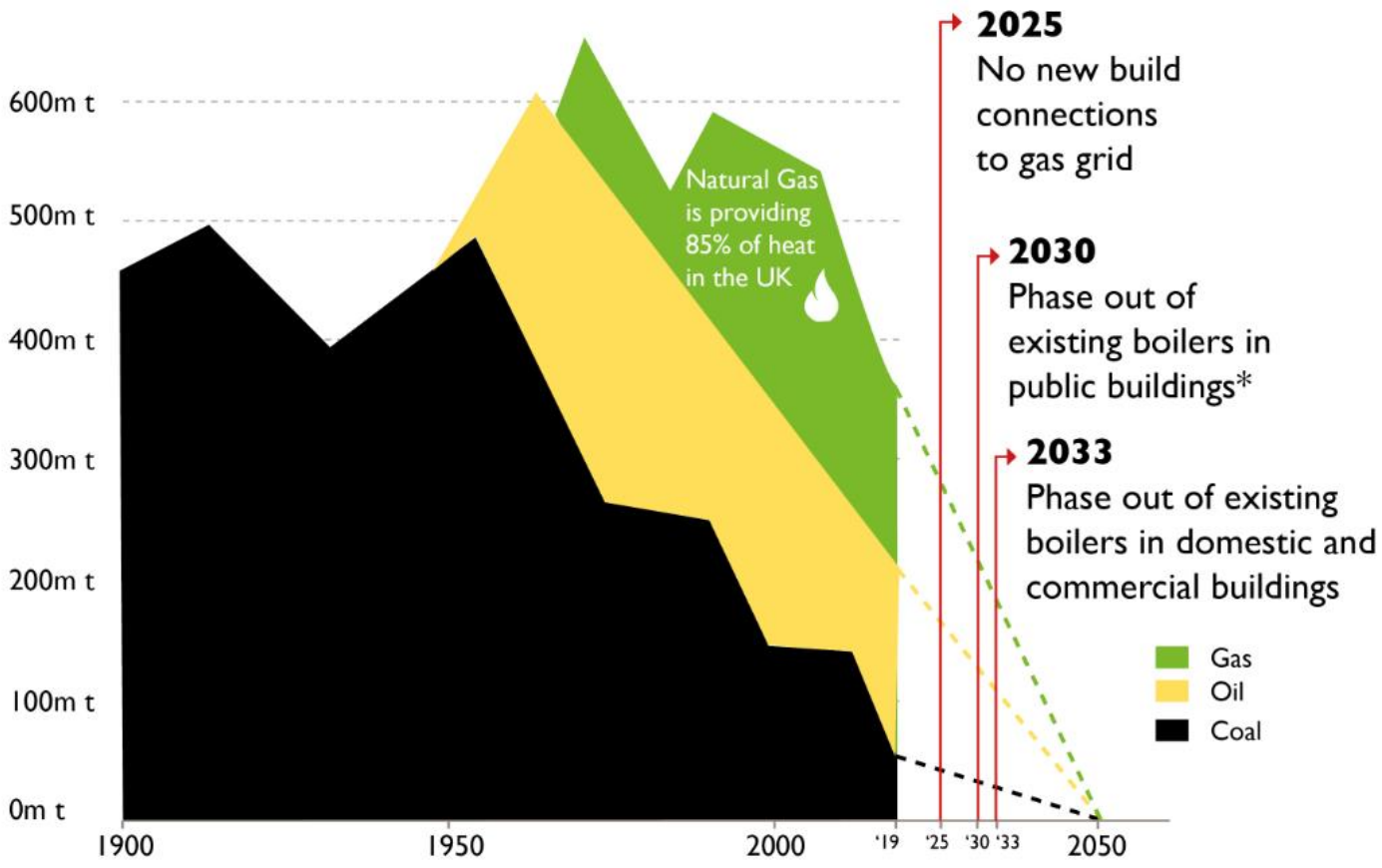
- 31% of domestic CO_2 emissions are produced by heating in the average home
- In Lancaster West this is likely to be higher due to leaky buildings
- Heat is the most difficult sector to decarbonise. Things haven't changed much in 20 years.
- Modern zero-carbon heat networks provide the perfect solution for densely populated cities.



