

TRAFFORD COUNCIL

Report to: Executive
Date: 18th December 2024
Report for: Decision
Report of: Executive Member for Climate Change, Executive Member for Economy & Regeneration, Executive Member for Highways, Environmental & Traded Services

Report Title

Civic Quarter Heat Network – approval to accept Green Heat Network Fund grant.

Summary

Trafford Council has applied to the Green Heat Network Fund (GHNF), for the proposed Trafford Civic Quarter Heat Network. This will provide up to £1m towards the commercialisation phase and £4.75m towards construction. At time of writing, the successful applications have not yet been announced. The purpose of this report is to seek Executive approval in principle to accept the grant and to proceed to the next stage of the project (commercialisation), and to also seek delegations to take forward the procurement of a third-party delivery partner.

Recommendation(s)

It is recommended that the Executive:

- (i) Notes the contents of this report.
- (ii) Approves accepting the grant if Trafford Council's application is successful, and moving to the commercialisation phase of work, noting that a final decision to proceed will be taken once this phase has completed.
- (iii) Delegates authority to the Corporate Director of Place, in consultation with the Director of Finance and the Director of Legal and Governance, to accept the GHNF grant if awarded at the level submitted.
- (iv) Delegates authority to the Corporate Director of Place, following consultation with finance, legal and procurement, to carry out a procurement exercise to identify commercialisation advisers and a third-party delivery partner, and take all other necessary steps to develop the project prior to approval of a Joint Development Agreement.
- (v) Notes that a further report will be made to the Executive to seek approval of the Joint Development Agreement

Contact person for access to background papers and further information:

Name: James Harries

Extension: x

Background Papers: None

Appendices: None

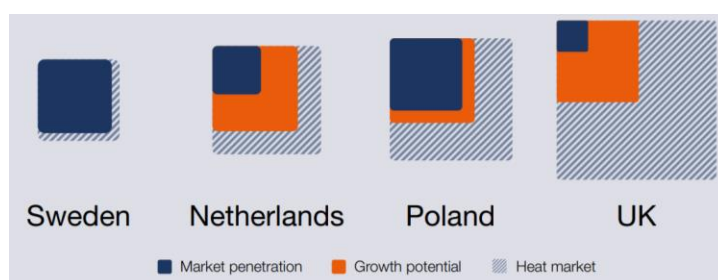
CORPORATE PRIORITIES AND GOVERNANCE CONSIDERATIONS	
The Best Start for our Children and Young People	Not applicable.
Healthy and Independent Lives for Everyone	Not applicable.
A Thriving Economy and Homes for All	The proposed heat network would be a key element of the Civic Quarter Area Action Plan and will support efforts to supply homes and businesses in the area with low carbon heat.
Address the Climate Crisis	The project strongly supports our efforts for Trafford to become carbon neutral by 2038.
Culture, Sport and Heritage for Everyone	Not applicable.
Relationship to GM Policy or Strategy Framework	The project directly links to the Greater Manchester Five Year Environment Plan, which is currently being refreshed. Heat networks are a key component of Places for Everyone. In addition, Greater Manchester is one of the locations for a pilot project on heat zoning, a Government policy that is being developed that will mandate connection to heat networks in designated heat zones. The proposed central Manchester heat zone cover the north of Trafford, including the Civic Quarter, Stretford, Wharfside and Trafford Park. There are also heat zones proposed for Carrington and Davenport Green.
Financial Considerations	The Council is not looking to invest in the heat network. The costs of the commercialisation phase will be fully met via the GHNf grant and additional resources from the eventual private sector delivery partner. There is no expectation of having to repay grant for the commercialisation phase in the unlikely event that Trafford decides not to proceed with the Civic Quarter Heat Network.
Legal Implications:	The proposed commercial delivery model is either a third-party Esco (energy services company), or a 'reserved matters' joint venture, where the Council has say over certain matters, such as the tariff charged to heat offtakers, but is not putting in equity to the scheme.
Equality/Diversity Implications	The proposed project will have no particular impact on the criteria covered by equality legislation.
Sustainability Implications	Sustainability was one of the critical success factors used during the detailed project

