

Heat Network Projects Quarterly Report

**Scottish Government Supported Heat
Network Projects**

March 2024

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) 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 capital 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.

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 that provide a range of support services via the HNSU. The HNSU have recently enhanced its offering to local authorities through the Strategic Heat Network Support.

This report also refers to the now closed Heat in Buildings Development Funding Invitation. This 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 was the forerunner to the Heat Network Support Unit.

The Scottish Government has also provided substantial capital support to heat networks currently under construction through the Low Carbon Infrastructure Transition Programme (LCITP). The LCITP is now closed to new applications, but we continue to report on the progress of funded projects. This document refers to LCITP funded heat network projects, a full list of all LCITP funded projects can be found here: [Low Carbon Infrastructure Transition Programme reports - gov.scot \(www.gov.scot\)](https://www.gov.scot/publications/low-carbon-infrastructure-transition-programme-reports-2022/pages/10/index.aspx).

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/publications/heat-network-fund-application-guidance-2022/pages/10/index.aspx)
- Heat Network Support Unit: [Home - Heat Network Support Unit](https://www.gov.scot/publications/heat-network-support-unit/pages/10/index.aspx)

For questions relating to the projects summarised in this document or fund enquiries, please direct these to HeatNetworkFund@gov.scot or 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 Grant

Project Timeframe:
Predicted commissioning 15/04/2025

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 began on site in October 2023 and complete in April 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 September 2024

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 began construction in March 2023 and commission in September 2024.



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:
£8,971,492.00 SHNF Grant

Project Timeframe:
Predicted commissioning March 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 587 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 date March 2024

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)

LCITP Capital Projects

AMIDS District Heating Network

Project Organisation:
Renfrewshire Council

Technology type(s):
Treated water converted into ambient heat directed through underground network and upgraded using heat pumps

Location:
Paisley, Renfrewshire

Grant value:
£3,136,968

Completion date:
March 2023

Project description:
Renfrewshire Council has developed a state-of-the-art, low carbon heating network at the Advanced Manufacturing Innovation District Scotland (AMIDS) including the National Manufacturing Institute Scotland (NMIS) and the Medicines Manufacturing Innovation Centre. The first of its kind in Scotland, the fifth-generation renewable energy network works by directing treated water into a new energy centre, where low temperature heat is extracted and channelled through a 3.7km underground pipe loop. Heat pumps at each building upgrade this heat to suitable levels for heating and hot water. The network provides a cost-effective route to low carbon heating, an attractive proposition for major manufacturers locating at AMIDS and is future-proofed to supply further developments nearby.



Figure 5. Energy Centre at AMIDS heat network (© Paul Zanre)

Abbey Ecosse

Project Organisation:
Abbey Ecosse

Technology type(s):
Energy system comprising an anaerobic digestion plant, biogas engine, peak demand biogas boiler, EV chargers, electrical storage and grid export.

Location:
Forss Energy and Business Park, Thurso

Grant value:
£1,111,975 LCITP Grant

Completion date:
February 2024

Project description:
The Project will install and commission an integrated low carbon energy network, which comprises of a combination of an anaerobic digestion (AD) plant providing heat and power to the site; biogas gas engine; peak demand biogas boiler; electrical storage and grid export. The Old Poultny Distillery will provide by-products to the AD plant for the generation of biogas. EV charging points will be used by commuters between Thurso and establishments such as Dounreay Nuclear Facility as well as by tourists utilising the North Coast 500 route. It is estimated that the project will achieve carbon savings of 130,612 kgCO₂e pa, representing a 86% reduction relative to business as usual.

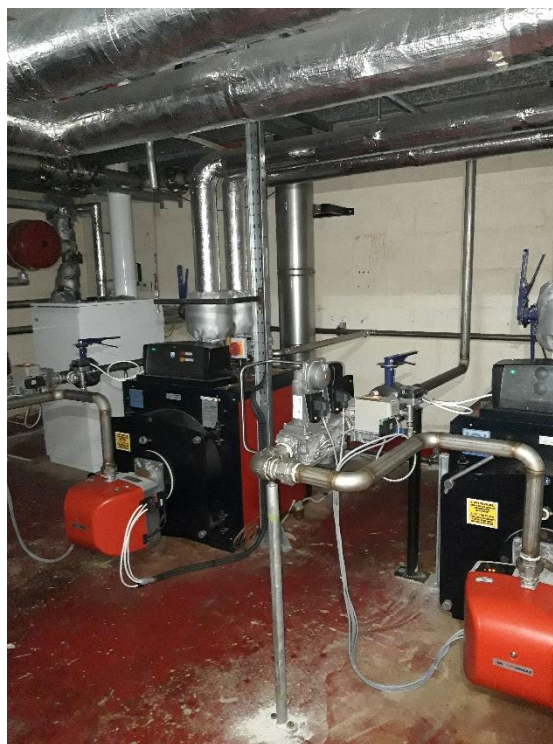


Figure 6. Two renewable biogas boilers (Credit: Abbey Ecosse)

