Heat Networks

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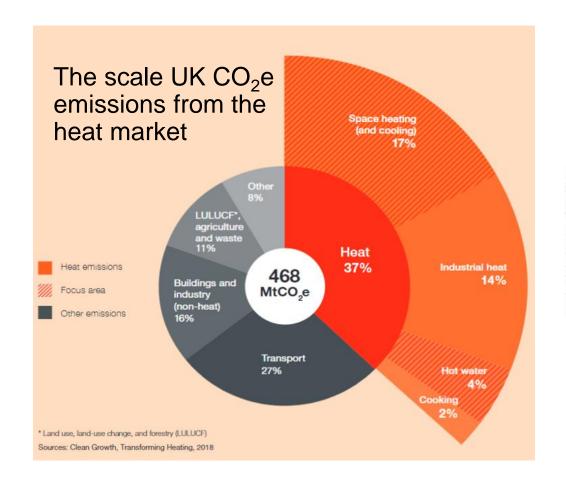


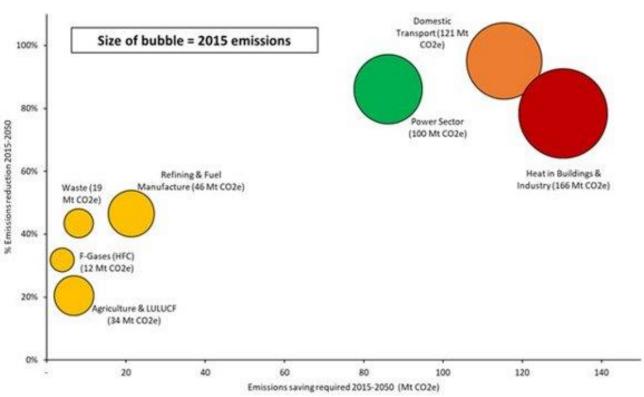




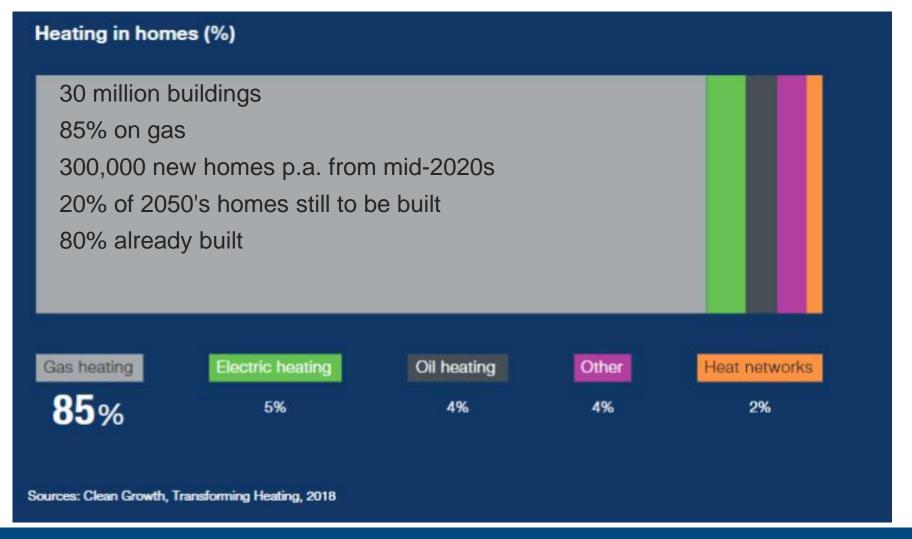


Heat - the bigger picture





Heat - the bigger picture



Our Choices – a transport analogy





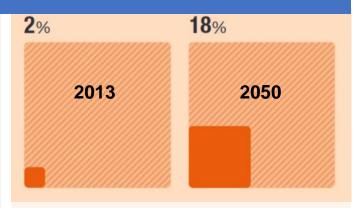


Why heat networks?

Taking advantage of natural and waste heat sources that individual solutions can not. Ocean and river Solar thermal Waste industrial/ commercial heat Ground mounted source heat pumps Deep geothermal Large-scale Energy from waste Heat and electricity heat heat pumps from incineration

The role for Heat Networks

- Enabling lower costs for heat network customers
 - Accessing cheaper heat sources
 - Enabling a whole building energy approach
- Providing system benefits and lower costs for all consumers
- Adaptable to different future energy pathways
- Decarbonisation at scale

