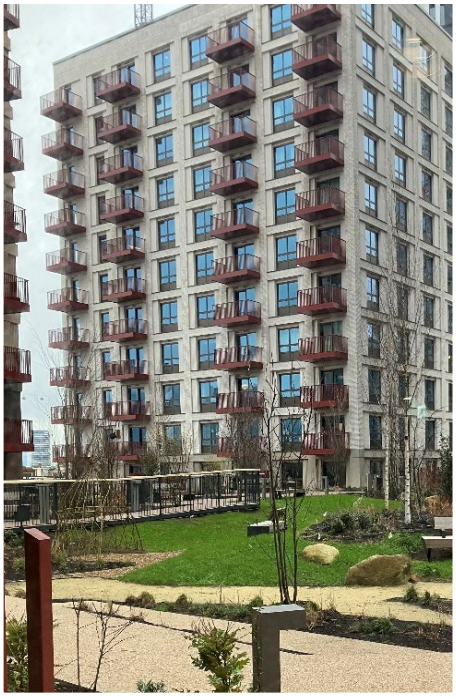
Zoning: The Heat Networks Puzzle

Environment Committee

June 2026



LONDONASSEMBLY

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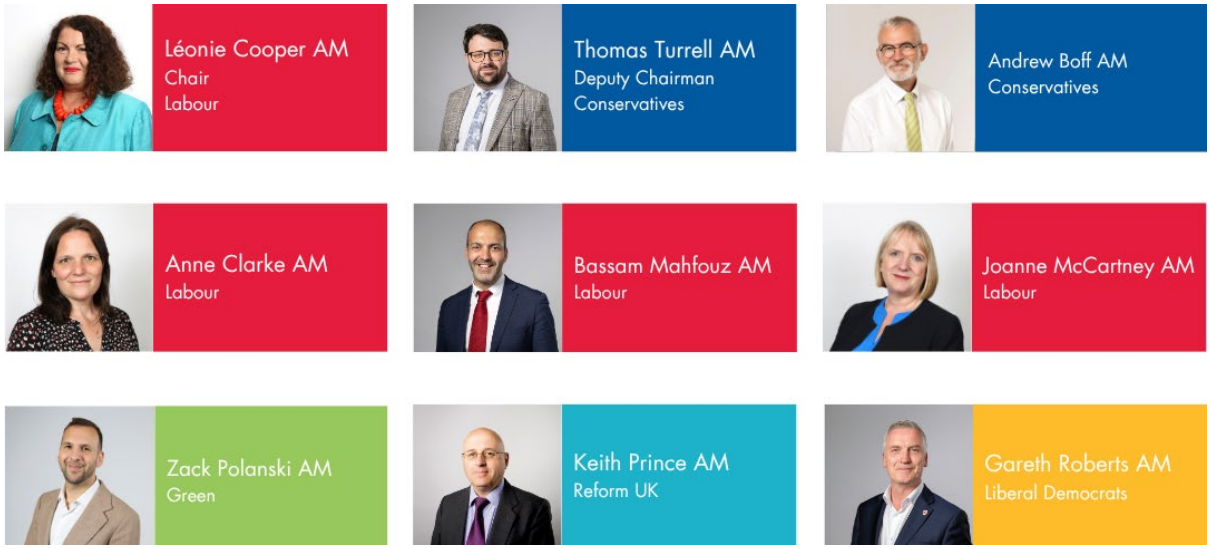

The Environment Committee's role is to examine and report on matters relating to the environment in London and to lead on scrutiny of the Mayor's Environment Strategy. For more information, please visit our website.

This investigation was carried out by the Environment Committee in 2025-26, with Leonie Cooper as Chair, and the Assembly Members listed above.

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Foreword

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Chair of the Environment Committee 2025-26

In theory - what's not to like about heat networks? Re-using heat that has already been created or exists, rather than letting it be wasted, seems like a no-brainer. Especially if that heat is also low-carbon and low-cost. Who wouldn't choose to be attached to a heat network if it was going to provide cheaper heating than any other source?

The London Assembly Environment Committee decided to undertake this investigation because we have heard a lot about the coming installation of new heat networks and the benefits they will bring – but we have also heard a lot about older systems and how expensive some of them have become to run. We had also heard that some residents were being told that to remove their old system and replace it with a new one might cost thousands and thousands of pounds.

At the end of our investigation, many Committee members could see the value of installing heat networks, but we could also see the need for proper regulation and customer support, system reliability and the need for networks installed to really be both low-carbon and low-cost.

The Government, recognising the need for better regulation as heat networks are installed more widely, launched new arrangements during our investigation – it remains to be seen whether these arrangements will provide all the customer protections that we felt strongly about.

Our Recommendations address what we perceive to be some of the issues that will not be addressed under current arrangements, even with the new regulatory regime. The Committee will be pushing hard for them to be adopted.

Londoners must be properly protected when heat networks expand.

Executive Summary

Since 2022, the world has seen significant increases in energy prices – and the current conflict in the Middle East risks prices rising further. A reliance on energy imports leaves the UK insecure. So, any efforts to increase energy security by using home-produced energy is sensible – especially if that energy would otherwise go to waste. Heat networks do exactly that.

However, while city-wide heat networks are commonplace in Scandinavia and many parts of Europe, in London they are currently limited to relatively small areas – often single developments or estates.

While heat networks offer potential benefits in high density areas, including the potential to use low-carbon sources of energy and waste heat, there are many cases across London of people living on existing heat networks who are experiencing significant negative impacts. These include poor reliability, high prices, and a lack of transparency around what they are paying for.

The conflict in the Middle East and the closure of the Strait of Hormuz to shipping has brought into sharper focus the vulnerability of heat network customers to rising costs. While the Government has brought in new regulation, with a new role for Ofgem in overseeing minimum service levels and pricing, improvements cannot come soon enough. There is an urgent need for heat network customers to access equivalent protections around pricing as other domestic gas and electricity customers receive.

We undertook this investigation to examine what lessons had been learned from pilot areas of "heat network zoning", and how to understand better the impact of heat networks on carbon emissions and long-term energy costs. As the investigation has progressed, the additional energy security benefits of using waste heat and domestic renewables have also become more pertinent.

Experiences of heat networks: earning customer trust

Despite government data suggesting that overall satisfaction with heat networks is comparable with conventional heating systems, the Committee heard many concerning examples of people living on heat networks experiencing poor reliability and high prices. Increases in the price of energy after Russia's invasion of Ukraine left many heat network customers exposed as they weren't included in the government's price cap, with some experiencing considerable harms because of higher heating prices. In addition, some heat network customers have struggled to understand what they are paying for, how prices are calculated, and whether charges are fair. This can be particularly challenging in the case of older networks which have no individual controls or separate billing.

We also heard examples of issues consumers have experienced with reliability and poor performance. Ofgem will introduce guaranteed standards of performance in 2027 with the aim

of reducing service outages and improving information for consumers, as well as a new Heat Networks Technical Assurance Scheme (HNTAS). Most expert guests we spoke to were positive about the proposed new scheme in improving standards, although some expressed concerns that the additional costs would be passed on to consumers.

The heat networks 'puzzle'

Expanding heat networks is a complex task. Heat networks are not suitable everywhere. For those areas that the Government and GLA have identified as being potentially cost-effective to be part of a heat network, it involves almost literally 'joining the dots' and connecting enough new buildings to heat networks for a critical mass which is both energy efficient and financially sustainable.

The Government has launched a series of pilot zoning areas, including some in London in Old Oak Common and Westminster. These are in their very early days, and it is far too early to judge the success of the Government's new approach. We still have questions as to whether all the 'pieces of the puzzle' are sufficiently in place to expand heat networks while protecting consumers. Indeed, some Committee Members question whether they will ever be.

One of the most significant challenges for low-carbon heat networks that we heard about in our investigation was the high cost of electricity in the UK, particularly the difference in price between gas and electricity. It is more difficult to persuade people to decarbonise their heating if it is more expensive than the alternatives. Lowering the price of electricity in comparison to gas and removing the link between gas prices and electricity, is therefore vital. An alternative approach to making heat networks the cheapest option would be to ban gas heating. While Committee Members have different views on the appropriateness of this as a policy, not taking this step will make it harder to achieve the Government and the Mayor's target.

A fundamental challenge that the Government is trying to manage around heat networks zoning is the extent to which choice is removed from customers, by mandating some buildings to connect to a heat network. This would improve certainty for those developing the networks but would leave customers reliant on regulators to enforce standards and affordability. The Department for Energy Security & Net Zero (DESNZ) told us that open competition is an important principle of how zoning operators will be decided in individual areas, with a potential role for local authorities as zone co-ordination bodies. While we are reassured by the commitment to assessing social value in this process, and the involvement of local authorities in the process, there are clearly long-term risks that will need to be managed, and if zoning continues there should be a role for the Greater London Authority (GLA) in ensuring that Londoners are protected.

The GLA's role in heat network zoning

The Government's new zoning policy includes a new national heat network zoning authority and also new local 'zone coordination bodies'. The GLA has identified opportunities for heat networks across 25 different boroughs plus the City of London Corporation and told us of the need for a "combination of London government" in the zone co-ordination role. If zoning

proceeds, it will be important that the GLA has a significant role in this process as the overall heat network co-ordinator for the city, in partnership with local authorities.

The GLA could also play an important role in coordinating the major cross-London infrastructure that wider take up of heat networks would require, such as by creating an 'Infrastructure for London' body to deliver major infrastructure projects and minimise both costs to heat networks and disruption to Londoners through careful use of 'lane rental' exemptions. The GLA could also do more to share expertise across London and provide advice. It is vital that local authorities have the skills and experience needed to effectively make informed planning decisions. It could also help heat network operators by supporting skills and training to address shortages.

Both the government and GLA have said that they only support heat networks where these are the 'lowest-cost, low carbon' source of heat. However, assessing this is complex. The success of heat networks zoning relies on consistent support and long-term financial viability. Recent funding announcements are welcome but only if there is a sustainable financial model for heat networks into the long-term. Without this, they should not proceed.

Recommendations

Recommendation 1

Ofgem should implement price protections for heat network customers as an urgent priority. These need to be simple and understandable and give equivalent protections as domestic gas and electricity customers receive. The Government should pause its plans for expanding heat network zoning until these are in place.

Recommendation 2

If the GLA continues to promote heat networks in the London Plan, it should take the lead in ensuring price protection for Londoners and establish a set of Fair Pricing Principles for all heat networks in London.

Recommendation 3

The GLA should work with Ofgem and the Department of Energy Security & Net Zero (DESNZ) to develop a best practice guide, similar to an EPC rating that clearly gives a short introduction to the heat network, its efficiency levels, and explains heat network charges.

Recommendation 4

Where existing under-performing legacy heat networks in social housing are being upgraded, there should be price protection for leaseholders in terms of capital costs. This would require access to a capital fund provided by government that could be administered by the GLA and low-cost loans to allow repayments to be made over an extended period.

Recommendation 5

The GLA should review the existing reports it has received on the role of waste heat from data centres in London and commission further analysis of the environmental impacts of data centres to inform London Plan policy, including air quality impacts from back-up generators.

Recommendation 6

The GLA should ensure that consultations around the specific heat network zones in London include meaningful consultation with residents. Where existing blocks of housing are required under zoning to connect to a heat network, residents' groups should be included in decisions about whether to buy heat or maintain existing heating systems – such as through a ballot.

Recommendation 7

The Government should take action to lower electricity costs for heat networks, particularly given the energy security advantages and overall system benefits they give by smoothing peak demand and ensure these are passed on to customers through lower bills.

Recommendation 8

If the Government's plans for zoning proceed, the GLA should play a significant role in heat network zoning in London, including being the overall heat network co-ordinator for the city, and involved in each individual zone alongside local boroughs. It should also support the investment in large-scale infrastructure by establishing an 'Infrastructure for London' body, similar to Transport for London.

Recommendation 9

The GLA and TfL should work with heat network operators to minimise disruption for traffic during the construction phase of any new heat networks, while also ensuring cost burdens for heat network operators are avoided wherever possible.

