
DISTRICT HEAT NETWORK REVISIONS

Relevant Portfolio Holder	Councillor Bernard McEldowney
Portfolio Holder Consulted	Yes
Relevant Head of Service	Judith Wills
Report Author	Name: Matthew Eccles Job Title: Climate Change Manager Contact email: matthew.eccles@bromsgroveandredditch.gov.uk Contact Tel: 07816112073
Wards Affected	All
Ward Councillor(s) consulted	N/A
Relevant Strategic Priority(s)	Environment and Infrastructure
Key Decision	
If you have any questions about this report, please contact the report author in advance of the meeting.	

1. RECOMMENDATIONS

The Cabinet RECOMMEND that: -

- 1) Approve the revised approach to deliver the Bromsgrove District Heat Network.**
- 2) Approve the exploration of alternative locations for phase one of the Bromsgrove District Heat Network.**

2. BACKGROUND

2.1 Heat Networks and Decarbonisation: Heat networks are crucial for reducing carbon emissions from heating. They offer the potential to leverage larger-scale renewable and recovered heat sources, leading to lower consumer energy bills and contributing to a more dynamic energy system. The UK government's Clean Growth Strategy emphasizes the vital role of heat networks in long-term decarbonisation.

2.2 Bromsgrove District Heat Network Project: Bromsgrove District Council is developing a zero-carbon heat network project to supply clean heat to homes, businesses, and public buildings in Bromsgrove Town Centre, with potential for future expansion to Bromsgrove Town. A feasibility study conducted in 2019 identified a low-carbon district heating network based on an open loop aquifer ground source heat pump as the preferred technology. However, the project's original approach, which included a natural gas-fired combined heat and power

plant, is no longer aligned with current government decarbonisation targets.

2.3 Project Development and Government Support:

- **Detailed Project Design (DPD):** The feasibility study concluded that the project would deliver significant economic, environmental, and social benefits. Therefore, the Council proceeded with the Detailed Project Design (DPD) stage, which will refine the business case, prepare project specifications, and pave the way for procurement.
- **Funding:** The Council has already secured £247,500 in funding for the project in 2020. This includes £227,500 from the Department of Business, Energy & Industrial Strategy (BEIS) Heat Network Delivery Unit (HNDU) and contributions from Bromsgrove School £10,000 and Worcestershire Health and Care NHS Trust £10,000. . In addition, the council matched the funding with a contribution of £112,500.
- **Government's Evolving Approach:** The government's approach to heat network development has evolved since the feasibility study, with a focus on:
 - **Phased out of Combined Heat and Power:** Combined heat and power plants are to be phased out for new heat networks by 2025, with a transition to low-carbon sources for all existing networks by 2040.
 - **Heat Network Zoning:** The government is promoting the use of "heat network zones" where Planning Authorities can encourage both existing and new developments to connect to the network. This is crucial for scaling up heat network deployment across the UK.
 - **Green Heat Network Fund (GNHF):** The GNHF has replaced the previous Heat Networks Improvement Project (HNIP) funding scheme, offering increased support for the development and deployment of low-carbon heat networks.

2.4 Concession Route: The Council is proposing to adopt a concession route for delivering the district heat network. This means that a private sector partner, selected through a competitive procurement process, would be responsible for the construction, ownership, and operation of the network. The Council will retain strategic oversight and ensure the project aligns with its objectives.

2.5 Alternative Locations for Phase 1: Recognising the importance of maximizing the initial impact of the project, the Council proposes to explore alternative locations for Phase 1 of the heat network within the Bromsgrove Town Centre area. This process will ensure that the initial

implementation is strategically sound, cost-effective, and delivers the most significant environmental benefits. Additionally, this will assist with securing public support for the district heat network and minimise the impact on traffic movement through the town accounting for the current highways works that are ongoing in the town.

3. OPERATIONAL ISSUES

- 3.1 **Partnership Strategy:** Bromsgrove District Council recognises that it does not currently have the internal expertise and knowledge to fully deliver a district heat network project. Therefore, the Council is actively seeking a strong and experienced partner organisation to collaborate with.
- 3.2 **Partner Selection Criteria:** Key criteria for partner selection include:
- **Proven track record:** Demonstrated experience in developing, constructing, and operating successful heat networks.
 - **Financial strength and stability:** A solid financial standing to support the project's long-term viability.
 - **Commitment to sustainability:** A commitment to delivering low-carbon heat solutions and aligning with the project's environmental goals.
 - **Community engagement:** A willingness to engage with local communities and stakeholders throughout the project lifecycle.
- 3.3 **Risk Management:** The Council acknowledges the risks associated with a district heat network project, including:
- **Technological challenges:** Ensuring the chosen technology is reliable, efficient, and meets future decarbonisation goals.
 - **Financial risk:** Managing the project's budget and ensuring a sustainable financial model.
 - **Market volatility:** Responding to changes in the energy market and regulations.
- 3.4 **Risk Mitigation Strategies:** The Council will implement a comprehensive risk management plan, including:
- **Detailed feasibility studies and engineering assessments:** To ensure the project's technical viability and cost-effectiveness.
 - **Robust procurement processes:** To select a reliable and capable partner organization.
 - **Ongoing monitoring and evaluation:** To track the project's progress, identify potential challenges, and adapt strategies as needed.

