

# Heat networks in London

heat network image own

## Key information

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## Overview

This data analysis, produced by the London Assembly Research Unit, provides an explainer of heat networks in London, including an overview of what they are, the two types of heat networks, where they are located and heat network zoning. It also presents survey data on the awareness of heat networks amongst Londoners.

The information presented in the report is based on published data from a range of sources, including the GLA London Heat Map and the Department for Energy Security and Net Zero (DESNZ).

The analysis was undertaken in collaboration with the [Environment Committee](#) project team, to inform the Committee's investigation into heat networks.

This page presents highlights from the report, with the full document available from the link below.

[Read the data report \(pdf\)](#)

## How heat networks work

A heat network is a shared system for providing multiple properties with hot water and/or space heating (and sometimes cooling). This improves the energy efficiency of heating systems. While older heating systems use fossil fuels to generate energy, the most efficient, low-carbon heat networks use ambient heat (heat stored in the air or water), or waste heat (such as from the London Underground, energy-from-waste plants, or data centres).

Heat networks use a heat source, or sources, to power an energy centre. That energy centre then transfers heat to connected properties in the form of hot water, through a network of insulated pipes. Another set of pipes returns cooler water from the properties to the energy centre.

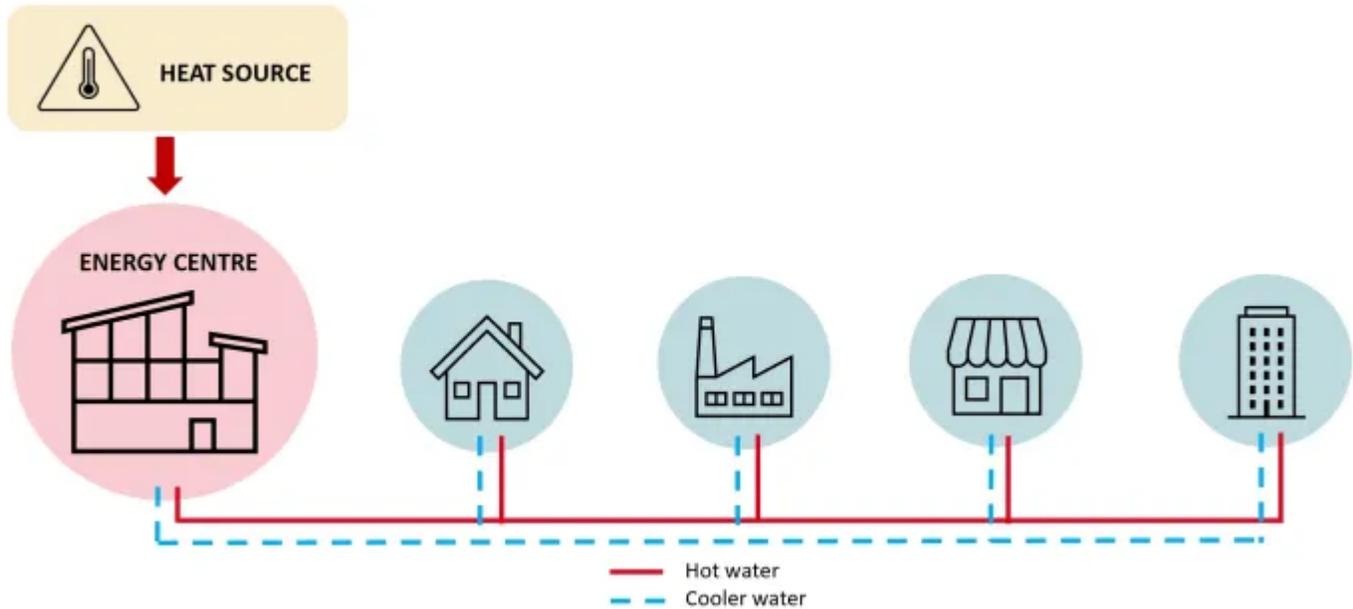


Figure -

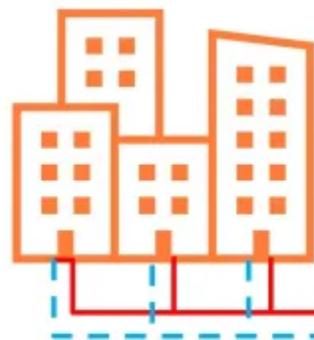
How heat networks work

## Types of heat networks

**District heat network:** a heat network that is used for multiple buildings, connected by underground pipes. District heating systems can cover huge areas and take heat from multiple different sources.

**Communal heat network:** a heat network that supplies heat and hot water to several consumers within one building, for example, a block of flats.

## District heat network



## Communal heat network



— Hot water  
- - Cooler water

Figure -

Illustration of the different types of heat networks

## District heat networks

The GLA London Heat Map provides the locations of existing and proposed district heat networks based on information provided by heat network operators.

**Existing heat networks** (in blue) are already operating or in development in a heat network zone.

**Proposed heat networks** (in red) are planned or potential heat networks that have been identified but are not yet built or operational.

