

# **Heat Network Projects Quarterly Report**

## **Scottish Government Supported Heat Network Projects – July 2023**

**Energy and Climate Change Directorate**

**August 2023**

# Introduction

This document produced by the Energy and Climate Change Directorate in the Scottish Government summarises the projects supported by Scotland's Heat Network Fund (SHNF), Scotland's Heat in Buildings Development Funding Invitation and The Heat Network Support Unit (HNSU).

Launched in February 2022, Scotland's Heat Network Fund (SHNF) makes £300 million available over this parliamentary session. The Fund offers long-term support to enable the rollout of new zero emission heat networks and communal heating systems, as well as the expansion and decarbonisation of existing heat networks across Scotland.

Scotland's Heat in Buildings Development Funding Invitation made £1 million of resource funding available to stimulate and accelerate the development of a pipeline of zero emission heat projects for buildings across Scotland. This funding invitation closed to applications in May 2022, and was forerunner to fuller Heat Network Support Unit, launched in September 2022.

The Heat Network Support Unit (HNSU) supports the growth of heat networks by addressing key challenges in the pre-capital stages of heat network development and building capacity across the public sector to deliver successful projects. The HNSU is sponsored by the Scottish Government (SG), with Scottish Futures Trust (SFT) and Zero Waste Scotland (ZWS) as core partners who will provide a range of support services via the HNSU.

The document includes a series of one-page summaries for each of the capital and pre-capital projects supported by the Scottish Government through the SHNF and HNSU.

Further details on both programmes can be found here:

- Scotland's Heat Network Fund: [Heat Network Fund: application guidance - gov.scot \(www.gov.scot\)](https://www.gov.scot/heat-network-fund-application-guidance)
- Heat Network Support Unit: [Home - Heat Network Support Unit](#)

For questions relating to the projects summarised in this document or fund enquiries, please direct these to [HeatNetworkFund@gov.scot](mailto:HeatNetworkFund@gov.scot) or [HeatNetworkSupport@gov.scot](mailto:HeatNetworkSupport@gov.scot).

# Heat and Energy Efficiency Scotland Heat Network Investment: Capital and Pre-Capital Projects

# Heat Network Capital Projects

## Ashgill Road Low Carbon Heat Project

Lead organisation:  
Lowther Homes Ltd

Project Stage:  
Capital - Construction

Technology type(s):  
Shared ground loop array heating system with ground source heat pumps

Location:  
Milton, Glasgow

Type of Support:  
£388,074 SHNF capital grant

Project Timeframe:  
Predicted commissioning 31/03/2025

**Project description:**  
Lowther Homes Ltd (part of Wheatley Group) have been awarded £388,074 worth of funding to install a shared ground loop heat pump system at Ashgill Road, Milton, Glasgow. The project will provide low carbon heating and hot water to a 48-unit new build affordable housing development.

The project is due to begin on site in March 2023 and complete in March 2025.



Figure 1. 3D Image of Lowther Homes affordable housing development plan (Credit: Collective Architecture)

# Brandon St, Motherwell – Commissioning of a communal heating system for 48 new building social housing units

## Lead organisation:

North Lanarkshire Council

## Project Stage:

Capital - Construction

## Technology type(s):

Shared ground loop array heating system with ground source heat pumps

## Location:

Motherwell, North Lanarkshire

## Type of Support:

£415,432 SHNF Grant

## Project Timeframe:

Predicted commissioning 31/05/2026

## Project description:

North Lanarkshire Council will install a zero direct emissions communal heating system consisting of a shared ground array and heat pumps which will supply heat for 48 social rented flats in Motherwell. The low emissions heat system will provide carbon savings for tenants, reducing their energy bills and contributing to fuel poverty and net zero targets.

The project is due to begin construction in March 2023 and commission in May 2026.



Figure 2. 3D image of North Lanarkshire Council's social housing project plan (© Coltart Earley Architects)

# Torry Heat Network – Phase 2

**Lead organisation:**  
Aberdeen City Council

**Project Stage:**  
Capital - Construction

**Technology type(s):**  
Expansion of Torry Heat Network using waste heat from Energy from Waste Plant

**Location:**  
Torry, Aberdeen

**Type of Support:**  
£5,617,358 SHNF Grant

**Project Timeframe:**  
Predicted commissioning 31/03/2026

**Project description:**  
This project expands the Torry Heat Network Phase 1 which was part funded by the Scottish Government's Low Carbon Infrastructure Transition Programme. The heat network distributes heat from a Heat Distribution Facility at Tullos Recycling Centre and a heat offtake at the new Energy from Waste plant at Tullos. Phase 2 will see the connection of a community hub to the network, and enable connections to a further 556 homes. As part of the project, there will be a wider engagement strategy to encourage wider uptake.