	<p>development phase to select preferred options. Gas boilers will be used for meeting peak demand and for back-up – the air quality implications of this will need to be carefully considered.</p> <p>The project will also help reduce the load on the electricity grid compared to a situation where buildings in the Civic Quarter were all heated by individual electric heating or heat pumps.</p>
Resource Implications e.g. Staffing / ICT / Assets	<p>The most significant resource implications will be for the private sector delivery partner. The Council will procure consultants to support it during the commercialisation phase, with these costs being met by the GHNf grant. Trafford Council staff will direct the consultants in partnership with GMCA and there are some resource implications for members of the project board and project team.</p>
Risk Management Implications	<p>A project board has been set up, led by the Corporate Director of Place as the Project Sponsor, and this board is keeping risk under review. These include risk of not being able to procure an appropriate delivery partner, risk of Civic Quarter developments choosing not to connect to the heat network and risk of not aligning with the timetable for development of the Chester Road GMP site (where the energy centre is planned to be installed).</p> <p>The risks to the Council of proceeding are limited by the proposed commercial delivery arrangements, via a third party. Legislation currently being prepared by Government will minimise risks to customers, e.g., on level of heat tariffs charged. The risk of not proceeding with the proposed heat network is that Trafford will miss the opportunity for a cheaper and lower carbon approach to heating buildings in the Civic Quarter in a low carbon way. And the alternative, of buildings and flats having individual electric heating and heat pumps is that there will be a greater strain on the electricity grid.</p>
Health & Wellbeing Implications	<p>There are no health and wellbeing implications at this stage, although if we proceed to construction then typical health and wellbeing implications connected to any such major development will be relevant.</p>
Health and Safety Implications	<p>There are no health and safety implications at this stage, although if we proceed to construction then typical health and safety implications connected to any such major development will be relevant.</p>
Socioeconomic duty Implications	<p>Heat networks are typically the lowest cost approach to supplying low carbon heat to buildings in a dense urban area, so should help alleviate fuel poverty.</p>

1.0 Background to heat networks

- 1.1 Heat networks are a key component of efforts to reach net zero carbon emissions and cut heating bills for customers. The Department for Energy Security and Net Zero (DESNZ) states that “Heat networks are vital to making net zero a reality in the UK. In high density urban areas, they are often the lowest cost, low carbon heating option”.
- 1.2 Emissions from heating buildings is one of the largest sources of carbon emissions in the UK. Heat networks that are powered by a low carbon heat source will reduce carbon emissions and also the strain on the electricity grid compared to the low carbon alternative of heat pumps in individual buildings. Heat networks currently supply about 3% of UK heat, but the Committee on Climate Change advises that figure needs to be around 20% for the UK to be able to meet its net zero target. There is therefore significant growth potential in the UK market, as shown below.

Figure 1: Estimated growth potential of installed district heating capacity in a Heat Road Map Europe 2050 scenario¹



- 1.3 DESNZ has been investing heavily in heat network projects over the last decade. This includes a revenue support scheme targeted at Local Authorities (via the Heat Network Delivery Unit, HNDU), which has funded £33.8m of work since it was established in 2013. Consecutive capital grants schemes (the Heat Network Investment Programme, HNIP, and Green Heat Network Fund, GHNF) have together committed >£500m to the heat network market over an 8-year period running to 2025.
- 1.4 The emergence of new Heat Network opportunities has created a buoyant heat network market in the UK. Many of the big energy companies have heat network undertakings, and several high-profile energy companies from Europe, where heat networks have significant market share in the supply of heat, have also moved or expanded their heat network offerings to the UK.

2.0 Reasons for recommendation

- 2.1 A key rationale for the heat network is carbon savings, especially with the scope for expanding the network beyond the Civic Quarter. In addition, a significant benefit of the scheme is that supplying heat from a central low carbon source will greatly lower the strain on the electricity grid compared to having individual electric heating in buildings.
- 2.2 Another significant benefit is the potential for future expansion. The Trafford Civic Quarter sits within one of a number of identified heat network zones in Greater Manchester. There is considerable scope for expansion by connecting the Civic Quarter network to other nearby networks that could also be developed, such as Trafford Wharfedale or into Trafford Park. The scheme could even be part of a much greater movement of heat from large sources in the west, such as Carrington Power Station and Davyhulme Water Treatment Works, through Trafford and on in to central Manchester. From discussions with potential heat network delivery partners, we know that there is considerable interest in this scheme because of the expansion potential.

