Department for Energy Security and Net Zero

Heat Network Procurement Pipeline: 2023 Q2

The last ten years have seen strong growth in the building of new heat networks. To deliver on the Heat and Buildings Strategy and the Net Zero Strategy, the heat network sector will need to transform and increase this growth rate dramatically over the coming decade.

To facilitate this critical growth, projects seeking support from the Green Heat Network Fund (GHNF) and projects from members of the Heat Networks Industry Council (HeatNIC) have agreed to deliver against the 'Market Transformation Commitments'.

The 'Market Transformation Commitments' are eleven specific actions and aims on infrastructure, skills, and innovation. They underpin the projects' assurances to provide the supply chain with better quality, timelier information as well as committing to open procurement with fair contractual terms.

This document makes key information on upcoming projects available with a focus on detail that is core for upcoming procurements.

The information provided through GHNF has been combined with information from HeatNIC members to produce this document. This document complements the existing quarterly project pipeline by providing additional information on the procurement plans associated with projects.

Services sought in upcoming procurements include:

- Design, Build, Operate & Maintain (DBOM), or DBO or D&B or O&M
- Construction
- Energy centre (including mechanical and electrical fit-out)
- Network
- Heat pump provider and manufacturer
- M&E contractor/consultant
- Borehole specialist, drilling & testing contractors
- EPC contractor
- Heat interface units
- Consultants for:
    - technical,
    - legal,
    - financial advice,
    - planning,
    - project management,
    - principal designer,
    - client agent
    - quantity surveyor

Following this publication, we will be reviewing the Procurement Pipeline to ensure that it is providing information about upcoming projects effectively. If you have any feedback on this document or how you would like to access this information please email heatnetworks@energysecurity.gov.uk.

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Green Heat Network Fund (GHNF) projects

Last update: **2022**

Cranbrook Town Centre

Project Sponsor:

E.ON UK PLC

Network Map:

Summary Information

CAPEX (£m):

£2.25

Procurement Status:

The current procurement status is ongoing using local supply chain where appropriate

Primary heat source:

Industrial heat - EFW

Project Contact Details:

Organisation:	E.ON UK PLC
Contact Name:	GHNF
Email:	GHNFCorrespondence@beis.gov.uk

Project Description:

Installation of plant and district heat distribution main supplied from an EFW plant to connect 207 residential dwellings to an existing district heat network. Project Capex is £2.1m with first heat on date of 2025.

Signed up to MTC aims on:

Embodied Carbon:

Not provided

Skills:

Not provided

Innovation:

Not provided

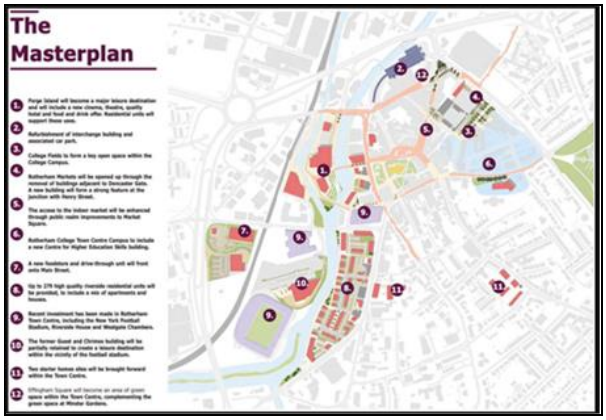
Last update: **2022**

Rotherham Energy Network (REN)

Project Sponsor:

Rotherham Energy Limited

Network Map:



Summary Information

CAPEX (£m):

£61.84

Procurement Status:

1Energy team policy will be, where possible, to primarily procure from within the Rotherham Metropolitan area or from within the greater Yorkshire region, thereby supporting the Levelling Up initiative. Our policies will encourage open and wide competition for the best quality/priced goods and services.

Primary heat source:

Heat pump: air source

Project Contact Details:

Organisation:	Rotherham Energy Limited
Contact Name:	GHNF
Email:	GHNFCorrespondence@beis.gov.uk

Project Description:

Rotherham Energy Limited is planning to build the Rotherham Energy Network (REN) a low-to-zero carbon (LZC) heat network, distributing upgraded waste heat from Templeborough Biomass Power Plant (TBPP) to Rotherham.

Waste heat from TBPP's cooling towers, upgraded to 80°C via water-to-water heat pump (W-WHP) powered by private wire electricity from TBPP, and distribute heat over c.10km of pipework. The heat load is 43.2GWhth p.a. with 375m^3 of thermal stores and 24.8MWth of back-up/peaking gas CHP. The W-WHP delivers 80% of annual demand.

Key Milestones:

- Planning application submission: Feb 2023. Procurement to run concurrently.
- RIBA stage 3 design: May 2023.
- Financial close: July 2023.
- Detailed Design for Construction starting August 2023
- Onsite construction in late 2023 - running for 28 months.
- Operational phase: Spring 2025.
- First and last property connected in June 2025 and March 2027 respectively.
- O&M and M&B contractor awards during construction phase, likely Autumn 2024.

Signed up to MTC aims on:

Infrastructure	✓
Detailed commitments on embodied carbon and projects local economy	
Skills	✓
Detailed commitments to addressing the supply chain skills gap	
Innovation	✓
Detailed commitment to continuous improvement	

Last update: **2022**

Hull District Heat Network

Project Sponsor:

Hull City Council

Network Map:

Summary Information

CAPEX (£m):

£24.92

Procurement Status:

Following Hull District Heat Network (HDHN) being approved by Hull City Council (HCC) Cabinet and procurement of DBO for the network will commence during commercialisation. All procurement activities are run in accordance with Public Procurement Regulations and HCC has its own policies that support and monitor social value outcomes. HNDN will engage with local suppliers and training providers to explore these opportunities and inform and shape our procurement strategy going forward.

Primary heat source:

Waste heat recovered (no heat pump)

Project Contact Details:

Organisation:	Hull City Council
Contact Name:	GHNF
Email:	GHNFCorrespondence@beis.gov.uk

Project Description:

The Hull District Heat Network (HDHN) seeks to secure funding to develop the first phase of city-wide decarbonisation of heat. The £25.9m investment will deliver 22 GWh heat generated from Hull and East Riding domestic and commercial waste to 46 public and private sector customers. Back up heat will be provided by gas boilers, however options to integrate planned solar and wind generation into the heat network are being considered as part of a carbon reduction masterplan.

Feasibility and detailed project development have already been completed and the Outline Business Case has been approved by Hull City Council (HCC). We will further develop the network and energy centre designs (to RIBA 2) and develop the full business case to be submitted in December to allow the project to progress to procure detailed design and capital works (D&B).

Works are expected to start in January 2024 and the network to be fully operational by the end of 2025. Operation and maintenance are expected to be procured under a separate contract(s). Two further phases are currently planned, however we expect the HDHN to develop and gain momentum over time as other connections become viable.

Signed up to MTC aims on:

Infrastructure	✓
Detailed commitments on embodied carbon and projects local economy	
Skills	✓
Detailed commitments to addressing the supply chain skills gap	
Innovation	✓
Detailed commitment to continuous improvement	

Last update: **2022**

Bradford Energy Network (BEN)

Project Sponsor:

Bradford Energy Limited

Network Map:

Summary Information

CAPEX (£m):

£46.93

Procurement Status:

Bradford Energy Ltd (BEL) currently intend to procure an EPC contractor to deliver the entire package of work. Designs will be progressed to the equivalent of RIBA Stage 3 during Commercialisation and packed into a procurement to be run in adherence with BEL's MTC commitments.

BEL will be, where possible, primarily procuring from within the Bradford District area or from within the greater Yorkshire and Lancashire region. Our policies will encourage open and wide competition for the best quality/priced goods and services.

Primary heat source:

Heat pump: air source

Project Contact Details:

Organisation:	Bradford Energy Limited
Contact Name:	GHNF
Email:	GHNFCorrespondence@beis.gov.uk

Project Description:

Bradford Energy Limited plans to build a low-to-zero carbon (LZC) heat to 34 non-domestic buildings and a new residential development (35 connections). Heat will be generated by possibly the UK's largest air source heat pump (ASHP) installations (7.5MWth), coupled with 250m^3 of thermal stores, and 24.8MWth of back-up gas boilers. The diversified peak heat demand is 20.8MWth. The ASHP will deliver 87% of the 37.8GWHth annual heat demand. The heat network is circa 5.5km to be installed primarily in public highways. The capex for phase one is £40.4m (not including £1m commercialisation).

Key Milestones:

- Planning application submission: Nov 2022. Procurement to run concurrently. Delivery contractor award in March 2023.
- RIBA stage 3 design: late 2022.
- Financial close: March 2023.
- Construction in Summer 2023 - running for 27 months.
- Operational phase: Early 2025.
- First and last property connected in March 2025 and October 2025 respectively.
- O&M and M&B contractor awards during the construction phase, likely Autumn 2024.