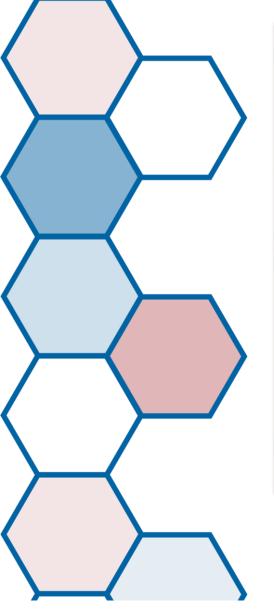


Potential investment



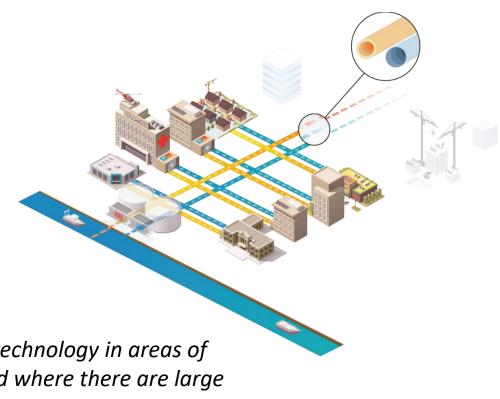
£60-£80 billion investment opportunity to 2050.







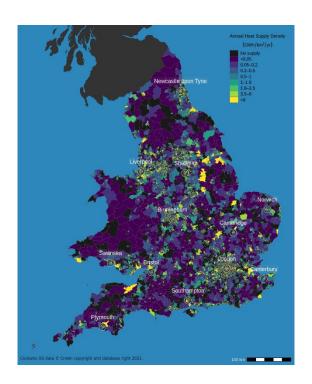
"Heat Networks are proven scalable options for decarbonising heat and will play substantial roles in any Net Zero scenario, so we need to build the market for them now."

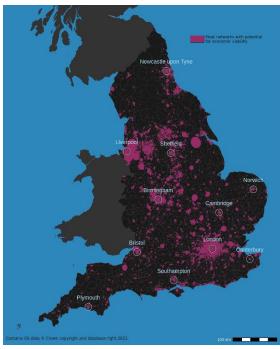


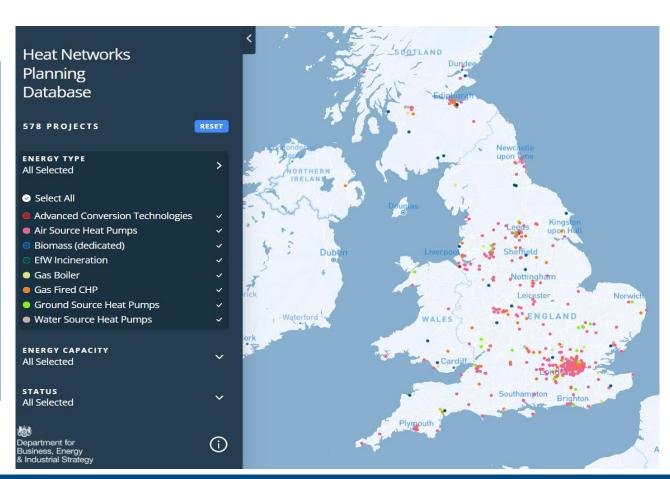
"Heat networks will be a key technology in areas of high-density heat demand and where there are large low carbon heat sources."

The Heat Networks Opportunity

Shaping your decarbonisation strategies

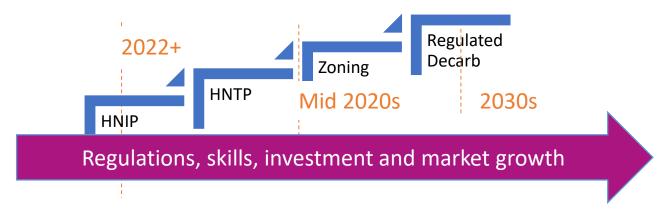






Heat Network Transformation Programme 2022 - 2025

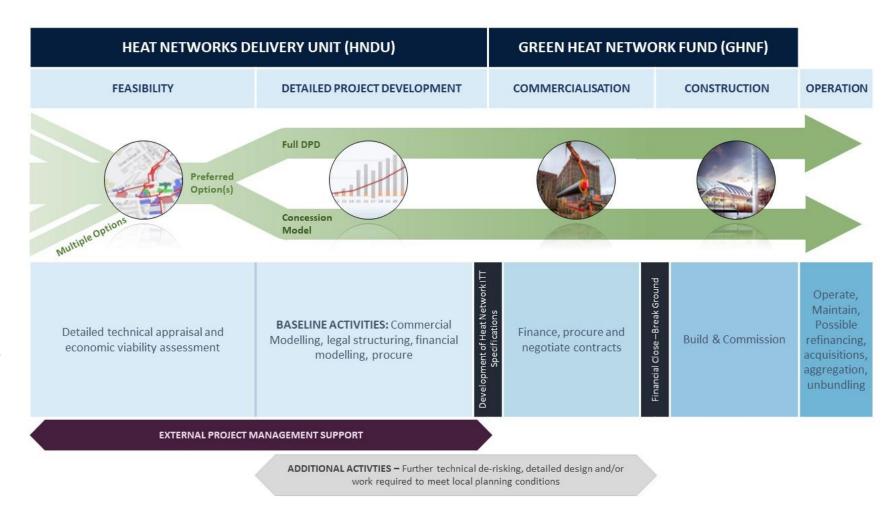
Current situation: supplies around 2-3% of the UK's heat supply. **Future situation**: 18% share as part of a lowest cost pathway.



