



**Glasgow City Council**

**Net Zero and Climate Progress Monitoring City Policy Committee**

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**UPDATE ON THE LOCAL HEAT AND ENERGY EFFICIENCY STRATEGY (LHEES)**

**Purpose of Report:**

To provide Committee with an update on the Local Heat and Energy Efficiency Strategy (LHEES)

**Recommendations:**

The Committee is asked to:

- 1) Note the contents of this report, and
- 2) Request a further update in 12 months

**Ward No(s):**

**Citywide: ✓**

**Local member(s) advised: Yes  No ✓    consulted: Yes  No ✓**

## 1. Introduction

1.1 The purpose of this report is to provide committee with an update on Glasgow's Local Heat and Energy Efficiency Strategy (LHEES). The report includes background information on the LHEES, an update on developments in the national landscape around heating decarbonisation since publication of the LHEES and a progress update on LHEES delivery.

## 2. Background

2.1 The concept of Local Heat & Energy Efficiency Strategy (LHEES) was introduced following Scottish Government consultation in 2017. This was followed by the [Heat in Buildings Strategy](#) published in October 2021 which confirmed that the introduction of area based LHEES are fundamental to the Scottish Government's approach to heat decarbonisation.

2.2 The creation of an LHEES brings together key priorities around the reduction of carbon emissions, improvement of domestic and non-domestic building stock and the need for affordable warmth. The development of an LHEES required consideration of these priorities in a comprehensive way to ensure that action addresses inequalities, expressly that of fuel poverty, and enables a just transition to net-zero carbon by 2030. Heating Glasgow's buildings contributes significantly to the city's total emissions.

2.3 The production of an LHEES became a statutory duty for local authorities in May 2022 through The [Local Heat and Energy Efficiency Strategies \(Scotland\) Order 2022](#). This required local authorities to publish their strategy and associated delivery plans by the 31st of December 2023; renewal of both is required on a five-year cycle.

## 3. Glasgow's LHEES

3.1 [Glasgow's LHEES](#) was approved by the City Administration Committee in November 2023, with Glasgow City Council being the first local authority in Scotland to publish their LHEES.

3.2 Emissions from gas, which heats 84% of domestic properties in the city, accounts for 43% of total emissions in Glasgow. The LHEES is therefore a critical piece of strategy to the overall ambition of becoming Net Zero by 2030. Glasgow's LHEES provides a citywide assessment of where interventions relating to the decarbonisation of heating and fuel poverty would have the greatest impact. Accompanying this is a delivery plan that identifies key actions aimed at progressing these interventions.

3.3 The overarching ambition of Glasgow's LHEES is to provide **affordable, reliable and low carbon heat that helps the city reach its net zero carbon target in a just and inclusive manner by 2030**. Successful delivery of this

ambition will be achieved by focusing on reducing demand, decarbonising supply, and decentralising heating systems.

3.4 Glasgow's LHEES covers four key areas, each of which have been determined by an assessment of the challenges and opportunities unique to Glasgow's net zero heat transition. Developing each section involved spatial analysis and key actions are included in the LHEES to support their progression. These include:

- 3.4.1 **Heat Networks.** Due to the high heat demand within condensed areas of Glasgow alongside multiple opportunities for harnessing renewable or low carbon heat at scale, heat networks are a key focus for the LHEES. As such, the LHEES includes a strategic assessment of where in the city heat networks would be most feasible, alongside a delivery plan that explores how some of the common barriers to developing district scale heat networks could be overcome in a local context. Glasgow's LHEES identified 21 Indicative Heat Network Zones where it is believed that heat networks present the most viable heating decarbonisation intervention.
- 3.4.2 **Individual or Communal Heating Solutions.** Heat networks will not serve as the only solution to decarbonisation of supply. The LHEES identified concentrations of domestic properties suitable for either individual or communal heating solutions. This work has analysed thermal performance alongside planning conditions that may impede installation.
- 3.4.3 **Poor Energy Efficiency as a Driver of Fuel Poverty.** The LHEES has identified concentrations of domestic properties in which poor energy efficiency may be contributing to high levels of fuel poverty. This work has aligned with current funding streams to ensure that practical action can be taken quickly.
- 3.4.4 **Pre-1919 Tenemental Properties.** From a retrofit and decarbonisation perspective, tenemental properties, which characterise much of the city's architectural landscape, are classed as 'hard to treat'. They will likely require a targeted and novel approach to enable solutions to be developed at the scale required for Glasgow. The LHEES has identified where these properties are most prevalent in the city and the recently published Housing Retrofit Position Statement outlines the next stages the Council will take to address this archetype.