**Locations of existing and proposed district heat networks in London**

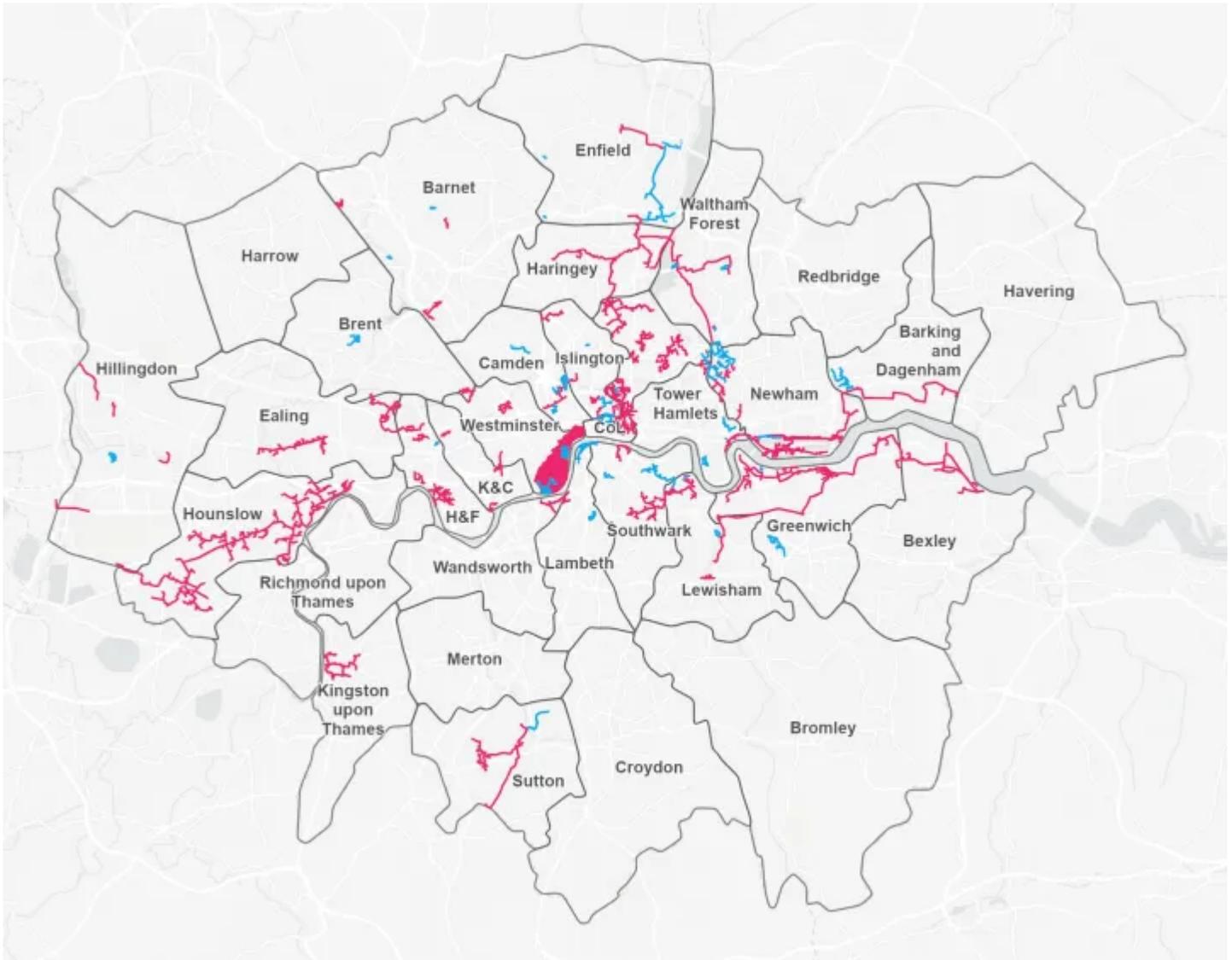


Figure -

GLA, [London Heat Map](#), data accessed on 16th January 2026. Contains OS data © Crown Copyright and database right 2026. Contains data from OS Zoomstack. Existing heat networks are shown in blue, and proposed heat networks are shown in red.

## Number of heat networks

Between 1 January 2019 and 31 December 2022, there were over 10,000 registered heat networks in England. 3,503 of these were located in London, making London the English region with the highest number of registered heat networks.

The majority (75 per cent or 2,633) of registered heat networks in London are **communal** networks whilst the remaining 25 per cent (870) are **district** networks.