- increase volumes of low carbon heat Green Heat Network Fund
- Improve performance of existing systems Heat Networks Efficiency Scheme
- Implement Regulatory framework for the Heat Network Market
 - Ofgem as regulator
 - Minimum standards
- Put in place Heat Network Zoning direct activity & reduce risk
- Investment and jobs growth in the heat network manufacturing and technology

Heat Networks Delivery Unit – Support Stages

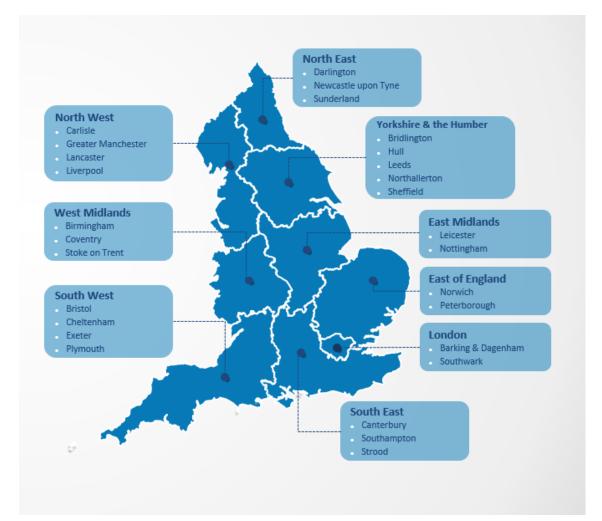
- Completed 11 Rounds of funding since 2013
- Supported over 280 schemes
- Over £25mil of grant funding
- Round 12 soon to be launched, continuing in supporting schemes through the HNDU stages
- Providing access to investment pathways via BHIVE





Heat Network Zoning Pilot Programme

- Commitment in Energy White Paper
- Following the Heat Networking
 Zoning Consultation in October
 2021
- Rolled out across 28 cities and towns across England
- Working with local government, industry and local stakeholders
- Developing and testing the methodology to be used for identifying heat network zones



Heat Network Zoning Pilot Programme

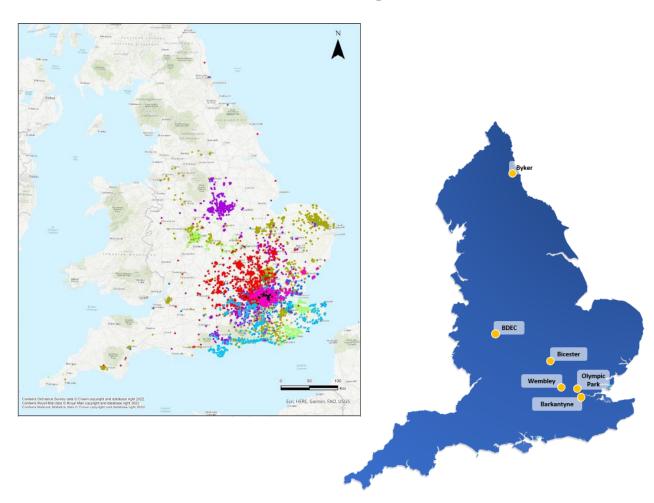
BEIS has committed to introduce zoning by no later than 2025. Current estimate is that zoning will be implemented in 2023/24 subject to parliamentary time



Outputs from pilot study used to inform both policy development and implementation methodology

Heat Networks Delivery Unit – Non LA Sponsors

- G15 Housing Associations Mapping Study
- Greening Existing Networks
 - Olympic Park
 - Byker
 - Barkentine
 - Wembley
 - Bicester
 - Birmingham



GHNF Objectives

GHNF Project Vision

"To incentivise heat network market transition to low carbon heat sources via targeted financial support, that will help stimulate the increased deployment of low carbon technologies at scale".