Recommendation 10

The GLA should develop a strategy for expanding support for heat network skills in partnership with the Mayor's Green Skills Hubs, including a requirement that each new heat network supports apprenticeships and training for new people to develop the skills required in the industry as they are needed.

Recommendation 11

The GLA should expand the Energy Accelerators offer to provide a pan-London provision of expertise and advice for local authorities. As part of the Government's plans for zoning, it should recognise the strategic importance of London-based advice and provide resources to specifically support this.

Recommendation 12

Government funding for heat networks should ensure long-term sustainable financing models are in place to protect consumers. The Government should also address the skills gaps in local authorities to ensure that they have access to skilled staff to assess the long-term viability of heat networks, and the relative cost-effectiveness of different technologies for individual planning decisions which will shape the potential expansion of heat networks.

1 Introduction to heat networks

As London and the UK look to reduce carbon emissions to limit the future impacts of climate change, changing how we heat our homes and water are a key challenge.

Heat networks provide hot water to multiple buildings (or properties within the same building) for heating and washing. Studies show that in high-density areas these economies of scale, if managed correctly, offer cheaper heating and use sources of heat that wouldn't be cost-effective for individual buildings to access on their own.[1] As heat networks are 'technology agnostic' and can be powered by a range of heat sources, they can be converted from gas boilers to highly efficient heat pumps with minimal disruption to customers, allowing greater use of renewable energy.[2] Heat networks can also make use of existing wasted energy, with the potential to reduce costs for Londoners and reduce the demand on the electricity grid.

The use of heat networks is set to continue to expand in the coming years as both the Mayor and the Government pursue targets to reduce greenhouse gas emissions. Both the Government and Mayor have said that such heat networks may offer the most cost-effective way to decarbonise heating homes and buildings in many high-density areas of London.[3] Currently, while city-wide heat networks are commonplace in Scandinavia and many parts of Europe, in London they are currently limited to relatively small areas – often single developments or estates.

The Mayor already promotes heat networks through the London Plan.[4] Heat Network Priority Areas currently cover most of the capital, and major new developments in these areas are required to connect to a heat network where feasible, or be designed so that they can be connected in the future.[5] As a result, 91 per cent of all new dwellings that were referred to the Mayor and approved in 2023 (over 28,000 homes) are expected to connect to communal or district heat networks.[6]

At the national level, policy is changing significantly, with the development of heat network 'zoning' which aims to create the conditions for further expansion of heat networks. During the course of this investigation, the Government published its Warm Homes Plan in January 2026, which sets an interim ambition to more than double the proportion of heat demand met by heat networks in England to seven per cent by 2035, as a step towards reaching 20 per cent by

[1] This is particularly the case comparing with other low-carbon technologies, such as air source heat pumps. Euroheat and Power New study shows district heating 30% more affordable than individual heat pumps July 2024; Vilén, Selvakkumaran, and Ahlgren, Communal or individual – Exploring cost-efficient heating of new city-level housing in a systems perspective, Smart Energy, Volume 10, 2023
[2] UK government Heat networks: ensuring sustained investment and protecting consumers para 26
[3] UK government Heat networks , Mayor of London The London Plan 2021 para 9.3.3 p350
[4] Mayor of London The London Plan 2021 para 9.3.3 p350
[5] Mayor of London London Plan 2021, para 9.3.4 p350
[6] GLA Towards a net zero London: Energy Monitoring Report 2023, October 2024, p7

2050.[7] The Government has also recently introduced new measures intended to strengthen consumer protections and improve standards.[8]

Our investigation

We undertook this investigation to examine the lessons learned from the government's heat network zoning pilot areas in London, and the implications for future delivery, including the experiences of those living in buildings connected to heat networks and the costs involved.

Changing the way that London heats significant numbers of buildings is complex – and was referred to by guests as a 'puzzle'.[9] The evidence we received highlighted that expanding heat networks will require many different elements to be brought together and relies on connecting locations one by one. As Danish heat network expert, Birger Lauersen, Policy Committee member of Euroheat and Power, told us the "tricky point" is "ensuring the critical mass to build the network".[10]

At the same time, we heard very serious concerns about the performance of some existing heat network systems in London. Issues raised included reliability, high running costs, lack of transparency in billing, limited consumer awareness and potentially very high capital costs for leaseholders, when legacy systems are replaced.

The Government has recently introduced new regulatory measures intended to strengthen consumer protections and improve standards for heat networks. While these steps are welcome, questions remain about pricing, service quality, and who bears the costs of upgrading older networks to meet modern efficiency and decarbonisation requirements.

In the context of these changes, we do not seek in this report to argue for or against heat networks, but rather to set out our findings on the current status of these issues in London, and what action would be required to bring about the ambition of the Mayor and Government to expand heat networks in London, while protecting Londoners.

[7] UK Government Warm Homes Plan, January 2026 p29
[8] UK Government Regulations: heat networks (metering and billing), 11 February 2026
[9] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 1, p3 Ian Guest (Technical Director, Energetik): "if you do not ensure that there is some form of cohesion in the policy […] you miss the opportunity to say "OK, that would have allowed us to, in terms of jigsaw puzzles, move our way towards that part of London""
[10] London Assembly Environment Committee Transcript of meeting 4 November 2025, 10am, p3

2 Heat networks in London

Why do the Government and Mayor support heat networks?

Heat networks can use waste heat (such as from Energy from Waste plants, data centres, or even rivers). This potentially saves money and reduces the amount of electricity needed to heat our homes as part of plans to decarbonise heating. By storing hot water in insulated tanks, known as 'thermal stores', heat networks can also even out the demand for energy, which also can save money. The government's Warm Homes Plan states that heat networks could deliver £5 billion to £7 billion in electricity distribution network savings alone.[11]

What are heat networks?

Heat networks use insulated **underground pipes** to distribute heat from centralised sources to a variety of different customers, such as public buildings, shops, offices, hospitals, universities, and homes.[12] Heat is therefore supplied collectively rather than each property needing its own boiler.

The **heat source** for a heat network is often referred to as 'the energy centre'. This can use many possible technologies, including power stations, Combined Heat and Power (CHP) plants, gas-fired CHP units, Energy from Waste (EfW) facilities, industrial processes, heat pumps, geothermal sources or other sources of waste heat.[13] It is possible, and indeed common, for larger heat networks to have multiple energy centres.

There are two main **types of heat network**: **communal** and **district.**[14] A communal network refers to a system that supplies heat and hot water within a single building. A district heat network supplies heat and hot water to multiple buildings. District heat networks can potentially provide heat to large areas, with the largest supplying hundreds or even thousands of consumers across many buildings.

Heat is distributed to each building and consumer through networks of pipes.[15] '**Heat exchangers**' transfer heat from one set of pipes to another – such as from the external network of pipes to those within the building. In new developments, each residential unit will have its own **heat-interface unit**, which contain a heat exchanger to transfer heat to the pipes in that property. These are a wall-mounted appliance, similar in appearance to a combi-boiler, that allows for independent control, metering and billing of heat.[16]

[11] UK Government Warm Homes Plan January 2026 p99
[12] UK Government Heat network zoning: overview
[13] UK Government What is a heat network
[14] Note: Where a small number of buildings in one area are connected, this is sometime also known as a 'campus network'. UK Government Proposals for heat network zoning 2023: government response 21 January 2026
[15] Mayor of London London Heat Network Manual II, May 2021, p21
[16] Heat Trust About Heat Networks

Heat networks provide whole cities with heat and hot water in many countries. They are particularly well-established in Denmark, Estonia, Lithuania, Slovakia, and Sweden.[17] Heat networks supply approximately two thirds of Danish households with space heating and domestic hot water.[18] However, the experience of heat networks in the UK has so far been more mixed than other countries.

Heating homes currently accounts for around 18 per cent of the UK's climate emissions.[19] Caroline Bragg, Chief Executive of the Association for Decentralised Energy (ADE), told the Committee, "Heat decarbonisation is one of the defining challenges of the next 10 to 15 years. It has proved extremely politically difficult, but there is no way that the UK or London can meet its climate change targets without real progress." [20]

In order to meet the Government and Mayor's targets to decarbonise energy, studies suggest that there must be a shift away from gas powered heating.[21] Using waste heat can offer both financial and carbon savings because it captures heat that has already been produced as a by-product of another process and reuses it. By using this recovered heat, less new fuel or electricity needs to be generated for heating, reducing overall greenhouse gas emissions. Ambient heat, such as from river water can also be used, but this will also require more energy to raise temperatures, meaning higher costs. In London, waste heat from Energy from Waste plants –incinerators that burn rubbish that cannot be recycled – are 'high grade' sources of heat which are hot enough to be used directly.[22] This means that the heat provided is more price-competitive with gas than those relying on heat pumps to raise temperatures.

Building district heating systems has significant upfront costs, particularly the network of pipes needed to connect the heat source and the buildings that use it.[23] The Government and the Greater London Authority (GLA) both state that they support heat networks where they are the 'lowest cost, low carbon' heat.[24] This is defined over a period of 40 years, as heat networks may be more efficient and ongoing costs than the low-carbon alternative– which is defined as an air source heat pump (ASHP). [25] Low carbon heat networks are not necessarily cheaper than higher carbon alternatives – and in general may currently be more expensive.[26]

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[17] Science direct A comparative analysis of policies and strategies supporting district heating expansion and decarbonisation in Denmark, Sweden, the Netherlands and the United Kingdom – Lessons for slow adopters of district heating para.1, p.1
[18] Science Direct A comparative analysis of policies and strategies supporting district heating expansion and decarbonisation in Denmark, Sweden, the Netherlands and the United Kingdom – Lessons for slow adopters of district heating para.2, p.2
[19] National Audit Office Decarbonising home heating 18 March 2024
[20] London Assembly Environment Committee Transcript of meeting 4 November 2025, 10am p1
[21] Imperial College London (2018) Analysis of Alternative UK Heat Decarbonisation Pathways For the Committee on Climate Change; Element Energy (2022) Analysis of a Net Zero 2030 Target for Greater London, Final report for Greater London Authority, 18 January 2022.
[22] Waste Heat Strategic Areas summary December 2024, p11
[23] London Assembly Environment Committee Transcript of meeting 8 January 2026, 10am Panel 2 p20
[24] London Assembly Environment Committee Transcript of meeting 8 January 2026, 10am Panel 2 p24
[25] DESNZ, Heat Network Zoning Pilot, Supporting Methodology Statements, February 2025, p14
[26] Climate Xchange Costs of zero emissions heating in new build April 2021

Heat networks can also contribute to energy security, by drawing on locally produced renewable energy and waste heat. Birger Lauersen, who works with the European association of of district heating networks, Euroheat and Power, told us "by using waste heat and other local sources, you create value from what is available locally and save on imports, but you also disconnect from international fuel markets. I can mention from my own country, Denmark, the example during the energy crisis a couple of years ago, where the fuel prices went up in gas and other fuels; district heating consumers in Denmark enjoyed relatively modest increases in their heat prices."[27]

> *"By using waste heat and other local sources, you create value from what is available locally and save on imports, but you also disconnect from international fuel markets"*
> ***Birger Lauersen**, Policy Committee member, Euroheat and Power*

However, even proponents of heat networks acknowledge that the experience of heat networks in the UK has not been good enough. A lack of regulation until very recently has meant there has been little consumer protection, with particular issues around prices, reliability and transparent information and bills. We explore these issues in more detail in chapter 3.