Torry Heat Network, Phase 1

Project Organisation:
Aberdeen City Council

Technology type(s):
Heat network, Energy from Waste (EfW)

Location:
Torry, Aberdeen

Grant value:
£5,787,235 LCITP Grant

Completion date:
Winter 2023

Project description:
The project developed a new district heating network, distributing heat from a Heat Distribution Facility at Tullos Recycling Centre and a heat offtake at the new Energy from Waste plant at Tullos. The project links to the existing HeatNet district heat network to provide additional connections to domestic, local authority and third sector customers. LCITP funding was granted for the construction of the new district heating network infrastructure, and the construction of the undertrack rail crossing, enabling district heat network pipework to be routed between Greenwell Road and Tullos Primary School.



Figure 7. Domestic properties connected to the Torry Heat Network (© Aberdeen City Council)

Zero Carbon Affordable Homes

Project Organisation:
LAR Housing Trust

Technology type(s):
Shared-ground loop heat pumps and thermal storage

Location:
Fountainbridge, Edinburgh

Grant value:
£128,283 LCITP Grant

Predicted completion date:
April 2024

Project description:
The project will install a shared group loop array heating system with ground source heat pumps and high efficiency heat batteries to serve 14 properties (10 affordable flats and 4 houses) in Fountainbridge, Edinburgh. The 10 flats included in the project will then be made available for mid-market rent. The project is predicted to produce carbon savings of 47,560 kg CO₂e when compared to business-as-usual scenarios when it commissions in April 2024.



Figure 8. Aerial view of the Fountainbridge development (© Peter Devlin)

Glen Mhor Heat Project

Project Organisation:
Glen Mhor Ltd

Technology type(s):
Energy centre with 1MW water source heat pump

Location:
Glen Mhor Hotel, Inverness

Grant value:
£1,646,642 LCITP Grant

Predicted completion date:
March 2024

Project description:

The project will install and commission a new energy centre which will house a 1 MW water source heat pump and use water from the River Ness to supply heat to the Glen Mhor Hotel in Inverness. It is hoped that additional connections to the heat network may be feasible in the future, such as connecting a planned Brewery and Visitor Centre development at the hotel as well as a nearby Church of Scotland and social housing development. However, none of these connections have been confirmed at this stage.

The project is expected to reduce emissions by approximately 730 tonnes CO₂ pa and commission in March 2024.



Figure 9. Glen Mhor Energy Centre (© Glen Mhor Hotel)

Millerhill Low Carbon District Heating Project

Project Organisation:
Midlothian Council

Technology type(s):
Construction of energy centre and heat network using heat from the Millerhill Energy from Waste Plant

Location:
Shawfair, Midlothian

Grant value:
£7,407,000 LCITP Grant

Predicted completion date:
Summer 2024

Project description:
The Project will install an exemplar low carbon district heating network at the new, emerging town of Shawfair which uses heat from the Millerhill Energy from Waste plant to deliver heat to the first plots of the Shawfair development. This initial network will be capable of expansion into the wider Midlothian, East Lothian and Edinburgh areas. The new joint venture ESCO between Midlothian Council, Vattenfall Heat UK and Midlothian Energy Limited has now been established and will lead on securing relevant heat off-take and supply agreements with the relevant parties and establishing an appropriate and a tiered tariff structure for end users.



Figure 10. Energy centre for the Millerhill Low Carbon District Heating Project (© Vattenfall)

Granton Waterfront Western Villages

Project Organisation:

The City of Edinburgh Council

Technology type(s):

District heating system using air and water source heat pumps; solar PV, energy efficiency improvements and enhanced utilities with smart controls for metering and billing.

Location:

Granton Waterfront Development, North Edinburgh

Grant value:

£4,102,801 LCITP Grant

Predicted completion date:

October 2024

Project description:

The project will deliver low carbon heat to 444 new-build properties in the Granton Waterfront Western Villages development through the use of nine external air source heat pumps, seven water to water heat pumps and a district heating pipe network to each apartment block. Each property will also be fitted with solar PV, enhanced utilities and fabric improvements. The predicted carbon savings from the project are approximately 317.8 tonnes CO₂ pa- when compared to a gas heating system.



