

Scheme Summary

Name of Scheme:	Leeds District Heat Network (LDHN)
PMO Scheme Code:	GD-PA3-003
Lead Organisation:	Leeds City Council
Senior Responsible Officer:	David Outram
Lead Promoter Contact:	Polly Cook
Applicable Funding Stream:	Growth Deal – Local Growth Fund.
Growth Fund Priority Area (if applicable):	Priority 4 – Infrastructure for Growth
Forecasted Full Approval Date (Decision Point 5):	September 2017
Forecasted Completion Date:	April 2019
Total Scheme Cost (£):	£21,276,000
WYCA Funding (£):	£4,000,000
Total other private sector investment (£):	N/A
Is this a standalone Project?	Yes.
Is this a Programme?	No.
Is this Project part of an agreed Programme?	No.
Current Funding Allocation:	No funding has been allocated to this scheme.

Current Assurance Process Activity:



Scheme Description:

The project involves the construction of a new 4.5 kilometre District Heating Network (DHN) using super-insulated steel pipes, to connect the Recycling and Energy Recovery Facility (RERF) in the Aire Valley to customers across the City of Leeds. Heat will be extracted from the turbine in the form of steam which will be used to transfer heat to the DHN via a heat exchanger. The network will be owned and operated by Leeds City Council.

Aim: To construct the first phase of a citywide district heating network, to provide lower cost and lower carbon heat from the perimeter of the city to businesses and residents in dense urban areas.

Headline activity: Construction of a c4.5km district heating network, using super insulated steel pipes, to connect the Recycling and Energy Recovery Facility (RERF) in the Aire Valley to businesses in the city centre and council tenants to the north of the city centre.

Impact: The project will reduce vulnerable residents' fuel bills by c10% to tackle fuel poverty, maximise CO2 emission reduction opportunities associated with the RERF and stimulate additional investment in district heating networks.

The project's objectives are to:

- To complete construction of the first phase of a city-wide district heating network.
- To achieve annual heat sales of c16,400 MWh in the 2019/2020 financial year.
- To achieve annual CO2 reductions of 4,400 tonnes in the 2019/2020 financial year.
- To reduce notional fuel bills by between 11-30% (a direct saving of up to £250 pa per household converted from electrical heating to district heating) to tackle fuel poverty.
- To create c23 direct professional jobs c533 construction jobs, 2 long-term operational jobs and c419 indirect permanent jobs.

Business Case Summary:

Strategic Case	<p>The project makes a strong strategic contribution to the Leeds City Region's vision. The DHN responds to 2 challenges within Priority 3 of the Strategic Economic Plan, Building a resource smart City Region:</p> <ul style="list-style-type: none">• To reduce rising energy costs for businesses as a result of inefficient buildings, infrastructure and business models• To address limited investment, and investment-ready projects, in decentralised low carbon energy <p>Key action areas under Priority 3 include to develop new energy infrastructure (including energy efficiency, energy generation, supply chain and distribution and storage) across the Leeds City Region.</p>
Commercial Case	<p>The council is committed to connect c2000 flats in c30 multi-storey blocks to the network, together with several large city centre office blocks, public buildings, for example the College of music and West Yorkshire Playhouse and city centre developments.</p>

	<p>There is a strong appetite for DH in Leeds, with potential customers motivated by cheaper, more resilient heat supply, a reduction in plant room size in expensive city centre real estate and lower carbon emissions.</p> <p>Procurements have now been concluded and Vital Energi have been awarded conditional contracts for both the spine and housing projects. The spine procurement was for a single company to deliver a design, build and operate contract (DBO) for the construction of the energy centre, district heating network and connections into customers' buildings and the long-term operation and maintenance of all aspects of the network.</p>
<p>Economic Case</p>	<p>The investment in district heating has the potential to create:</p> <ul style="list-style-type: none"> • Total annual fuel bill savings of c£525,000 (1440 * £250) or c£21m over the 40 years of the project; • Total annual NHS treatment cost savings of £576,000 (1440 * 400) or c£33.6m over the 40 years of the project. <p>The Carbon Trust identified the following wider economic benefits of the Leeds City Region Strategic Heat Programme :</p> <ul style="list-style-type: none"> • Long-term job creation and training benefits through stimulating the growth of a new district heating industry across the region; • More efficient local heat generation, leading to lower reliance on gas and electricity, relieving grid capacity constraints and reducing the need for investment in grid strengthening; • Lower cost, less volatile, more reliable and more resilient heating with lower maintenance costs that helps attract and retain businesses; • Locally owned heat distribution that leads to greater retention of wealth within the local economy.
<p>Financial Case</p>	<p>The Local Growth Fund investment of £4m is matched by £17.276m of council investment.</p> <p>The project costs are based on Vital Energi's tender. This fixed price contract sets a ceiling on project costs. The contractor can introduce an element of innovation and value engineer the solution to deliver equivalent outcomes at a lower whole-life cost.</p>
<p>Management Case</p>	<p>The overall day-to-day project activity will be managed by a team based in Leeds City Council, which will report to the Environment Programme Board (the project board). The Chief Officer (Projects, Programmes and Procurement Unit - PPPU) will have overarching responsibility for the delivery of the project, with the Executive Programme Manager having day-to-day management responsibility.</p>