Source: Energy Systems, Low Carbon Home 2017

Gas is being phased out

The Sixth Budget – the UK's Path to Net Zero. Committee on Climate Change. Dec 2020

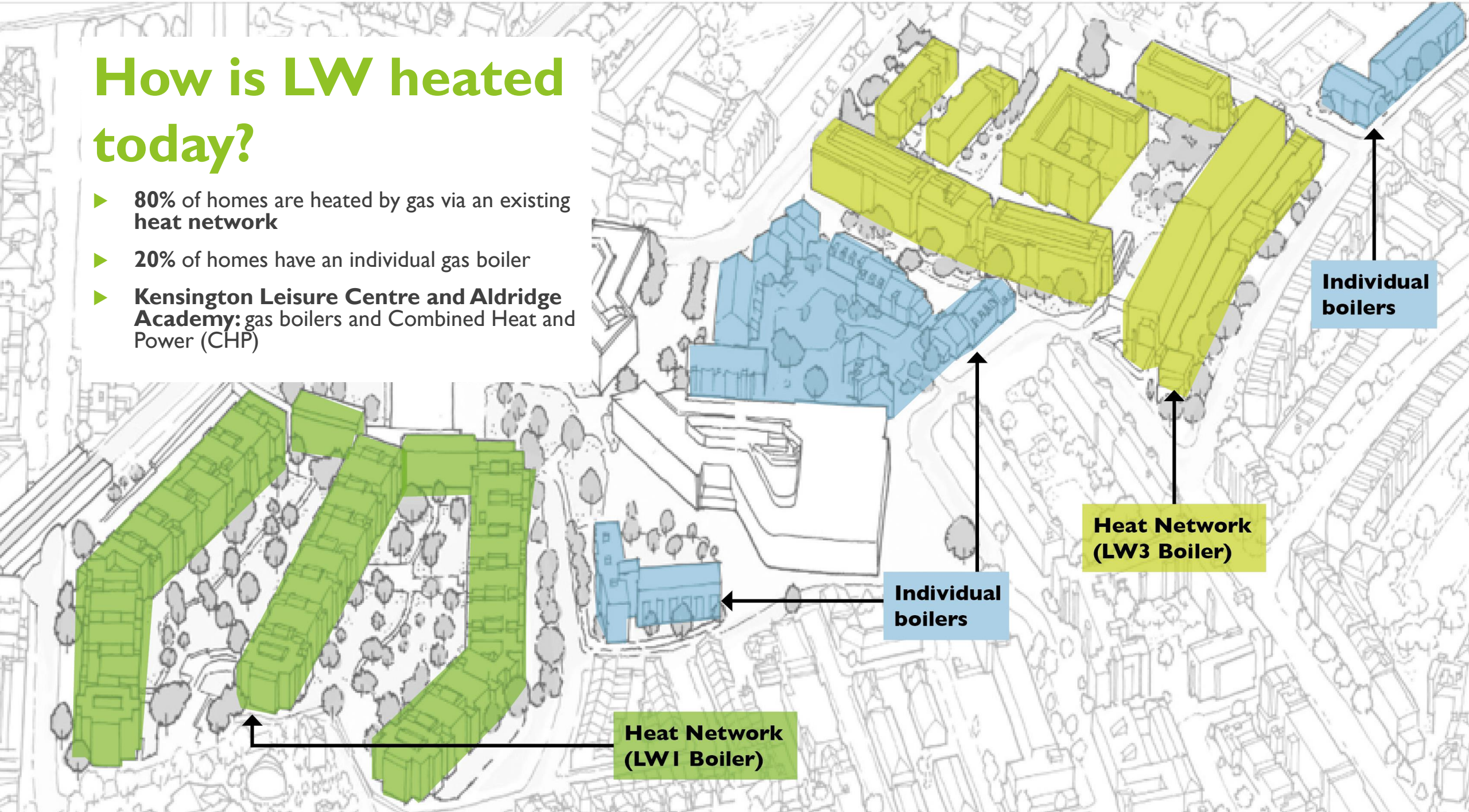


Data Source: Global Carbon Budget 2020, UK profile

*Phase out does not apply to areas designated for heat network or hydrogen zones

How is LW heated today?