The second phase is due to commission in March 2026.



Figure 3. Torry Heat Network Energy Centre (© Ewan Jures, WSP UK Ltd)

# Aberdeen City Council Housing Project - Kaimhill

**Lead organisation:**  
Aberdeen City Council

**Project Stage:**  
Capital - Construction

**Technology type(s):**  
Installation of a ground loop shared array with heat pumps

**Location:**  
Garthdee, Aberdeen

**Type of Support:**  
£306,525 SHNF Grant

**Project Timeframe:**  
Predicted commissioning September 2023

## **Project description:**

The project will install a zero direct emissions heat network consisting of a shared ground array with heat pumps to provide affordable heat to 35 new homes at the Kaimhill development site in Garthdee, Aberdeen. The 35 homes will be comprised of a mix of 3 or 4 bedroom terraced houses and bungalows and are part of Aberdeen City Council's social housing stock.



Figure 4. Aerial view of the Kaimhill Development site in Garthdee (© Aberdeen City Council)

# Heat Network Pre-Capital Projects

## Edinburgh BioQuarter

### Lead organisation

City of Edinburgh Council

### Project Stage:

Pre-capital – Detailed Feasibility

### Technology type(s):

Proposed new heat network or connection to existing heat network (heat source: energy from waste)

### Anticipated Delivery Model:

Service Concession / Independent Heat Network provider

### Location:

BioQuarter site, Little France Drive, Edinburgh

### Type of support:

£47,125 HNSU Grant

### Project Timeframe:

Feasibility Study completed Q1 2023. Stakeholders developing next steps.

### Project description:

The project explores the supply of heat to the Edinburgh BioQuarter site via a heat network. This is proposed to serve new buildings on Edinburgh's BioQuarter site masterplan, with connection to existing buildings on site in due course, including the NHS Royal Infirmary of Edinburgh and the Royal Hospital for Children and Young People, and the potential to serve social housing off-site. The feasibility study examines the potential for a new heat network or connection to the upcoming Shawfair Heat Network in Midlothian.



Figure 5. Aerial view of the Edinburgh BioQuarter site (Credit: Oberlanders Architects)



# Dundee Caird Park

**Lead organisation:**  
Dundee City Council

**Project Stage:**  
Pre- Capital – Detailed Feasibility

**Technology type(s):**  
Existing heat network extension

**Location:**  
Regional Performance Centre for Sport, Dundee

**Type of support:**  
£34,000 HNSU Grant

**Project Timeframe:**  
Feasibility report completed March 2023

**Project description:**  
The Caird Park project was originally supported by the Low Carbon Infrastructure Transition Programme. A pre-feasibility study to expand the network was published in January 2022 as part of an initiative to boost heat networks by the Scottish Cities Alliance. This study analysed opportunities to expand the existing network towards additional heating loads (a school, a college, a sports centre and a gymnastics centre). The project aims to deliver these expansions to their heat network.



Figure 6. Regional Performance Centre, Dundee (Credit: Dundee City Council)

# Inverness West Bank

## Lead organisation:

The Highland Council

## Project Stage:

Pre-Capital – Detailed Feasibility

## Technology type(s):

Proposed new heat network

## Location:

Inverness

## Type of support:

£36,000 HNSU Grant

## Project Timeframe:

Feasibility report completed April 2023. Stakeholders developing next steps.

## Project description:

The Highland Council are looking to establish district heating networks within Inverness. The main buildings identified for connection include Inverness Leisure Centre, Inverness Ice Centre, Highland Archive and Registration Centre, Inverness Botanic Gardens, Highland Council HQ and Eden Court.



Figure 7. Eden Court and the Highland Council offices, Inverness (Credit: Buro Happold on behalf of Zero Waste Scotland)

# Inverness Castle

Lead organisation:  
The Highland Council

Project Stage:  
Pre-Capital – Detailed Feasibility Study

Technology type(s):  
Proposed new heat network

Location:  
Inverness

Type of support:  
£27,500 HNSU Grant

Project Timeframe:  
Feasibility report completed April 2023. Stakeholders developing next steps.

Project description:  
Highland Council are looking to develop a district heating network within the immediate area surrounding Inverness Castle which is a council administration centre. Potential heat sources include ground source heat pumps, river source heat pumps, sewer heat recovery, biomass and large scale air source heat pumps.