¹ Taken from <https://assets.publishing.service.gov.uk/media/66a23740a3c2a28abb50d711/uk-heat-networks-market-overview.pdf>

2.3 Other benefits are that the construction of the network will provide green jobs. There is also a presentational benefit to having such a flagship scheme as part of the Civic Quarter development.

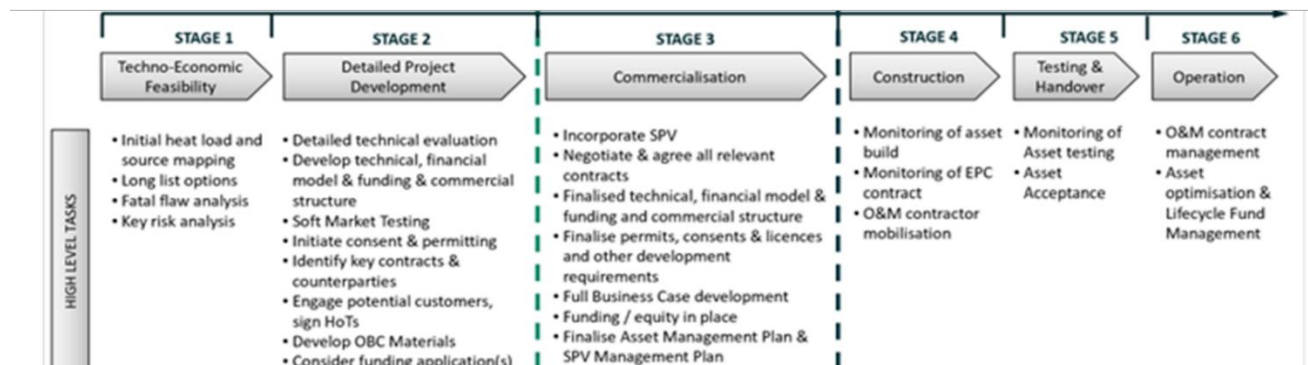
3.0 Work done in Trafford so far

3.1 The Trafford Civic Quarter is situated in northern Trafford and was identified in initial feasibility work a few years ago as the preferred location of a heat network in Trafford. It has the potential for significant transformation, building on its locational and physical advantages. The Civic Quarter Area Action Plan provides a statutory policy framework to ensure that this transformational change is delivered appropriately and managed effectively.

3.2 In 2022 Trafford Council commissioned a techno-economic feasibility study to investigate a strategic heat network across the Trafford Civic Quarter. In 2024 Trafford Council successfully secured Heat Networks Delivery Unit (HNDU) funding to undertake detailed project development and produce an Outline Business Case (OBC) for a Civic Quarter Heat Network.

3.3 The council has also been working closely with the Government on the advanced zoning programme. This programme supports both the development of the Heat Network Zoning Policy and the implementation of the policy across Greater Manchester. Heat zoning will identify heat zones across the country where connection to heat networks will be mandated. As mentioned above, the Trafford Civic Quarter heat network has been identified as enabling further expansion either locally, into the nearby Wharfside area and Trafford Park, and/or wider connection to Manchester and Salford.

