

**BROMSGROVE DISTRICT COUNCIL**

**Cabinet**  
2021

15<sup>th</sup> September

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**ZERO CARBON HEAT NETWORK – ROUTE TO MARKET**

Relevant Portfolio Holder	Cllr Geoff Denaro Finance and Enabling Services
Portfolio Holder Consulted	Yes
Relevant Head of Service	Judith Willis
Report Author	Job Title: Environmental Policy & Awareness Officer. email: a.wardell-hill@bromsgroveandredditch.gov.uk Tel: 01527 881715
Wards Affected	NA
Ward Councillor(s) consulted	NA
Relevant Strategic Purpose(s)	Run and Grow a Successful Business Work and financial independence Affordable and sustainable homes Living independent active and healthy lives
Key Decision / Non-Key Decision: Part Key	
If you have any questions about this report, please contact the report author in advance of the meeting.	

**1. RECOMMENDATIONS**

**The Cabinet RESOLVE that:-**

- 1) In line with Government Policy, the Heat network becomes a Zero Carbon Heat Network (ZCHN);**
- 2) The title “Bromsgrove Zero-Carbon Heat Network” be adopted;**
- 3) A Heat Network Zone is pursued for the Town Centre to support and compliment the ZCHN; and**

**RECOMMEND that:**

- 4) The ZCHN project pursues the concession route to market;**
- 5) Delegated authority be given to the Head of Community & Housing Services and the Head of Legal Services to procure and agree the Concession Agreement with qualifying energy companies;**
- 6) Green Heat Network Funding is utilised to fund this route to market; and**

**7) A project board, to assist the Project Manager, be established under the terms of reference attached at Appendix A.**

**2. BACKGROUND**

2.1 Heat networks are one of the most cost-effective ways of reducing carbon emissions from heating. They present an opportunity to exploit larger scale renewable and recovered heat sources, can mean lower bills for consumers and have an increasing role in playing a part in our dynamic energy system.

The Governments Clean Growth Strategy makes it clear that heat networks will play a vital role in the long-term decarbonisation of heating.

2.2 The Council is developing a zero-carbon heat network project to supply zero-carbon heat to homes, businesses and public buildings in Bromsgrove Town Centre with the potential for its future expansion to Bromsgrove Town. A feasibility study produced in 2019, identified a low-carbon district heating network based on an open loop aquifer ground source heat pump with a natural gas-fired combined heat and power plant as a means of delivery. This would supply decarbonised heat to buildings within Bromsgrove Town Centre.

2.3 The feasibility study also determined that the project will deliver a range of economic, environmental and social benefits. As such, it was deemed appropriate to continue the project through into the Detailed Project Design (DPD) stage. The Detailed Project Design output will confirm the outline business case and prepare the project specifications for procurement<sup>1</sup>.

2.4 In 2020 the Council secured £227,500 towards the Detailed Project Design phase of the project from the Department of Business Energy and Industrial Strategy (BEIS) Heat Network Delivery Unit (HNDU). This was matched with £112,500 from the Council that included contributions from Bromsgrove School (£10k) and Worcestershire Health and Care NHS Trust (£10k).

2.5 In April 2021, a Specialist Project Manager (SPM) was appointed to assist with procuring the Detailed Project Design consultants and the Detailed Project Design Project Manager. As part of this process a

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<sup>1</sup> The heat network will be developed in three phases: 1) the Detailed Project Development (DPD) phase, followed by, 2) the procurement phase, and finally 3) the construction phase.

strategy review concluded that Government decarbonisation plans have accelerated, this has resulted in the following changes to the Government's approach:

- i) Combined heat and power is to be phased out for new heat networks during 2025 with conversion of all legacy schemes to low-carbon sources by 2040, as such, the suggested technology for the heat network needs to be aligned to meet the amended 2050 net-zero carbon target.
- ii) Creation of a sustainable heat network market through local authority zoning and heat network regulation to protect consumers and ensure decarbonisation. Government recently consulted on this to explore how Planning Authorities can have the powers to encourage both existing and new developments to connect to the network within the zone. Government believe zoning is essential in delivering the desired outcomes for heat networks at the scale required in the UK. Officers have been encouraged by the Department of Business Energy and Industrial Strategy (BEIS) Heat Network Delivery Unit (HNDU) in the adoption of a zone on this project.
- iii) A Government Green Network Heat Fund (GNHF) will replace the Heat Networks Improvement Project Funding stream that had previously been used to model the Project for the feasibility study. Officers have been advised there is sufficient interest and potential in the Bromsgrove Town Centre project to access any additional funding required.
- iv) A new Concession route to market is now available after BEIS issued revised guidance setting out two alternative development pathways prior to the commercialisation stage; the 'Full Detailed Project Design' approach and the 'Concession' approach.

The full Detailed Project Design approach was previously the only option to market and produces detailed technical specifications and performance criteria on the assumption that the LA has the appetite to invest in and potentially, own and operate the heat network, sell heat to customers and accept the risks of doing so, or

The Concession approach was recently introduced acknowledging that not all Local Authorities' wanted to directly invest in heat networks and take on the associated risks. The Concession approach enables LAs to procure a private sector partner via a concession model to deliver the heat network.