Figure 8. Inverness Castle (Credit: Buro Happold on behalf of Zero Waste Scotland)

# Perth City Centre Heat Network

## Lead organisation:

Perth and Kinross Council

## Project Stage:

Pre-Capital – Detailed Feasibility

## Technology type(s):

Proposed new heat network

## Location:

Perth

## Type of support:

£36,000 HNSU Grant

## Project Timeframe:

Feasibility report completed in March 2023. Stakeholders developing next steps.

## Project description:

Various non-domestic and domestic buildings including a concert hall, council offices, tower blocks and a hotel have been identified within Perth city centre that are potential connections for a heat network. A range of low carbon heat sources are recommended to be considered including river and ground source heat pumps.



Figure 9. River Tay (Source: Buro Happold on behalf of Zero Waste Scotland)

# Blar Mhor

## Lead organisation:

NHS Highland / University of the Highlands and Islands

## Project Stage:

Pre-Capital – Detailed Feasibility Study

## Technology type(s):

Proposed new heat network

## Location:

Fort William

## Type of support:

£17,000 HNSU Grant

## Project Timeframe:

Feasibility report completed in March 2023

## Project description:

Proposed heat network to serve the Blar Mhor development site, including connections to the proposed STEM centre for UHI – West Highland College and NHS General Highland hospital. Air source and ground source heat pumps are being considered as heat supply technology.



Figure 10. Proposed energy centre and connections locations (Source: Buro Happold on behalf of Zero Waste Scotland)

# Glasgow Polmadie

Lead organisation:  
Glasgow City Council

Project Stage:  
Pre-Capital – Detailed Feasibility

Technology type(s):  
Proposed new heat network

Location:  
Glasgow

Type of support:  
£44,000 HNSU Grant

Project Timeframe:  
Feasibility report due August 2023

**Project description:**  
Project secured grant funding to undertake a review of prior feasibility work to determine the potential for the Glasgow Recycling and Renewable Energy Centre (GRREC) to be used as a heat source for a district heat network serving a mix of domestic and non-domestic properties in the south side of Glasgow.



Figure 11. Glasgow Recycling and Renewable Energy Centre (GRREC) (© Calum Robertson, Zero Waste Scotland)

# Queen's Quay Extension

## Lead organisation:

West Dunbartonshire Council

## Project Stage:

OBC completed – commercialisation

## Technology type(s):

Extension of existing heat network (heat source: water source heat pump)

## Anticipated Delivery Model:

Contracted via Vital Energie

## Location:

Clydebank

## Type of support:

Capacity building and OBC support

## Project Timeframe:

OBC submitted December 2022

## Project description:

The project proposes the extension of the Queens Quay heat network to connect to the Golden Jubilee Hospital and hotel as well as nine of West Dunbartonshire Council's multiblock flats at Dalmuir and Littleholm (6 currently on electric, 3 on gas).



Figure 12. Queen's Quay Energy Centre (Credit: West Dunbartonshire Council)

# Granton Waterfront

## Lead organisation:

City of Edinburgh Council

## Project Stage:

Pre-Capital – Commercialisation

## Technology type(s):

Proposed new heat network (proposed heat source: sewer source heat pump)

## Location:

Granton, Edinburgh

## Type of support:

£50,000 Scotland's Heat in Buildings Development Funding Invitation Grant

HNSU Advisory Support

## Project Timeframe:

Contract Noticed published May 2023. Council looking to appoint a development partner by the end of 2023 and reach financial close by August 2024. Heat on to first customers targeted for September 2025.

## Project description:

The project proposes a new heat network to serve new buildings on the Granton development site. The site is of mixed use with approx 3000 homes and 9,000m<sup>2</sup> non-domestic space, including a primary school, medical centre, business, retail and leisure. The projects looks to create the heat network with the potential to connect to nearby areas of heat demand to the south of site including existing schools and a leisure centre.