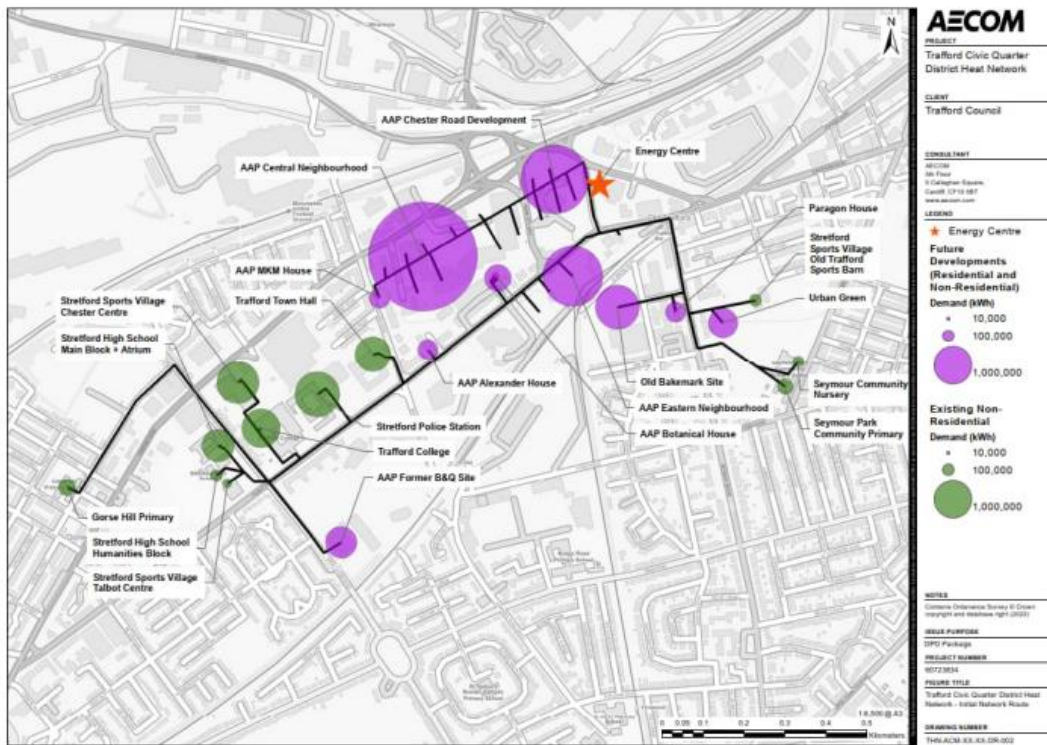
3.4 The process for developing and building a heat network is shown below. The Council has just concluded stage 2 (detailed project development). Grant funding from the Government's Heat Networks Delivery Unit was accessed by the Council for stages 1 and 2.



3.5 Trafford Council has applied for a grant through the Green Heat Network Fund (GHNF), which offers up to £1m support for stage 3 (commercialisation phase) and up to 49% of the capital cost of network construction (stage 4). Trafford Council submitted a funding bid for £1m of commercialisation costs and £4.75m capital funding, which represents about 12.5% of the capital costs. This was judged in the OBC to be the required level of funding to deliver an economically attractive low carbon heat network in the Civic Quarter.

4.0 The proposed network

4.1 The heat network would include a central energy centre, and a number of customers (known as 'heat offtakers'). The proposed extent of the network is shown below. The circles indicate the scale of heat demand, with green being existing buildings and pink being future development. Other potential offtakers were considered during the DPD stage but discounted for a range of reasons, including timescales, likelihood to connect and expected financial returns.



- 4.2 Only 30% of the eventual heat demand that the network will meet is from existing buildings. 70% will come from connecting new developments to the network. Lumina Village is already at an advanced stage of development and has opted for electric panel heating, meaning it will not be compatible with connection to the heat network (buildings can only connect to the heat network if they have ‘wet’ heating systems). The climate change and sustainability team is working closely with planning to reduce the risks of further developments not being able to connect to the heat network.
- 4.3 A low carbon heat network can be powered by a range of different low carbon heat options. The preferred approach for Trafford is to take heat from the United Utilities (UU) sewer that runs through the Civic Quarter. A 4MW heat pump is proposed, with gas to be used to meet occasional peak demand and as back-up. A fully electric solution for peak demand and back-up was ruled out in the OBC because the costs are significant for marginal carbon gains. Nonetheless, the scheme is well below the GHNF’s carbon threshold. How peak demand / back up can be met will be reviewed by the delivery partner and a fully net zero compliant solution may be provided in future.
- 4.4 The preferred location for the energy centre is the Chester Road development being taken forward by Trafford Council, GMCA and Far East Consortium (FEC). This benefits from proximity to the sewer. Trafford Council is in discussions with FEC to ensure programme alignment between the main development and the energy centre.
- 4.5 Currently it is expected that the heat network would become operational in 2027, and the existing buildings would be connected in the first two years of operation. Future developments would then be added to the network as and when they come online. Hence most of the capital costs (about 86%) would be incurred by the delivery partner in the first year, in the construction of the energy centre and most of the pipe network. Another £5m of cost will be incurred by the delivery partner in later years as and when the network needs to be expanded to add in new developments
- 5.0 Funding the network**
- 5.1 The Green Heat Network fund (GHNF) is a UK government funding programme that aims to “incentivise heat network market transition to low carbon heat sources via targeted financial support, that will help stimulate the increased deployment of low carbon technologies at

scale". Initially £288 million was set aside for the fund between 2021 and 2025; with funding available to contribute to commercialisation and capital costs.