2.6 Concession route to market:

A Concession can be let to an energy company for a set period of time (commonly 25-40 years). During this period, the energy company will act in accordance with the agreed terms and strategy set by the Council. The concession route allows for the energy company to undertake significant long-term investment in the heat network without the risk that target users would join a competing network or alternative energy source.

Both options to market are complex to procure but the Concession route is potentially less so than the traditional route as the Local Authority is required to establish a concession agreement with the energy company setting out minimum performance requirements, a mechanism for network expansion, a consistent and transparent tariff plan. The delivery risk is passed to the concessionaire.

The Governments Heat Network Delivery Unit have undertaken a preliminary analysis of the project in removing the combined heat and power element and concluded that they will support a concession route to market on a 40-year project.

2.7 The Project Manager has requested that a Project Board be set up to oversee the Zero Carbon Heat Network project. To date the Project Manager and Climate Change officers have liaised with an informal group comprising the Leader and Portfolio Holder, and the Director of Finance & Resource, who were appraised of and support, the proposals now set out in this report.

2.8 Specifications for the:  
Detailed Project Design Project Manager  
Detailed Project Design consultants

have been created and Officers plan to tender during September 2021. Once the aforementioned have been procured and are in place, they will set about to undertake the full Detailed Project Design process to establish the outline business case for the heat network, Thus, it is likely to be the latter part of 2022 before the next update report on this project is available and when consultants will have updates on the technicalities, legal stance and economic modelling of the project.

**3. FINANCIAL IMPLICATIONS**

3.1 The costs of undertaking the current phase of this project i.e. the Detailed Project Design stage, is currently within the approved budget framework. The Concessionary approach detailed in the report will help

reduce the risk profile associated with any subsequent business case which may follow the project design stage. There is no capex cost to the Council. Any gap funding will be from Green Heat Network Funding applied for by the Council and transferred to the Energy Company. The Energy Company then will fund and operate the heat network and derive its income from heat sales and take the revenue risk.

- 3.2 The Specialist Project Manager has identified a risk of an additional £30k project management costs but this is uncertain and is being mitigated through an additional grant funding application which is currently ongoing.
- 3.3 Despite the financially lower risk route to market for the Council, the concession approach to procure a private sector company is a significant change to the initial route to market. This is a major commercial decision which will result in high value contract. Whilst the concession route is still in development with BEIS, Officers have held discussions with them where they have agreed this route is a good fit for the project.
- 3.4 The Project is reliant on the Green Heat Network Funding (GHNF<sup>2</sup>), to comply with fund requirements, a 10% Project IRR is required. HNDU analysis on the project have estimated that this would require a 43% (circa £8.3 million) of capex; this level of funding does fit with requirements of the fund, thus HNDU have indicated the project is a suitable fit.

#### **4. LEGAL IMPLICATIONS**

- 4.1 Members declared a Climate Emergency at a Bromsgrove Council meeting held on 24<sup>th</sup> July 2019.
- 4.2 The driver for delivering Heat Networks in the UK is The Climate Change Act 2008, which commits the UK government to reduce greenhouse gas emissions by at least 100% of 1990 levels (net zero) by 2050.
- 4.3 The Localism Act 2011 empowers the Council to participate in the implementation of this legislative commitment at a local level as envisaged by the Government Committee on Climate Change. The local authority is the enabler that can access the Government funding and provide strategic direction in the development of the towns heat

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<sup>2</sup> The Green Heat Network Fund transition scheme support the commercialisation of low - carbon heat network projects, it opens in July 2021. This will replace HNIP funding that was previously referred to in project calculations.

network.

- 4.4 The concession route would ensure that the Council would not be required to act as the energy company and therefore would have no direct ownership and responsibility for the build, network energy supply and associated risks.
- 4.5 There are no specific legal implications at this point in time, the Detailed Project Design will encompass:
- Proving & honing the choice of technology and works required for this project and
  - Establishing the financial model of working to ensure suitable payback on investment for the concessionaire

The above will then allow the Detailed Project Design Legal consultants to ensure the technology & economics are legislatively compliant.

## **5. STRATEGIC PURPOSES - IMPLICATIONS**

### **Relevant Strategic Purpose**

- 5.1 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 purposes:
- Run and Grow a Successful Business
  - Work and financial independence
  - Affordable and sustainable homes:

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.

- Living independent active and healthy lives:

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.

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**Climate Change Implications**

- 5.2 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.

**6. OTHER IMPLICATIONS**

**Equalities and Diversity Implications**

- 6.1 Non relevant

**Operational Implications**

- 6.2 Non relevant

**7. RISK MANAGEMENT**

- 7.1 The concession route to market is still in developmental stages with BEIS, therefore there are some challenging uncertainties however, BEIS have endorsed the concession route for the Council and are happy to work alongside Officers throughout the DPD. BEIS have also indicated the project is highly likely to attract further funding as an when required to enable the project to progress.

**8. APPENDICES and BACKGROUND PAPERS**

Appendix A – Terms of Reference for Zero Carbon Heat Network, Project Board.

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**9. REPORT SIGN OFF**

<b>Department</b>	<b>Name and Job Title</b>	<b>Date</b>
Portfolio Holder	Cllr Geoff Denaro	01.09.21
Lead Director / Head of Service	Judith Willis	24.08.21
Financial Services	James Howse	01.09.21
Legal Services	Clare Flannagan	24.08.21
Policy Team (if equalities implications apply)	na	
Climate Change Officer (if climate change implications apply)	na	