Signed up to MTC aims on:

Infrastructure	✓
Detailed commitments on embodied carbon and projects local economy	
Skills	✓
Detailed commitments to addressing the supply chain skills gap	
Innovation	✓
Detailed commitment to continuous improvement	

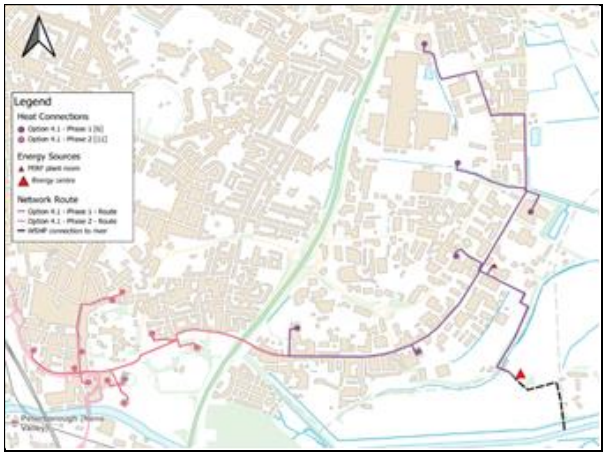
Last update: **2022**

PIRI (Peterborough Integrated Renewables Infrastructure)

Project Sponsor:

Peterborough City Council

Network Map:



Summary Information

CAPEX (£m):

£63.00

Procurement Status:

The Council will procure for consultants for technical, legal, financial advice and project management to develop the scheme through commercialisation. It is anticipated that the CCS HELGA framework route would be taken with much of the focus on the procurement of the DBOM contract.

Primary heat source:

Industrial heat - EFW

Project Contact Details:

Organisation:	Peterborough City Council
Contact Name:	GHNF
Email:	GHNFCorrespondence@beis.gov.uk

Project Description:

The PIRI project is a Council-led scheme which integrates a heat and non-heat approach to decarbonisation, with the primary generation asset being the Council-owned Energy Recovery Facility (ERF).

The project combines a heat network and private wire electricity network to support buildings, along with EV infrastructure, creating a holistic smart local energy system.

The initial phases 1 and 2 which are the subject of this application, will have a total CAPEX of £47m for the Phase 1 and £25m for Phase 2 (£73m total CAPEX). It will cover 8.7km, connect 17 anchor heat off-takers (which includes Council offices), with a total annual heat consumption of c. 24 GWh/a, and 20 electricity off-takers with a total electricity consumption of c. 90 GWh/a.

There are a total of 7 potential future phases and together with additional work referenced in this application such as Heat Network Zoning and the Local Area Energy Plan, there is significant potential for future expansion.

The Commercialisation stage is expected to take c.24 months, with Phase 1 construction planned for September 2024. Phase 2 construction will start in April 2026.

Signed up to MTC aims on:

Infrastructure	✓
Detailed commitments on embodied carbon and projects local economy	
Skills	✓
Detailed commitments to addressing the supply chain skills gap	
Innovation	✓
Detailed commitment to continuous improvement	

Last update: **2022**

East London Energy

Project Sponsor:

East London Energy Limited

Network Map:

Summary Information

CAPEX (£m):

£4.48

Procurement Status:

Once the contracts are finalised EQUANS will formalise a tender pack to be issued on COUPA, we aim to get 3 responses back to ensure a fair procurement strategy. EQUANS will procure the work dependent on value for money, scope, asset history and specifications of the work required. Currently a procurement exercise for the heat pump has taken place with a preferred partner identified.

Primary heat source:

Heat pump: waste heat source

Project Contact Details:

Organisation:	East London Energy Limited
Contact Name:	GHNF
Email:	GHNFCorrespondence@beis.gov.uk

Project Description:

The extension of the East London Energy (ELE) district energy network to the Pudding Mill Lane site is c. £4.5m and c. £2.8m on the heat pump installation. The project will be delivered in one phase, where the plots have been granted planning and are commencing construction imminently. The total heat demand for the base case is 2.7GWh.

We envisage that procurement would commence in October 2022 and conclude in February 2023 with buried network, control panels and the civils element all to be procured. The heat pump will be procured in Q3 2022 to supply low carbon heat in Q1 2023, subject to lead in times.

Construction of the network extension is due to start January 2023. Anthology Phase 1 (75 units) is a live connection being supplied by a temporary gas boiler supply, installed in 2020 and operated by EQUANS under a bespoke ELE Connection agreement, that enables a switch to a permanent ELE supply when it is available. The remaining base case development plots, Anthology Phase 2 and Vulcan Wharf, have been granted planning based on a connection to ELE. These have all accepted offers of connection and a heat on date for these developments of June 2023 is targeted.

Signed up to MTC aims on:

Infrastructure	✓
Skills	✓
Innovation	✓

Last update: **2022**

Welborne Garden Village - Buckland Development

Project Sponsor:

Last Mile Heat Limited

Network Map:

Summary Information

CAPEX (£m):

£9.56

Procurement Status:

Rendesco is leading the project as the main design & build contractor for the heat network, subject to commercial agreement. Once the project is given the go-ahead, and subject to GHNF funding, Rendesco will source quotes for certain subcontract works and key materials. Rendesco will aim to conduct its procurement in line with the MTC guidelines.

Primary heat source:

Heat pump: water source - decentralised (ambient loop)

Project Contact Details:

Organisation:	Last Mile Heat Limited
Contact Name:	GHNF
Email:	GHNFCorrespondence@beis.gov.uk

Project Description:

The Welborne Garden Village (WGV) project is opportunity to deliver up to 4.4 GWh of heat, hot water, and cooling to 812 new build properties via individual, local heat pumps connected to an ambient heat network using a local Portsmouth Water reservoir as an energy source. The project is led by Last Mile Heat in partnership with Rendesco. The WGV development has been recognised by the government as providing high quality and sustainable living for new communities. The development will be located outside Fareham in Hampshire, with Buckland Development as the Master Developer. Once it is complete, the site will comprise of 6,000 new build dwellings, 10 hectares of employment space, healthcare, a primary and secondary school, local retail, and leisure facilities.

Phase One of the development begins construction in 2023 and is mixed use, connecting 790 new build homes and 22 commercial premises providing a range of key services for the development. The high-profile development has full 106 planning permission from Fareham Borough Council (FBC) and has been widely publicised. The proposed solution seeks c.£2m from the GHNF towards a total capital expenditure of c.£10m, delivering excellent value for money by meeting and exceeding all of the GHNF gated metrics.

Signed up to MTC aims on:

Infrastructure	✓
Skills	✓
Innovation	✓

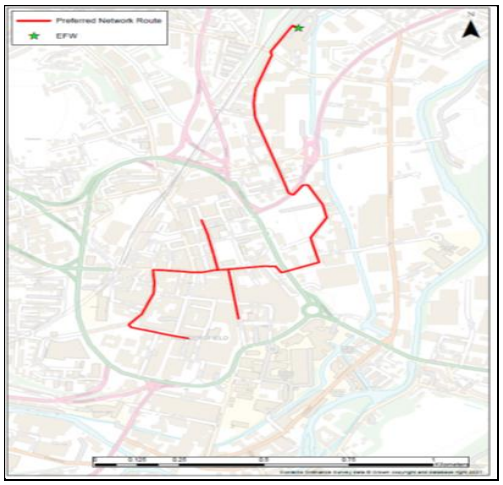
Last update: **2022**

Huddersfield District Energy Network

Project Sponsor:

Kirklees Council

Network Map:



Summary Information

CAPEX (£m):

£19.72

Procurement Status:

The project is currently pre-procurement. The strategy outlined in the OBC is to procure an overall DBOM (or D&B with separate O&M) contractor to deliver the core technical aspects of the scheme. The procurement will be holistic in nature so that public sector offtakers can justify awarding heat contracts to a newly incorporated ESCo. This procurement will follow the Public Contracts Regulations will follow a negotiated pathway. The Council to establish key procurement requirements for the EfW Operator.

Primary heat source:

Industrial heat - EFW

Project Contact Details:

Organisation:	Kirklees Council
Contact Name:	GHNF
Email:	GHNFCorrespondence@beis.gov.uk

Project Description:

Huddersfield DEN will recover heat from an existing council-owned EfW plant and deliver this to a mixture of public and private sector customers to be used for heating and hot water. A parallel private wire network will also supply electricity from the EfW to a subset of the same customer group.

Total CAPEX year = £22.6m.

Phase 1: year = 2026, CAPEX = £15.1m, heat delivered = 7.6GWh/yr.