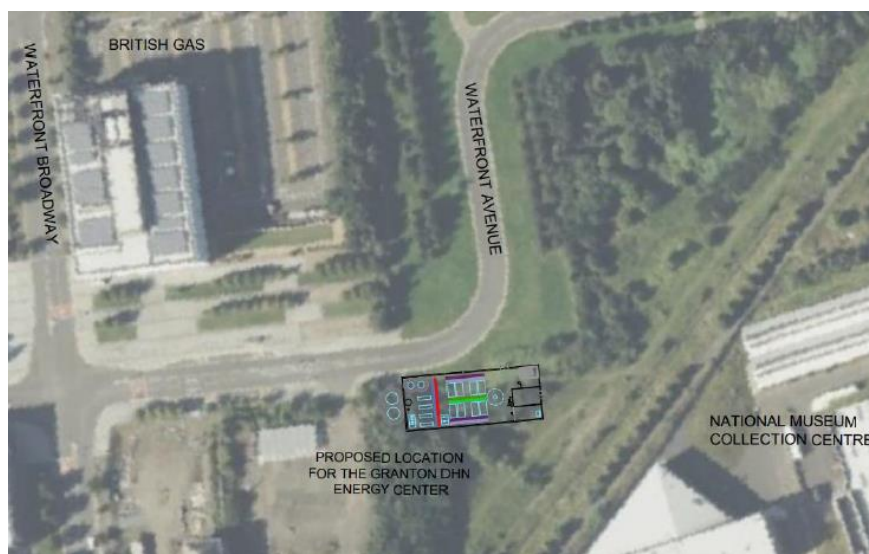


Figure 13. Proposed location of energy centre (© Ramboll)



# Edinburgh Airport Low Carbon Heat Network

**Lead organisation:**  
Edinburgh Airport Ltd

**Project Stage:**  
Pre-Capital - OBC

**Technology type(s):**  
Proposed new heat network

**Location:**  
Edinburgh Airport, Edinburgh

**Type of support:**  
£42,350 Scotland's Heat in Buildings Development Funding Invitation Grant

**Project Timeframe:**  
OBC due to be submitted in 2023

**Project description:**  
The project will develop the technical and economic case for a district heat network which would supply heat to Edinburgh Airport, while acknowledging opportunities for future expansion to the Crosswinds and West Town developments (eg with regard to energy centre/pipe sizing).

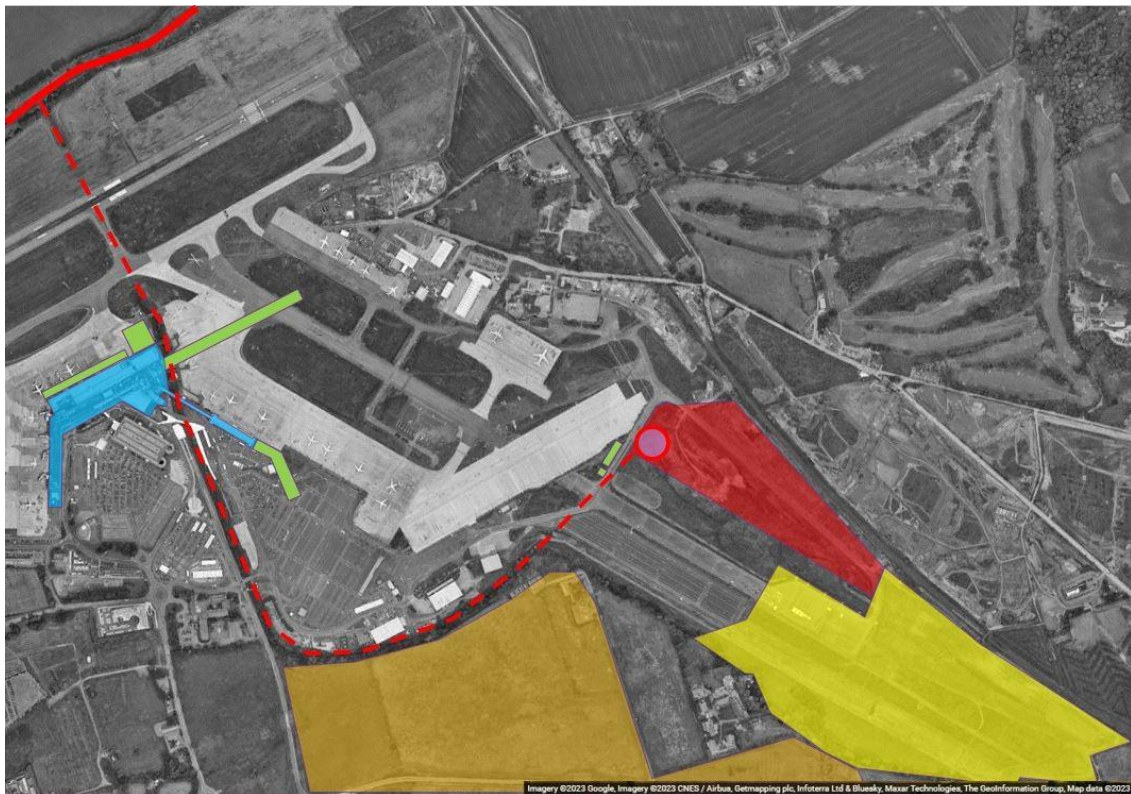


Figure 14. Aerial view of Edinburgh Airport Heat Network proposed scale (©Google Images)

# Hamilton Heat Network

## Lead organisation:

South Lanarkshire Council

## Project Stage:

Pre-Capital – Detailed Feasibility

## Technology type(s):

Proposed new heat network

## Location:

Hamilton

## Type of support:

£35,000 HNSU Grant

## Project Timeframe:

Feasibility report submitted January 2023

## Project description:

Proposed heat network centred around the council headquarters, and investigating the connection of several other non-domestic public sector properties, tower blocks and proposed new-build housing in the area. Ground source heat pumps are the recommended primary heat supply technology.