**Number of networks: communal heating, by region, January 2019 to December 2022**

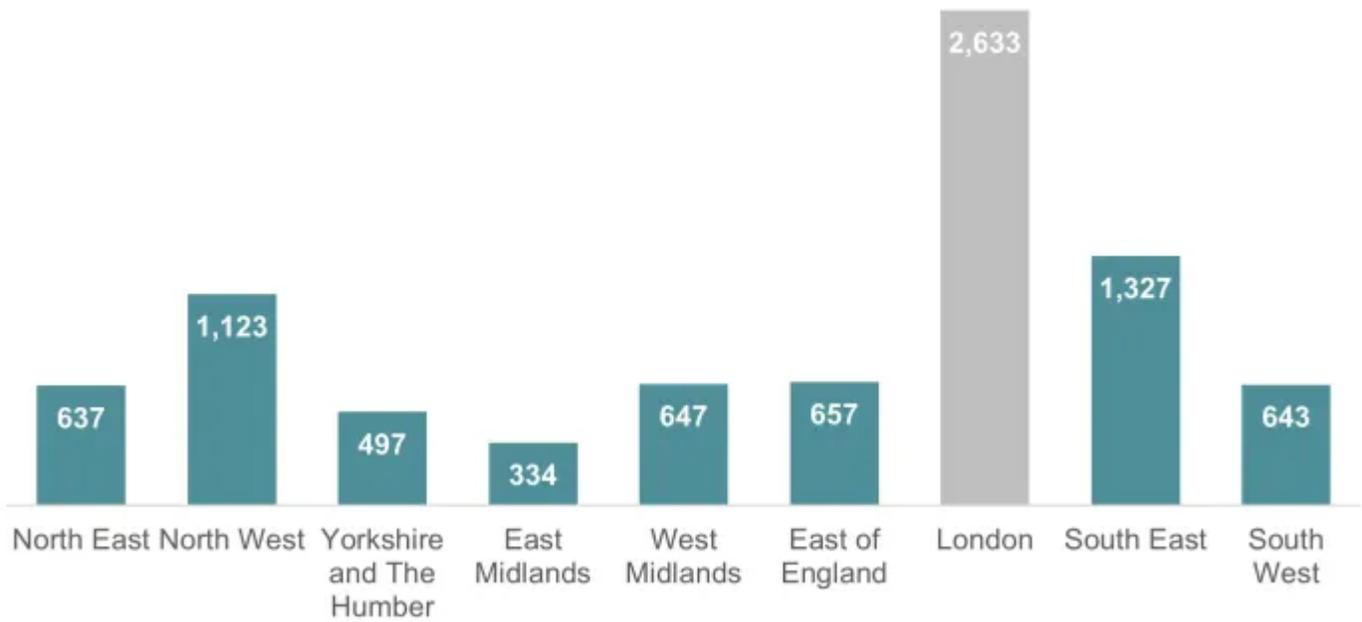


Figure -

Communal heat networks. Department for Energy Security and Net Zero, [Heat Networks registered under the Heat Network \(Metering and Billing\) Regulations](#), January 2019-December 2022. Table 1.2a. As these statistics cover only registered heat networks, they may not be representative of the heat network market as a whole and cannot be used to estimate of the size of the market.

