

From: Susan Carey, Cabinet Member for the Environment.
Barbara Cooper, Corporate Director, Growth, Environment and Transport

To: Environment and Transport Committee 18th March 2021

Subject: Maidstone Heat Network Project

Classification: Unrestricted

Past Pathway: NA

Future Pathway: NA

Electoral Division: Maidstone Central

Summary: This paper presents a background to the Maidstone Heat Project and provides further information on the development of the project.

Recommendation(s): Environment and Transport Committee is asked to:

1. Note the progress of the Maidstone Heat Network;
2. Note the initial steps being undertaken to secure funding for the project via two large capital grants.

1. Introduction

- 1.1 Kent County Council has committed to being Net Zero in its own estate and activities by 2030. To meet KCC's emissions target, it is necessary to replace fossil fuel heating like gas and oil with heat pumps or by connecting them to a heat network. Kent County Council (KCC) is developing a heat network in the centre of Maidstone adjacent to the Kent History and Library Centre. The project will see heat extracted from the River Medway and used to heat Sessions House, Kent History and Library Centre, Invicta House, HMP Maidstone and Maidstone East (development site) in the first instance.
- 1.2 The Maidstone Heat Network (MHN) has been in development since 2016. Phases of development have included master planning, feasibility and more recently, detailed project development. Early feasibility studies suggest the capital costs with fees will give a project cost of around £5.5M. The project has been funded through the initial stages using £135,000 from the Heat Networks Development Unit, which is part of the Department of Business, Energy and Industrial Strategy (BEIS).

- 1.3 Since August 2020, the funding for the project has come from the Heat Networks Investment Programme (HNIP) managed Triple Point on behalf of the Department of Business, Energy and Industrial Strategy, and KCC was successful in being awarded a £2.5m grant towards the project. Of these funds, £400k must be used for the commercialisation of the project to prove the business case and this work is currently underway. The remaining £2.1m can be released for the construction phase of the project, subject to the commercialisation phase and being successful.
- 1.4 Kent County Council has also been successful in securing a further grant of up to £1.3M from the Public Sector Decarbonisation Scheme administered by Salix Finance on behalf of the Department of Business, Energy and Industrial Strategy. The final value of this grant will be known after further work is undertaken on the project to ensure full terms and conditions can be met.
- 1.5 In tandem with the commercialisation phase, the project team continues to seek other opportunities for grant funding with the aim of minimising any call on Kent County Council's Climate Change Fund. Until these opportunities have been fully exhausted, the project cannot be delivered without some call on KCC to underwrite any potential shortfall. The project involves considerable engineering works in the ground where the risks to capital projects are always at their highest and this will be mitigated in part by a significant contingency for which grant funding is being sought, but the risk to KCC remains. Governance is in place to ensure KCC can appropriately manage this risk, see 7.1 below.
- 1.6 The driving principle is for the project to be as low carbon as feasibly possible and financially viable, and which also provides economic opportunities to KCC. This includes selling heat to HMP Maidstone, laying the utility connections up to Maidstone East to ensure a fully serviced site that boosts land value for any future development; and allows for future expansion to serve any new housing developments which are anticipated in the area. There is also potential interest from third parties and the project is also allowing for future growth given that all new housing from 2025 will be required to be Net Zero.
- 1.7 The project has the potential to significantly reduce carbon emissions against the current business-as-usual gas use across all the buildings within scope of the current project. It will also reduce partner emissions and it is also important to note that as the scheme expands across more buildings, the total carbon saving will increase.
- 1.8 There are a range of technologies that currently make up the onsite energy generation proposal including a water source heat pump using heat extracted from the River Medway in Maidstone and solar thermal, with the potential for further technologies to be added. The network when established as a core scheme will also generate an income from third parties.
- 1.9 It is envisaged that the project will be procured through a Two Stage Design, Build, Manage and Maintain (DBOM) contract for the procurement of the works. This is to ensure early input from the contractor that will refine the designs and provide the best commercial approach bearing in mind both the capital costs of

the scheme and the ongoing revenue demand. KCC will initially enter into a Pre-Contract Service Agreement (PCSA) to appoint a contractor after planning has been submitted and the main contract will then be awarded following completion of the Technical Design (RIBA stage 4) subject to all costs being in line with the business case from both a capital and revenue perspective, and subject to planning permission.