Phase 2: year = 2029, CAPEX = £2.6m, cumulative heat delivered = 14.2GWh/yr.

Phase 3: year = 2037, CAPEX = £2.6m, cumulative heat delivered = 21.7GWh/yr.

Kirklees is currently procuring a new Waste Services contract, which will include operation of the EfW. This procurement is including measures to secure long-term supply of heat and power from the EfW. Procurement of technical service providers to HDEN will be procured as a stand-alone exercise, as described below.

Signed up to MTC aims on:

Infrastructure	✓
Detailed commitments on embodied carbon and projects local economy	
Skills	✓
Detailed commitments to addressing the supply chain skills gap	
Innovation	✓
Detailed commitment to continuous improvement	

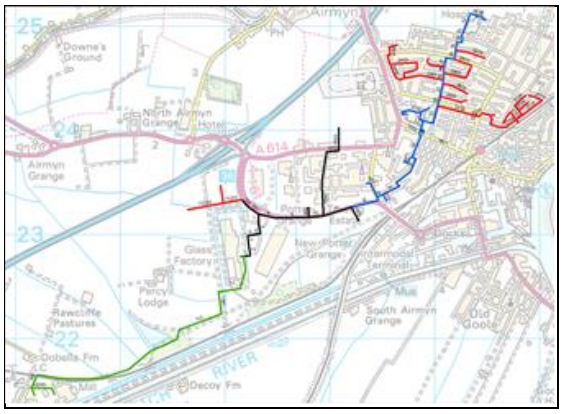
Last update: **2022**

Goole District Energy Network

Project Sponsor:

East Riding of Yorkshire Council

Network Map:



Summary Information

CAPEX (£m):

£27.13

Procurement Status:

The project is currently pre-procurement. Scope: procure overall DBOM (or D&B with separate O&M) contractor to deliver the core technical aspects of the scheme. The procurement will be holistic in nature so that public sector off-takers can justify awarding heat contracts to a newly incorporated ESCo. This procurement will follow the Public Contracts Regulations will follow a negotiated pathway. During the Commercialisation phase the procurement strategy will be finalised.

Primary heat source:

Waste heat recovered (no heat pump)

Project Contact Details:

Organisation:	East Riding of Yorkshire Council
Contact Name:	GHNF
Email:	GHNFCorrespondence@beis.gov.uk

Project Description:

Goole DHN will recover high grade waste heat and steam from a float glass manufacturing plant and deliver this to a mixture of public and private sector customers to be used for heating and industrial processes.

Total CAPEX year = £27.1m.

Phase 1: year = 2023, CAPEX = £25.3m, heat delivered = 3.35GWh/yr.

Phase 2: year = 2029, CAPEX = £0.26m, cumulative heat delivered = 5.51GWh/yr.

Phase 3: year = 2034, CAPEX = £1.3m, cumulative heat delivered = 17.13GWh/yr.

Procurement for commercialisation activities to begin imminently, for award in December 2022. Planning approval is to be obtained by the Council and commercialisation consultants.

The intention is a 2-stage procurement process, to begin in December 2022 with Stage 1 Design procurement. Tenders for Stage 2 Construction and O&M are anticipated for August 2023. Construction if Phase 1 is expected in December 2023, and first connections end of 2024.

Signed up to MTC aims on:

Infrastructure	✓
Detailed commitments on embodied carbon and projects local economy	
Skills	✓
Detailed commitments to addressing the supply chain skills gap	
Innovation	✓
Detailed commitment to continuous improvement	

Last update: **2022**

Langarth Deep Geothermal Heat Network

Project Sponsor:

Cornwall Council

Network Map:

Summary Information

CAPEX (£m):

£89.95

Procurement Status:

The project is currently pre procurement for the ESCO although discussions are underway for the design of the on-site pipework which is envisaged to be adopted by the ESCO. A market engagement day was held to gauge appetite from the market with overall positive results. A further formal written soft market test is proposed for September 2022 and a further pre-tender event for February 2023.

Primary heat source:

Deep geothermal

Project Contact Details:

Organisation:	Cornwall Council
Contact Name:	GHNF
Email:	GHNFCorrespondence@beis.gov.uk

Project Description:

The Langarth district heating network is a c.£90m capital project connecting a new 3,800 unit development, together with an existing hospital, schools and college, to the United Downs Deep Geothermal Project approximately 5km away. This will be the UK's first deep geothermal heat network.

The development is expected to be built at a rate of approximately 150 homes per year with completion expected in 2042. The total heat demand will be in the region of 50GWh/year.

The project has been initiated by Cornwall Council, but it is expected that a private sector ESCo will be procured to design, build, own and operate the network and customer connections.

Key upcoming milestones include early development of the secondary heat main within the development from September 2023 and securing wayleaves and planning permission for the transmission main. The geothermal heat supply is expected to be connected in 2026, with a temporary biomethane supply from 2024.

Signed up to MTC aims on:

Infrastructure	✓
Detailed commitments on embodied carbon and projects local economy	
Skills	✓
Detailed commitments to addressing the supply chain skills gap	
Innovation	✓
Detailed commitment to continuous improvement	

Last update: **2022**

Islington Council Bevin Court

Project Sponsor:
London Borough of Islington

Network Map:


Summary Information

CAPEX (£m):
£2.86

Procurement Status:
Procurement for supporting planning permission was completed. For procurement of all the other consultancies is being reviewed and is subject to the GHNF grant release. The procurement of D&B contractor will be advertised via London Tenders Procurement Portal in due course.

Primary heat source:
Heat pump: air source

Project Contact Details:

Organisation:	London Borough of Islington
Contact Name:	GHNF
Email:	GHNFCorrespondence@beis.gov.uk

Project Description:
Bevin Court and Holford House are 2 existing blocks incorporating a total of 130 dwellings. These are currently both served by gas boiler plant at Bevin Court.

The project will decarbonise the supply through the installation of a cascade heat pump system of a combined installed capacity of around 2MW in total. Four air-to-water heat pumps will generate low temperature hot water which will then we raised to 70°C by 4 water source heat pumps. It also includes fitting HIUs in each dwelling. The heat network will use existing pipe infrastructure. This estate is listed building and permission is currently being prepared.

The consultancy procurement will start in late 2022 and project completion is due in Q1 2025.

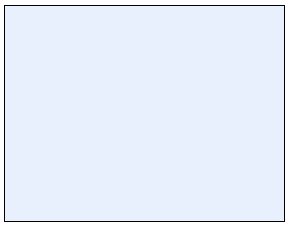
Signed up to MTC aims on:

Infrastructure	✓
Skills	✓
Innovation	✓

Last update: **2023**

Civic Centre District Energy Scheme

Project Sponsor:
Plymouth City Council

Network Map:


Summary Information

CAPEX (£m):
£2.73

Procurement Status:
Procurement start: procurement is due to start in Q2 2023 with the final business case sign off and contract award occurring in Q3 2023.

The methodology and criteria for scoring will be defined and set out, including requirements around local value and skills for organisations tendering to respond to. At least 5 written quotations, three of which shall be from local suppliers where possible. By undertaking a Request For Quotation the Council can either advertise the opportunity or select and invite any supplier it thinks is capable of delivering the contract in its entirety, including specialist suppliers, where required. The contract will be awarded to the most economically advantageous tender (MEAT).

Primary heat source:
Heat pump: air source

Project Contact Details:

Organisation:	Plymouth City Council
Contact Name:	GHNF
Email:	GHNFCorrespondence@beis.gov.uk

Project Description:
This project will expand an existing Plymouth City Council heat network to support the redevelopment of the Civic Centre, and decarbonisation of the Theatre Royal and Plymouth Combined Courts. The extension include installation of 480kW of additional ASHP capacity with associated gas boiler back-up.

A reduction in carbon emissions from the redeveloped Civic Centre, Theatre Royal and Plymouth Combined Courts of at least 161 t/annum will be achieved against a gas counterfactual.

£2.68m Capex and total scheme annual heat demand of 2.4GHw/a (95.5GWh over 40-year modelled lifespan)

Phase 1: 2024 -2025 | Extension to Civic Centre | £0.91m | 1.87GWh/a

Phase 2: 2025 -2026 | Installation of 400kW ASHP & Extension to Theatre Royal | £1.8m | 2.44GWh/a

Phase 3: 2026 onwards | operation of network.

The project is at the end of the detailed project development phase and moving into the commercialisation phase in early 2023.