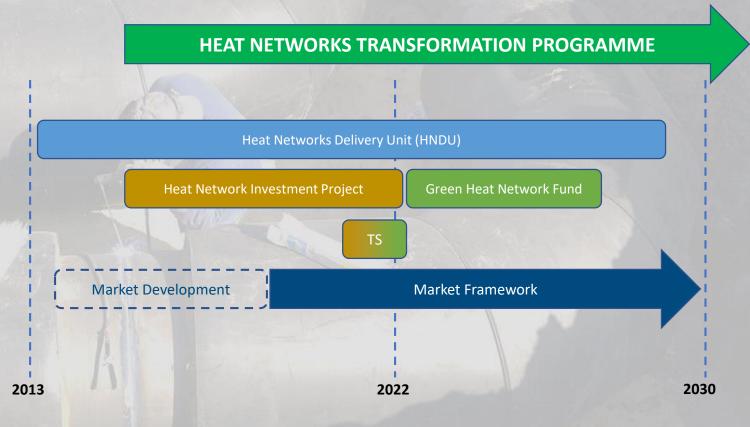
Achieve carbon savings and decreases in carbon intensity of heat supplied

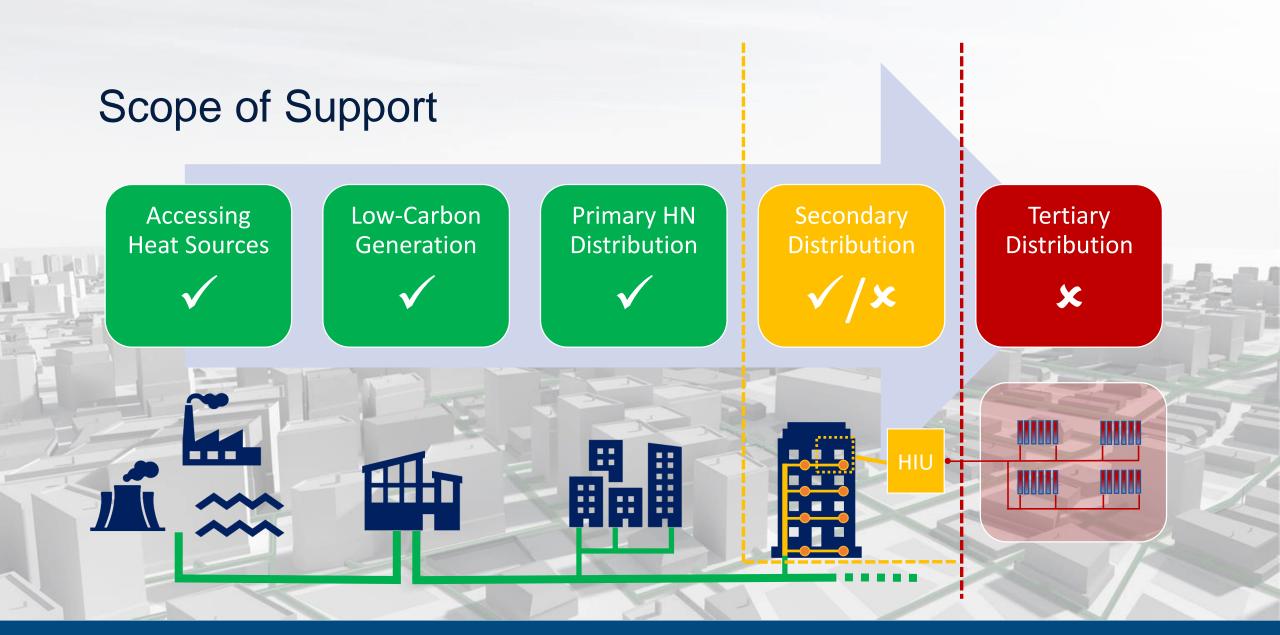
Increase the total amount of low-carbon heat utilisation in heat networks

Contribute towards market transformations across the investment landscape and supply chain that will better prepare the heat network sector for further decarbonisation

The Timeline

- The GHNF opened for applications 14/03/22
- Three-year programme to 2025
- Transition Scheme (TS) for commercialisation (2021)
- Main scheme guidance was published March 2022





BEIS Heat Investment Vehicle BHIVE



ACCESSIBILITY

BHIVE will provide an efficient route for Contracting Authorities to access funding and funding-related services for their heat network projects



STANDARDISATION

BHIVE will help to reduce the timescales and costs of funder due diligence and approvals and make for a more efficient fund raising process



FLEXIBILITY

BHIVE will provide a range of skills and experience alongside funding, and will potentially facilitate the creation of a secondary investment market



VALUE FOR MONEY

BHIVE will provide the means for Contracting Authorities to access the most economically advantageous terms for their project