- **80%** of homes are heated by gas via an existing **heat network**
- **20%** of homes have an individual gas boiler
- **Kensington Leisure Centre and Aldridge Academy:** gas boilers and Combined Heat and Power (CHP)



Project Objectives

Notting Dale Heat Network

1. Put residents first

- **Empower residents:** co-design a clean, green, safe, reliable and efficient heating solution
- **Help tackle fuel poverty:** combine building fabric improvements with modern heating to, lower domestic energy bills and provide affordable energy in one of London's most deprived wards
- **Provide excellent customer service:** enable cost effective switching to high-quality, low carbon heating that is future-proofed for billing, customer care and ongoing maintenance needs.

2. Set the standard for 21st century housing

- **Manage viability, deliverability and maintenance from the outset:** be on time and on budget; enable residents to control the temperature of their own homes; minimise disruption and space taken in people's homes, and ensure sufficient heat supply throughout the refurbishment
- **Maximise community benefit:** improve residents' health and wellbeing
- **Support local jobs:** helps foster a green economic recovery.

3. Help RBKC move towards carbon neutrality by 2030

- **Carbon reduction:** help meet the Council's corporate aim for the Estate to be net zero by 2030
- **Lead the way:** for estate refurbishments in RBKC, London, and the UK
- **Clean air:** use renewable heat sources to avoid harmful emissions, improving air quality.

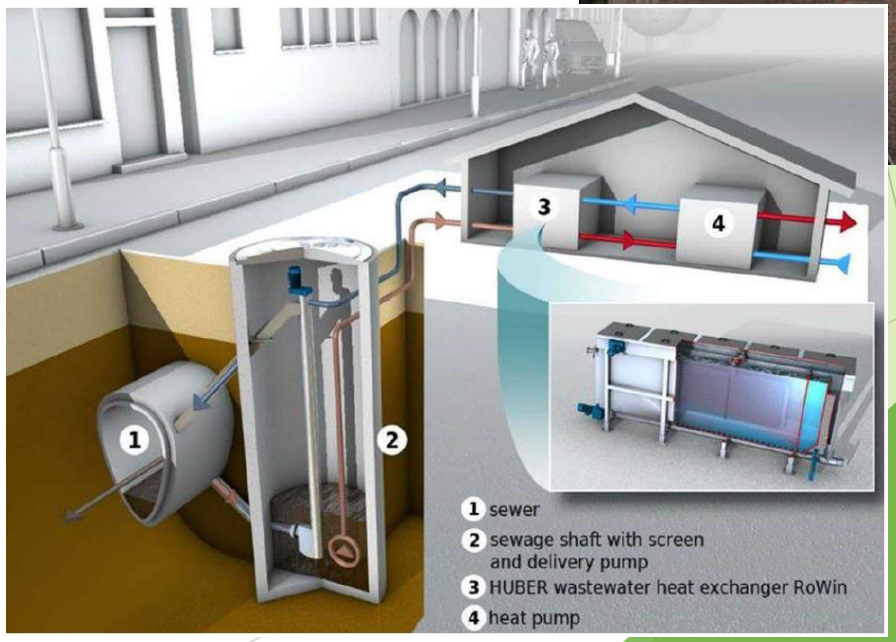
4 short-listed technologies

So what's feasible?

Greening the heat supply in the plant room:

- Sewer source heat pump
- Air source heat pump
- Ground source heat pump
- Large electric boiler

Existing communal boiler



Model of a sewer source heat pump

Lessons learned from UK heat networks

1. Put customer first
2. Local authorities have a key role to play
3. Heat networks are future-proofed and market ready

What's next?

Action	Date
Monthly Project Board	Jan to April 2021
Regular updates to Refurbishment Programme Board	Jan 2021 onwards
Resident, senior Council officer and political engagement	Jan 2021 to April 2021
Results from computer models: is the heat network viable? What heat sources will it use? Which homes can connect?	Feb 2021
Outline Business Case co-designed with residents, with the support of the Council's heat network project team	Feb and March 2021
Business Case submitted to the Council and residents for formal approval	April to June 2021
Funding application to government's Heat Network Investment Project (HNIP)	July 2021