2. Scheme Description

- 2.1 The proposed scheme involves the provision of heating to a number of Kent County Council buildings in Maidstone, HMP Maidstone and a spur off towards the proposed new-build development beside Maidstone East railway station, known as “Maidstone East”. The proposals comprise a low temperature ‘Heating Network’ providing hot water to buildings to serve heating needs and domestic hot water demands:
- 2.2 The investment in the Heat Network Scheme will bring several financial, economic, environmental and social benefits. The current way of heating and cooling buildings is unsustainable from a carbon emissions and increasingly rising cost perspective, and policy changes will mean that we will no longer be able to use fossil fuels for heating in the near future. Heat networks will also significantly help in reaching net-zero targets.
- 2.3 From 2025, the Future Homes Standard has set out that no new developments will be able to use fossil fuels which will have a big impact on the way developments take place. There is also likely to be further carbon reduction legislation coming forward for existing buildings and this, and other similar projects, will help mitigate these changes. The benefits of the renewable heat source in Maidstone will allow us to supply new developments and also serve existing developments as policies change. Investing in the Maidstone Heat Network now not only enables KCC to achieve significant reductions in our carbon emissions within the 2030 timeframe, but it also pre-empts some of these future requirements.
- 2.4 Centralisation of plant also brings benefits in terms of the cost efficiencies and could mitigate some costs to KCC in terms of not having to renew old and inefficient conventional boilers in existing buildings. Heat pumps have been shown to be more cost efficient and carbon efficient than alternative fuels such as electricity. The market for heat networks has been growing at a rapid rate across the UK in the past few years.
- 2.5 The scheme is currently due to be at RIBA Stage 3 (submission to planning) by March 2021 with the commercialisation process complete. Subject to the commercialisation being acceptable to KCC and securing the necessary funds from either grant funding or KCC, the project can then complete RIBA stage 4 (detailed design) in tandem with planning and be in a position to start procurement that would then allow KCC to be on site prior to the end of March 2022.

- 2.6 It is currently being considered that the new LASER Energy framework within Commercial Services will be used to select a Design, Build, Operate and Manage (DBOM) company. It is anticipated that the construction would start by or before the end of March 2022 and the project is anticipated to operational be in 2023.
- 2.7 In order to meet some of the grant funding terms and conditions, early conversations are taking place with HOLDCo/Commercial Services, Finance, Infrastructure and LASER Energy (a trading arm of Commercial Services for energy procurement and energy solutions) with regards to setting up a business to deliver the project. This would require a Special Purpose Vehicle to be setup. Such a model may offer commercial options in terms of expanding or even selling the business in the future, should KCC wish to do so.

3.0 Financial Implications

- 3.1 The initial feasibility and master-planning was funded by a grant of £135,000 from the Heat Networks Development Unit, which is part of the Department of Business, Energy, and Industrial Strategy (BEIS).
- 3.2 In 2020 further grant funding totalling £2.5m was secured from Heat Networks Investment Programme. This funding provides £400k of grant to develop the commercialisation phase, to achieve RIBA Stage 3 (submission to planning). If the project is deemed viable at that point, the grant provides an additional £2.1m funding towards delivery of the capital works. In addition to this, work is also progressing on a further grant of £1.3M from the Public Sector Decarbonisation Fund.
- 3.3 At the feasibility stage the projected cost of construction with fees is currently estimated at £5.5m with anticipated revenue to be confirmed but could be of the order of £75k per annum. There is still a capital gap in funding that needs to be closed at this time and the project is seeking additional grant funding to do so. The project is likely to call on part of the KCC Climate Change Fund and may ultimately require KCC to underwrite any final capital shortfall. In return, KCC would make progress toward net-zero and benefit from ongoing income from HMP Maidstone; potential appreciation in land value of Maidstone East thanks to direct access for future developers to a low cost/low carbon supply of heat; potential further income opportunities currently being explored with third parties around other sites both in existence and potential future ones; and lastly potential mitigation of costs against existing boiler repairs and renewals.

4. Legal Implications

- 4.1 Legal support has been provided by external legal firm - Burgess Salmon - as specialists in this area. Further legal work may be required around developing a separate business to deliver and run the project. There will also be some legal assistance required to review the commercial energy contracts with customers as the scheme progresses.

5. Equalities implications

5.1 An Equality Impact Assessment is underway and will be completed shortly but is likely to be very limited given that this is an infrastructure project delivering heat.

6. Policy implications

6.1 The project will support the following priority actions identified in Setting the Course – Kent County Council’s Interim Strategic Plan

- Deliver Net Zero for Kent by 2050 and promote climate resilience.
- Deliver net Zero for KCC’s estate and operations by 2030 and influence others.
- Build sustainable, liveable homes and communities.

7. Governance

7.1 An officer project team has been set up involving GET, Infrastructure, Finance, Legal and procurement. The project team reports to The Major Energy Projects Board on progress. Members have also been briefed on this project through the Kent Environment Strategy Cross-Party Member with the most recent update at its meeting on 26 January 2021.

8. Conclusions

8.1 The Maidstone Heat Network is a key part of Kent County Council’s ambitions to be Net Zero by 2030 and provide key renewable heat infrastructure in Maidstone to meet the wider target of the Kent and Medway Low Emissions Strategy. The project would also lay the basis for a wider network across Maidstone. The project will provide for a steady income stream back to KCC over 40 years of the network’s life should it choose to keep it. This is currently estimated to be of the order of £75,000 a year. As the network expands this has the potential to rise.

8.2 The current estimated total cost of the project is £5.5m. Moving forward the project team has received funding from HNIP of £2.5m as well potentially a further £1.3M from BEIS subject to terms and conditions. The project is now looking to work up RIBA stage 3 (submission to planning) and refine the costs so that funds including grant funding can be identified. Subject to funding being secured, start on site is anticipated in March 2022 with operations anticipated to commence in 2023.

9. Recommendation(s)

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Environment and Transport Committee is asked to:

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2. Note the initial steps being undertaken to secure funding for the project via two large capital grants.

10. Background Documents

Not Applicable

11. Contact details

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