- 5.2 As highlighted in paragraph 3.5 above, Trafford Council has submitted a GHNF funding bid for £1m commercialisation revenue costs and £4.75m construction capital costs. If successful, this fund must be drawn down by end 2026/27.
- 5.3 The total capital cost of the Civic Quarter heat network scheme is estimated to be £36m. The OBC assumed that the £4.75m for construction from the GHNF would be supplemented by around £16.7m from private sector equity investment and just over £7m loan from the National Wealth Fund (previously known as the UK Infrastructure Bank). The loan will be taken out, and paid back, by the private sector delivery partner (see below). The delivery partner will also identify and arrange the equity investment – some or all may come from them, or they may seek to find other private equity.
- 5.4 Buildings that connect to the heat network would pay a connection fee, a one-off cost to recover some of the capital cost of making a connection to the network. This has been initially estimated in the OBC at £900 per kW, ensuring the heat network remains competitive to the counterfactual (being individual site-based air source heat pumps).
- 5.5 To put this into context, the estimated connection fee would be £610k for Trafford Town Hall. There may also be some costs from having to make upgrades to a building to make it 'heat network ready' – this could include replacement of inefficient radiators / pipework and improved heating controls. The building would then pay an annual heat tariff based on how much heat it uses. For Trafford Town Hall, this would likely be around £160K a year. This is more than the Council currently pays in gas heating bills, but both the connection fee and the tariffs will be set to be lower than the amount that would be paid by an individual building low carbon heating solution (such as an air source heat pump). Any future costs to the Council from connecting the Town Hall to the Heat Network would be subject to a separate business case.
- 5.6 Buildings would benefit from avoided capital and maintenance costs, as these would be met by the heat network delivery partner. The OBC suggests that the levelized costs over a 40-year period, including not just fuel costs but also capital costs and operational and maintenance costs, would be around 8% lower on average under a heat network compared to an Air Source Heat Pump counterfactual.
- 5.7 It should be noted that the connection fee and heat tariff considered in the OBC are a guide to establish the economic case. The delivery partner will review fees and tariffs and negotiate with network customers as part of the commercialisation phase. Legislation is currently being prepared by Government that will offer customer protections – see below for more details.

6.0 Delivery model & commercialisation strategy

- 6.1 A range of possible delivery models have been considered, with different possible levels of Council involvement and investment. The preferred delivery model is a third-party energy services company (Esco). This means the heat network will be built, owned and operated by a private sector entity and that the Council will not be investing in the heat network. This delivery model means that the Council is not exposed to risk, but it will also not benefit from revenues raised by the heat network. The Council is considering a 'reserved matters' JV Esco as an interim step. This means the Council not being an equity partner in the JV but having some say over key matters such as the heat tariff charged to customers. Legislation that will protect consumers is currently being developed by Ofgem and, once in place, the expectation is to move to a fully third-party Esco model. It should be noted that whilst the Council is not looking to invest equity into the heat network, other interested parties may wish to invest.

6.2 The commercialisation phase will have a series of different workstreams, including detailed network and energy centre designs, negotiations with heat offtakers and United Utilities, and procurement of the third-party delivery partner. Feedback from potential delivery partners and other local authorities that are further ahead in the process indicates that delivery partners like to come on board as early as possible in the commercialisation phase, so they can help shape the designs and negotiations. The Council and GMCA are therefore exploring the option of a joint development agreement with a delivery partner as early as possible so they can input on the commercialisation activities.

6.3 The majority (circa 66%) of commercialisation costs will be funded through the £1m GHNF commercialisation grant, with remaining funding provided by the procured delivery partner. Eligible commercialisation costs include external project management and specialist advisors (including Legal, financial and technical support).

7.0 Impacts

7.1 There will be a certain amount of disruption from the construction of the heat network, with most of this happening in the period 2026-27. This will include the laying of the pipe network and associated road closures. The highways team have had discussions with the heat network team on this. There would then be some, but more limited, disruption in later years as the network is expanded to include new offtakers.

7.2 There may also be some disruption in existing buildings connecting to the network as heating systems are upgraded and the neat network connection is established.

