GREATER MANCHESTER

DOING THINGS DIFFERENTLY FOR THE ENVIRONMENT

Heat Network Vision

Our statement of ambition to unlock the potential of low carbon heat networks

Contents

“Greater Manchester will be the most highly networked zero-carbon city in the world by 2038, with better homes, better transport and better jobs for our residents. We have the highest ambitions for what we can be in the 21st century, and what you can be too, and we call on all investors, government and business, to back us with that vision.”

Andy Burnham,
Mayor of Greater Manchester

Our Mission

To enable sustainable growth through systemic change in urban heating systems; delivering efficient and equitable low carbon district heating solutions at scale; decarbonising **up to 36%** of Greater Manchester’s heat demand by 2038.

Our Vision

Greater Manchester boasts a skilled and thriving community, enriched by sustainable, low-carbon district heating solutions. By embracing a whole-systems approach, we seamlessly integrate our energy, infrastructure, and community needs, enhancing the quality of life for our residents.

Significant inward investment continues to drive world-class innovation and growth, paving the way for a more prosperous, greener, and inclusive Greater Manchester.

Context

Climate Emergency

Greater Manchester's Local Authorities have declared a climate emergency and have committed to being carbon neutral by 2038. One of the most important ways to achieve this is to decarbonise the way we heat our homes and buildings.

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DHNs as a Solution

District Heat Networks (DHNs) are a key component of the government's heat decarbonisation strategy.

In high density urban areas, heat networks are often the lowest cost, low carbon heating option. This is because they offer a communal solution that can provide heat to a range of homes and businesses by capturing or generating heat locally.

By driving forward new low carbon technologies like heat networks, we can cut the use of fossil fuels for heating our homes and shield households from oil and gas price rises that are being elevated by pressures on global energy markets.

GB Energy aims to support heat networks, like those identified in Greater Manchester, by facilitating the development of large-scale clean power generation, primarily from renewable sources like offshore wind, which may then be used to supply low carbon heat to heat networks. By producing clean electricity, GB Energy can power the infrastructure needed to run efficient heat networks, helping to decarbonise the heating sector.

Energy Act 2023

Emerging government policy on heat network zoning, facilitated by the 2023 Energy Act, is likely to further accelerate the growth of heat networks nationally. The government's new zoning policy[1] is expected to provide new legislative powers with an intent to lower barriers to entry for heat network developers and increase delivery of 'zonal-scale' networks.

Advancing low carbon heat network infrastructure allows us to reduce fossil fuel usage in a more sustainable and equitable manner

Heat Network Zoning Policy

DESNZ's national zoning model has identified several Heat Network Zones in Greater Manchester, where conditions are favourable for the creation of multiple zonal scale heat networks. The Advanced Zoning Programme (AZP) is already supporting several 'front runner' projects to help accelerate delivery ahead of policy.

Zoning policy could unlock over £5bn[2] of investment

Five Year Environment Plan

The Greater Manchester 5YEP (Five-year Environment Plan) sets out a target to achieve at least 90 GWh/year of heat being delivered through low carbon heat networks by 2030, with significant expansion once heat network zoning policy takes effect.

In the longer-term, there is a stretch target to realise an even greater potential and decarbonise up to 36%[3] of Greater Manchester's heat demand through identified heat network zoning opportunities.

The strong partnerships between the public, private and community sectors are a unique selling point for Greater Manchester

[1] https://www.gov.uk/government/collections/heat-network-zoning

[2] This figure is a high level estimate based on rough benchmarks linking capex to estimated heat demands. Is it dependent on assumptions linked to the emerging heat network zoning policy and ongoing development of the national zoning model, as well as fluctuations in construction costs linked to inflation, sector development and other macro economic factors.

[3] CDDP3 WP1 report dated Sept 2022. This figure represents the theoretical maximum impact of the indicative heat network zones identified from early stage modelling. It assumes that all buildings within the zones connect to the network. Note that the data and zones are derived from an early run of the national zoning model and are therefore indicative only and subject to change.