Milestones: Contractor Q3 & Q4 2023 | construction to begin Q1 2024 | Testing and commissioning in Q3 2024 | Heat on Q4 2024

Signed up to MTC aims on:

Infrastructure	✓
Skills	✓
Innovation	✓

Last update: **2023**

South Kilburn District Heating Network

Project Sponsor:

London Borough of Brent

Network Map:

Summary Information

CAPEX (£m):

£17.12

Procurement Status:

The timeline for this procurement strategy is summarised below:

- Contract notice on 21/03/23 assuming Council Approval 13/3/23.
- A Selection Questionnaire period 23/3/23 – 5/05/2023
- Invitation to Participate Dialogue 5/05/23
- Dialogue – 6/05/23 - 29/09/23
- Invitation to Submit Final Tender, incl. evaluation of tenders 2/10/23 – 24/11/23
- Internal Governance of contract award to preferred bidder including FBC to Cabinet 14/12/23 – 9/2/24

Primary heat source:

Heat pump: air source

Project Contact Details:

Organisation:	London Borough of Brent
Contact Name:	GHNF
Email:	GHNFCorrespondence@beis.gov.uk

Project Description:

The South Kilburn District Heat Network, supports the South Kilburn Regeneration programme in providing a centralised heat hub for the area.

The initial phase (1.2GWh) will supply heat using air source heat pumps utilising existing gas boilers to provide backup heat generation. The technical strategy also includes for thermal stores. Additional heat generating plant may be required. Due to a lack of electrical capacity, it is likely that this will need to be provided by gas boilers initially.

In each of the subsequent phases (Phase 2-4), the heating generating capacity is expected to increase by 0.4 GWh. This will be achieved through a second energy centre on the roof of the neighbouring building along with complementary plant in the basement.

Brent Council is proposing to directly deliver, own and operate the network with one Design Build Operate Maintain contract. The DBOM proposed procurement strategy is a two stage competitive dialogue.

Signed up to MTC aims on:

Infrastructure	✓
Detailed commitments on embodied carbon and projects local economy	
Skills	✓
Detailed commitments to addressing the supply chain skills gap	
Innovation	✓
Detailed commitment to continuous improvement	

Last update: **2023**

Kingston District Heat Network (KDHN)

Project Sponsor:

Royal Borough of Kingston

Network Map:

Summary Information

CAPEX (£m):

£30.59

Procurement Status:

Based on the analysis undertaken it is considered that the Competitive Dialogue will provide RBK with the best balance between enabling discussion and facilitating a timely process for the Preferred Option. Soft market testing will take place in December 2022.

The preferred structure for the delivery of the Preferred Option is the creation of a RBK and TW owned SPV with a view to procuring a DBOM partner for the delivery of works and services.

Procurement will run Dec 2022 – March 2024.

Primary heat source:

Heat pump: waste heat source

Project Contact Details:

Organisation:	Royal Borough of Kingston
Contact Name:	GHNF
Email:	GHNFCorrespondence@beis.gov.uk

Project Description:

The Kingston District Heating Network (KDHN) project presents a practical, innovative, and strategic solution for Kingston to assist in reducing the carbon emissions of existing and new buildings.

KDHN aims to produce low carbon heat utilising the waste heat from Hogsmill Sewage Treatment Works with the full potential of >50 GWh per annum recoverable from the treated sewage effluent outfall (via a heat pump) and biogas CHP excess heat. Deliver this heat to the 'Core Four' connections: Cambridge Road Estate (CRE), Kingston Hospital, Kingston University and new Kingston Leisure Centre – totalling ~28GWh/annum.

The expected capital expenditure is £31,843k, including a contingency to account for price uncertainty in the current market, and commercialisation costs. The Core Four scheme is seen as a starter network, futureproofed to provide a springboard into future expansion to more residential and commercial buildings totalling 47 GWh p/a.

Commercialisation will run Dec 2022 – March 2024 with construction starting in March 2024 for heat on to first development in 2025.

Signed up to MTC aims on:

Infrastructure	✓
Detailed commitments on embodied carbon and projects local economy	
Skills	✓
Detailed commitments to addressing the supply chain skills gap	
Innovation	✓
Detailed commitment to continuous improvement	

Whiteknights Energy Centre phase 1 decarbonisation

Project Sponsor:

University of Reading

Network Map:

Summary Information

CAPEX (£m):

£4.40

Procurement Status:

Preliminary work to identify procurement specification and route, which will be informed further by the outcome of borehole test drills. We will look for suitable existing frameworks to decide whether this or an open/restricted tender is required, which would include a site visit with all potential bidders. We will request bidders to include proposals for how they will support local supply chains and skills development.

Primary heat source:

Heat pump: ground source

Project Contact Details:

Organisation:	University of Reading
Contact Name:	GHNF
Email:	GHNFCorrespondence@beis.gov.uk

Project Description:

£4.4m project for first phase decarbonisation of Energy Centre, for an open loop ground source heat pump from the below-ground aquifer – providing approx. 40% of the current DHN heating load (10 GWh) and adding a small cooling network providing (2 GWh) p.a. to be delivered by December 2025.

The approach to procurement would be via the use of an Open or Restricted tender or the use of an appropriate framework to be compliant with Procurement regulations. We are currently awaiting the outcome of the tests in order to define the exact specification of what is required under the procurement, which is planned to commence June 23 and would include a site visit for all bidders.

Signed up to MTC aims on:

Infrastructure	✓
Skills	✓
Innovation	✓

Last update: **2023**

Handforth Garden Village Heat Network

Project Sponsor:

Cheshire East Council

Network Map:

Summary Information

CAPEX (£m):

£12.54

Procurement Status:

Currently, the project has not commenced the procurement process but the strategy has been outlined within the Outline Business Case

Primary heat source:

Heat pump: water source - decentralised (ambient loop)

Project Contact Details:

Organisation:	Cheshire East Council
Contact Name:	GHNF
Email:	GHNFCorrespondence@beis.gov.uk

Project Description:

Cheshire East Council is fully committed to pursuing district heating across the Borough and has invested significant resource in exploring potential opportunities. The North Cheshire Garden Village will create an exemplar new settlement in the borough. Once completed it will provide around 1,500 new residential dwellings, new mixed employment uses; a mixed-use village centre, school and extra care facilities.

The development is to be supplied by a heat network to be served by 2.6MW of open-source ground source heat pump (GSHP) technology in respect to the main head load with 4.5MW of electric boiler capacity serving peak heat loads of 7.9GWh. This is to initially supply the 665 homes and connection to 4 commercial land parcels including school, extra care facility, hotel, public house, and retail.

The scheme has been estimated to cost over £13m and is seeing grant funding of £5.28m to meet almost 8GWh of heat demand per year and currently is scheduled to go for planning determination in January 2023.

Signed up to MTC aims on:

Infrastructure	✓
Detailed commitments on embodied carbon and projects local economy	
Skills	✓
Detailed commitments to addressing the supply chain skills gap	
Innovation	✓
Detailed commitment to continuous improvement	

Meriden Estate

Project Sponsor:

Watford Community Housing Trust

Network Map:

Summary Information

CAPEX (£m):

£4.42

Procurement Status:

Watford Community Housing Trust will procure Cenergist as Principal Contractor via the Procurement for Housing framework to undertake the estate wide heating replacement works. Cenergist have been chosen as a strategic partner for heat decarbonisation and a signed call-off contract is in place. As part of this application, Cenergist have provided a detailed business case, feasibility, design, and technoeconomic feasibility model. As delivery partners Cenergist will procure all equipment/resources and will hold responsibility for the installation and commissioning of the new system.

Primary heat source:

Heat pump: other source

Project Contact Details:

Organisation:	Watford Community Housing Trust
Contact Name:	GHNF
Email:	GHNFCorrespondence@beis.gov.uk

Project Description:

Meriden Estate is a housing estate consisting of 2 tower blocks and 4 low-rise blocks with a total of 252 apartments. Given their net-zero ambitions WCHT engaged with Cenergist who have undertaken a full options appraisal assessment to look at low carbon options which will also future proof against increasing gas prices for residents and provide sustainable and affordable heating and hot water for residents.

This proposed project is to replace the current system with a new a 3GWh/annum hybrid ASHP-GSHP solution to maximise the Coefficient of Performance and minimise carbon emissions. Total CAPEX of the proposed solution is circa £6m and will be completed in a single delivery phase.

The project is currently in the design stages and will commence in May 2023, progress will then follow the below milestones until completion in December 2024.

- Detailed design freeze: 07/2023
- Borefield drilling start: 09/2023
- Borefield drilling end: 04/2023
- ASHP's procured and installed: 12/2023
- Primary DH Network installed: 12/2023
- Block distribution installed: 04/2024
- Domestic heat connections commence: 06/2024
- All customers heat on: 12/2024

Signed up to MTC aims on:

Infrastructure	✓
Skills	✓
Innovation	✓

Last update: **2023**

Exeter Energy Network

Project Sponsor:

Exeter Energy Ltd

Network Map:

Summary Information

CAPEX (£m):

£107.11

Procurement Status:

Status: no procurements underway.