Heat networks in London

Heat networks in London are not new. The first district heating scheme dates to the 1950s – the Pimlico District Heating Undertaking - which originally used waste heat from Battersea Power station. Further schemes were developed in high-rise flats during the 1960s and 1970s, and subsequently more schemes have been established since around 2000.[28] These systems are particularly common for people living in flats and are more prevalent in central London. However, we were struck during this investigation to find that official figures on the number of heat networks in London are unreliable, and likely to be underestimating the number of properties connected. Stephen Knight, Chief Executive of the Heat Trust, told the Committee:

> "…let us start from the position of an understanding of how many Londoners are currently on heat networks because I think the data on this is sometimes difficult to interpret. The official data says there are - I have got the figure here - 243,000 homes in London with a heat network connection. What I would say, though, is that data is widely considered to be a vast underestimate, and the likely figure is much more likely to be somewhere like 400,000 homes in London on heat networks."[29]

Despite this, Londoners currently have limited awareness of heat networks. Polling carried out by YouGov on behalf of the GLA for this investigation found that:

- Under four in ten Londoners had heard of heat networks (37 per cent), and a quarter had heard of heat network zones (26 per cent).

[27] London Assembly Environment Committee Transcript of meeting 4 November 2025, 10am p2
[28] Heat Trust About Heat Networks [Accessed 17 Feb]
[29] London Assembly Environment Committee Transcript of meeting 4 November 2025, 10am p7

- Inner Londoners are more likely to have heard of heat networks (42 per cent) than other Londoners (34 per cent)
- Nearly three times as many Londoners consider a home connected to a heat network to be a positive (20 per cent) rather than negative thing (7 per cent), though nearly four in ten (38 per cent) didn't know, and just over a third said that it would make no real difference (35 per cent).[30]

These figures for overall awareness of heat networks are slightly lower than previous tracking done by the Department for Energy Security and Net Zero (DESNZ), which showed that 62 per cent of people in London had some awareness of heat networks – although only 20 per cent indicated that this was 'a lot' or a 'fair amount'. DESNZ's tracking data shows that awareness of heat networks in London was generally higher than the rest of the country.[31] While the new YouGov polling found there were some differences between groups, with men, those aged 18 to 34 and private renters more likely to have heard of heat networks and feel positive about them,[32] in general this shows that there is still a lack of general awareness about heat networks across the capital.

Nonetheless, there has been a resurgence of heat networks being included as fundamental parts of new building developments in recent years, in part driven by policies set out in the London Plan 2021.[33] There are now a wide variety of heat networks operating in London. In evidence to the Committee, government officials characterised this as "a great diversity and variance in the market".[34] Tom Brooke Bullard from Citizens Advice explained that this includes "in the way that heat networks are run, and their age, and their size, and their business model".[35]

Policy support for heat networks

Mayoral policy

London Plan policy has promoted heat networks, which feature significantly in the Mayor's strategy for achieving net zero emissions of greenhouse gases by 2030. Natasha Valladares, Head of Energy at the GLA, explained that heat networks are "one of the tools available to us to decarbonise our buildings and provide the capital with clean energy, cleaner air, and reduce inequalities that arise from that for Londoners, particularly the most marginalised Londoners."[36] The Mayor's preferred 'pathway' is based on 460,000 heat network connections by 2030.[37]

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[30] YouGov Polling for GLA, January 2026. 37 per cent had heard of heat networks, and 26 per cent had heard of heat network zones. 20 per cent of Londoners consider a home connected to a heat network to be positive, compared to 7 per cent who thought it was negative. 35 per cent said it would make no real difference, while 38 per cent didn't know. Available from London Datastore

[31] London Assembly Research Unit Heat Networks data report, February 2026, p32

[32] YouGov Polling for GLA, January 2026. Heard of heat networks: men (42 per cent), those aged 18 to 34 (44 per cent), private renters (44 per cent). Would feel more positive towards a property if connected to heat network: men (24 per cent), those aged 18 to 34 (26 per cent), private renters (28 per cent). Available from London Datastore

[33] Heat Trust About Heat Networks [Accessed 19 May 2026]

[34] London Assembly Environment Committee Transcript of meeting 8 January 2026, 10am Panel 2 p6

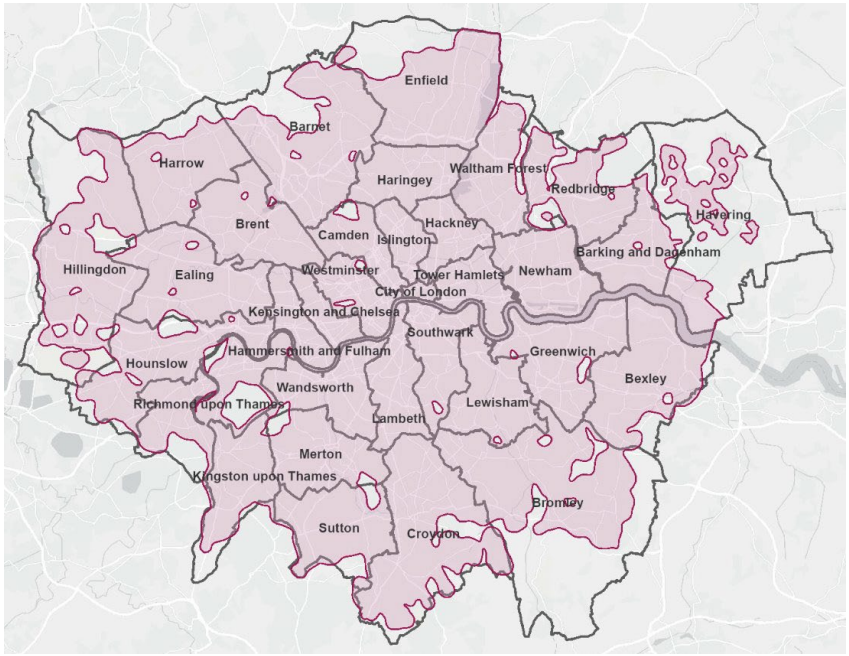
[35] London Assembly Environment Committee Transcript of meeting 8 January 2026, 10am Panel 1 p7

[36] London Assembly Environment Committee Transcript of meeting 8 January 2026, 10am Panel 2 p1-2

[37] Element energy Analysis of a net zero 2030 target for Greater London, 18 January 2022 p.VII

From 2021, the Mayor's London Plan Policy SI 3 (Energy infrastructure) has set an expectation for major new developments of homes and offices in London to connect to existing heat networks wherever feasible.[38] It also introduced 'Heat Network Priority Areas', defined as areas in London where "the heat density is sufficient for heat networks to provide a competitive solution for supplying heat to buildings and consumers."[39] In practice, these currently cover most of the capital (Figure 1). Major development proposals in these areas are required to connect to existing heat networks or be designed in such a way as to enable a connection in the future, where this is viable and cost competitive.[40] This means that most new developments in London are now being built as part of a small 'communal' or 'campus' network and are ready to connect to new wider district networks.

Figure 1: Heat Network Priority Areas – from London Plan 2021[41]



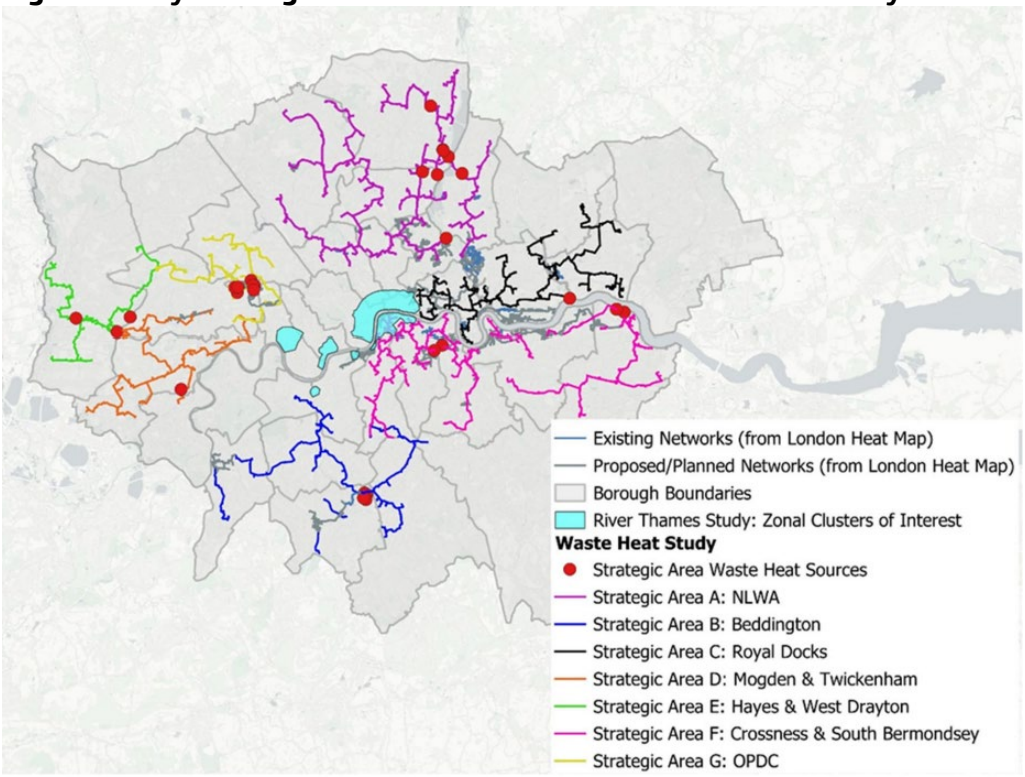
For over a decade, the GLA has undertaken detailed work to understand potential sources of waste heat in London, including a range of studies by engineering consultants Buro Happold.[42] [43] [44] Natasha Valladares, Head of Energy at the GLA described it as a "prime opportunity" and "an obvious way to make something great from something that is just a byproduct of other processes".[45]

The GLA's 2024 Waste Heat Strategic Areas Study assessed the scale and location of London's main recoverable waste-heat sources and their potential to support district heat networks. It

[38] Mayor of London London Plan 2021, March 2021 pp348-349
[39] GLA London Plan 2021, March 2021, para 9.3.4 p158
[40] Mayor of London London Plan 2021, March 2021, p349
[41] GLA London Heat Map
[42] Buro Happold for GLA Secondary Heat Study – London's Zero Carbon Energy Resource; July 2013
[43] Buro Happold for GLA/LEA Waste Heat Strategic Areas summary December 2024
[44] Buro Happold for GLA/LEA River Thames Study December 2024
[45] London Assembly Environment Committee Transcript of meeting 8 January 2026, 10am Panel 2 p16

used these to identify seven waste heat clusters (Figure 2) which it estimated could deliver as much as approximately 40 million tonnes of carbon savings for London over the next 40 years but would cost around £2.3 billion.[46]

Figure 2: Key Strategic Areas identified in the Waste Heat Study [47]



Through this investigation we heard praise from those in the heat networks industry for this analysis and the studies mapping the opportunities for heat and modelling future energy requirements. Antony Meanwell, Head of UK Heat Zone Development, at E.ON told us:

> "[T]he GLA has done some really good things, and I look at the Infrastructure Team and the Streetworks Team as part of that and the coordination of multi-utility work, that has been very successful. That is good. They have commissioned the local area energy plans and the regional local area energy plans to look at how that works across the region" [48]

However, despite this policy support, heat network developments remain small-scale. Even in areas of London, such as Enfield where there are explicit plans to expand heat networks, progress has been slow. [49]

Given the lack of accurate data, it is difficult to judge progress against the Mayor's 2030 objectives. Our guests considered that achieving 460,000 connections could be possible,

[46] Buro Happold for GLA Waste Heat Strategic Areas summary December 2024, p7
[47] Buro Happold for GLA/LEA River Thames Study December 2024 p6
[48] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 1 p2
[49] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 1 p3

although Caroline Bragg from ADE described it as "ambitious", and Stephen Knight from the Heat Trust called it "quite a stretch".[50] The GLA told us that the 460,000 new heat network connections were not a target, rather an indicative figure. Natasha Valladares, Head of Energy at the GLA, told us:

> "The 460,000 figure is indicative of the sort of scale that we need to achieve alongside other measures to reach net zero on that pathway, but it is important to note that the way in which we get to that can flex. It can be that, as more connections are identified, we look to have more connections to reach that target, or we might see that there are other opportunities that present themselves alongside that through the other decarbonisation measures that we are looking at."[51]