Figure 11. Image of the energy centre with ASHPs at Western Villages site (© City of Edinburgh Council)

Clyde Heat

Project Organisation:

Peel NRE Developments Ltd

Technology type(s):

Water source heat pumps, high efficiency back up boilers and heat network infrastructure

Location:

Glasgow Harbour Development

Grant value:

£5,100,000 LCITP Grant

Predicted completion date:

December 2025

Project description:

The project will install two 1.5MW water source heat pumps which will supply low carbon heat via a heat network. The heat network will serve the Glasgow Harbour Development, notably Yorkhill Quay and Therme spa. The project will commission 15.2MW of high efficiency boilers to meet peak loads. The development is planned to consist of a mix of commercial, residential and leisure end users who will be offered low carbon heat at a competitive rate.



Figure 12. CGI image of Yorkhill Quay (© Peel Waters)

Heat Network pre-capital projects

Edinburgh BioQuarter

Lead organisation

City of Edinburgh Council

Project Stage:

Pre-capital – Detailed Feasibility Study complete

Technology type(s):

Proposed new heat network and potential connection to existing heat network (primary heat source: energy from waste)

Location:

BioQuarter site, Little France Drive, Edinburgh

Type of support:

£47,125 HNSU Grant and advisory support

Project Timeframe:

Feasibility Study completed May 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 and potential connection to Midlothian Energy Limited's Heat Network, the first phase of which is currently in construction.



Figure 13. Aerial view of the Edinburgh BioQuarter site (Credit: Oberlanders Architects)

Dundee Caird Park

Lead organisation:
Dundee City Council

Project Stage:
Pre- Capital – Detailed Feasibility Study complete

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. Council considering next steps as part of LHEES.

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 assess the viability of these additional connections.



Figure 14. Regional Performance Centre, Dundee (Credit: Dundee City Council)

Inverness West Bank

Lead organisation:

The Highland Council

Project Stage:

Pre-Capital – Detailed Feasibility Study complete

Technology type(s):

Proposed new heat network

Location:

Inverness

Type of support:

£36,000 HNSU Grant

Project Timeframe:

Feasibility report completed April 2023. Council 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 15. 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 complete

Technology type(s):
Proposed new heat network

Location:
Inverness

Type of support:
£27,500 HNSU Grant

Project Timeframe:
Feasibility report completed April 2023. Council 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 16. 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 Study complete

Technology type(s):

Proposed new heat network

Location:

Perth

Type of support:

£36,000 HNSU Grant

Project Timeframe:

Feasibility report completed in March 2023. Council considering next steps as part of LHEES.

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 17. 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 complete

Technology type(s):

Proposed new heat network

Location:

Fort William

Type of support:

£17,000 HNSU Grant

Project Timeframe:

Feasibility report completed 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.

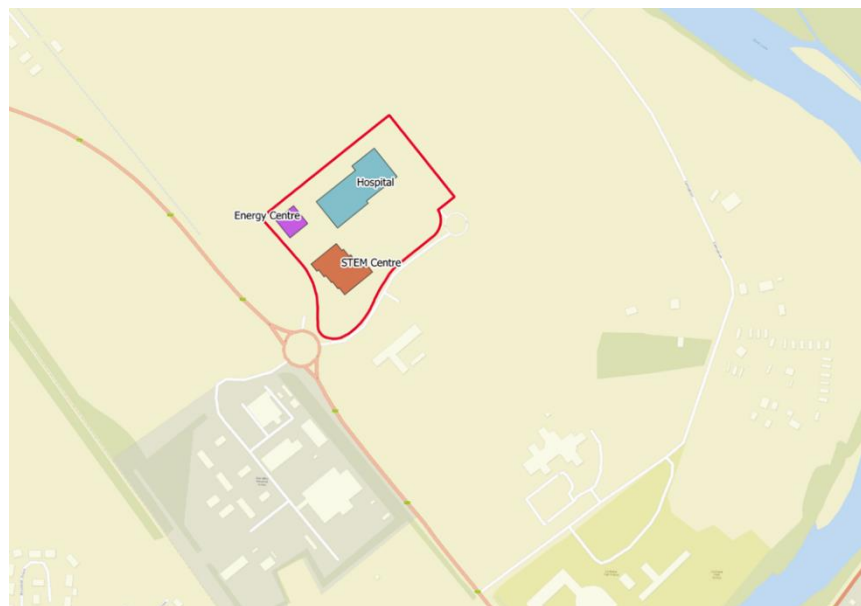


Figure 18. Proposed energy centre and connection locations (Source: Buro Happold on behalf of Zero Waste Scotland)

Glasgow Polmadie

Lead organisation:
Glasgow City Council

Project Stage:
Pre-Capital – Detailed Feasibility Study complete

Technology type(s):
Proposed new heat network

Location:
Glasgow

Type of support:
£44,000 HNSU Grant

Project Timeframe:
Feasibility report completed September 2023. Further technoeconomic work being undertaken.