Procurements will be prepared in Commercialisation phase.

Strategy: procurement strategy is still being decided and is being informed by delivery experience at Bradford.

There are virtues to both a single Prime Contractor Model, and also to a multiple-delivery-partner model.

Procurement strategy will be decided early in 2023.

Primary heat source:

Heat pump: air source

Project Contact Details:

Organisation:	Exeter Energy Ltd
Contact Name:	GHNF
Email:	GHNFCorrespondence@beis.gov.uk

Project Description:

1Energy, with the full support of Exeter City Council and the Exeter City Futures team, is seeking to develop the Exeter Energy Network (EEN). A project specific Special Purpose Vehicle, Exeter Energy Ltd (EEL), will own and operated the EEN assets.

The expected capital cost of the project is £108m and EEN will utilise 11.12 MW of Air Source Heat Pumps (ASHP), 9.57 MW of Water to Water Heat Pump (W-WHP), 2400m3 thermal stores, and 34.8 MW gas boiler backup / peaking to serve 39.87 MW of diversified demand at an average carbon intensity of 84.0 gCO2/kWh over 15 years.

The EEN design has been progressed to RIBA stage 2. EEN plans to supply an initial load of 60.77 GWh/yr of heat to 110 buildings, mainly spread over five public anchor offtakers; University of Exeter, Exeter College, Exeter City Council (ECC), Devon County Council (DCC) and Royal Devon NHS Trust sites at Wonford and Heavitree hospitals.

The University of Exeter is the largest offtaker at 28.38 GWh/yr of demand. However, we have modelled, the network growing, to include future expansion loads, to a total of 121 buildings and 92.67 GWh over 15 years. Network size c.19.89 km.

Signed up to MTC aims on:

Infrastructure	✓
Detailed commitments on embodied carbon and projects local economy	
Skills	✓
Detailed commitments to addressing the supply chain skills gap	
Innovation	✓
Detailed commitment to continuous improvement	

Last update: **2023**

Cranbrook Heat Network Expansion

Project Sponsor:

East Devon District Council

Network Map:

Summary Information

CAPEX (£m):

£31.13

Procurement Status:

A single Energy Services Company (ESCo) will be procured to DBOM the expanded pipe network.

The procurement strategy will be designed by EDDC in collaboration with Devon County Council Procurement Services and implemented by the Developers of the Cranbrook expansion.

Procurement Q2 2023.

The procurement will be carried out by the Cranbrook Developers. EDDC will maintain a level of influence, via a golden share approach, within the proposed commercial structure.

Primary heat source:

Industrial heat - EFW

Project Contact Details:

Organisation:	East Devon District Council
Contact Name:	GHNF
Email:	GHNFCorrespondence@beis.gov.uk

Project Description:

The project is the expansion of the Cranbrook district heating network, to supply heat to new development areas of an additional c4,500 homes and 24,500m2 of commercial space including 3 new schools at Cranbrook new town.

The project will benefit from decarbonised heat by connecting to an Energy from Waste facility (EFW) in Hill Barton via an interconnect pipe to SkyPark energy centre "The Interconnector Project". The interconnector will support the planned expansion of the Cranbrook new town through enabling the delivery of a Future Homes/Buildings Standard compliant energy solution.

The project will be delivered by an ESCo. EDDC will act as broker and facilitate the procurement of the ESCo. Procurement Q2 2023, RIBA stage 3 design: Q1/2 2023.

The network length is c.98.6km, the total heat demand is 34.05 GWh/yr, the diversified Peak demand for the expansion area is 12.5MW. 96.9% of this demand will be met by three EFW units, and 3.1% from the existing gas CHP at Cranbrook Energy Centre.

Signed up to MTC aims on:

Infrastructure	✓
Detailed commitments on embodied carbon and projects local economy	
Skills	✓
Detailed commitments to addressing the supply chain skills gap	
Innovation	✓
Detailed commitment to continuous improvement	

Last update: **2023**

Chilton Woods, Sudbury

Project Sponsor:

GTC Infrastructure Ltd

Network Map:

Summary Information

CAPEX (£m):

£5.81

Procurement Status:

GTC Infrastructure have conducted an extensive procurement exercise through our supply chain partner Wolseley UK. This involved going out to market for procurement of all major plant items. The process required engaging a minimum of 5 suppliers for each plant type and considered price, performance, quality, warranty and carbon compliance.

Primary heat source:

Heat pump: air source

Project Contact Details:

Organisation:	GTC Infrastructure Ltd
Contact Name:	GHNF
Email:	GHNFCorrespondence@beis.gov.uk

Project Description:

The project is a low-density new housing development being built in Suffolk. It comprises of 890 residential properties and a school which will be built out over 6 years commencing in 2023.

The development will be served by a low temperature heat network comprising of a highly insulated plastic network, an energy centre and heat interface units. The energy centre is fully electric and consists of two air source heat pumps, backup electric boilers and thermal stores.

The total capex for the project is projected to be £5.4m and annual heat consumption will be 5.43GWhs.

Construction of the heat network has already commenced with the energy centre installation planned for mid-2023. First properties are expected to connect in August 2023.

Signed up to MTC aims on:

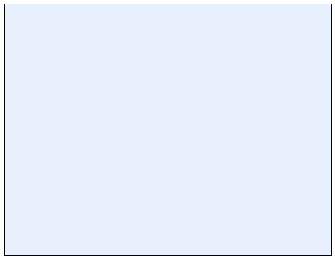
Infrastructure	✓
Skills	✓
Innovation	✓

Old Oak and Park Royal Energy Network

Project Sponsor:

OPDC

Network Map:



Summary Information

CAPEX (£m):

£113.14

Procurement Status:

The procurement strategy refined during commercialisation, incorporating: JV partner (finance) SPV to then procure (likely via a 2 stage tender):

- Design and Build (D&B) contract, in separate packages for the data centre connections and ambient loop network
- The energy centres and the LTHW network and customer connections.
- Operation and Maintenance (O&M) contract (potentially linked to the D&B of the Energy Centres)
- Customer Service & Billing (CSB)

Primary heat source:

Heat pump: waste heat

Project Contact Details:

Organisation:	OPDC
Contact Name:	GHNF
Email:	GHNFCorrespondence@beis.gov.uk

Project Description:

The project will recover waste heat from the cooling processes of 3 new data centres to supply low carbon heating and hot water to homes and businesses within the OPDC region. The phasing information is as follows:
Phase 1: Year = 2026, heat delivered = 50.39Gwh, CAPEX spend = £85.3m.
Phase 2: Year = 2027, cumulative heat delivered = 62GWh, CAPX spend = £5.3m.
Phase 3: Year = 2030, cumulative heat delivered = 75GWh, CAPEX spend = £11.6m.
Phase 4: Year 2035, cumulative heat delivered = 87.3GWh, CAPEX spend = £9m.
Phase 5: Year = 2040, cumulative heat delivered = 94GWh, CAPEX spend = £2.4m

Signed up to MTC aims on:

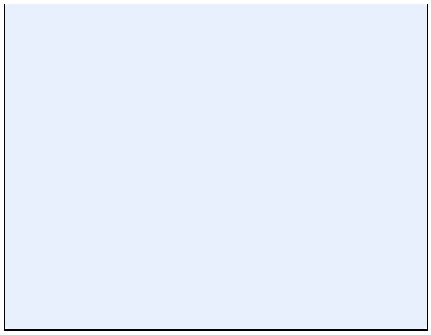
Infrastructure	✓
Detailed commitments on embodied carbon and projects local economy	
Skills	✓
Detailed commitments to addressing the supply chain skills gap	
Innovation	✓
Detailed commitment to continuous improvement	

Lancaster University Net Zero

Project Sponsor:

Lancaster University Energy Services Ltd

Network Map:



Summary Information

CAPEX (£m):

£60.41

Procurement Status:

The project is currently at RIBA / CP1 Stage 2, Outline Design. Preparations for the procurement of Stage 3 multi-disciplinary design consultants have started. The programme (see section 1.04 Project Programme of this application) outlines the following procurement stages; Stage 3 design consultant procurement, including open day: 28/04/2023 to 30/06/2023, and Stage 4+ Design & Build contractor procurement, including open day: 5/9/23 to 05/01/2024

Primary heat source:

Heat pump: air source

Project Contact Details:

Organisation:	Lancaster University Energy Services Ltd
Contact Name:	GHNF
Email:	GHNFCorrespondence@beis.gov.uk

Project Description:

Lancaster University aims to achieve Net Zero for energy through an innovative heat network project, incorporating network extensions across the university's campus, a new Energy Centre with air source heat pumps and thermal storage and electrical infrastructure works. The project is supported by a 'Heat Pump Ready Buildings' programme, aimed at reducing operating temperatures for buildings connected to the heat network. A private-wire solar farm will be developed separately. The project will extend the existing 28 GWh p.a. heat network to provide 45 GWh p.a. of low-carbon heat. Capital costs are estimated at £61.4m (at Stage 2 Feasibility). Commercialisation: 23.03-24.04. Stage 3 Design Team commercialisation commences in Feb-23. Intention is to procure the delivery of the project on a DBO basis, with the main contractor operating the Net Zero heat network for a period of 1 to 2 years following the Heat-On date. Procurement for the DBO contractor is expected to commence in Sep-23. Construction two stages; 1st is GHNF by Mar-25,2nd is LU-funded is heat-on by 1st Oct 26.