National policy

While policy in London has been more ambitious than national requirements, the Government has been developing its approach to heat networks for several years, bringing in new policies and legislation to encourage their development and take up. This includes legislation in the Energy Act 2023 to bring heat network zoning into force,[52] and subsequent consultations on proposals for heat network zoning to inform secondary legislation.[53]

The Government states that "zoning aims to enable local government to deliver local low-carbon heat networks that will reduce energy bills and reduce our reliance on volatile fossil fuel markets for heating."[54] The Government's ambition is that heat network zoning will "fundamentally transform the development of new heat networks in towns and cities across England".[55] It aims to do this by providing greater certainty about what buildings and sources of heat are required to connect to heat networks.[56] However, while the Government carried out its original consultation on zoning in 2023, it only published its response in January 2026.[57]

The Government introduced a series of 'Advanced Zoning Pilots' for heat networks covering 28 areas in 2022. These aimed to develop a process for identifying potential zones in a consistent and standardised manner across a range of towns and cities in England. It included two areas in London; the London Boroughs of Barking & Dagenham and Southwark.[58] In October 2024, the Government announced that two further areas of London – Old Oak Common and Park Royal, and Westminster (the 'South Westminster Area Network' – or SWAN) would be among the first six areas to develop heat network zones,[59] and in December 2025 the City of London launched a tender to appoint a Heat Network Development Partner as part of the Government's

[50] London Assembly Environment Committee Transcript of meeting 4 November 2025, 10am, pp5-6
[51] London Assembly Environment Committee Transcript of meeting 8 January 2026, 10am Panel 2 p3
[52] UK Government Energy Act 2023
[53] UK Government Heat Networks Zoning Pilot, 25 November 2025
[54] UK Government Heat Network Zoning: government response to 2023 consultation January 2026, p96
[55] UK Government Heat network zoning: overview, 12 November 2024
[56] UK Government Heat network zoning: overview, 12 November 2024
[57] UK Government Heat network zoning consultation 2023: summary of government response, 21 January 2026
[58] Barking & Dagenham and Southwark were two of 28 that took place in the government's Heat Networks Zoning Pilot between 2022 and 2025.
[59] UK Government Six towns and cities to pilot clean heating innovation 25 October 2024

Advanced Zoning Programme.[60] The government has recently stated that it expects the first heat network zones to begin construction from December 2026.[61]

The Government has also recently introduced new measures intended to strengthen consumer protections and improve standards. These include:

- the designation of Citizens Advice as the statutory consumer advocacy body from April 2025;
- the extension of access to the Energy Ombudsman for heat network consumers, also from April 2025; [62]
- the appointment of Ofgem as the regulator for heat networks across Great Britain from January 2026;[63]
- the introduction of the Heat Network Technical Assurance Scheme (HNTAS), which will establish new technical standards for heat networks in 2027.[64]

Both national and London policy therefore strongly support heat networks and the decarbonisation they can bring. For some types of new developments, this means that heat source networks will be the default heating mechanism. This could have significant long-term consequences for residents and businesses. In this context, the next chapter considers how Londoners have experienced heat networks so far.

[60] Heat Network Industry Council Heat Network Development Partner in the Square Mile [Accessed 19 May 2026]
[61] DESNZ Heat Network Zoning Bringing zones to life: Operation, Slide 7, March 2026
[62] Energy Ombudsman Helping You Resolve Heat Network Disputes [Accessed 19 May 2026]
[63] UK Government Regulations: heat networks (metering and billing) 11 February 2026
[64] UK Government Heat Network Technical Assurance Scheme (HNTAS) 16 February 2026

3 Challenges facing heat networks: Consumer trust

With hundreds of thousands of Londoners already relying on heat networks for hot water and heating, the Committee sought to understand their experiences, and what heat network zoning might mean for both new and existing networks.

We were concerned during this investigation to hear that the experience of many people living on heat networks has been far from positive. Tom Brooke Bullard, Interim Principal Policy Manager at Citizens Advice told us that experiences are "characterised by extreme patchiness". He told us there are good experiences but also "outlier cases where people have poor experiences" which are "really quite stark in comparison to people on gas and electricity."[65]

Research by DESNZ in 2022, however, found that overall, 74 per cent of consumers on a heat network were more likely to say they were satisfied with their heating and hot water system compared with 67 per cent of non-heat network consumers. Dissatisfied customers made up 12 per cent of survey responses. [66] Tom Brooke Bullard told us that "as is often the case, those [good] experiences fly somewhat under the radar." [67]

For those "outlier cases" that have not had good experiences with heat networks, particular issues were repeatedly raised during this investigation about costs, information and billing, and the reliability of the heat network systems. A series of civil society reports from 2018 onwards have also highlighted these issues and the need for action.[68] We consider each issue in turn below.

High bills

Across London there are many examples of unacceptably high prices and considerable distress for residents on heat networks. A recent Citizens Advice report found that some heat network consumers have experienced "significant detriment due to substantial increases in their heating and hot water bills over the past 2-3 years, often doubling or tripling since the energy crisis began in autumn 2021".[69]

The cost of being on a heat network system for consumers and residents came to widespread notice in the UK when the price of energy spiked in 2021, and consumers on heat networks were left particularly exposed. While the Government protected most domestic consumers from high gas prices during the energy crisis, the consumer energy price cap (and its 'Energy Price

[65] London Assembly Environment Committee Transcript of meeting 8 January 2026, 10am Panel 1, p1
[66] Kantar Public Heat Network Consumer and Operator Survey 2022 April 2023
[67] London Assembly Environment Committee Transcript of meeting 8 January 2026, 10am Panel 1, p1
[68] Citizens Advice District Heat Networks 2: analysis of responses from private heat suppliers, 31 May 2017; UK Government, Housing Ombudsman Service; Cold Comfort: Spotlight on complaints about heating, hot water and energy in social housing, February 2021
The Social Agency (2025) Understanding the experiences of heat network consumers London: Citizens Advice
[69] Citizens Advice Customer experience of heat networks, May 2025 p19

Guarantee'), did not apply to heat networks.[70] We heard from Stephen Knight, Chief Executive of the Heat Trust, that this meant that operators of heat networks faced significantly higher costs, which in turn left domestic consumers on heat networks out of pocket.[71]

Although prices have stabilised since then, Peabody told us that electricity currently costs between three and four times more per unit than gas. [72] As heat pumps are around three times more efficient than gas boilers, this reduces the amount of energy required.[73] However, poor energy efficiency in the design of buildings can mean that some of these theoretical gains are wasted.

Stephen Knight from the Heat Trust highlighted to the Committee that "it is not that uncommon to see a communal heating system that has been built in the last decade or so that only operates at about 35 per cent efficiency", [74] compared with the best performing ones achieving 65-70 efficiency, and gas boilers around 84 per cent.[75] As a result, we were told by Peabody that there are examples in London where "charges can be significantly higher – sometimes up to three times more – than gas-fired networks."[76]

Concerns about the cost to individual consumers are compounded by the fact that there is no personal choice available in a communal system. Richard Ellis, Director of Sustainability at Peabody Housing Association told us that "some customers are really quite nervous" of the fact that it is not possible for residents living on a heat network to choose another provider.[77]

Price protections for customers

Throughout this investigation, we heard broad support for the need to limit the prices that Londoners pay to access heat from a heat network. Stephen Knight, Chief Executive of the Heat Trust, told us that to keep the cost low for consumers "we need an equivalent to the price cap for heat networks customers".[78]

Some operators currently benchmark their prices against the gas price cap to ensure 'lifecycle costs' [i.e. the cost of each system over the whole life of its use] are comparable. B&D Energy, owned by Barking and Dagenham Council told us that it sets prices against a counterfactual so that "the whole lifecycle cost" is "no greater than an individual gas fire boiler in a property priced against a current gas price cap."[79] However, other guests said that this approach is not applied consistently across the sector. Ian Guest from Energetik, which is owned by Enfield Council, told us that they use a similar approach, but he emphasised that "there are many

[70] House of Commons Library Gas and electricity prices during the 'energy crisis' and beyond , 25 February 2026, p5; The Energy Price Guarantee meant that instead of an 80 per cent increase in the cost of gas, most domestic consumers experienced a 27 per cent increase
[71] London Assembly Environment Committee Transcript of meeting 4 November 2025, 10am, p9
[72] Peabody Call for Evidence response p5
[73] Energy System Catapult Heat Pumps 3 x More Efficient than Boilers [Accessed 19 May 2026]
[74] London Assembly Environment Committee Transcript of meeting 4 November 2025, 10am, p10
[75] Heat Trust About Heat Networks [Accessed 19 May 2026]
[76] Peabody Call for Evidence response p5
[77] London Assembly Environment Committee Transcript of meeting 8 January 2026, 10am Panel 1, p2
[78] Environment Committee 4 November meeting transcript p.12
[79] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 2, p3

schemes out there … that do not."[80] In Amsterdam, customers are protected by a "niet meer dan anders" principle meaning that on average their costs should not be higher than if they had a gas-fired heating solution.[81] Without these kinds of benchmarks in place, many Londoners are paying more.

Charlotte Owen, Growth Director at Hemiko told us "The industry has supported the introduction of a price cap for heat networks. It is something that probably would be welcomed by most."[82] The GLA told us that "it is a question for the regulator about whether or not it introduces a price cap, but certainly the GLA will be seeking that fair pricing is in place for consumers."[83]

When we put this to government officials, they told us they were reluctant to implement a price cap now, given the lack of data to inform where it should be set. Ludo Tolu, Deputy Director of Heat Networks Policy at DESNZ, told the Committee:

> "there is insufficient data, and there is a great diversity and variance in the market. It would be almost foolish to apply a price cap at this stage because you could set it wrong immediately, and in fact, it is almost expected that you will set the wrong cap because we do not have the data to say what that cap should be." [84]

Ofgem meanwhile told us it would be "publishing guidance to support the sector in understanding their obligations" around costs and pricing.[85] However, given the increases in energy prices happening in response to the escalating conflict in the Middle East and the closure of the Strait of Hormuz to shipping, action is needed now.

Impact on social housing residents

High heat network prices are particularly concerning in cases where tenants are financially vulnerable. Due to planning rules that include social housing in new developments, a significant number of Londoners on heat networks in these new build developments are in social housing.

This means that some of the current heat network customers are on low incomes and particularly sensitive to the price of energy, as well as potentially having additional needs. Citizens Advice warned that: "shock bills and poor communication have left some people struggling to afford their bills. Some providers' aggressive approaches to recovering debt have led to consumers being cut off from an essential-to-life service and others being at risk of losing their home."[86]

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[80] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 1, p15
[81] Vattenfall Amsterdam Heat Network [Accessed 19 May 2026]
[82] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 1
[83] London Assembly Environment Committee Transcript of meeting 8 January 2026, 10am Panel 2, p5
[84] London Assembly Environment Committee Transcript of meeting 8 January 2026, 10am Panel 2, p6
[85] Ofgem Call for Evidence response, para 2.2 p44
[86] Citizens Advice Priorities for heat networks consumer protections: Debt and affordability discussion paper May 2025

We are deeply concerned that some Londoners have experienced considerable harms as a result of higher heating prices. For too many in London, their experience of heat networks has not been satisfactory; they are getting a bad deal, and one from which they cannot escape. For some, this is a very steep personal price to pay for a lower carbon heating network. This is particularly important to resolve in the context of both national and London policies encouraging more of these networks to be built in high-density areas.

We are not persuaded that it is too early to implement price protection, given the high levels of harm being experienced by people on existing heat networks, and the fact that heat networks are now the default heating mechanism in some new buildings. The Government should be taking action to implement controls on heat network prices as an urgent priority.

Recommendation 1

Ofgem should implement price protections for heat network customers as an urgent priority. These need to be simple and understandable and give equivalent protections as domestic gas and electricity customers receive. The Government should pause its plans for expanding heat network zoning until these are in place.