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 19. 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)

Location:

Clydebank

Type of support:

Capacity building and OBC support

Project Timeframe:

OBC completed in June 2023. Stakeholder considering next steps.

Project description:

The project proposes the extension of the Queens Quay heat network to connect to the Golden Jubilee Hospital.



Figure 20. 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 approved the appointment of a development partner Vattenfall during November 2023, and are targeting financial close (signing of concession agreement) in Q3 2024.

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 9,000m² non-domestic space, including a primary school, medical centre, business, retail and leisure. The projects aims to create the heat network with the potential to connect to nearby areas of heat demand to the south of the site, including existing schools and a leisure centre.

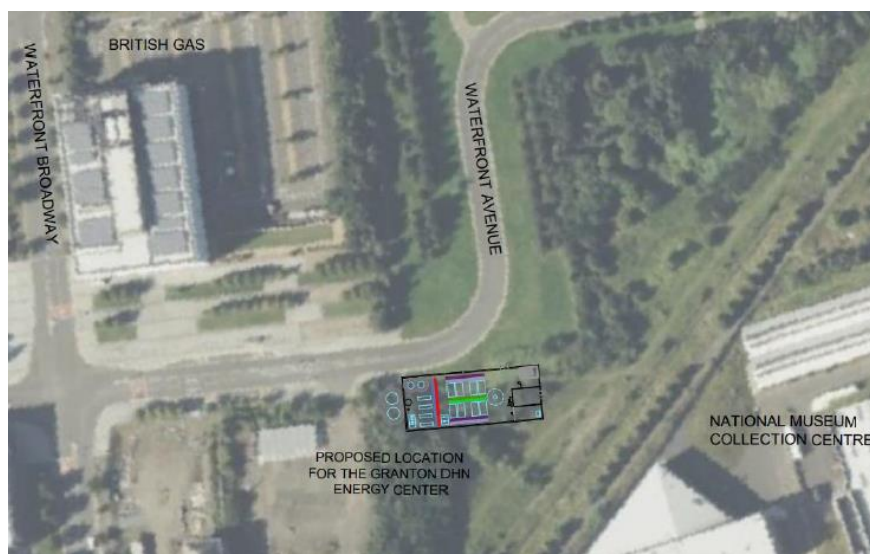


Figure 21. Proposed location of energy centre (© Ramboll)

Edinburgh Airport Low Carbon Heat Network

Lead organisation:
Edinburgh Airport Ltd

Project Stage:
Pre-Capital - OBC complete

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 completed November 2023. Stakeholder considering next steps.

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).