**Number of networks: district heating, by region, January 2019 to December 2022**

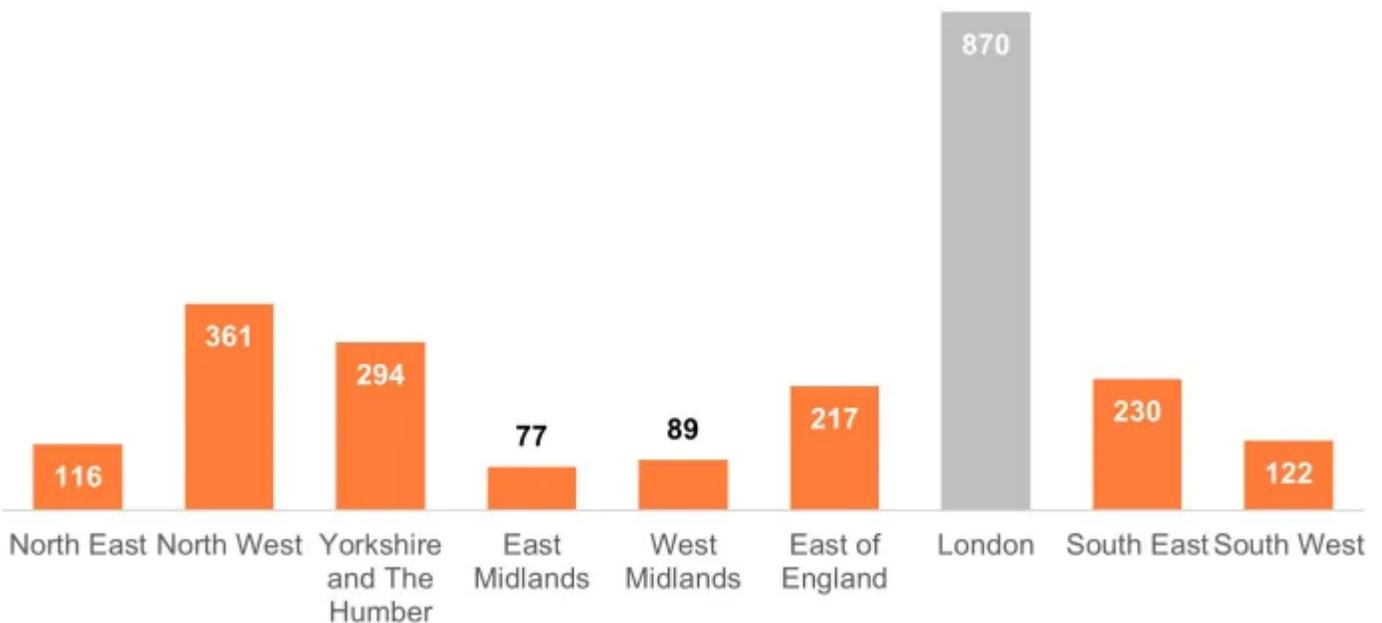


Figure -

District heat networks. Department for Energy Security and Net Zero, [Heat Networks registered under the Heat Network \(Metering and Billing\) Regulations](#), January 2019-December 2022. Table 1.2a. As these statistics cover only registered heat networks, they may not be representative of the heat network market as a whole and cannot be used to estimate of the size of the market.