4. FINANCIAL IMPLICATIONS

4.1 **Cost Breakdown:** The proposed revised approach for delivering the Bromsgrove District Heat Network, utilising the concession route, will involve significant upfront investment by the private sector partner. The Council will not be directly responsible for the capital expenditure associated with the construction and development of the network.

4.2 **Funding Sources:**

- **Current Funding:** The Council has already secured £247,500 in funding for the project in 2020. This includes £227,500 from the Department of Business, Energy & Industrial Strategy (BEIS) Heat Network Delivery Unit (HNDU) and contributions from Bromsgrove School £10,000 and Worcestershire Health and Care NHS Trust £10,000. These funds will be used to support the detailed project design (DPD) phase and advance the project towards procurement. There is currently £247,500.00 held in reserve for this project. In addition, the council matched the funding with a contribution of £112,500.
- It is proposed that the funds would be used to undertake further work on establishing whether an alternative site to start the heat network from is viable, and to develop the procurement specification and contractual documents required for the proposed routeway to deliver the district heat network.
- There is also other funding sources described below which are available for BDC to bid for, for further development of the project.
- **Green Heat Network Fund (GNHF):** The project is eligible for funding from the GNHF, which provides grants to support the development and deployment of low-carbon heat networks.
- **Private Sector Investment:** The selected private sector partner will be responsible for the majority of the capital investment, leveraging their own resources or seeking additional financing from private investors.
- **Potential for Other Funding:** The Council will explore additional funding opportunities, such as:
 - Local authority grants (if applicable)
 - Private sector partnerships (e.g., energy companies interested in supporting clean energy initiatives)

4.3 Financial Risk Mitigation:

- **Robust Business Case:** The Council will ensure a comprehensive business case is developed, outlining the project's financial viability, including projected revenue streams, operating costs, and return on investment.
- **Clear Contractual Agreements:** Contractual agreements with the private sector partner will clearly define the financial responsibilities, risk sharing mechanisms, and performance targets.
- **Ongoing Financial Monitoring:** The Council will monitor the project's financial performance, ensuring it remains on track and adheres to agreed-upon budgets and financial plans.

4.4 Financial Benefits: The project is expected to generate significant financial benefits, including:

- **Reduced Energy Costs:** Businesses and residents connected to the heat network are expected to experience lower energy costs compared to traditional heating systems.
- **Economic Growth:** The project will create jobs during construction and operation, stimulating economic activity in the local area.
- **Increased Property Values:** Connecting to a low-carbon heat network is likely to increase the value of properties, making them more attractive to potential buyers and renters.

5. LEGAL IMPLICATIONS

5.1 Climate Change Emergency Declaration: Bromsgrove District Council declared a Climate Emergency at a Council meeting held on July 24, 2019. This declaration highlights the Council's commitment to reducing greenhouse gas emissions and transitioning to a low-carbon economy.

5.2 Legal Framework for Decarbonisation: The development of the Bromsgrove District Heat Network project is underpinned by the following key legislation:

- **Climate Change Act 2008:** This act sets the UK's legally binding target to reduce greenhouse gas emissions by at least 100% of 1990 levels (net zero) by 2050.
- **Localism Act 2011:** This act empowers local authorities like Bromsgrove District Council to play an active role in implementing the government's climate change targets at the local level.

5.3 Government Support for Heat Network Development: The project aligns with the government's policies and funding schemes aimed at promoting the development and deployment of low-carbon heat networks. Specifically:

- **Green Heat Network Fund (GNHF):** The GNHF provides grants to support the development and deployment of low-carbon heat networks. The Council will actively seek funding from this source to offset a portion of the project costs.
- 5.4 **Heat Network Regulations:** The project will be developed and operated in accordance with the relevant heat network regulations, ensuring compliance with safety, performance, and consumer protection standards.
- 5.5 **Concession Agreements:** The concession route will involve the Council entering into a legally binding concession agreement with the private sector partner. This agreement will clearly define the rights and responsibilities of each party, including:
- **Construction, ownership, and operation of the network.**
 - **Financial responsibilities, including funding, revenue sharing, and risk allocation.**
 - **Performance targets and monitoring mechanisms.**
 - **Dispute resolution procedures.**
- 5.6 **External Legal Advice:** The Council has sought legal advice on the legal framework for concession agreements and potential procurement pathways for the District Heat Network project. This expert advice has ensured that the project is structured in accordance with relevant regulations and best practices, minimising legal risk and maximising the project's success. This support would be on going through the continued development of the project.