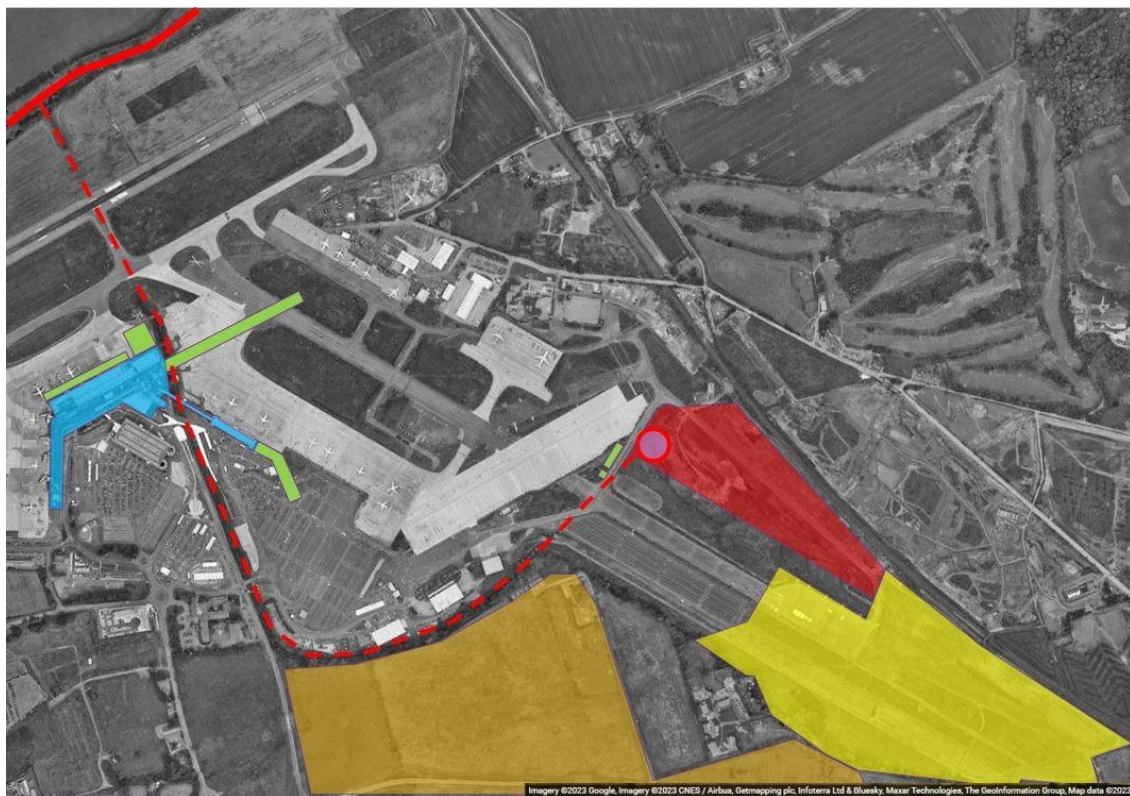


Figure 22. Aerial view of Edinburgh Airport Heat Network proposed scale (©Google Images)

Hamilton Heat Network

Lead organisation:

South Lanarkshire Council

Project Stage:

Pre-Capital – Detailed Feasibility Study complete

Technology type(s):

Proposed new heat network

Location:

Hamilton

Type of support:

£35,000 HNSU Grant

Project Timeframe:

Feasibility report submitted January 2023. Intention to progress to OBC.

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

Blindwells Heat Network

Lead organisation:
Hargreaves Land

Project Stage:
Pre-Capital – Detailed Feasibility Study complete

Technology type(s):
Proposed new heat network

Location:
Blindwells, East Lothian

Type of support:
£30,000 HNSU Grant

Project Timeframe:
Feasibility report completed February 2023.

Project description:

The project involves the redevelopment of a former quarry and mine for new-build residential, public 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 24. 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 Study complete

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 25. 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 Study

Technology type(s):

Proposed new heat network

Location:

Barrhead, Glasgow

Type of support:

£36,635 HNSU Grant

Project Timeframe:

Feasibility study completed January 2024.

Project description:

This project proposes a new heat network for for public sector buildings including 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 26. Barrhead main street building

Eastwood Park

Lead organisation:
East Renfrewshire Council

Project Stage:
Pre-Capital – Detailed Feasibility Study

Technology type(s):
Proposed new heat network

Location:
Eastwood Park, Glasgow

Type of support:
£38,413 HNSU Grant

Project Timeframe:
Feasibility study completed January 2024. Stakeholder considering next steps.

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 including Eastwood Park Campus, schools and a leisure centre.



Figure 27. Example of Eastwood Park Council building

St Andrews University HN Extension

Lead organisation:

University of St Andrews

Project Stage:

Pre-Capital – Detailed Feasibility Study

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 to complete in March 2024. Intention to progress to OBC.

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 tCO₂e. The feasibility study will explore different options to identify a preferred extension scenario, which could include public sector buildings, schools and hospitality venues.



Figure 28. St Andrews (Courtesy / © of University of St Andrews)

Dundee Baldovie

Lead organisation:

MVV Environment Baldovie Ltd

Project Stage:

Pre-Capital – Detailed Feasibility Study complete

Technology type(s):

Proposed new heat network

Location:

Whitefield & Douglas area, Dundee

Type of support:

£49,974 HNSU Grant

Project Timeframe:

Feasibility study completed February 2024. Stakeholders considering next steps.

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 study will assess potential anchor loads in the vicinity of the Energy from Waste facility, and the potential to extend towards the city centre.



Figure 29. Baldovie EfW facility (Credit: MVV)

Renfrewshire Howwood Park

Lead organisation:
Renfrewshire Council

Project Stage:
Pre-Capital – Feasibility study complete

Technology type(s):
Proposed new heat network

Location:
Howwood, Renfrewshire

Type of Support:
£11,953 HNSU Grant

Project Timeframe:
Pre-feasibility completed December 2023.