## **Generation and supply**

Heating and hot water generation exceeds supply across registered heat networks in London. The total heating and hot water generated by registered heat networks is 4,300 GWh and the total heating and hot water supplied is 2,995 GWh. The total generation and supply of cooling is much lower, at 611 GWh and 512 GWh, respectively.

Overall, communal heat networks in London generate and supply more heating/hot water or cooling than district heat networks.

**Total annual generation and annual supply of heating/hot water and cooling in London (GWh per year), January 2019 to December 2022**

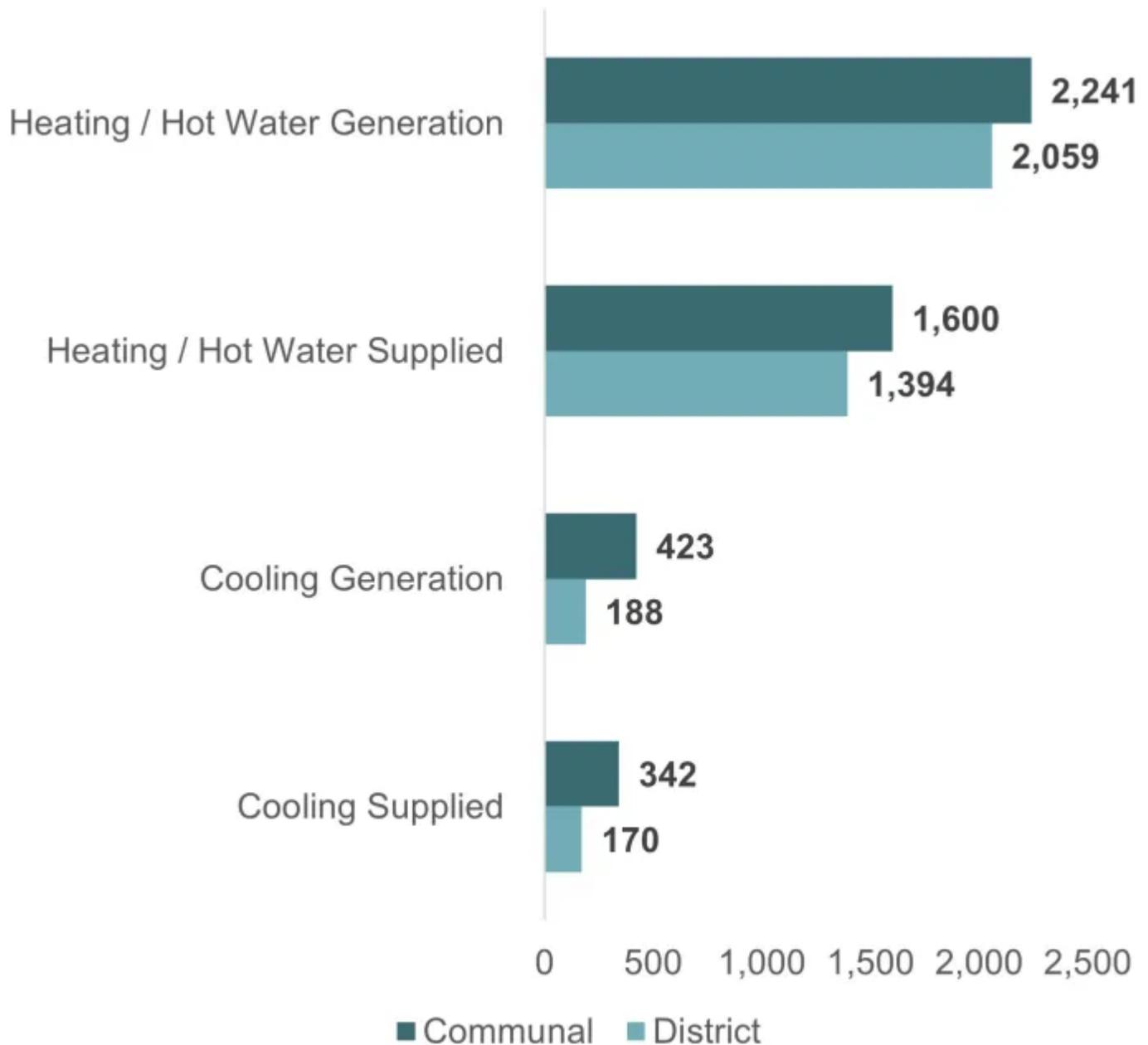


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Department for Energy Security and Net Zero, [Heat Networks registered under the Heat Network \(Metering and Billing\) Regulations](#), January 2019-December 2022. Table 1.4b.

## Location of heat sources

To support the development of district heat networks in London, the Mayor’s London Energy Accelerator (LEA) published the London Waste Heat Study in 2024. The study identified the scale and location of London’s major recoverable waste heat sources and assessed their potential to supply heat networks, using this analysis alongside heat demand data to define seven Strategic Heat Network Areas (SHNAs).