Signed up to MTC aims on:

Infrastructure	✓
Detailed commitments on embodied carbon and projects local economy	
Skills	✓
Detailed commitments to addressing the supply chain skills gap	
Innovation	✓
Detailed commitment to continuous improvement	

Last update: **2023**

MyDMU Greenheat

Project Sponsor:

De Montfort University

Network Map:

Summary Information

CAPEX (£m):

£18.60

Procurement Status:

We are reviewing public sector framework providers such as CCS / Lexica to promote to the pre-approved providers on supplier lists via a framework & a pre-engagement event before tender opportunities released. using the GHNF templates.

Primary heat source:

Heat pump: air source

Project Contact Details:

Organisation:	De Montfort University
Contact Name:	GHNF
Email:	GHNFCorrespondence@beis.gov.uk

Project Description:

Working with Vital Energi Utilities Limited, comprises 2.5MWth ASHP array, feeding into new DHN, serving 17 city centre campus buildings. Designed to RIBA stage 3, w. integration of DHN into each plant room, with tender spec.-ready for procurement. CAPEX £18,57m, generating c12GWh per year renewable heat. CAPEX split is £9.3m 50% 2023 – 24 and £9.3M 50% 2024 – 25.

1. Tender 15th May 2023 to 14th July 2023 – procurement to utilise existing, PCR compliant (e.g. CCS HELGA / Lexica).
2. Design (RIBA 4 and 5) and Planning Application and Highways approvals 17th July 2023 to 31st Oct 2023. – Pre-application consultations currently underway with Leicester City Council which will give guidance and confidence of success in application.
3. Procurement Major Plant 24th July 2023 to 4th Mar 24 (subject to 2, above).
4. DHN construction 13th Nov 2023 to 16th Apr 2024
5. Energy Centre Construction and fit out 13th Nov 23 to 25th July 2024
6. Building Connections fit out 17th Apr 2024 to 6th Sept 2024
7. Commission 26th July 2024 – 25th Oct 2024
8. Handover 28th Oct 2024.

Signed up to MTC aims on:

Infrastructure	✓
Detailed commitments on embodied carbon and projects local economy	
Skills	✓
Detailed commitments to addressing the supply chain skills gap	
Innovation	✓
Detailed commitment to continuous improvement	

Last update: **2023**

Blackburn Meadows Heat Network Expansion

Project Sponsor:

E.ON UK plc

Network Map:

Summary Information

CAPEX (£m):

£37.86

Procurement Status:

Not yet started, will commence following the outcome of this application and completion of the commercialisation stage. See the programme for timings.

Primary heat source:

Waste heat recovered (no heat pump)

Project Contact Details:

Organisation:	E.ON UK plc
Contact Name:	GHNF
Email:	GHNFCorrespondence@beis.gov.uk

Project Description:

E.ON's Blackburn Meadows biomass power plant, located in Sheffield, is a combined heat and power plant that became fully operational in 2015. It uses local recycled waste wood sourced locally to generate 30MWe electricity and 25MWth thermal energy. The existing 8km of district heating network supplies commercial connections within the Lower Don Valley region. The proposed project sees the network extend by an additional 10km to supply the University of Sheffield at their Innovation District and Advanced Manufacturing Research Centre, and along that route Sheffield City Council's Darnall estate which is currently supplied by a gas led district heating network. The route is also being extended to the north, to supply the Northern General Hospital. The extended network will open up a wealth of further opportunities including 10k social and council homes plus commercial businesses out to new University sites. E.ON, w. Sheffield City Council and DESNZ on advanced heat zoning total CAPEX is £37.8m, with the first heat on in January 2026 and final heat on in December 2026. The additional known connections are worth 33GWh per year.

Signed up to MTC aims on:

Infrastructure	✓
Detailed commitments on embodied carbon and projects local economy	
Skills	✓
Detailed commitments to addressing the supply chain skills gap	
Innovation	✓
Detailed commitment to continuous improvement	

Bloomsbury Energy Network

Project Sponsor:

UoL

Network Map:

Summary Information

CAPEX (£m):

£17.94

Procurement Status:

DBOM +/- M+B is a standard NEC 4 contract. Connection and supply agreements: fully open process as per applicable public procurement regulations (UCRs 2016) w/ negotiated procedure-allowing market to suggest modifications to contracts.

Primary heat source:

Heat pump: air source

Project Contact Details:

Organisation:	UoL
Contact Name:	GHNF
Email:	GHNFCorrespondence@beis.gov.uk

Project Description:

£18.9m ASHP refurbishment / replacement, at southern half of the Bloomsbury campus in central London, of 20 y.o., CHO >50 y.o. gas/oil boilers and >80 y.o. distribution pipework, (ASHPs). At commercialisation stage. Construction to start 2024. HN owned-operated by SPV Consortium, comprising UCL, UoL and SOAS. First stage of main contractor tender in June/July, and ITT process from July to November. Principal Contractor to be appointed by end 2023, who will take over O+M of existing network during a transition phase to new network. Phase 1 of the scheme starts in September 2025, following £17.0m of investment into heat network infrastructure, delivering an initial 15.6GWh/year. Phase 2 starts in April 2028, following an additional £1.9m investment, delivering cumulative 16.5GWh/year. The third and final phase starts in April 2029, following a further £0.5m investment, amounting to a total heat delivery of 17.0GWh/year. In addition to the total £18.9m investment in heat network infrastructure, there will be an associated £16.1m investment in HV upgrade infrastructure to enable the heat network, along with £2.3m in capitalised financing costs.

Signed up to MTC aims on:

Infrastructure	✓
Detailed commitments on embodied carbon and projects local economy	
Skills	✓
Detailed commitments to addressing the supply chain skills gap	
Innovation	✓
Detailed commitment to continuous improvement	

Hull East Heat Network

Project Sponsor:

Vital Energi Utilities ltd

Network Map:

Summary Information

CAPEX (£m):

£44.01

Procurement Status:

The Vital Energi appointment is not subject to a procurement process, as Vital Energi are developing the network. The project will be designed, built and operated by Vital Energi, and our current strategy is for key component items such as energy centre building, foundations, energy centre fitout equipment and heat network pipework to follow an open procurement process.

Primary heat source:

Waste heat recovered (no heat pump)

Project Contact Details:

Organisation:	Vital Energi Utilities ltd
Contact Name:	GHNF
Email:	GHNFCorrespondence@beis.gov.uk

Project Description:

Hull East heat network is a £43m project that will supply 57.6GWh of heat in Phase 1 with waste from Saltend Chemicals Park. If the funding application is successful the project will go through a commercialisation period, with the aim to start construction in April 2024 and complete construction within 2 years. The project will be run by Vital Energi who will fund the remainder of the project as well as design, build operate and maintain the heat network. Future phases of the project may utilise waste heat from other sources and there is the capacity to supply other main customers.

Signed up to MTC aims on:

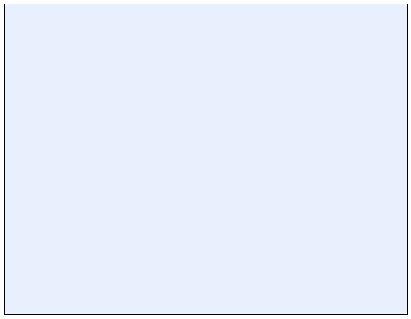
Infrastructure	✓
Detailed commitments on embodied carbon and projects local economy	
Skills	✓
Detailed commitments to addressing the supply chain skills gap	
Innovation	✓
Detailed commitment to continuous improvement	

West King Street District Heat Network

Project Sponsor:

London Borough of Hammersmith & Fulham

Network Map:



Summary Information

CAPEX (£m):

£7.09

Procurement Status:

We confirm that all new procurement will follow the UK Government's Find a Tender Service (FTS) regulations which has replaced the European public procurement process (OJEU).