Billing and information

The Committee also heard that heat network customers have often struggled to understand what they are paying for, how prices are calculated, and whether charges are fair. Research shared with the Committee by Exeter University suggested that some residents had been promised 'low cost' heating but did not feel this was reflected the bills they later received. [87] Richard Ellis from Peabody told us that "transparency [and] standardisation of billing is a really, really good thing."[88]

Issues around cost and billing can be particularly unsatisfactory in the case of older networks. Some older blocks have no individual controls or separate billing.[89] In these cases, residents must pay a share of overall use, without being able to limit or influence usage as can be done with individual heating systems. Another feature in some older networks is that heat charges can be incorporated into wider service charges, further reducing clarity. When we asked Citizens Advice about this, it said that it had particular concerns around "the way that debt is managed, particularly where housing costs are bundled in with heating costs".[90]

We also heard about cases where residents were presented with large, unexpected bills as a result of historic billing errors, with limited recourse available. Ludo Tolu from DESNZ told us that the Government was aware of these issues but "cannot stop it immediately in social housing and leasehold cases because of an interaction with housing legislation that we are exploring with the Ministry of Housing, Communities and Local Government".[91]

[87] Exeter University Call for Evidence response p38
[88] London Assembly Environment Committee Transcript of meeting 8 January 2026, 10am Panel 1 p8
[89] Fuel poverty action: Heat networks [Accessed 11 March 2026]; Regen / Stephens Scown Heat Networks: Options for providing heat locally 2017
[90] London Assembly Environment Committee Transcript of meeting 8 January 2026, 10am Panel 1 p6
[91] London Assembly Environment Committee Transcript of meeting 8 January 2026, 10am Panel 2 p13

Newer heat network systems and operators have begun to address these issues. New heat networks tend to have individual 'heat interface units' in each flat which are equivalent in size to a combi-boiler and control its energy use and metering. This is a welcome step to bring clarity and control over individual usage. However, even the newer heat network bills can also include contributions towards the construction and maintenance of the overall system, making direct comparisons with individual boiler costs difficult.

As part of this investigation, the Committee visited two heat networks to observe how these work in practice. At the heat network run by Hemiko in Greenwich, we visited a home and saw firsthand how the 'heat interface unit' and thermostat controls look and work. While these look 'normal', and similar in operation to a conventional gas boiler, we also heard from Hemiko how it works closely with residents on its network to identify any unexpected trends in usage and work with them to give advice and prevent excess usage – which not only helps keep residents' bills low, but also helps to ensure the wider heat network works efficiently.[92]

Similarly, David Stronge, Design Director at Peabody, told the Committee that it has a "new homes and customer care team who move in any new residents" which is working to "improve the experience" for all residents, whether they are buying or renting.[93] He said that it is currently trialling a "better way to communicate more complicated information" about heat networks by using a QR code on the heating system, as part of attempts to improve the experience of people starting residency. However, he acknowledged that there was no standardised approach to this across the industry.[94]

These are positive steps, but in the absence of a government price cap, a set of clear benchmarks would help ensure Londoners are protected – and to ensure that social housing tenants pay no more than they would if they were on conventional heating system. Given his promotion of heat networks, the Mayor is best-placed to work with heat networks operators to help them set fair prices for Londoners.

Recommendation 2

If the GLA continues to promote heat networks in the London Plan, the GLA should take the lead in ensuring price protection for Londoners and establish a set of Fair Pricing Principles for all heat networks in London.

Recommendation 3

The GLA should work with Ofgem and the Department of Energy Security & Net Zero (DESNZ) to develop a best practice guide, similar to an EPC rating, that clearly gives prospective residents a short introduction to the heat network, its efficiency levels, and explains heat network charges.

[92] Comments made on Committee's visit to Greenwich Peninsula on 19 February 2026
[93] London Assembly Environment Committee Transcript of meeting 8 January 2026, 10am Panel 1, p10
[94] London Assembly Environment Committee Transcript of meeting 8 January 2026, 10am Panel 1, p10

Reliability and efficiency of heat networks

New standards

Through this investigation, we have heard examples of issues consumers across London have experienced with poor reliability of heat networks. Tom Brooke Bullard told us that one of the major concerns that Citizen's Advice hears about heat networks is people who have been suffering outages for long periods of time.[95] This echoes our own anecdotal experience: London Assembly Members have also been contacted on occasion by constituent households who have suffered extensive periods of outages with heat network systems.[96]

> *"We have seen lots of cases, very similar cases, cases of people being off supply for matters of weeks with no resolution, obviously in the coldest months of the year, with this being an essential service, that is something that we are really concerned about"* [97]
> ***Tom Brooke Bullard**, Interim Principal Policy Manager, Citizens Advice*

Ludo Tolu from DESNZ acknowledged that there have been issues with heat networks and explained that Ofgem will introduce guaranteed standards of performance in 2027 with the aim of reducing service outages and improving information for consumers.[98] The Government is also introducing new technical standards: the Heat Network Technical Assurance Scheme (HNTAS), which are intended to address performance issues.[99]

> *"Ofgem will be introducing guaranteed standards of performance for heat networks from next year [2027]…as part of its authorisation conditions to reduce service outages and to drive improvements in heat networks. It will be looking at reducing the frequency, length and impact of any outages. It will be asking heat networks to provide adequate notice to consumers of any planned interruptions to their heating, to particularly think about those who might have additional needs or are particularly vulnerable, in how they communicate to them, as well as to have generally good standards on their communications more widely."*[100]
> ***Ludo Tolu**, Deputy Director for Heat Networks Policy, Department for Energy Security and Net Zero (DESNZ)*

In evidence to the Committee, the heat network operator Vattenfall acknowledged the importance of HNTAS for setting "robust technical standards", which it described as "essential for delivering reliable, efficient, and safe heat networks".[101] However, it suggested that it was "overly complex" and would increase costs to customers, and create "unnecessary barriers for

[95] London Assembly Environment Committee Transcript of meeting 8 January 2026, 10am Panel 1 p6
[96] During the investigation, Assembly Members asked about cases including Barking and Dagenham , and the Olympic Park [London Assembly Environment Committee Transcript of meeting 8 January 2026, 10am Panel 2 , p12]
[97] London Assembly Environment Committee Transcript of meeting 8 January 2026, 10am Panel 1 p2
[98] London Assembly Environment Committee Transcript of meeting 8 January 2026, 10am Panel 2
[99] UK government Heat Network Technical Assurance Scheme (HNTAS) February 2026
[100] London Assembly Environment Committee Transcript of meeting 8 January 2026, 10am Panel 2 , p12
[101] Vatenfall Call for Evidence response p25 (p8 of Vatenfall submission)

stakeholders."[102] Similarly, Simon Woodward of B&D Energy highlighted the fact that the majority of operators running communal heat networks are not specialists. He characterised these as "accidental energy service companies… building managers, property owners and so on", who will be faced with "an inch of guidance and regulation from Ofgem". He suggested that these would all "have to employ a consultant to explain it for them", and these costs would then be passed on to residents. He expressed concern that as a result "there will be additional customer detriment as a result of those costs".[103]

However, most guests we spoke to were generally positive about the proposed new technical standards scheme. Ian Guest from Energetik described it as a "good solution to try to ensure that high-quality networks are delivered in the future that are efficient."[104] Gareth Jones from Fairheat, which has been leading the development of the standards, told us that it "is a big step forward", and described how it "effectively lifts the bottom up" by ensuring that all heat networks achieve minimum technical standards of efficiency.[105] He also explained that many new heat networks are already being designed to these higher standards and "perform really well, where the consumers on those networks are happy, getting very stable heat, and getting good performance".[106]

We agree, particularly given the evidence we heard that some current heat networks are achieving poor energy efficiency. In this context, new government standards are clearly necessary to ensure that high quality and efficient networks are being built for the future.

Implications for existing networks

These new standards, while welcome for ensuring new heat networks are well-built, could potentially require major works on existing heat network systems. The Committee received evidence about the Pimlico District Heating Undertaking heat network, where leaseholders are potentially being asked to contribute significant amounts of money to pay for upgrades to their existing heat network – charges of £50,000-70,000.[107] These residents also raised concerns that as well as upgrades for the heat network there would also need to be significant upgrades to the insulation to ensure that a new system works efficiency. Given the amounts of money involved, it is important that there is transparency around decisions to upgrade, and that heat networks are shown to be the most cost-effective option in these specific cases.

Standards are particularly important as both the Government and the GLA's London Plan policy have promoted heat networks. Dr Catherine Cain and Dr Matthew Cole from Exeter University told us that nationally, "planning law has encouraged developers to incorporate heat networks into their plans, even if it is not the most cost-effective solution to provide heat and hot water to consumers, so that they have a better chance of obtaining planning permission", citing a report by the Competition and Markets Authority (CMA) in 2018.[108]

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[102] Vatenfall Call for Evidence response p25 (p8 of Vatenfall submission)
[103] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 2 p5
[104] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 1 p17
[105] London Assembly Environment Committee Transcript of meeting 4 November 2025, 10am p12-13
[106] London Assembly Environment Committee Transcript of meeting 4 November 2025, 10am p22
[107] Andrey Bulavin (Residents Technical Working Group) – Pimlico District Heating Undertaking (PDHU) Case Study. Call for Evidence response (unpublished)
[108] Exeter University Call for Evidence response p37

The Committee welcomes the Government's approach to introducing guaranteed minimum performance standards for heat networks; this is clearly necessary, and regulation cannot come soon enough. However, we have real concerns around the costs of implementing the new Heat Network Technical Assurance Scheme (HNTAS) for existing networks in London. Improving the performance of existing schemes is potentially very expensive for leaseholders and could render some Londoners liable for thousands of pounds in costs, with no choice but to pay. Any new government regulations that require large scale upgrades to current heat network systems, with the costs being borne by residents, could risk becoming akin to the leasehold cladding scandal.

In London, the London Plan has encouraged developments with heat networks. Therefore, the GLA must have a role in ensuring that heat networks that do not meet the new standards are put right, for example by mapping these cases and identifying resources to address them, and by advocating for central government funding for upgrading heat networks in London to meet the new standards.

The consumer problems and day to day impacts of some heat networks show that there are underlying strategic issues that must be resolved. We now turn to the broader policy and infrastructure questions, whose resolution is required in order to deliver both the Government and Mayoral decarbonisation goals, as well as a positive consumer experience for Londoners.

The Government currently provides some funding for improving heat networks. The Heat Network Efficiency Scheme (HNES) provides up to 100 per cent of the project development funding and then a grant for up to 50 per cent of the capital funding needed to deliver the upgrade to underperforming heat networks.[109] The Government announced in the Warm Homes Plan that this would increase to £15m a year. However, more funding is needed and measures in place to ensure that any payments by leaseholders are affordable such as through low-cost loans.

Recommendation 4

Where existing under-performing legacy heat networks in social housing are being upgraded, there should be price protection for leaseholders in terms of capital costs. This would require access to a capital fund provided by Government that could be administered by the GLA and low-cost loans to allow repayments to be made over an extended period.

[109] UK Government Heat Network Efficiency Scheme (HNES): overview [Accessed 19 May 2026]

4 Can zoning overcome challenges facing heat networks?

Despite broad policy support for heat networks for some years, they remain limited and relatively small-scale in London. If London is to expand heat networks across the city, it will require significant expansion of infrastructure, and a co-ordination between multiple stakeholders, even on a building-by-building, street-by-street basis. This is a complex task, and throughout this investigation, we have heard about multiple challenges that would need to be pieced together if what was described to us as a "puzzle" is to be resolved.[110] [111]

Gabriele Caprotti, the GLA's Joint Interim Head of Infrastructure acknowledged to us that there have been "a number of challenges involved with the planning and delivery of heat networks" in the UK, including "broad regulatory challenges that both the UK [Government] and local government have progressively been turning their attention towards". [112]

In talking about these challenges, many of our guests told us they were eagerly anticipating the publication of the national Warm Homes Plan in the hope that it would provide greater clarity and certainty for the sector.[113] The Government published its Warm Homes Plan in January 2026, after the Committee's final meeting of this investigation. Alongside the Plan, it also confirmed its approach to 'Heat Network Zoning'.[114]

Heat sources for heat networks in London

Throughout this investigation, we heard enthusiasm for the potential role heat networks can provide in the capture and use of "waste" heat in London – from Energy from Waste plants, data centres, the Tube and potentially even the Thames.