Project description:

Renfrewshire Council are planning a housing led Regeneration and Renewal Programme within 8 areas of Renfrewshire. Within the Howwood Road area, an estate which currently contains 371 residential properties has been selected to undergo extensive regeneration works. The HNSU are supporting pre-feasibility work to explore a district heating solution for this area and gain a better understanding of the size of the opportunity.



Figure 30. Howwood Road, aerial view of planned heat network connections (Credit: Renfrewshire Council)

Renfrewshire Foxbar Rivers

Lead organisation:
Renfrewshire Council

Project Stage:
Pre-Capital – Feasibility study complete

Technology type(s):
Proposed new heat network

Location:
Foxbar, Paisley

Type of Support:
£11,953 HNSU Grant

Project Timeframe:
Pre-feasibility completed December 2023.

Project description:

Renfrewshire Council are planning a housing led Regeneration and Renewal Programme within 8 areas of Renfrewshire. Within the Foxbar Rivers area, Renfrewshire Council are looking to build approximately 40 units comprising of several different house types and sizes. The HNSU are supporting pre-feasibility work to explore a possible district heating solution for this area and gain a better understanding of the size of the opportunity.

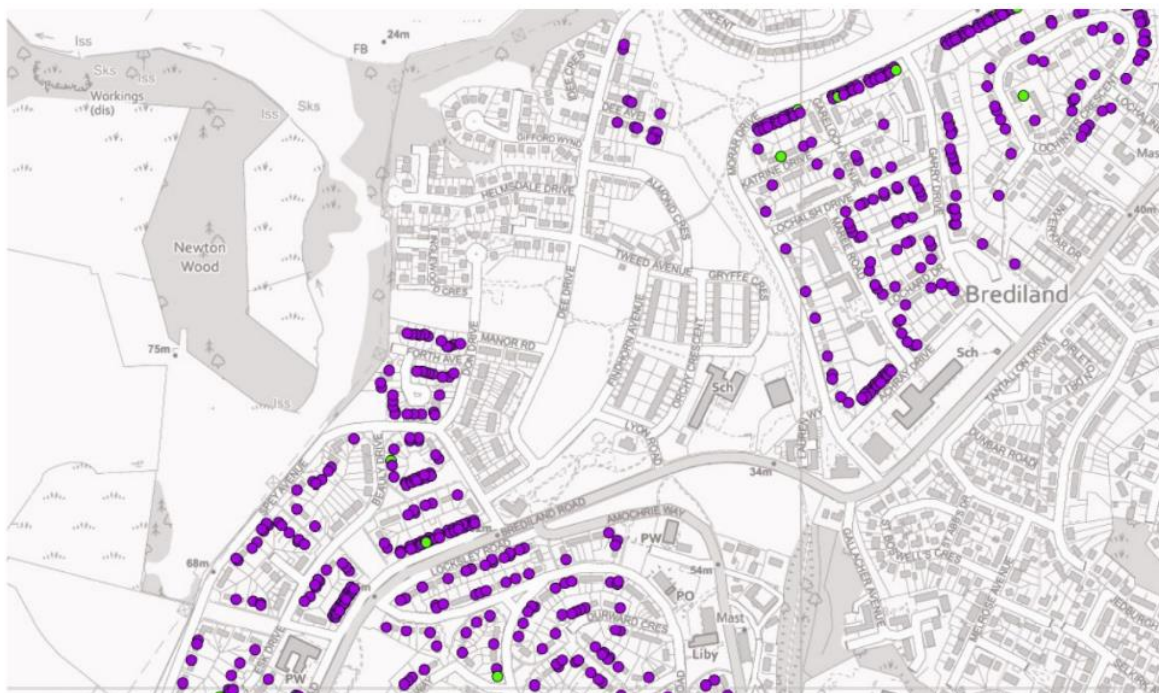


Figure 31. Foxbar area proposed for retrofit (Credit: Renfrewshire Council)

Paisley East

Lead organisation:
Renfrewshire Council

Project Stage:
Pre-Capital – Detailed Feasibility Study

Technology type(s):
Proposed new heat network

Location:
Paisley East

Type of Support:
Up to £50,000 HNSU Grant

Project Timeframe:
Feasibility report due March 2024.

Project description:

Paisley Council are looking to develop a district heating network in Paisley East connecting the Town Hall, Paisley Abbey, Renfrewshire House, Lagoon Leisure Centre, Police station and some council-owned residential housing. Potential heat sources include wastewater heat recovery, river, ground and air source heat pumps.



