

Crawley Borough Council

Report to Cabinet 24 November 2021

Town Centre District Heat Network (DHN) Phase 2

Report of the Head of Major Projects and Commercial Services – *HPS/29*

1. Purpose

- 1.1. This report requests Cabinet to approve funding for a study to examine the technical feasibility and economic business case for the Phase 2 expansion of the Town Centre DHN to incorporate properties and developments adjacent to the existing DHN.
- 1.2. The study will also examine the potential to amend the fuel source from gas to a more sustainable heat source in line with the Council's carbon reductions commitments.

2. Recommendations

- 2.1. To the Cabinet

The Cabinet is recommended to:

- a) Approve proceeding with the first phase of the study (feasibility) and reallocating £25,000 match funding from the existing £435,000 Town Centre capital budget.
- b) Agree to a new Capital programme scheme for the DHN phase 2 of £94,950 with the balance of £69,950 being funded from Heat Network Development Unit (HDNU) grant.
- c) Delegate authority to the Head of Major Projects and Commercial Services in consultation with the Cabinet Member for Environment and Sustainability to review findings of the feasibility study and decide whether to proceed with the second phase of the study (full business case) and earmark a further £55,000 match funding from the Town Centre capital budget for this purpose. (Generic Delegation 7 will be used to enact this recommendation).

3. Reasons for the Recommendations

- 3.1. In October 2018, Cabinet approved the business case for the Town Centre DHN phase 1 (HPS 15) which is currently under construction.

- 3.2. With the approval of the business case for phase 1, Cabinet also approved the recommendation to:

“Note the projected financial implications for phase 2 of the DHN and that future expansion will be subject to a further report to Cabinet once the capital costs and customer and commercial negotiations have progressed”

- 3.3. With a number of developments in the Town Centre progressing that are potential connections to the DHN phase 2, a prompt examination of the phase 2 feasibility and business case is required. This will allow a decision on possible future construction to be made.
- 3.4. The Council has also committed to carbon reductions of at least 45% by 2030 and to zero by 2050. It is therefore timely to examine the technical options and financial implications of switching the DHN from gas to a low carbon heat source.

4. Background

- 4.1. Phase 1 of the town centre DHN is currently under construction and scheduled for completion in February 2022. Once operational, phase 1 will provide heat and hot water to
 - The New Town Hall and commercial offices (The Create Building)
 - Geraint Thomas House (91 residential units)
 - John Brackpool Court (37 residential units)
- 4.2. DHN Phase 1 will subsequently provide heat and hot water to the second phase of residential development on the town hall site (182 residential units) anticipated completion mid-2024. The DHN will also provide electricity to the Town Hall Multi Storey Car Park and to the energy centre itself. Any excess electricity not consumed on site will be sold back to the grid.
- 4.3. An operations, maintenance, metering and billing contract for the DHN was tendered in 2020/2021 with Pinnacle Power being appointed for a 10 year term to undertake these functions on behalf of the Council. This work is scheduled to commence in July 2021 with metering and billing services for the tenants of Geraint Thomas House.
- 4.4. In October 2018, Cabinet approved the business case for the DHN Phase 1 (HPS 15) agreeing expenditure (excluding the energy centre building) towards the Phase 1 capital works. This budget included a contribution from the Heat Network Investment Programme (HNIP) with the balance from the Council's capital sources. The capital budget was subsequently revised in March 2020 to accommodate the provision of a new electricity sub-station.
- 4.5. With the approval of Phase 1 DHN, Cabinet also approved the future expansion of the DHN through a Phase 2 would be subject to a further report to Cabinet once the capital costs and customer and commercial negotiations have progressed.

5. Description of Issue to be Resolved

- 5.1. With DHN Phase 1 currently under construction, there are now a number of drivers which prompt examination of the Phase 2 feasibility and business case, notably:
 - Crawley College has produced a new Masterplan for its site. Crawley College are identified as a significant heat load for DHN phase 2 supporting the overall business case for expansion. It would be appropriate to synergise redevelopment of the college site with the expansion and availability of the DHN.
 - Residential development on Telford Place has been proposed as one of the heat load demands for the DHN phase 2 expansion. There is now a seemingly viable proposal to progress redevelopment of Telford Place.
 - The majority of properties on the County Buildings site have been demolished pending redevelopment in the coming years. Although not included within the previous Phase 2 expansion considerations, the County Buildings site does sit within the town centre zone covered by the Local Plan

Heat Network Planning Policy ENV 7. Recent discussions with WSCC indicate that they would support connection to the DHN and that the site could be investigated as a potential location for a ground source heat pump to provide the low carbon heat source.