As part of this investigation, the Committee visited different sources of waste heat that can be connected to heat networks. This included visiting the Bunhill 2 heat network in Islington, which uses waste heat from the tube to provide heat, alongside a gas generator – which currently helps subsidise the heat. The Committee also visited the Greenwich Peninsula heat network run by Hemiko and saw a gas CHP generator, and also new air source heat pumps which are being installed at the energy centre.

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[110] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 1, p3 Ian Guest (Technical Director, Energetik) "if you do not ensure that there is some form of cohesion in the policy… you miss the opportunity to say "OK, that would have allowed us to, in terms of jigsaw puzzles, move our way towards that part of London"

[111] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 2 p2

[112] London Assembly Environment Committee Transcript of meeting 8 January 2026, 10am Panel 2 p3

[113] London Assembly Environment Committee Transcript of meeting 8 January 2026, 10am Panel 2 p8

Energy from Waste plants

Energy from Waste plants turn rubbish that cannot be recycled into energy that can be supplied to electricity and heat networks.[115] Where these exist, they offer a low-cost, high-temperature source of heat,[116] and are used in Scandinavia.[117] Charlotte Rule, the Head of Climate and Energy Policy at the Environmental Services Association (ESA) told us that of the four operational Energy from Waste sites in London, only one, the South East London Combined Heat and Power (SELCHP) currently exports heat, but the others have plans or are in negotiations to do so.[118] She told us that these plants operate most of the time, with around 90 per cent availability, which she said "gives them a really good opportunity to provide heat," with potentially 2 million megawatts thermal available. [119]

Charlotte Rule explained that although Energy from Waste plants are a source of 'waste' heat, there are costs involved in providing this to heat networks – both in terms of physical infrastructure, but also in terms of a trade-off between the amount of heat and electricity produced. [120]

While waste is a relatively high-grade cost-effective source of heat, one of the challenges is getting the heat to where it is needed. This can either be done by locating facilities in the same area or finding ways to transfer the heat into heat networks.

We heard about potential developments and innovations to transfer waste heat to heat networks in different parts of London. Charlotte Owen from Hemiko also told us that Cory, which operates the Riverside Energy from Waste plant at Belvedere, has "announced plans to bring a transmission network through into central London [using] horizontal directional drilling, similar to how we built the Tubes."[121] Charlotte Rule meanwhile told us about another option that Cory is exploring, which is to use the barges that it uses to transport waste down the river "to transport heat as well."[122] She explained that these could work "almost like an electrical battery but for heating" using thermal energy stores.[123]

Data centres as potential sources of heat

Both the GLA and many experts we spoke to identified data centres as potential sources of heat.[124] Luisa Cardani, Head of the Data Centres Programme at techUK, told us that waste heat from data centres is a "massive opportunity not just for London but for the entirety of the

[115] Environmental Services Association (ESA) Decarbonising the Sector [Accessed 19 May 2026]
[116] We acknowledge concerns about the wider impacts of Energy from Waste plants, including the impacts on recycling rates and air quality
[117] European Suppliers of Waste to Energy Technology (ESWET) Waste to Energy: a reality for affordable heating in local districts August 2022 [Accessed April 2026]
[118] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 2 p1
[119] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 2 p7
[120] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 2 p6-7
[121] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 1, p13; Lets Recycle Waste heat from Cory EfW to feed London heat network September 2025
[122] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 2, p8
[123] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 2, p8
[124] AECOM, Data Centre Heat Offtake April 2025

UK".[125] Gabriele Caprotti, Joint Interim Head of Infrastructure at the GLA told us that its analysis suggested that "350,000 homes could be heated through the current data centres that do exist in London, whilst also taking note of the future data centres that are expected to come London's way."[126]

However, guests from the tech sector cautioned against blanket policies requiring data centres to connect to heat networks. Luisa Cardani told the Committee "retrofitting is incredibly costly and there needs to be a very good use case".[127] Similarly, Noah Nkonge, Heat Export Lead from the data centre provider Equinix, emphasised that there are challenges for data centre operators in retrofitting their facilities as they have to maintain the service with "a very high uptime of 99.99 per cent", and there were risks involved with digging up the site, or connecting in to the cooling system.[128]

Old Oak Common and Park Royal Development Corporation (OPDC), which the Mayor oversees, has been leading work around heat networks utilising waste heat from data centres.[129] In 2024, it announced plans for a scheme expected to deliver 95GWh of heat across five phases between 2026 and 2040, the equivalent of boiling a billion kettles.[130] Both Luisa and Noah highlighted this project, emphasising that it shows the challenges can be overcome, and that the most important thing is early coordination and discussions with all relevant stakeholders.[131]

While there are opportunities to use waste heat from data centres for heat networks, the Committee is also aware of wider environmental concerns around their impacts – which may not be mitigated just by connecting to heat networks. In the Committee's February *Environmental Stocktake* meeting the Committee heard from Global Action Plan who highlighted the high energy consumption of data centres, and a range of other environmental impacts, including water use.[132] The Environment Agency also raised air quality concerns due to the use of diesel back-up generators for data centres – which are regularly tested.[133] The report by consultants AECOM for the GLA on data centres did not highlight these areas.[134] Given this, we think the GLA should urgently review the wider environmental impacts of data centres**.** We are pleased to hear in the Committee's March 2026 meeting that the GLA is planning a separate data centres policy in the London Plan.[135]

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[125] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 2 p1
[126] London Assembly Environment Committee Transcript of meeting 8 January 2026, 10am Panel 2 p15
[127] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 2 p11
[128] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 2 p9
[129] GLA, OPDC Announces Hemiko as development and funding partner for innovative New Heat Network, 31 March 2025
[130]Government Business Plans for London heat network underway 1 April 2025 [Accessed 19 May 2026]
[131] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 2 p10
[132] Global Action Plan, Response to Environment Stocktake Call for Evidence, p25
[133] London Assembly Environment Committee Transcript of meeting 3 February 2026, 12.15pm p14; Environment Agency Response to Environment Stocktake Call for Evidence, January 2026, p67
[134] AECOM, Data Centre Heat Offtake April 2025
[135] London Assembly Environment Committee Transcript of meeting 3 February 2026, 12.15pm, 3 March 2026, Megan Life (Assistant Director of Environment and Energy, GLA) "We are thinking about how we use that as a

Recommendation 5

The GLA should review the existing reports it has received on the role of waste heat from data centres in London and commission further analysis of the environmental impacts of data centres to inform London Plan policy, including air quality impacts from back-up generators.

Requiring buildings to connect

If heat networks are to become practical on a city-wide scale, it is clear that the decision to adopt heat networks cannot be made at the individual level in each home, but must be mandated across entire buildings or areas. This is important to build the financial viability of heat networks, which require a certain scale and number of connections.[136]

In London, the London Plan already prioritises the connection of most large new developments to new or planned local heat networks. The Government's new Warm Homes Plan published in January 2026 takes this further, with 'zoning' potentially requiring certain existing buildings in a particular area to connect to heat networks as well. The Government describes this as being key to "unlock" investment "by creating certainty for investors and developers".[137] The Government's plan makes it clear that this is "subject to a range of criteria and exemptions that ensure the process is fair."[138]

The Government's approach will require larger new buildings and a range of existing buildings in heat network zones, mainly buildings with larger heating systems that use boilers or heat pumps.[139] However, individual homes with their own heating systems would not be required to connect.[140]

Stephen Knight from the Heat Trust told us in November that the Heat Trust was in favour of zoning, explaining that by linking up connections to form larger district-scale heat networks, there are opportunities to create efficiencies and economies of scale. He told the Committee that linking up existing heat networks offers an opportunity to decarbonise them and lower the cost of the heat in the process, saying "Current planning policies have not been able to drive

policy tool to keep hold of the economic growth benefits that data centres offer, whilst trying to mitigate some of what we recognise are some quite challenging things associated with how resource-intensive they are." p.50

[136] "However, to build investment certainty and to ensure coordination of the development of a local heat network, local government-sponsored zone coordination bodies will be able in some instances to require some buildings (categories confirmed below) in zones to connect to the zone's heat network." UK Government Proposals for heat network zoning 2023: government response

[137] UK Government Heat Network Zoning: An overview of proposals for heat network zoning in England 21 January 2026, p4

[138] UK Government Heat Network Zoning: An overview of proposals for heat network zoning in England 21 January 2026 p9

[139] The Government specifies buildings with a 'wet' heating system, non-domestic buildings which use over 100MWh of heat per year, and buildings on a campus heat network

[140] UK Government Heat Network Zoning: An overview of proposals for heat network zoning in England 21 January 2026 p10

that. That has to be driven, I think, probably by zoning policy. Zoning gives us the opportunity to strategically plan this."[141]

Balancing certainty around future connections for heat network operators with sufficient protection for residents or businesses living or operating within these zones is a fundamental challenge. John Allison from DESNZ told us in January that "No zone can be designated without a consultation on the zone boundaries having taken place locally",[142] although the Government's formal response states that "while the consultation will be open to the public", the requirement will be focused on "specific parties with relevant interests in the zone", such as heat network operators and other utility providers.[143] It is important that the consultation around heat network zones is meaningful and includes proactively reaching out to residents that could be affected, and that their responses inform decisions around the zone.

In addition, the Government's response to the zoning consultation makes it clear that although buildings may be required to connect, there are exemptions if buildings can show that it has an existing low-carbon heating system installed or unresolvable technical incompatibilities. Buildings required to connect may also choose whether to buy heat from a heat network post-connection or keep their existing heating system. The Government states that this will "ensure pressure on zone heat network developers to keep heat prices competitive, even after the building has been connected to the heat network."[144] We welcome this commitment to ensuring heating choice within zones to ensure some price competition, although recognise that many would want this to go further.

Recommendation 6

The GLA should ensure that consultations around the specific heat network zones in London include meaningful consultation with residents. Where existing blocks of housing are required under zoning to connect to a heat network, residents' groups should be included in decisions about whether to buy heat or maintain existing heating systems – such as through a ballot.

This mandatory approach is also being considered at the other end of the network: requiring heat sources to connect to a heat network too. Becoming a provider of heat to a network is by no means cost-neutral, and not all waste facilities or data centres would automatically connect. Zoning would also address this, and the Government's consultation addresses one of the challenges of ensuring that the price paid for the heat in this context is fair. The Government made it clear that it expects this to be a negotiation between suppliers of heat and heat network operators. However, it states that there will "also be the backstop under zoning that if no agreement is reached, the zone coordination body will be able to require connection of the heat source to the heat network and for it to provide heat where connection is viable."[145]

[141] London Assembly Environment Committee Transcript of meeting 4 November 2025, 10am p19
[142] London Assembly Environment Committee Transcript of meeting 8 January 2026, 10am Panel 2 p10
[143] UK Government Heat network zoning consultation 2023: summary of government response 21 January 2026
[144] UK Government Heat network zoning consultation 2023: summary of government response 21 January 2026
[145] UK Government Heat network zoning consultation 2023: summary of government response 21 January 2026

Zoning pilots are in their early days, and it is too early to judge the success of the Government's new approach. We recognise that for heat networks to be cost effective, economies of scale are required. However, we warn that removing personal choice from both households and heat providers must be done with full transparency and information, and robust consumer protections on price.

Making heat networks the cheapest option

Reducing the price of electricity compared to gas

One of the most significant challenges for heat networks we heard about in our investigation was the high cost of electricity in the UK, particularly the difference in price between gas and electricity. It is more difficult to persuade people to decarbonise their heating if it is more expensive than the alternatives.