Figure 32. Paisley East proposed heat network scale (Credit: Buro Happold). Background satellite imagery © 2023 Google

Paisley West

Lead organisation:
Renfrewshire Council

Project Stage:
Pre-Capital – Detailed Feasibility Study

Technology type(s):
Proposed new heat network

Location:
Paisley West

Type of Support:
Up to £50,000 HNSU Grant

Project Timeframe:
Feasibility report due March 2024.

Project description:

Paisley Council are looking to develop a district heating network in Paisley West. Potential connections include the University of the West of Scotland, Piazza shopping centre, Hotel planned near Barga, Castlehead Highschool, Royal Alexandria Hospital, planned new development around Paisley shopping centre and museum and residential areas. Potential heat sources include wastewater heat recovery, river, ground and air source heat pumps.



Figure 33. Paisley West proposed heat network scale (Credit: Buro Happold). Background satellite imagery © 2023 Google

Paisley North

Lead organisation:
Renfrewshire Council

Project Stage:
Pre-Capital – Detailed Feasibility Study

Technology type(s):
Existing heat network extension

Location:
Paisley North

Type of Support:
Up to £50,000 HNSU Grant

Project Timeframe:
Feasibility report due March 2024.

Project description:

Paisley Council are looking to extend the existing AMIDS heat network in Paisley South with the proposed area being Paisley North. Potential connections include Glasgow International Airport, hotels south of the airport, education buildings and future industrial buildings at the AMIDS development. The existing AMIDS heat source is a wastewater treatment works. Alternative (or additional) heat sources include river, ground and air source heat pumps.



Figure 34. Paisley North proposed heat network scale (Credit: Buro Happold). Background satellite imagery © 2023 Google

Callendar Park

Lead organisation:
Falkirk Council

Project Stage:
Pre-Capital – Detailed Feasibility Study

Technology type(s):
Existing heat network extension

Location:
Callendar Park, Falkirk

Type of Support:
£40,141 HNSU Grant

Project Timeframe:
Feasibility report due February 2024.

Project description:

Falkirk Council is looking to upgrade and extend an existing gas CHP heat network in the Callendar Park area. The CHP system currently powers 9 of the 11 tower blocks in the area and requires upgrading in the next 5 years. The proposed extension would power the existing 9 tower blocks, in addition to Callendar Business Park and two local schools. There is also potential to extend to the town centre, towards the new Falkirk Town Hall.



Figure 35. Callendar Park – Existing Social Housing Tower Connections (Source: Zero Waste Scotland)

Tweedbank

Lead organisation:
Scottish Borders Council

Project Stage:
Pre-Capital – Detailed Feasibility Study

Technology type(s):
Proposed new heat network

Location:
Tweedbank

Type of Support:
Up to £50,000 HNSU Grant

Project Timeframe:
Feasibility report due March 2024.

Project description:

Scottish Borders Council are looking to develop a new heat network that serves a mixed-use development. This development includes 300-400 properties, a community centre, care village and business space. Tweedbank is a key anchor load and there is potential to expand west to Galashiels and east to Melrose. There is also potential to extend to the town centre, towards the new Falkirk Town Hall.



Figure 36. Tweedbank project area (Source: Scottish Borders Council)

The Crichton Trust

Lead organisation:

Dumfries and Galloway Council

Project Stage:

Pre-Capital – Detailed Feasibility Study

Technology type(s):

Proposed new heat network

Location:

Crichton Estate

Type of Support:

Up to £50,000 HNSU Grant

Project Timeframe:

Feasibility report due April 2024.

Project description:

The Crichton Trust are looking to develop a new heat network that serves the mixed-use buildings on Crichton Estate, Dumfries and Galloway College, Scottish Rural Agricultural College, Brownhill Primary School, 3 NHS buildings and domestic properties. Potential heat sources include ground source heat pump, river source heat pump and wastewater treatment plant.



Figure 37. Crichton Trust Estate (Source: Zero Waste Scotland)

University of Stirling

Lead organisation:
University of Stirling

Project Stage:
Pre-Capital – Detailed Feasibility Study

Technology type(s):
Decarbonising and expanding existing combined heat and power heat network

Location:
Stirling

Project Timeframe:
Commencing in FY 2024-25

Type of Support:
Up to £50,000 HNSU Grant

Project description:

The University of Stirling are looking into decarbonising and expanding the existing heat network on campus. The pre-feasibility study identified that the optimal route to decarbonisation was through the installation of combination of ground source heat pump and air source heat pumps, with electric boilers installed for peaking. The proposed expansion would include four new connections including university buildings, a local hotel and innovation park with the potential to also connect additional neighbouring properties.