## Locations of potential strategic waste heat sources and potential strategic area heat networks

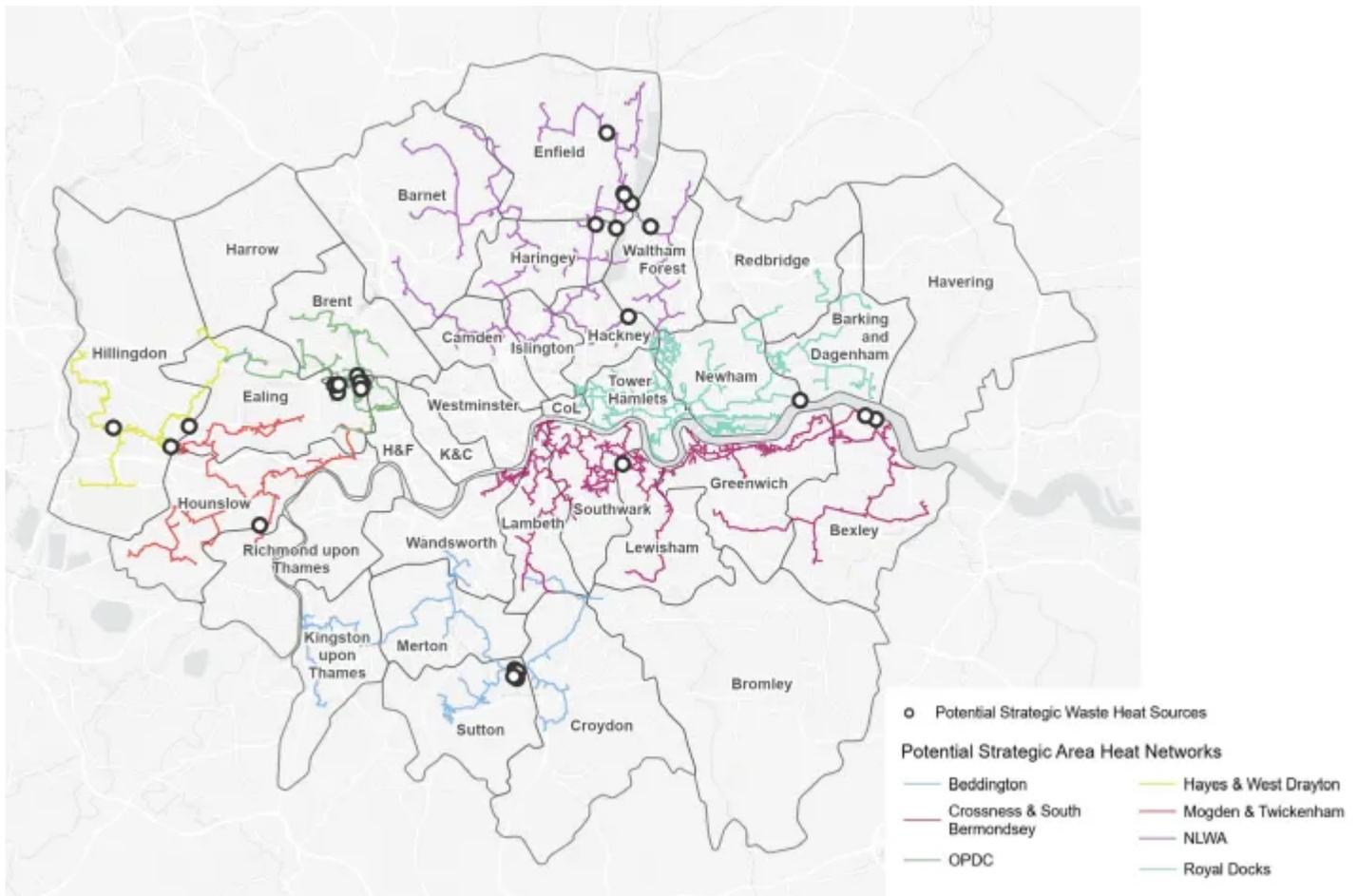


Figure -

Location of potential strategic waste heat sources and potential strategic area heat networks. Source: GLA, [London Heat Map](#), data accessed on 17 December 2025. Buro Happold, 2024. Contains OS data © Crown Copyright and database right 2026. Contains data from OS Zoomstack.

## Heat network zones

The [Energy Act 2023](#) provides the powers for the government to implement heat network zoning in towns and cities across England. New regulations will devolve power and responsibility for the development of heat networks to regional and local government in the form of a Zone Coordination Body. In London that is the GLA and London Boroughs.

Through the [Heat network Zoning Pilot Programme](#), DESNZ is working with 28 cities and towns in England to develop and test its zoning methodology and policy. In October 2024, the government announced that six areas of England would receive funding to become the first heat network zones. These include [Old Oak and Park Royal Development Corporation](#) (OPDC) and [South Westminster Area Network](#) (SWAN) in London.

DESNZ has published maps identifying potential heat network zones across England, including one located in the [London Borough of Barking and Dagenham \(LBBD\)](#) and the other located in the London borough of [Southwark](#).

# Awareness of heat networks

The Department for Energy Security and Net Zero (DESNZ) Public Attitudes Tracker (PAT) asks a question in the Winter wave to measure awareness and knowledge of different types of low carbon heating systems, including heat networks.

Respondents from London were more likely to have awareness of heat networks compared to the other English regions. In London, 62 per cent of respondents to the survey had awareness of heat networks compared to 38 per cent of respondents who had never heard of them.