- BEIS launched a round of HNDU funding (open from May to December 2021) that the Council was able to apply to. This funding aims to support feasibility studies and the building of business cases for DHNs.

5.2. The Council applied for HNDU funding to support the DHN phase 2 study made up of two stages:

- Feasibility: explore options for low carbon heat, develop for the expanded energy centre(s) to meet Phase 1 and Phase 2 heat loads, engage with Phase 2 customers and develop a high-level techno-economic model.
- DPD (Detail Project Development): develop full business case including a capital costing for the proposed energy expansion, pipework and all associated capital costs and fees to deliver the Phase 2 expansion, develop heads of terms agreements with Phase 2 customers and explore ownership models.

5.3. The Council has been successful with the funding bid, but at this time only for the first stage (feasibility). Funding of £69,950 has been awarded, which needs to be matched with £25,000 from the Council.

5.4. HNDU has invited the Council to apply for further funding to support the DPD stage of the study, once the outcome of the feasibility study has assured that the Phase 2 heat network expansion is still commercially viable and that a low carbon heat source can be found.

5.5. The DPD study is likely to cost in the region of £165,000, and the Council could apply for further HNDU funding to cover 67% of this (£110,000). The Council would need to match this with £55,000.

5.6. Given the need to go out to procurement to engage consultants for the study, an application for funding for the DPD stage is likely to be for the next round of HNDU funding in 2022.

6. Next Steps and Timeline

6.1. If agreement is given to proceed with the feasibility study and the allocation of £25,000 of funding by the Council, then the Council will go out to procurement for the study.

6.2. To streamline the procurement process, it is recommended that this should be for both stages of the study (feasibility and DPD) through a suitable framework, with the feasibility study commencing immediately following successful appointment of a consultant. The DPD stage of the study would only be awarded subject to a positive outcome of the feasibility study and a further funding award from HNDU.

6.3. On completion of the feasibility study, the findings would be reviewed by the Head of Major Projects and Commercial Services in consultation with the Cabinet Member for Environment and Sustainability to decide whether to proceed with the DPD study and develop the full business case for the Phase 2 DHN.

6.4. The Council would apply for the next round of HNDU funding to support the DPD study, and if successful allocate the £55,000 match funding to proceed with the study.

- 6.5. If the full business case supports the commercial viability of DHN Phase 2, then the Council will prepare a further report to Cabinet for a decision on construction of this second phase.
- 6.6. The Council should have the opportunity to apply for BEIS Green Heat Network Funding to support commercialisation and construction.
- 6.7. A suggested timetable for the project is shown below:

24 Nov 2021	Cabinet approves funding for feasibility study
Nov 2021	Sign MOU for HNDU funding
Nov 2021	Prepare Procurement documents
Dec 21 to Feb 22	Procurement of consultant for study
End of Feb 22	Appoint Consultant
Mar 22 to Jun 22	Feasibility Study
July 2022	Decision Point – DHN Phase 2 still viable?
July 2022	Apply for HNDU funding for DPD stage
Sep 2022	Funding Decision
Oct 22 – Feb 23	DPD Stage study
Mar 23	Business Case for DHN phase 2 – to Cabinet
Summer 2023	Green Heat Network Funding application
2024	Commercialisation/Construction

7. Financial Implications

- 7.1. Cabinet report [FIN/514](#) 2021/2022 Budget and Council Tax agreed to ringfence £435,000 of useable capital receipts for investment in the Town Centre as a result of using Government funding on the Heat Network to avoid having to repay Government grant. This £435,000 is shown within Report FIN/535 elsewhere on this agenda in Appendix 2.
- 7.2. Cabinet are requested to draw down £25,000 from the £435,000 and agree a new capital programme scheme for the DHN Phase 2 feasibility for £94,950. The balance of £69,950 is funded from the HDNU grant as identified in section 5.3 above.
- 7.3. In addition Cabinet are requested to ringfence £55,000 from the Town Centre budget for match funding for the DPD stage subject to a successful bid.

8. Background Papers

[2021/2022 Budget and Council Tax FIN/514](#)

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