We discussed the price disparity with our guests. Caroline Bragg, from the ADE observed that the price comparison between gas and electricity is not an equal one, as it "does not consider its carbon costs."[146] While Charlotte Owen from Hemiko acknowledged that there are price "challenges" and told us that currently heat networks require an institutional commitment from building operators to "pay the premium to be on a low-carbon heat supply."[147] She said that what is needed is "to give people an economically rational reason for joining heat networks, and the answer is that we need to make it cheaper."[148]

In the Warm Homes Plan, the Government acknowledges challenges around the costs of electricity for domestic consumers, but it does not offer any support to heat networks.[149] It is disappointing that the Government didn't take this opportunity to look at ways to bring the cost of electricity down for heat networks, given these costs will still ultimately be borne by consumers.

Fluctuations in global gas prices make affordable electricity even more important. Even without the recent price rises due to the increased conflict in the Middle East, gas prices for consumers in the UK were set to be 50 per cent higher in March 2026 than in the winter of 2021-22.[150] While the UK gets relatively little gas from Qatar, it is affected by increases in the global wholesale price of gas.[151] Because of the way that electricity prices are set, they are currently linked to the price of gas, although increasingly groups are suggesting ways that this could change.[152]

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[146] London Assembly Environment Committee Transcript of meeting 4 November 2025, 10am p14
[147] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 1 p7
[148] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 1 p3
[149] UK Government Warm Homes Plan, January 2026, p65
[150] House of Commons Gas and electricity prices during the 'energy crisis' and beyond, 25 February 2026, p5
[151] UK Government Iran, the Middle East and UK energy: factsheet 6 March 2026
[152] Common-wealth Crude Awakening: Averting the Unfolding Energy Crisis by Decoupling the Price of Electricity From Gas March 2026

Recommendation 7

The Government should take action to lower electricity costs for heat networks, particularly given the energy security advantages and overall system benefits they give by smoothing peak demand and ensure these are passed on to heat network customers.

Phasing out gas boilers

An alternative approach to making heat networks the cheapest option would be to ban gas heating. There are already a growing proportion of Londoners who are not on the gas grid, 20 per cent of properties in London had no access to gas in 2024, up from 14 per cent in 2015.[153] Stephen Knight told us that relying on gas boilers "cannot go on indefinitely" if London is to decarbonise heating, and "heat networks offer an opportunity to do that at a lower cost than simply putting in electric panel heaters everywhere."[154]

> *"zoning will work as long as somebody somewhere brings in legislation to say that you can no longer replace your gas boiler at the end of its life so that they have to look at the alternatives."*[155]
> ***Ian Guest**, Technical Director, Energetik*

Without a boiler phase-out, our guests were clear that other policy incentives would be needed. Caroline Bragg from the ADE said that if the Government "cannot look at a gas boiler phase-out, there will need to be further funding to close that gap instead"[156]. The government's Warm Homes Plan did not include any commitments to phase-out gas boilers. While Committee Members have different views on the appropriateness of this as a policy, not taking this step will make it harder to achieve the Government and the Mayor's targets.

Ownership models

The Committee heard a range of views about who should build and own heat networks. Birger Lauersen from Denmark, told the Committee that ownership of heat networks in Denmark is almost irrelevant, that some are publicly owned, some privately owned and some community owned, and so the key thing is "the terms and also the conditions where you want to develop district heating", and "to take into account what the competition...is".[157]. However, the Committee heard from guests that local authorities in the UK are constrained as to the amount of debt they can take on, and so private sector investment is the most likely option. Ian Guest, who works with Enfield Council acknowledged that investing in heat networks may mean that Councils are unable to deliver other priorities.[158]

[153] UK Government LSOA estimates of properties not connected to the gas network December 2025
[154] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 1 p2
[155] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 1 p6
[156] London Assembly Environment Committee Transcript of meeting 4 November 2025, 10am p27
[157] London Assembly Environment Committee Transcript of meeting 4 November 2025, 10am, p15
[158] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 1 p11

> *"Every local authority has a debt ceiling. If we are using £100 million or £200 million of that debt ceiling, it means they cannot build houses or fund other improvements for their borough residents and businesses. You have to accept that local authorities are unlikely to be the only solution because you need private sector investment."*[159]
> ***Ian Guest**, Technical Director, Energetik*

John Allison from DESNZ told us that open competition is an important principle of how zoning operators will be decided in individual areas, with a potential role for local authorities as zone co-ordination bodies. He told us that government had "heard the concerns that it is too difficult or impossible for local authorities to take on a direct role in zone delivery", but thinks "it is entirely possible for them to do so". He added that they had thought about how to avoid "any real or perceived conflict of interest", while also ensuring that social value is recognised through the competition process.[160]

Charlotte Owen from Hemiko told us that "there is not necessarily a one-size-fits-all approach", and that there are a range of ways that local authorities can exert influence and control over heat networks beyond ownership.[161] These include, the 'consent model', the use of 'golden shares', which give certain rights around costs, carbon and consumer protection, and also an 'evergreen concession', where the parties enter into a corporate concession agreement and establish a special purpose vehicle. The Government has since stated that it is minded to take forward three delivery models for further analysis – authorisation and consent, local authority joint venture, and time limited and 'evergreen' consent models. [162]

While we are reassured by the commitment to assessing social value in this process, and the involvement of local authorities in the process, there are clearly long-term risks that will need to be managed, and if zoning goes ahead there should be a role for the GLA in ensuring that Londoners are protected. This is discussed further in the next section.

[159] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 1 p11
[160] London Assembly Environment Committee Transcript of meeting 8 January 2026, 10am Panel 2 p12
[161] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 1 p12
[162] UK Government Heat network zoning: consultation summary

5 What next for heat networks in London?

The GLA's role in heat network zoning

To date, the GLA's role in supporting heat networks has been largely strategic and set the policy direction for London. Given the changes set in motion by the Government's new heat networks zoning policy, the GLA will need to increasingly work directly with local authorities and the Government if there is to be a joined-up approach.

Local 'zone coordination body'

The Government's new zoning policy includes a new national heat network zoning authority and also new local 'zone coordination bodies'.[163] The Government hasn't yet specified the number of 'heat network zones' it expects in London. It told the Committee that this would be a matter for local government to bring forward potential zones.[164]

In this investigation, the GLA told us that it had identified opportunities for heat networks across 25 different boroughs and the City of London Corporation and that "a multi-borough partnership will be absolutely vital to ensuring that we can address some of the existing challenges and avoid or mitigate further challenges in the future."[196]

Gabriele Caprotti told us that the GLA sees the need for a "combination of London government" in the zone co-ordination role, with a "role for London Councils, London boroughs and the GLA to partner together."[165] Vattenfall told us that the GLA is "well placed to take on or advise the 'zone co-ordinator' on the best opportunities" and they "would expect significant involvement from the GLA in the designation and management of zones."[166]

The GLA has an important strategic role in London in establishing relationships and taking a London-wide spatial view of what is needed where. Simon Woodward described it as a "brilliant role" for the GLA in "convening local authorities to work together."[167] Ian Guest observed that in parts of North London they had observed a "political challenge" in boroughs joining another borough's network if there was a perception that the other borough might benefit financially. He observed it would be a "big step forward" that if the "GLA can unlock that and try to get boroughs to work together" to depoliticise the process.[168]

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[163] UK Government Heat Network Zoning: An overview of proposals for heat network zoning in England January 2026 p8
[164] London Assembly Environment Committee Transcript of meeting 8 January 2026, 10am Panel 2 p9
[165] London Assembly Environment Committee Transcript of meeting 8 January 2026, 10am Panel 2 p13
[166] Vattenfall Call for Evidence response p22 (p5 of Vatenfall response)
[167] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 2 p3
[168] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 1 p20

Charlotte Owen from Hemiko, which is developing the South Westminster Area Network (SWAN) highlighted that the GLA could help unlock relationships with other key stakeholders in London, such as Transport for London (TfL) to potentially locate heat generation and thermal storage within TfL sites. She said this was something that they "are struggling at the minute to push through."[169]

Co-ordinating and enabling pan-London infrastructure

The GLA could also play an important role in coordinating the major cross-London infrastructure that wider take up of heat networks would require. Simon Woodward told us a key "puzzle that the UK is currently tussling with" is "how to fund the big strategic heat lines that you need to run from those strategic heat sources to local distribution networks".[170] Antony Meanwell highlighted that in Denmark the 180 kilometres-long transmission main is a not-for-profit entity run by two separate companies, and suggested that the creation of an 'Infrastructure for London' was needed – to perform a role similar to Transport for London but for broader infrastructure.[171]

The GLA and London Councils published the London Infrastructure Framework in March 2026, which includes a number of projects relating to heat networks, including eight transmission mains in different parts of London that act as a spine for multiple smaller distribution networks.[172]

As well as transmission pipelines for heat, Gareth Jones from Fairheat also highlighted the importance of taking a regional approach to the location of large thermal stores. These are fundamental to smoothing demand and taking advantage of lower prices for electricity when demand is lower.[173]

The GLA Group's existing infrastructure processes may also require adjustment to better support heat network delivery. While some of our guests recognised the benefits of TfL's co-ordination of multi-utility work to reduce unnecessary delays,[174] others highlighted the impacts on overall project costs, with Charlotte Owen from Hemiko highlighting that "lane rental costs add ten per cent to the capital costs of delivering a heat network."[175] Gabriele Caprotti highlighted that while the GLA is supporting boroughs to bring forward lane rental schemes across London, it also has the potential to "promote waivers and 100 per cent exemptions where collaborative delivery is being pursued" to reduce these costs, should it choose to.[176]

[169] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 1, p19
[170] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 2 p2
[171] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 1 p13
[172] Mayor of London and London Councils London Infrastructure Framework March 2026 pp86-97
[173] London Assembly Environment Committee Transcript of meeting 4 November 2025, 10am, p13
[174] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 1, p8
[175] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 1 p4
[176] London Assembly Environment Committee Transcript of meeting 8 January 2026, 10am Panel 2 p27

Recommendation 8

If the Government's plans for zoning proceed, the GLA itself should play a significant role in heat network zoning in London, including being the overall heat network co-ordinator for the city, and involved in each individual zone alongside local boroughs. It should also support the investment in large-scale infrastructure by establishing an 'Infrastructure for London' body, similar to Transport for London.

Recommendation 9

The GLA and TfL should work with heat network operators to minimise disruption for traffic during the construction phase of any new heat networks, while also ensuring cost burdens for heat network operators are also avoided wherever possible.

Skills

A widespread lack of heat network skills and knowledge were repeatedly raised during this investigation. Our guests suggested that the GLA could help heat network operators by supporting skills and training to address shortages. Peabody told us that "finding staff resources are really difficult, and there are not many people in there who understand networks and how to improve them."[177] The need to add support training and skills was also raised during the Committee's visit to the Greenwich Peninsula network, when stakeholders highlighted that they work closely with the South London Green Skills Hub, but suggested that further support for training people to have the skills needed to work on heat networks would be highly beneficial.

Recommendation 10

The GLA should develop a strategy for expanding support for heat network skills in partnership with the Mayor's Green Skills Hubs, including a requirement that each new heat network supports apprenticeships and training for new people to develop the skills required in the industry as they are needed.

Access to expertise

The Committee heard that the GLA could do more to share expertise across London and provide advice. Stakeholders welcomed the role that the Mayor's Low Carbon Energy Accelerators played in providing advice to inform the development of projects.[178] However, others emphasised that more support is needed. Ian Guest said that across two decades of work on district heating, "the problem has been skills and knowledge". He suggested that there would be a benefit of the GLA having a "central skills support team that can stop 32 boroughs having to learn from scratch what this is all about."[179]

[177] London Assembly Environment Committee Transcript of meeting 8 January 2026, 10am Panel 1 p11
[178] London Assembly Environment Committee Transcript of meeting 4 November 2025, 10am p18
[179] London Assembly Environment Committee Transcript of meeting 4 November 2025, 10am p9

Recommendation 11

The GLA should expand the Energy Accelerators offer to provide a pan-London provision of expertise and advice for local authorities. As part of the Government's plans for zoning, it should recognise the strategic importance of London-based advice and provide resources to specifically support this.