Figure 15. South Lanarkshire Council HQ Building (© Calum Robertson, Zero Waste Scotland)

# Blindwells Heat Network

Lead organisation:  
Hargreaves Land

Project Stage:  
Pre-Capital – Detailed Feasibility

Technology type(s):  
Proposed new heat network

Location:  
Blindwells, East Lothian

Type of support:  
£30,000 HNSU Grant

Project Timeframe:  
Feasibility report submitted February 2023

## Project description:

The project involves a quarry and mine regeneration scheme creating new-build residential and commercial properties. A suggested approach is recovering heat from minewater which will be fed through an ambient loop to households each of which will have individual heat pumps.



Figure 16. Water treatment reed bed lagoons at minewater site (Credit: Buro Happold on behalf of Zero Waste Scotland)

# Edinburgh Gracemount

## Lead organisation:

City of Edinburgh Council

## Project Stage:

Pre-Capital – Detailed Feasibility

## Technology type(s):

Proposed new heat network

## Location:

South Edinburgh

## Type of support:

£45,000 HNSU Grant

## Project Timeframe:

Feasibility report completed February 2023

## Project description:

Network for public sector buildings including council-owned offices, an NHS health centre and an Edinburgh Leisure building in close proximity. The project proposes using both air source and ground source heat pumps to provide low carbon heat.



Figure 17. Gracemount Primary School (Credit: Buro Happold on behalf of Zero Waste Scotland)

# Barrhead Mainstreet

## Lead organisation:

East Renfrewshire Council

## Project Stage:

Pre-Capital – Detailed Feasibility

## Technology type(s):

Proposed new heat network

## Location:

Barrhead, Glasgow

## Type of support:

Circa £35,000 HNSU Grant

## Project Timeframe:

Feasibility study due December 2023

## Project description:

This project proposes a new heat network for public sector buildings that include a leisure centre and library, council offices and a primary school. Potential heat sources include sewer heat recovery and a water source heat pump.



Figure 18. Barrhead main street building

# Eastwood Park

**Lead organisation:**  
East Renfrewshire Council

**Project Stage:**  
Pre-Capital – Detailed Feasibility

**Technology type(s):**  
Proposed new heat network

**Location:**  
Eastwood Park, Glasgow

**Type of support:**  
Circa £35,000 HNSU Grant

**Project Timeframe:**  
Feasibility study due December 2023

**Project description:**  
This project proposes a new heat network with sewer water heat recovery as a potential source. The proposed heat network would supply public sector buildings that include Eastwood Park Campus, schools and a leisure centre.



Figure 19. Example of Eastwood Park Council building

# St Andrews

## Lead organisation:

University of St Andrews

## Project Stage:

Pre-Capital – Detailed Feasibility

## Technology type(s):

Extension of existing heat network (heat source: biomass)

## Location:

St Andrews, Fife

## Type of support:

£50,000 HNSU Grant

## Project Timeframe:

Feasibility study underway due Autumn 2023

## Project description:

This project proposes the extension of an existing biomass heat network in and around St Andrews. Since its commissioning in 2017 the existing heat network, sourced by a 6.5MW biomass boiler has provided heating and hot water to 50 University campus buildings via 27 km of pipe, accumulating savings of 20,000 tCO<sub>2</sub>e. The feasibility study will explore different options to identify a preferred extension scenario, which could include public sector buildings, schools and hospitality venues.



Figure 20. St Andrews (Courtesy / © of University of St Andrews)

# Dundee Baldovie

## Lead organisation:

MVV Environment Baldovie Ltd

## Project Stage:

Pre-Capital – Detailed Feasibility

## Technology type(s):

Proposed new heat network

## Location:

Whitefield & Douglas area, Dundee

## Type of support:

Up to £50,000 HNSU Grant

## Project Timeframe:

Feasibility due March 2024

## Project description:

This project proposes the creation of a heat network for the Whitefield and Douglas area with heat supply from the Baldovie Energy from Waste facility. The proposed heat network would supply a newbuild school with potential to extend the scheme towards Dundee City Centre.



Figure 21. Baldovie EfW facility (Credit: MVV)





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Edinburgh  
EH1 3DG

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