Figure 38. University of Stirling (Credit: University of Stirling)

Greenock River Clyde Homes

Lead organisation:
River Clyde Homes

Project Stage:
Pre-Capital – Detailed Feasibility Study

Technology type(s):
Expansion of existing heat network

Location:
Greenock

Project Timeframe:
Commencing in FY 2024-25

Type of Support:
Up to £50,000 HNSU Grant

Project description:

River Clyde Homes are looking to expand their current heat network at Broomhill. The existing energy centre serves 517 homes and currently relies on biomass. There are an additional two thousand of the Association's housing stock located within a 2km radius that are not currently connected to the network. The association would also consider expanding the network to include buildings and property owners not within the RCH Group including Inverclyde Council, NHS and other social landlords within the Central Greenock area who own and maintain schools, leisure centres, health care centres and hospitals.



Figure 39. Energy Centre at Broomhil Court (Source: River Clyde Homes)

Elgin Town Centre

Lead organisation:
Moray Council

Project Stage:
Pre-Capital – Detailed Feasibility Study

Technology type(s):
Proposed new heat network

Location:
Elgin City

Project Timeframe:
Commencing in FY 2024-25

Type of Support:
Up to £50,000 HNSU Grant

Project description:

Moray Council intend to undertake a feasibility study looking at combining two potential heat network areas as identified in their LHEES. Those areas include the town centre of Elgin and the adjacent area around the Moray Leisure Centre and Elgin Academy. The centre of Elgin includes buildings such as Elgin Town Hall, Elgin Library, Moray Council HQ and Moray Growth Deal projects in South Street.

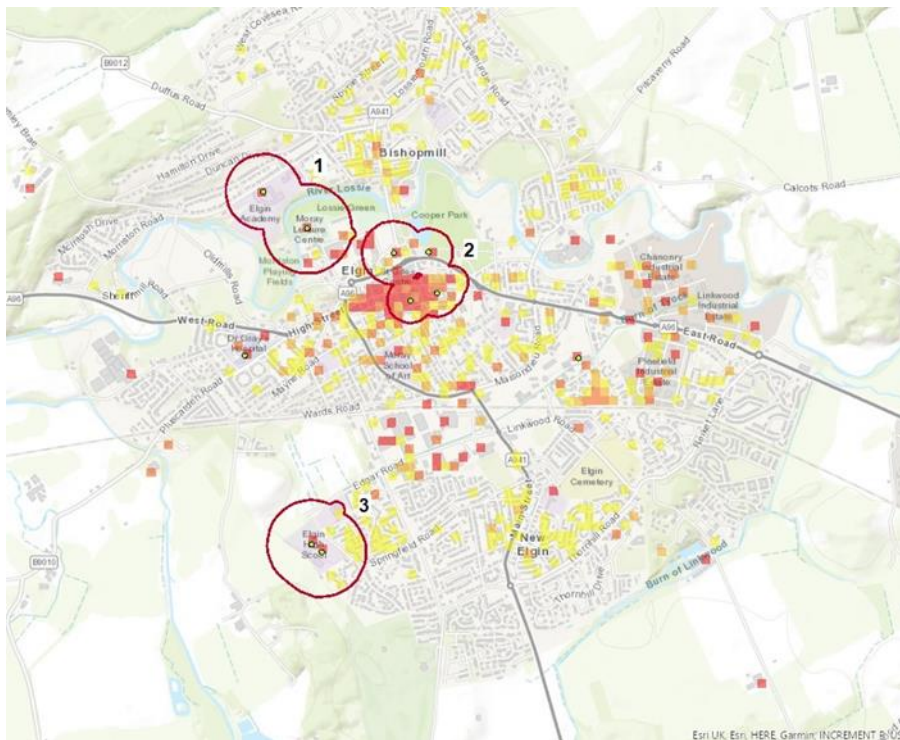


Figure 40. Identification of potential heat network zones in Elgin (Source: Moray Council Local Heat and Energy Efficiency Strategy)

Abertay University

Lead organisation:
Abertay University

Project Stage:
Pre-Capital

Technology type(s):
Proposed new heat network

Location:
Abertay University, Dundee

Project Timeframe:
On-going

Type of Support:
HNSU Critical-friend support

Project description:

The project focuses on the energy centre which is located within an existing building on the Abertay campus. The HNSU are supporting Abertay University to determine the scope and technical solution of the project and assess whether a new heat network for the campus would be financially viable on its own and if not, providing clarification on any project dependencies. Building level solutions, small sewer pipe connection and large sewer pipe connection are also being considered as options.



Figure 41. 'A new green oasis in the campus heart' (Source: Grimshaw Architects)



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