Primary heat source:

Heat pump: ground source

Project Contact Details:

Organisation:	London Borough of Hammersmith & Fulham
Contact Name:	GHNF
Email:	GHNFCorrespondence@beis.gov.uk

Project Description:

The West King Street District Heat Network total CAPEX is £9.37m; projected spend 2022/24 financial years. To be built in single phase. Total heat & cooling demand is c.3.96GWh and c.4.64GWh, respectively. A 50/50 Joint Venture "West King Street Renewal LLP": London Borough of Hammersmith & Fulham (LBHF) and A2Dominion Developments Ltd (A2DD). A mini-competition tender process spawned a contract with Ardmore Construction Ltd in 1.12.2020 to deliver 204 new homes, >15,000 sqm office / public space, >10,000 sqm of commercial space, refurbish and extend the existing Grade II-listed Town Hall and install a site-wide heating and cooling energy network. Planning (originally granted gas CHP gas fired boiler) now will be GSHP. The wider project is currently in construction phase for residential blocks. Block B which houses the Energy Centre has been significantly impacted by delays to utility diversions. However, works are now progressing, and the energy centre is anticipated to be constructed by the end of 2023/24 financial year.

Signed up to MTC aims on:

Infrastructure	✓
Detailed commitments on embodied carbon and projects local economy	
Skills	✓
Detailed commitments to addressing the supply chain skills gap	
Innovation	✓
Detailed commitment to continuous improvement	

Heat Network Industry Council (HeatNIC) projects

Silvertown

HeatNIC Member:
EON

Project Sponsor:
EON

Project Location:
E16, Newham

Technical Information:

Network type:
District

Primary heating/cooling source:
Heat pump: other source/ Absorption chiller - waste heat

Total CAPEX (£ million)	c.26
Heating/cooling capacity (MW)	8.00 / 3.00
Heating/cooling demand (GWh pa.)	24.00 / 9.00
Number of domestic/non-domestic connections	6,400 / 15
Primary heating/cooling pipe trench length	5.00 / 5.00
Thermal stores type	Insulated water tank (including water & glycol)

Project Planning Application Link
https://www.london.gov.uk/decisions/md2784-silvertown-quays-changes-master-development-agreement

Project Description:
Located in Newham London, Silvertown is part of Lendlease's £4bn regeneration of the Royal Docks area. This project is a major milestone for E.ON and is fully aligned with EIS global strategy supporting our growth target within the New Build - City Quarter solution segment. The decentralised, fully sustainable ectogridTM will become the largest 5th generation district heating (5GDH) scheme in the UK, supplying heat and cooling to 6,400 residential units and businesses across the development for the next 40 years. 5GDH is a next-generation technology that utilises low-grade waste heat to provide efficient and sustainable heating and cooling for buildings. By using waste heat that would otherwise be discarded, 5GDH networks can significantly reduce CO2 and energy consumption, making them a critical component of the transition to a more sustainable energy system. Construction Phase 1 of 6 starts Q3 2023 with Heat on expected Q1 2025.

Procurement Details:

Anticipated procurement approach:
Concession

Upcoming procurements:
N/A

Expected construction start date:
Q3-2023

Phased project?
Yes

Swinnow Park

HeatNIC Member:
Metropolitan

Project Sponsor:
Taylor Wimpey

Project Location:
LS22 5HF, Leeds

Technical Information:

Network type:
District

Primary heating/cooling source:
Heat pump: air source/ Not applicable

Total CAPEX (£ million)	c.4,5
Heating/cooling capacity (MW)	3.61 / 0.00
Heating/cooling demand (GWh pa.)	4.30 / 0.00
Number of domestic/non-domestic connections	762 / 0
Primary heating/cooling pipe trench length	13.00 / 0.00
Thermal stores type	Insulated water tank (including water & glycol)

Project Planning Application Link
https://publicaccess.leeds.gov.uk/online-applications/simpleSearchResults.do?action=firstPage

Project Description:
Network and EC construction D&B via Metropolitan - procurement open Main EC and network D&B and HIU and metering - procurement open O&M - procurement open

Procurement Details:

Anticipated procurement approach:
Construction - open O&M - open HIU - open Network - open Energy Centre - open

Upcoming procurements:
Construction, O&M, HIU, Network, Energy Centre

Expected construction start date:
Q1-2024

Phased project?
Yes

Brent Cross Town

HeatNIC Member:
Vattenfall

Project Sponsor:
Vattenfall

Project Location:
NW2 1AJ, Barnet

Technical Information:

Network type:
District

Primary heating/cooling source:
Heat pump: air source/ Heat pump: air source

Total CAPEX (£ million)	c.45
Heating/cooling capacity (MW)	32.00 / 20.00
Heating/cooling demand (GWh pa.)	60.00 / 20.00
Number of domestic/non-domestic connections	6,700 / 75
Primary heating/cooling pipe trench length	9.00 / 7.00
Thermal stores type	Insulated thermal store with diffusers

Project Planning Application Link
https://publicaccess.barnet.gov.uk/online-applications/applicationDetails.do?activeTab=documents&keyVal=ZZZY5NJIXE047

Project Description:
Construction is well underway on the £7bn new town centre development. Brent Cross Town will be a major new office destination with 3 million sq. ft of office space, 6,700 new homes, student accommodation, restaurants and sports and leisure facilities. A new district heating network will be designed and built to feed residential and commercial customers. Argent Related have also signed an agreement for an associated district cooling network serving commercial space. District Heating works procured via a Concession Agreement between Brent Cross Town (Argent Limited) and Vattenfall Heat UK (VHUK) where VHUK becomes the ESCo. Project currently sitting under construction, with the majority of primary pipework and trenching completed. Heat on date for the first plots of the development expected in 2023. Design is on-going for air source heat pumps, one 770m3 thermal store for district heating only, and cooling provided from air cooled chillers. One temporary energy centre will be in place to feed the first constructed plots (2023), before the main energy centre gets operational (by 2026).

Procurement Details:

Anticipated procurement approach:
Concession Agreement

Upcoming procurements:
Main Energy Centre Mechanical and Electrical Fit-out: January 2024

Expected construction start date:
Under construction

Phased project?
Yes

Simpsons Malt Project

HeatNIC Member:
Vital

Project Sponsor:
AMP Biomass (ASSETCO 1) Limited

Project Location:
TD15 2XF, Northumberland

Technical Information:

Network type:
Campus

Primary heating/cooling source:
Boiler - biomass/ Not applicable

Total CAPEX (£ million)	c.33
Heating/cooling capacity (MW)	30.00 / 0.00
Heating/cooling demand (GWh pa.)	35.00 / 0.00
Number of domestic/non-domestic connections	0 / 0
Primary heating/cooling pipe trench length	0.55 / 0.00
Thermal stores type	Insulated water tank (including water & glycol)

Project Planning Application Link
https://publicaccess.northumberland.gov.uk/online-applications/applicationDetails.do?keyVal=RAP6QSQS0MZ00&activeTab=summary

Project Description:
Construction of a Biomass and Electric low carbon Energy Centre which will sell heat energy in the form of high temperature hot water to customers under a long-term agreement. The project is a Design and Build contract which commenced Q2 2023 and is due to complete Q2 2025. The energy centre is comprised of three biomass boiler systems and one high voltage electrode boiler to be installed together with high temperature hot water heating pipe distribution network to serve new air heating coils within kilns. Construction works on site have commenced and the Biomass Energy Centre is due to be commissioned by Q3 2024, Electric Energy Centre is due to be commissioned Q2 2025. The project consists of one phase although there is a potential to extend with the addition of a further electric boiler.