Others emphasised the importance that local authorities have the skills and experience needed to effectively make planning decisions. On the Committee's site visit to Greenwich, Hemiko highlighted the risk of Councillors and other stakeholders not having the expertise needed to assess different options, and also the costs involved in having to repeatedly assess the relative benefits of different technologies across different parts of London. As Gareth Jones highlighted, developers often will try to push for the lowest cost option for new developments without considering the ongoing operating costs which impact on residents, and there is a need for the GLA and local planning authorities to ensure that decisions are based on robust evidence. [180]

> *There will be a natural tendency for those developing new build developments to try to go for the option that has the lowest cost for them in capital expenditure (CapEx), which is to put in direct electric. We are seeing it. That would have very significant long-term cost implications. Also, from a wider perspective of trying to decarbonise, that really makes it difficult, particularly from a grid perspective. The infrastructure we need there makes that very difficult. We cannot afford that sort of load onto the system"* [181]
> ***Gareth Jones**, Founder and Managing Director, Fairheat*

Similarly, Dr Catherine Cain and Dr Matthew Cole from Exeter University told us that the design and build process have been used by developers "who have an incentive to minimise upfront costs" to cut corners resulting in "a reduction in the operational efficiency of the network which consumers then have to pay for within their bills at a later date."[182]

The GLA's role in funding the future

The Government and the GLA both have ambitious plans for heat networks. However, we heard from a range of stakeholders that its success is likely to come down to funding, and the GLA should have a role in how this is allocated in London.

Both the government and GLA have both made it clear that they only support heat networks where these are the 'lowest-cost, low carbon' source of heat. However, assessing this is complex as the short-term costs in establishing heat networks are considerably different from the long-term ones. While finance can, to some extent, manage these over time, the cost of finance is particularly reliant on policy certainty and the guarantee of future connections to the network.

[180] London Assembly Environment Committee Transcript of meeting 4 November 2025, 10am p21
[181] London Assembly Environment Committee Transcript of meeting 4 November 2025, 10am p21
[182] Exeter University Call for Evidence response, p38

Peabody told us that "A stable and long-term funding model is another consistent requirement. Without certainty on funding, interest in networks can drop away once the pilot phase ends."[183] Charlotte Owen from Hemiko highlighted that while she agreed with the Government's proposals "it really will come down to resourcing."[184] This includes both capital costs, but also resourcing costs for heat network zones to be able to support the expansion.

Veolia told us a "long-term, multi-year funding and financing programme is needed, expanding on the Green Heat Network Fund and combining capital grants, low-interest loans and public-private investment models."[185] The Government has a range of funding schemes available, including the Green Heat Network Fund (GHNF) which provides capital support for the construction of new low and zero carbon heat networks, and the retrofitting of existing heat networks,[186] with funding also available from the National Wealth Fund at preferential rates, on the basis of the same application information submitted to the GHNF grant funding scheme.[187]

In January 2026, the Warm Homes Plan announced £195 million/year funding for the Green Heat Network Fund to 2029/30, as well as "mobilising the National Wealth Fund" and £15million/year to 2029/30 for the Heat Network Efficiency Scheme (HNES).[188] In response to the Government's Warm Homes Plan, the Heat Network Industry Council stated that the "increased funding for heat networks in the near term is a positive step forward."[189]

In October 2024, the Government announced that six areas of England would receive funding to become the first heat network zones.[190] These include OPDC and SWAN in London.
The Committee welcomes London's involvement in these new zones. However, we share our guests' view that currently the success of heat networks relies on long-term funding and consistent support. Recent funding announcements are welcome but only if there is a sustainable financial model for heat networks into the long-term.

Recommendation 12

Government funding for heat networks should ensure long-term sustainable financing models are in place to protect consumers. The Government should also address the skills barriers in local authorities to ensure that they have the skills to assess the long-term viability of heat networks, and the relative cost-effectiveness of different technologies for individual planning decisions which will shape the potential expansion of heat networks.

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[183] Peabody Call for Evidence response p8
[184] London Assembly Environment Committee Transcript of meeting 3 December 2025, 2pm Panel 1 p8
[185] Veolia Call for Evidence response p29
[186] UK government Green Heat Network Fund (GHNF): guidance on how to apply
[187] National Wealth Fund UK Infrastructure Bank partners with BEIS to support growth of local low carbon heat networks {Accessed 1 January 2026]
[188] UK Government Warm Homes Plan P96
[189] Heat Networks Industry Council We welcome the publication of the Warm Homes Plan and are encouraged to see a more clear articulation of the role that heat networks can play in the energy system. LinkedIn Post February 2026 [Accessed 20 May 2026]
[190] UK Government Six towns and cities to pilot clean heating innovation 25 October 2024

Committee Activity

Investigation aims and objectives

The London Assembly Environment Committee undertook an investigation into the implementation of heat network zoning pilot areas and considered the implications for future delivery across London in support of reducing London's carbon emissions. The aims were to:

- Understand the practical experiences of constructing and connecting new heat network zones in London;
- Gather insights on the potential savings associated with the expansion of heat networks, with particular regard to both carbon emissions and long-term energy costs;
- Explore the experiences of people living in buildings connected to heat networks in London;
- Investigate what is needed to connect sources of ambient or waste heat – such as the London Underground or data centres – to heat networks;
- Assess how the GLA's approach is supporting this work, including updates to the London Plan.

Evidence gathering

The Committee held three formal meetings, two site visits, and launched a Call for Evidence on heat networks zoning in November 2025.

Meetings

The first meeting on 4 November 2025 lay the foundations for the investigation, exploring heat network technology, the policy context, and key issues.

Panel 1

- Stephen Knight - CEO, Heat Trust
- Caroline Bragg - CEO, ADE (Association for Decentralised Energy)
- Gareth Jones, Managing Director, Fairheat
- Birger Lauersen – Policy Committee member, Euroheat and Power [joined remotely]

At the meeting on the 3 December 2025, the Committee heard views on the Government's proposals for new heat network zones and the strategic implementation of heat networks and from a panel of 'waste heat' providers who outlined what will be needed for them to provide for waste heat to heat networks.

Panel 1

- Antony Meanwell, UK Head of Heat Zone Development, E.on
- Ian Guest, Technical Director, Energetik
- Charlotte Owen, Growth Director, Hemiko

Panel 2

- Simon Woodward, Chairman, Business Development Manager, B&D Energy Ltd [joined remotely]

- Charlotte Rule, Head of Climate and Energy Policy, ESA
- Luisa Cardani, Head of Data Centres Programme, Tech UK [joined remotely]
- Noah Nkonge, Heat Export Lead, Equinix

The final meeting on 8 January 2026, heard the consumer perspective from representatives from Peabody and Citizens Advice who highlighted the importance of reliability and fair pricing. A second panel of guests from the GLA and DESNZ gave the Committee opportunity to hear and question them on their roles in strategic planning and funding for heat networks in London, in the context of the Warm Homes Plan which was published in January 2026.

Panel 1

- Thomas Brooke Bullard, Interim Principal Policy Manager, Citizens Advice.
- Richard Ellis, Director of Sustainability, Peabody.
- David Stronge, Design Director, Peabody.

Panel 2

- Ludo Tolu, Deputy Director, Heat Networks Policy, DESNZ.
- John Allison, Deputy Director, Heat Networks Delivery, DESNZ.
- Natasha Valladares, Head of Energy, GLA.
- Gabriele Caprotti, Joint Interim Head of Infrastructure, GLA.

Site visits

On the 14 January 2026, the Committee visited the Bunhill heat network in Islington, which uses waste heat from the tube network to provide heating for local residents and businesses. The Environment Committee visited a second heat network on 19 February 2026. The Hemiko heat network is located in the Greenwich Peninsula. Hemiko also is involved with plans for a heat network in central London which will use heat from the River Thames. The Committee were able to discuss a wide range of issues including the industry response to the government's Warm Homes Plan and key factors in expanding heat networks.

Call for evidence

The Committee launched a Call for Evidence on heat networks zoning, between 28 November 2025 and 10 January 2026 (later extended to the end of January), which received 12 written responses. The Committee received submissions from the following organisations: Andrey Bulavin (Residents Technical Working Group) – Pimlico District Heating Undertaking (PDHU) Case Study (unpublished), Data Centre Alliance, Peabody, Qvantum, Uravu Labs, Vattenfall, Edge Nebula Limited, Transport for London, Dr Catherine Caine/ Dr Matthew Cole (University of Exeter), Veolia, Environment Agency, and Ofgem.

YouGov survey

The Committee published an online survey carried about by YouGov between 16 and 29 January 2026. The survey explored whether people were of heat networks and whether they would consider living in a home connected to one. In total, 1,721 London residents aged 18+ responded. This includes a boost of 574 BAME respondents completed responses to the survey. The full dataset is available from the London datastore.

Research Unit data pack

The London Assembly Research Unit published in February 2026 a data summary of heat networks. This includes an overview of what they are, the 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).

Cover Photos

The cover images show Committee visits to the Bunhill Heat Network in Islington in January 2026 (bottom left two images) and the Greenwich Peninsula Heat network in February 2026 (other images, including explanation of how heat exchanger works – top left, and heat interface unit – centre).

Other formats and languages

If you, or someone you know needs this report in large print or braille, or a copy of the summary and main findings in another language, then please call us on: 020 7983 4100 or email assembly.translations@london.gov.uk

Chinese

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Hindi

यदि आपको इस दस्तावेज का सारांश अपनी भाषा में
चाहिए तो उपर दिये हुए नंबर पर फोन करें या उपर दिये
गये डाक पते या ई मेल पते पर हम से संपर्क करें।

Vietnamese

Nếu ông (bà) muốn nội dung văn bản này được dịch sang
tiếng Việt, xin vui lòng liên hệ với chúng tôi bằng điện
thoại, thư hoặc thư điện tử theo địa chỉ ở trên.

Bengali

আপনি যদি এই দলিলের একটা সারাংশ নিজের ভাষায় পেতে চান,
তাহলে দয়া করে ফো করবেন অথবা উল্লেখিত ডাক ঠিকানায় বা
ই-মেইল ঠিকানায় আমাদের সাথে যোগাযোগ করবেন।

Greek

*Εάν επιθυμείτε περίληψη αυτού του κειμένου στην γλώσσα
σας, παρακαλώ καλέστε τον αριθμό ή επικοινωνήστε μαζί
μας στην ανωτέρω ταχυδρομική ή την ηλεκτρονική διεύθυνση.*

Urdu

اگر آپ کو اس دستاویز کا خلاصہ اپنی زبان میں
درکار ہو تو، براہ کرم نمبر پر فون کریں
یا مذکورہ بالا ڈاک کے پتے یا ای میل
پتے پر ہم سے رابطہ کریں۔

Turkish

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okumak isterseniz, lütfen yukarıdaki telefon
numarasını arayın, veya posta ya da e-posta
adresi aracılığıyla bizimle temasa geçin.

Arabic

إذا كنت أنت أو أحد معارفك بحاجة إلى هذا التقرير

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020 7983 4100 أو عبر البريد الإلكتروني

assembly.translations@london.gov.uk

Punjabi

ਜੇ ਤੁਸੀਂ ਇਸ ਦਸਤਾਵੇਜ਼ ਦਾ ਸੰਖੇਪ ਆਪਣੀ ਭਾਸ਼ਾ ਵਿਚ ਲੈਣਾ
ਚਾਹੋ, ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਇਸ ਨੰਬਰ 'ਤੇ ਫ਼ੋਨ ਕਰੋ ਜਾਂ
ਉਪਰ ਦਿੱਤੇ ਡਾਕ ਜਾਂ ਈਮੇਲ ਪਤੇ 'ਤੇ ਸਾਨੂੰ ਸੰਪਰਕ ਕਰੋ।

Gujarati

જો તમારે આ દસ્તાવેજનો સાર તમારી ભાષામાં
જોઈતો હોય તો ઉપર આપેલ નંબર પર ફોન કરો
અથવા ઉપર આપેલ ટપાલ અથવા ઈ-મેઈલ સરનામા
પર અમારો સંપર્ક કરો.

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