6. OTHER - IMPLICATIONS

Relevant Strategic Priority

- 6.1 The provision of a zero-carbon heat network that is built, owned and operated by a private company under the strategic guidance of the Council can have wider reaching social, economic and environmental co-benefits that echo the Councils own strategic priorities:
- Environment
 - Infrastructure
 - Housing

Heat networks enable business and residential properties to be connected to sustainable low carbon energy that are decoupled from the mass utility energy market.

This efficient and secure energy can allow business and individuals to better plan finances, and priorities spend in other areas that will bring benefits to them.

- It also supports health and well being:

The presence of a low carbon network can significantly reduce the need for localised individual energy generation such as biomass, solid wood fuel and on a national level burning fossil fuels at large scale energy generation sites. This will have significant positive impact on air quality which is a major cause of circulatory, respiratory and heart issues.

Climate Change Implications

- 6.2 The adoption of the concession route to market itself does not necessarily bring any positive or negative climate change implications. However, securing any energy company through a concession route may bring an increased interest in the project as a more viable option and thus, a competitive market should ensure more favourable options for the network resulting in potentially better efficiency of the technology

Equalities and Diversity Implications

- 6.3 There are no equality and diversity implications arising directly from this report; however, the focus on quality of life and wellbeing, articulated through the vision, is designed to empower officers to meet the needs of our diverse communities, which would include specific issues relating to equality and diversity.

7. RISK MANAGEMENT

- 7.1 **Key Risks:** The concession route for delivering the Bromsgrove District Heat Network project presents both opportunities and challenges. The following key risks need to be carefully assessed and mitigated:
- **Partner Selection Risk:** Selecting a partner organization with inadequate experience, financial stability, or commitment to sustainability could lead to project delays, cost overruns, and potentially compromised environmental outcomes.
 - **Technology Risk:** The chosen technology for the heat network may not perform as expected, leading to inefficiencies, increased operating costs, and difficulty meeting performance targets.
 - **Market Volatility Risk:** Fluctuations in energy prices, changes in government policies, or evolving consumer preferences could negatively impact the project's financial viability and operational efficiency.

- **Community Acceptance Risk:** Lack of community engagement or concerns regarding the project's potential impacts could lead to resistance and delays.
- **Construction and Operational Risk:** Challenges during construction or unexpected issues during the operational phase could lead to delays, cost overruns, and performance disruptions.

7.2 **Risk Mitigation Strategies:** The Council will implement a comprehensive risk management plan to address these challenges:

- **Rigorous Partner Selection Process:** The Council will develop a thorough and transparent partner selection process, including:
 - Detailed due diligence investigations.
 - References and case studies to assess past performance.
 - Financial audits and risk assessments.
 - Competitive bidding and contract negotiation.
- **Comprehensive Technology Assessment:** The Council will conduct a comprehensive technology assessment, considering:
 - The latest technological advancements in heat network design and operation.
 - The long-term reliability, efficiency, and cost-effectiveness of the chosen technologies.
 - Potential for future upgrades and adaptation.
- **Financial Risk Management:** The Council will:
 - Develop a robust business case with detailed financial projections and risk assessment.
 - Negotiate clear and comprehensive contractual agreements with the partner, including risk-sharing mechanisms and performance guarantees.
 - Monitor the project's financial performance closely, adjusting plans as necessary.
- **Active Community Engagement:** The Council will:
 - Engage with local communities, residents, businesses, and stakeholders throughout the project lifecycle.
 - Provide regular updates and opportunities for feedback.
 - Address concerns and address potential negative impacts.
- **Project Monitoring and Evaluation:** The Council will:
 - Establish a comprehensive project monitoring and evaluation framework.
 - Track key performance indicators related to cost, schedule, performance, and environmental impact.
 - Conduct regular reviews to identify and address any potential issues.

BROMSGROVE DISTRICT COUNCIL

Cabinet
2024

10th December

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9. REPORT SIGN OFF

Department	Name and Job Title	Date
Portfolio Holder	Councillor Bernard McEldowney	31/10/2024
Lead Director / Head of Service	Judith Wills	30/10/24
Financial Services	Peter Carpenter	04/11/2024
Legal Services	Claire Felton, Head of Legal, Democratic and Property Services	06/11/2024
Policy Team (if equalities implications apply)	Rebecca Green, Policy Manager	N/A
Climate Change Team (if climate change implications apply)	Matthew Eccles, Climate Change	29/10/2024