Our Goals

Increase low carbon heat network capacity to at least 90GWh by 2030

Build **enduring community** support

Make Greater Manchester the **location of choice**

Create an **efficient and resilient** energy system

Reduce inequality through inclusive infrastructure

Establish a **thriving ecosystem** to drive growth

Our Strategy

Increase low carbon heat network capacity to at least 90GWh by 2030

- Take a leading role in the development of Heat Network Zoning Policy with DESNZ and drive the delivery of four priority schemes (Bolton, Oldham, Stockport and Trafford) in advance of policy implementation.
- Prioritise waste heat sources; harnessing heat from beneath the ground, our waterways, industries and new developments; sharing value to benefit both suppliers and users of heat; helping to make businesses in Greater Manchester more competitive.
- Identify, develop and manage a pipeline of heat network projects, at a range of scales, to regularly bring attractive opportunities to market for both mature and emerging developers.
- Support the brownfield preference[4] for development, where land identified for energy centres is sought from urban areas.

Build enduring community support

- Deliver the new infrastructure with minimal disruption to our residents, organisations and businesses, whilst leveraging opportunities to align with other planned infrastructure works, and rationalise the services that run below our streets.
- Combine major infrastructure works on heat networks with investment in our public realm and enhancing special landscapes, green infrastructure, biodiversity and geodiversity[4].
- Regularly engage with and consult our residents, organisations and business to educate, promote, report-on and let people have their say on the delivery of heat networks.
- Promote a lessons learnt culture to assure our communities of continuous improvement in our deployment of this new and innovative infrastructure.

[4] https://democracy.greatermanchester-ca.gov.uk/ieDecisionDetails.aspx?Id=2844
[5] 5 Year Environment Plan. https://www.greatermanchester-ca.gov.uk/what-we-do/environment/five-year-environment-plan/

Make Greater Manchester the location of choice

- Build the strongest possible proposition for developers and their supply chain to invest in Greater Manchester.
- Create a Heat Network Task and Finish Group, made up of informed stakeholders from across the city-region to promote credibility and demonstrate a unified approach.
- Create strategic alignment across all policy areas which interact with heat networks.
- Design and implement a zoning coordinator function which supports the City-Region's requirements, as part of new zoning policy.
- Ensure there is adequate development land[4] set-aside, and identified within district planning strategies to meet the need for energy centre development.
- Establish Greater Manchester's role as an incubator, working collaboratively with the Local Authorities and private sector, to support early development of projects.

Create an efficient and resilient energy system

- Drive sustainable consumption and production[5] of low carbon heat by working with off-takers (domestic and commercial) to reduce demand; and heat suppliers (e.g. data centres) and developers to ensure the efficient operation of heat networks.
- Promote a systems-based approach which considers the holistic needs and interfaces between renewables, grid capacity and infrastructure. In particular, influence energy planning across Greater Manchester with ENWL and other energy providers, and through the Regional Energy Strategic Planning (RESP) process.
- Build a resilient network which considers adequate redundancy, security and safety of supply, whilst service continuity is prioritised in the network's operation.
- Drive innovation to minimise the whole life carbon of heat networks by encouraging the adoption of industry leading technologies and practices in the development and operation of heat networks.

Establish a thriving ecosystem to drive growth

- Leverage the Greater Manchester Business Growth Hub to work with and support our supply chain, business community, and educational institutions (including MBacc[6] for our young people, tailored to the technical skills gap) to grow a skilled GM workforce and attract inclusive jobs, whilst adopting sustainable business practices[5].
- Maximise manufacturing opportunities, in GM and the UK, by producing the materials and components required for heat networks.
- Work with MIDAS and our business community to attract inward investment to support sector growth and innovation. This includes leveraging the benefits of investment zones.

Reduce inequality through inclusive infrastructure

- Leverage heat networks to support the energy provision for Greater Manchester's 75,000 additional affordable homes[4] planned for delivery over the five years from 2024-2029.
- Favour development and prioritisation of new heat networks in areas of deprivation or inequality, where sources of low cost, low carbon heat are available[4].
- Reduce the number of gas condensing boilers across Greater Manchester by connecting our buildings to low carbon base load sources of heat through DHNs, to support wider air quality targets, and help to meet world health organisational guidelines on air quality by 2030[5].
- A proportion of new employment from heat networks to come from areas of deprivation[4].
- Support a 'just' transition; ensuring that district heat solutions are accessible and equitable for all community members.

[4] https://democracy.greatermanchester-ca.gov.uk/ieDecisionDetails.aspx?Id=2844

[5] 5 Year Environment Plan. https://www.greatermanchester-ca.gov.uk/what-we-do/environment/five-year-environment-plan/

[6] The Greater Manchester Baccalaureate (MBacc), is a new qualification in subjects matched to seven gateways to the growth sectors of the Greater Manchester economy.