Procurement Details:

Anticipated procurement approach:
D & B

Upcoming procurements:
Boiler: Complete.
Civil & Structural ongoing.
Mechanical & Electrical: commence Q3 2023

Expected construction start date:
Q2-2023

Phased project?
No

Annex 1: All HeatNIC projects

Opportunity Name	HeatNIC member	Quarter last updated	Total CAPEX (~£millions)
Meridian Water Heat Network	Energetik	Q4-2022	49
33 Charterhouse	EON	Q1-2022	1
Ali Street	EON	Q1-2022	
Bernard Morgan House	EON	Q1-2022	1
Brewers Hall	EON	Q1-2022	0
Clarendon	EON	Q1-2022	
Enderby Wharf (non residential connection)	EON	Q2-2022	3
Equipment Works	EON	Q1-2022	
Farringdon East	EON	Q1-2022	1
Farringdon West	EON	Q1-2022	1
Heron Land Development	EON	Q4-2022	
New Market	EON	Q2-2022	
Nine Elms	EON	Q1-2022	
Ridgeway Views	EON	Q1-2022	
Silvertown	EON	Q2-2023	26
Whitbread Brewery	EON	Q3-2022	
Wimbledon	EON	Q1-2022	
C1	Equans	Q1-2023	1
N05	Equans	Q1-2023	0
Newcastle Helix - Core	Equans	Q1-2023	0
Newcastle Helix - Discovery Museum	Equans	Q1-2023	2
Newcastle Helix - Spark	Equans	Q1-2023	0
The International Quarter - S4	Equans	Q1-2023	1
Western Gateway phases 2 & 3, connection	Equans	Q1-2023	0
Chilton Woods	Metropolitan	Q1-2023	5
Colindale Gardens	Metropolitan	Q1-2023	10
Coronation Square	Metropolitan	Q1-2023	6
Gilston Village 7	Metropolitan	Q1-2023	7
Hallsville Quarter	Metropolitan	Q1-2023	5
King's Cross	Metropolitan	Q1-2023	13
London Square Bermondsey	Metropolitan	Q1-2023	3
Postmark	Metropolitan	Q1-2023	4
St Andrew's Park	Metropolitan	Q1-2023	3
Swinnow	Metropolitan	Q2-2023	4.5
Upper Worsham Farm	Metropolitan	Q1-2023	5
Wembley Park	Metropolitan	Q1-2023	14
Wisley Airfield	Metropolitan	Q1-2023	12
Box Makers Yard	Pinnacle	Q1-2022	
Clapham Park	Pinnacle	Q1-2023	
College Road ESCo	Pinnacle	Q1-2022	

Courtyard Gardens	Pinnacle	Q1-2022	
Loka Energy	Pinnacle	Q1-2022	
Regency Heights	Pinnacle	Q1-2022	
River Gardens	Pinnacle	Q2-2022	
Springfield Village	Pinnacle	Q1-2023	6
Uncle Elephant and Castle	Pinnacle	Q1-2022	
Aire Valley Heat and Power	SSE	Q4-2022	27
Bicester EcoTown (Elmsbrook)	SSE	Q1-2022	
Brighton Marina	SSE	Q1-2022	
Greenwich Square	SSE	Q1-2022	
Haggerston and Kingsland	SSE	Q1-2022	
Harbour Central	SSE	Q1-2022	
Merchant Square	SSE	Q1-2022	
Nova	SSE	Q1-2022	
Orchard Village	SSE	Q1-2022	
Riverlight	SSE	Q1-2022	
Southbank Tower	SSE	Q1-2022	
Stoke-on-Trent Geothermal Heat Network	SSE	Q4-2022	82
Television Centre	SSE	Q1-2022	
Trinity Walk	SSE	Q1-2022	
University of Surrey	SSE	Q2-2022	6
Wandsworth Riverside Quarter	SSE	Q1-2022	
White City	SSE	Q1-2022	
Woolwich Royal Arsenal Riverside	SSE	Q1-2022	
Wyndford Estate	SSE	Q1-2022	14
Brent Cross Town	Vattenfall	Q2-2023	45
Bermondsey Connection	Veolia	Q1-2023	4
Convoys Wharf Connection	Veolia	Q1-2023	11
Deptford Landings Connection	Veolia	Q1-2022	1
LBS2.0 DHN Expansion Scheme	Veolia	Q1-2023	32
Alma Phase 3B DH/ 4 Off site	Vital	Q3-2022	0
Alma Phases 1 & 2	Vital	Q1-2022	3
Barking 206-207	Vital	Q1-2022	1
Barking Bellway 201-202	Vital	Q1-2022	0
Barking Bellway 206A-208A	Vital	Q1-2022	2
Barking Bellway 209B	Vital	Q2-2022	2
Barking Quadrant 203	Vital	Q1-2022	0
Barking Riverside L&Q Design	Vital	Q1-2022	1
Battersea	Vital	Q1-2022	14
Beam Park Energy Centre	Vital	Q1-2022	2
Bicester III and IV	Vital	Q1-2022	0
Castle Park Energy Centre	Vital	Q1-2022	4
Circus Street	Vital	Q1-2022	0
Clyde Gateway	Vital	Q1-2022	1

Clyde Gateway Area C	Vital	Q2-2022	0
Coventry Hospital	Vital	Q1-2022	4
Esso Building	Vital	Q1-2022	1
Falkirk Wheel	Vital	Q2-2022	0
Gascoigne West Phase 2	Vital	Q1-2022	1
Greenwich Block 3	Vital	Q1-2022	0
Hebburn Minewater	Vital	Q2-2022	4
Imperial College Batch 2	Vital	Q1-2023	2
Islington Waste Recycling Centre	Vital	Q1-2023	
Kensington Row - Phase 2	Vital	Q1-2022	6
Kidbrooke EC Phase 2	Vital	Q1-2022	2
Kidbrooke Village Blk B Phs 3	Vital	Q1-2022	0
Ladderswood Estate	Vital	Q1-2022	1
Leeds Combined Courts	Vital	Q3-2022	2
Leeds HNIP Phase 3	Vital	Q3-2022	6
Leeds Pipe Additional MSF	Vital	Q1-2023	1
Liverpool Waters (Inc Plan X, Phase 1 B)	Vital	Q1-2022	7
Liverpool Waters Phase 1C	Vital	Q4-2022	11
Lothian Hospital Capital	Vital	Q1-2022	
Malgavita	Vital	Q1-2022	1
Manchester DH	Vital	Q1-2022	12
Markinch	Vital	Q1-2022	0
Muntons	Vital	Q1-2022	16
Northwick Park Hospital	Vital	Q1-2022	7
Nottingham City Hospital	Vital	Q1-2022	14
Oval Village Block A	Vital	Q1-2022	6
Parkside Nine Elms	Vital	Q1-2022	9
Ponders End Phase 2	Vital	Q1-2022	1
Poole Road - Woking	Vital	Q1-2022	7
Prince of Wales Drive	Vital	Q1-2022	2
Royal Arsenal Riverside Phase 9	Vital	Q1-2022	8
Simpsons Malt	Vital	Q2-2022	33
St John's Hospital PHX	Vital	Q2-2022	0
St. James Hospital ASHP extension	Vital	Q2-2022	0
St. James Hospital EfW extension	Vital	Q2-2022	10
Strand East EC	Vital	Q1-2022	1
Tavistock Gardens	Vital	Q1-2022	1
The Christie Hospital	Vital	Q1-2022	5
Torry Heat Network Phase 2	Vital	Q4-2022	14
University Hospital Bristol	Vital	Q1-2022	22

Annex 2: The Market Transformation Commitments

I, the undersigned, understand the crucial role that Heat Networks will play in delivering Net Zero and the role of the Green Heat Network Fund in developing a competitive and innovative UK market. In seeking Green Heat Network Fund support, we commit to our project sharing information and playing an active part in transforming the market, through the following actions: -

Infrastructure commitments *In delivering our project we commit to enable a progressive business environment that will strengthen the UK heat networks supply chains to build quality, safe, low carbon, and resilience networks.*	We will work to ensure **fair contracting strategies** and **open procurement** processes that will enable new entrants to the supply chain to compete equally with established suppliers. We will work to increase the visibility of opportunities and ensure open and **transparent** access to information for all.
	We recognise the importance of effective community engagement in developing new heat networks projects and will work to develop a community engagement strategy for the project.
	We will work to understand our projects **carbon footprint,** identify ways in which we can reduce our carbon impact and ensure project learning is shared across the industry.
	We will work to ensure that our network adds to a more **reliable and resilient energy system**
	We will endeavour to engage in the **local supply chain** and embed projects into local growth strategies reflecting the government's "Build Back Better: our plan for growth" ambitions. We aim to identify ways in which our heat network supply chain invests in the **local area**.
Skills Commitments *In delivering our project we commit to actions that will* • *attract a diverse workforce representing our society,* • *enable a low carbon future through further investment in training and career progression.*	We aim to identify ways in which our green heat network supply chain can address the **sector's skills gap** to enable the supply chain capability and capacity growth needed to deliver Net Zero
	Our project and its supply chain will use **fair and open recruitment** processes
	We aim to stimulate investment in the development of additional skills through our project, recording the number of **apprenticeships, trainee, and scholarships**
	We anticipate our project will **stimulate jobs** in the local area and across the UK. We will record and share these new jobs.
Innovation Commitments *In delivering our heat network project we commit to actively sharing learnings and explore ways we can support and enable R&D as well as test and realise new ideas.*	We aim to identify ways in which our project can enable **investment in R&D** either directly or through our supply chain.
	We will investigate how our project can be part of an industry continual improvement approach through **applying learnings and innovations** from previous projects, **identify new solutions** that can be used within our project, form part of future R&D investment or represent significant potential for future projects and share this learning across the sector.

All GHNF Transition scheme projects have signed up to the above aims. Please see the GHNF MTC guidance for applicants document for how the MTCs will apply to new GHNF applicants.