## Level of awareness of heat networks across English regions, Winter 2024

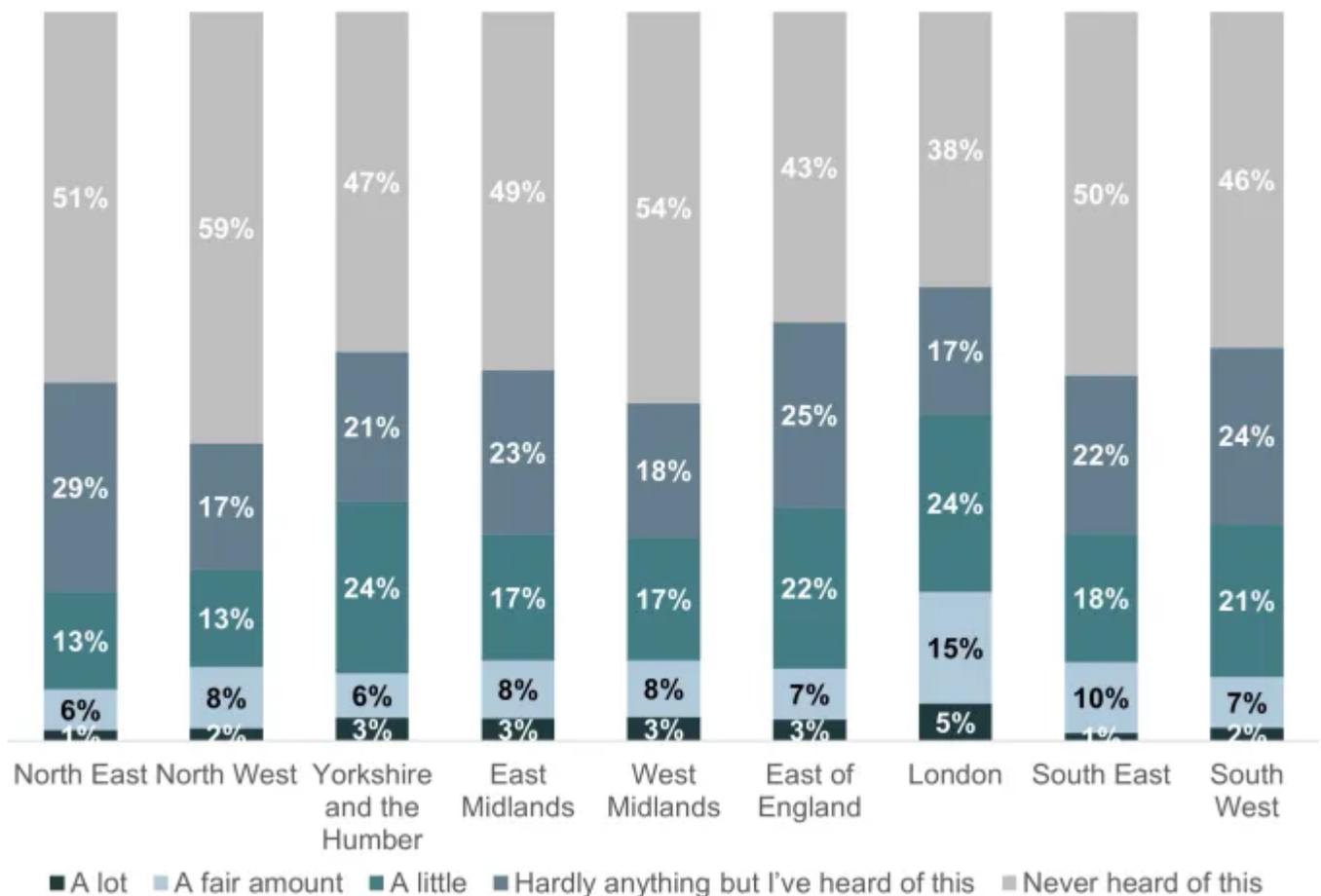


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Level of awareness of heat networks across English regions, Winter 2024. Source: Department for Energy Security and Net Zero, [DESNZ Public Attitudes Tracker: Winter 2024 - GOV.UK](https://www.gov.uk/government/publications/desn-public-attitudes-tracker-winter-2024), Crosstabulations. Table LCHEATKNOW04. Respondents responded to the question: “Heat networks - How much would you say you know about the following low carbon heating systems?” “Awareness” encompasses all respondents who said they had heard of a particular concept or technology, including those who said ‘hardly anything but I’ve heard of this’, ‘a little’, ‘a fair amount’ or ‘a lot’.

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