8.0 Governance

8.1 A project board has been established, including senior staff from across the Council and GMCA. The board held its first meeting in October and will meet bi-monthly. A working level project team has also been set up, covering teams from across the Council with a stake in the heat network, including highways, development and estates, schools and leisure. The Council is working closely with GMCA on the heat network project and GMCA is assisting Trafford and other councils in areas where it is beneficial to take a GM-approach, for example agreeing a standard heads of terms with UU (most of the proposed GM schemes are based on sewer source heat pumps).

9.0 Risks and mitigations

9.1 By favouring a third-party Esco approach, or a reserved matters JV Esco, the Council is minimising delivery risk for itself. There are various risks connected to the procurement of a third-party delivery partner, such as potential delivery partners not having sufficient capacity to deliver the network, as the market is still relatively small (there are currently about 6 organisations in the market that already have experience of delivering low carbon heat networks). The Council and GMCA are looking to mitigate this risk by engaging early with

potential delivery partners and seeking their feedback and inputs at key stages during the commercialisation phase.

- 9.2 Carbon savings, service quality and customer protection are critical to the success of the heat network. Trafford Council is able to control risk in this area through delivery partner procurement, GHNH conditions and the emerging Ofgem regulatory framework.

10.0 Other options (assuming the application is successful)

- 10.1 Accept the GHNH commercialisation and capital grant offer and continue to commercialisation.

This is the preferred option with implications detailed throughout this report.

- 10.2 Decline the GHNH commercialisation and capital grant offer and cease development of the Heat Network.

If the network is not built, then the alternative would be that buildings in the Civic Quarter would need to have individual low carbon heating solutions, such as heat pumps or electric heating. This would result in slightly lower overall carbon savings and would put more strain on the electricity grid. It is also likely to lead to higher energy prices for heat customers.

- 10.3 Decline the GHNH grant offer and continue to commercialisation phase.

Analysis in the OBC shows that the proposed network may not be commercially attractive to third party delivery partners without the GHNH grant. The Council does not have the resources to meet the cost of commercialisation and construction of the network. Therefore, if the Council did not accept the grant, it would present a significant delivery risk and may result in the Council being unable to take the scheme forward.

11.0 Consultation

- 11.1 The Council and GMCA have been engaging, and will continue to engage, with potential delivery partners to seek their views on the proposed scheme. We have also consulted with Government, other Council teams (e.g., the Local Planning and Highways Authorities and Development & Estates), GMCA, other GM districts, United Utilities and potential heat off-takers. Should the work be progressed, further consultation will be carried out as part of the planning process.

12.0 Next steps

- 12.1 Engage with the potential delivery partners (January 2025): Until such time that the delivery partner is in place, it will be important to minimise the risk of decisions being taken that make it harder to procure a delivery partner. This risk will be managed by engaging with potential delivery partners via soft market testing discussions. The Council will also issue a prior

information notice to ensure that any other interested parties are aware of the Council's intention to procure a delivery partner.

- 12.2 Procure commercialisation consultants (Spring 2025): The Council will proceed with the procurement of commercialisation consultants, that will deliver a number of functions:
- Carrying out initial work in the commercialisation phase in advance of a delivery partner being procured.
 - Supporting the preparation of materials for procuring the delivery partner.
 - Providing technical, commercial and legal advice to the Council, including reviewing and critiquing the outputs of the delivery partner, once in place.
- 12.3 Procure a delivery partner (Summer 2026): A delivery partner will be procured by the Council to design, build, operate and manage the heat network. Once a delivery partner has been selected the Council will prepare a Full Business Case (FBC) for approval by the Executive. Subject to approval, the heat network will then move to the construction phase.
- 12.4 Building of the heat network begins (late 2026): The GHNF grant will be transferred to the delivery partner who will fund the remaining capital cost through a blend of equity and loans. The delivery partner will mobilise works and begin construction of the heat network.

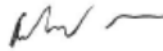
Key Decision Yes

If Key Decision, has 28-day notice been given? Yes

Finance Officer Clearance FF

Legal Officer Clearance EM

[CORPORATE] DIRECTOR'S SIGNATURE *(electronic)*



To confirm that the Financial and Legal Implications have been considered and the Corporate Director has cleared the report prior to issuing to the Executive Member for decision.