Supporting Information

GMCA has been working on heat network zoning since 2021. Initial outputs from a heat network zoning pilot are illustrated in the map below (**Figure 1**). It identifies the potential heat network zoning opportunity within Greater Manchester. Note that the data and zones are derived from an early run of the national zoning model and are therefore indicative only and subject to change.

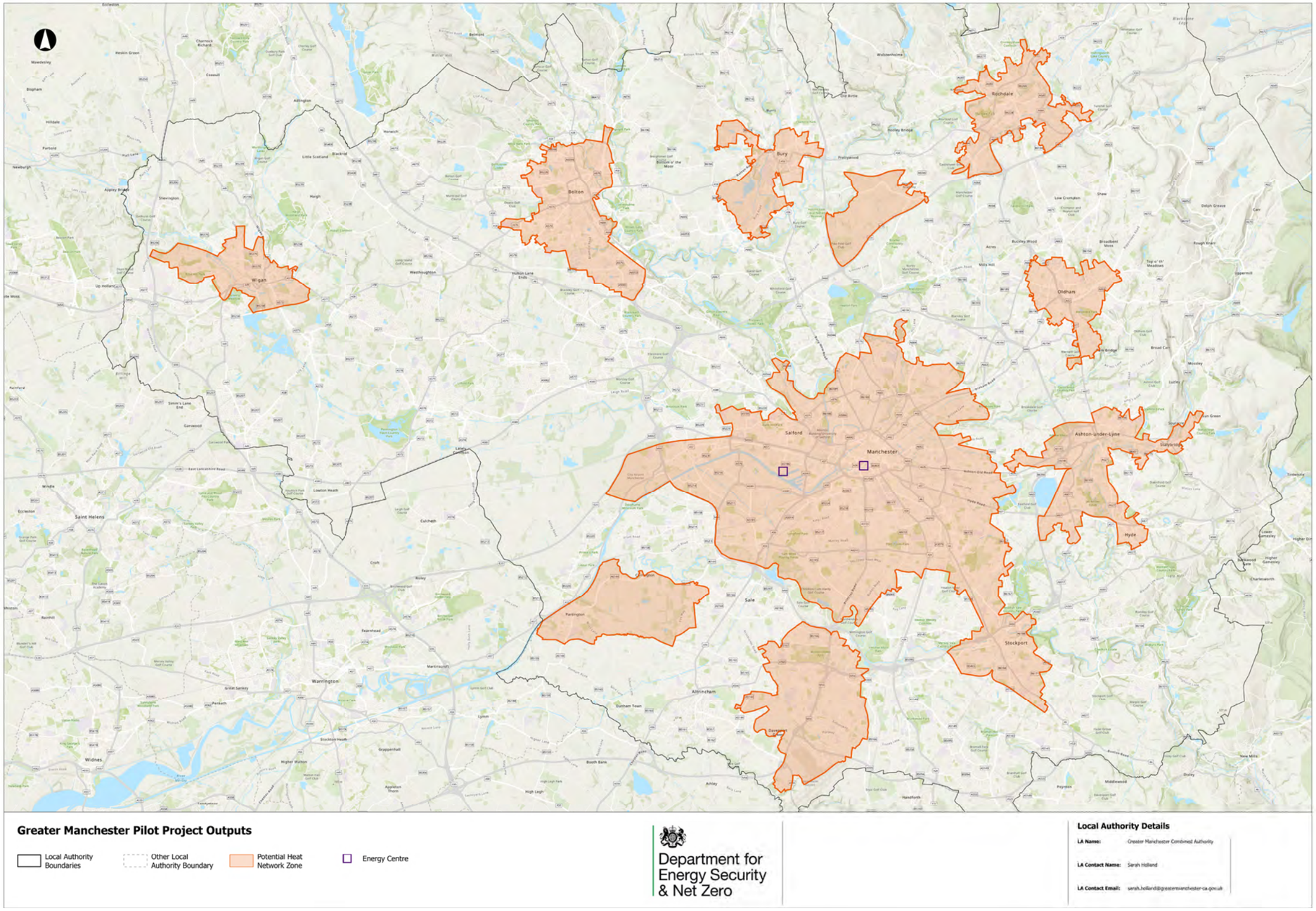
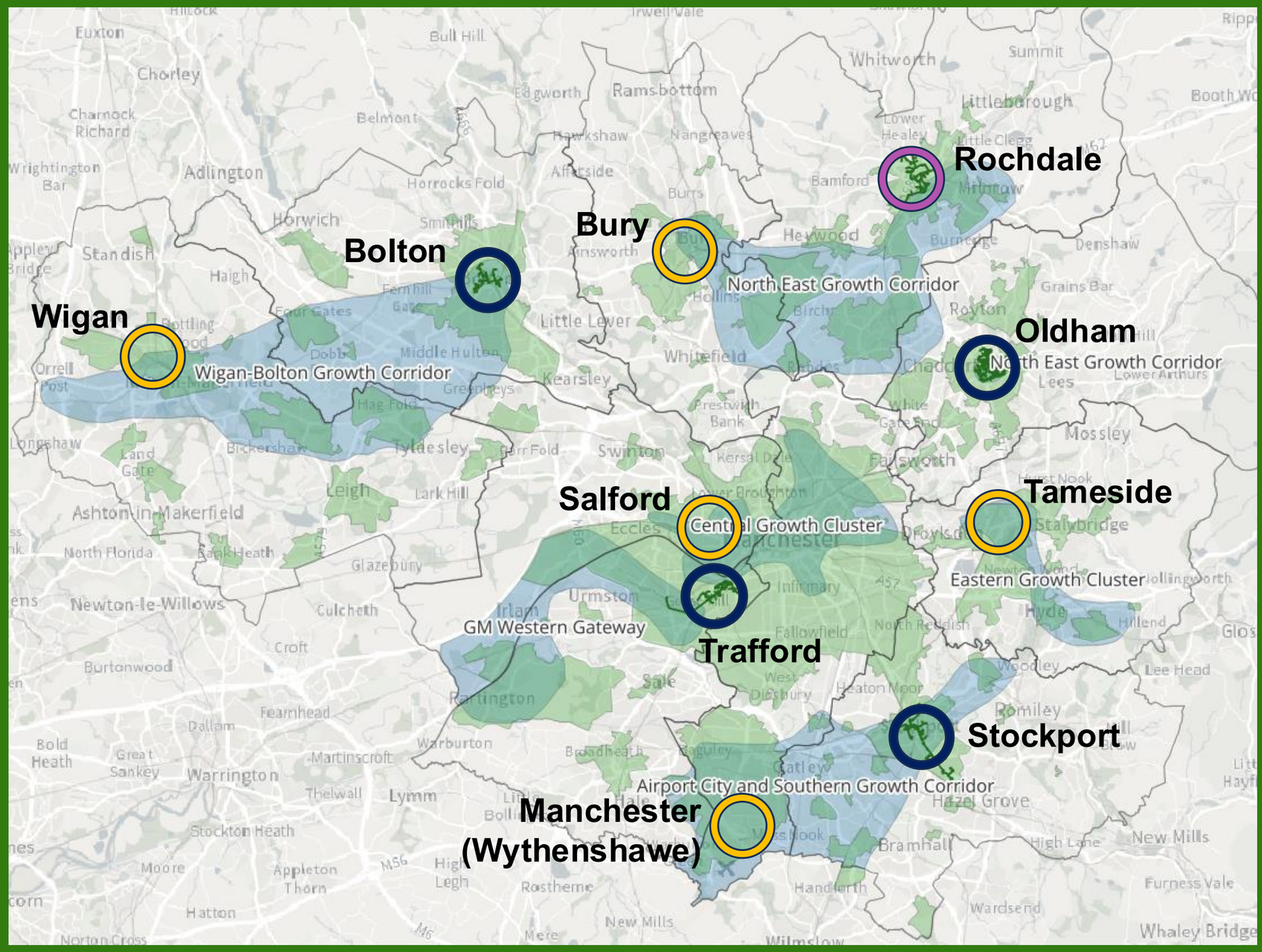


Figure 1- Greater Manchester Heat network zoning map
https://www.gov.uk/government/publications/heat-network-zoning-maps

£400m+ LA-led DHN pipeline

May 2025

- Growth Locations
- Strategic Zones
- Preparing for procurement (Developer Commercialisation)
- Applied for GHNF. Underway with DPD
- Progressing feasibility activity



GMCA have already begun supporting ten districts in developing their heat network opportunities; helping to secure funding, providing technical support and chairing a forum to share knowledge and best practice. **Figure 2** above is a snapshot of the current status of these projects, as of May 2025.

Figure 2- Status of Greater Manchester Local Authority-Led DHN Ten Priority Schemes, May 2025. The £400m+ represents a rough order of magnitude estimate for delivering our reference projects in these locations within current policy landscape (pre-zoning).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