#### **4. National Developments Since Publication**

- 4.1 The national landscape on heat policy continues to evolve at pace in Scotland and the UK – both having a significant impact on the trajectory and focus of Glasgow's approach.
- 4.2 The [Heat Networks \(Scotland\) Act 2021](#) establishes the regulatory framework to significantly expand heat networks. Secondary legislation surrounding the Act was expected to closely follow the deadline for local authorities, but has not

yet been published. Provisions for [Building Assessment Reports](#)<sup>1</sup> and [Heat Network Zoning](#) are in place but there is yet to be clarity on consenting and permitting regimes expected through the secondary legislation of the Act. The consenting and permitting regimes are key provisions within the Heat Networks (Scotland) Act from Glasgow's perspective as they are anticipated to be two of the mechanisms that will enable local authorities to maintain a strategic approach to heat network deployment in their areas.

4.3 **Heat in Buildings Bill.** The Heat in Buildings Bill is a Scottish Government proposal for new laws to transition all buildings in Scotland to cleaner heating systems by 2045 and to improve the energy efficiency of homes and workplaces. The Scottish Government [consulted on the aspects of the bill](#), and Glasgow City Council submitted a [response](#) to this. Aspects of the Bill relevant to Glasgow's LHEES include:

- A clean heating target of 2045
- The potential mandatory connection of certain buildings into a heat network
- Minimum energy efficiency standards for owner occupied and privately rented homes.

The Bill was paused in March 2025 due to challenges in aligning socio-economic and net zero outcomes through the Bill. The proposals within the Bill would significantly support Glasgow's plans as outlined in the LHEES, particularly proposals regarding mandatory connection into heat networks and the City Council continues to engage the Scottish Government closely on this. It is expected that the Bill will be brought back to Scottish Parliament during 2026.

4.4 The [Energy Act 2023](#) was published just after the approval of Glasgow's LHEES and aims to support the just transition to net zero heating across the UK. The most significant aspect of this as it relates to Glasgow was the establishment of Ofgem as the regulator of heat networks across the UK. The Act also brought in for England (i) heat network zoning powers for local authorities and (ii) a framework for mandatory connection of certain buildings into heat networks.

4.5 The [Heat Network Technical Assurance Standards \(HNTAS\)](#) was established as an output of the Energy Act and is being developed by Ofgem. The HNTAS provides for the first time regulation regarding technical standards and consumer protections for heat networks. The development of HNTAS is due for completion in 2025 and Glasgow City Council has been actively involved as a stakeholder in the development process for this.

4.6 [Review of Electricity Market Arrangements \(REMA\)](#). Glasgow's LHEES highlighted the UK Government's REMA as having the potential to accelerate the deployment of heat networks by reducing the cost of electricity required to

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<sup>1</sup> Requirement through the Heat Networks (Scotland) Act 2021 for all public sector organisations to undertake audits on their buildings to assess suitability for heat network connection.

power large heat pumps which are likely to form a significant part of the supply mix for heat networks in Glasgow. REMA included an exploration of the decoupling of electricity and gas markets and an exploration into the potential for zonal pricing across the UK, which had the potential to reduce electricity costs in Scotland where there was a higher proportion of renewable energy generation. Since Glasgow's LHEES publication, the REMA has concluded that both options will not be progressed by the UK Government, changing the trajectory and focus of Glasgow's LHEES.

## 5. LHEES Delivery Update

5.1 With a focus on heat networks as outlined in the LHEES, delivery is split into three phases<sup>2</sup>:

- Phase 1: Creating an Investible Landscape
- Phase 2: Initial Project Delivery
- Phase 3: Expansion

5.2 Phase 1 focuses on pre-capital and engagement works alongside the development of a delivery model that can unlock the capital and expertise required to deliver district scale heat networks. This phase will run for the full course of the first LHEES (2024-2029). Phase 2 involves delivery of initial heat networks, building on Phase 1. Phase 3 then looks to growing the heat networks sector in Glasgow – expanding into areas initially less feasible and enabling more domestic connections.

5.3 A full update on all LHEES actions can be found in appendix 1 of this report, with the sections below highlighting key updates.

5.4 Of the 25 Actions contained within the LHEES:

- 7 Actions are Blue (completed)
- 11 Actions are Green (on track)
- 7 Actions are Yellow (minor delay/issues)

5.5 The LHEES in its publication was described as a living document – the policy landscape was evolving at pace (and continues to do so), and this was the first time any local authority had produced an LHEES so it was without precedent. As such, the scope of some actions including the action owner and the delivery timescales are now understood to be ambitious.

5.6 The following factors have influenced this:

- The Model for Climate Investment (MfCI): Discussed in section 7.2, exploration into the MfCI has concluded that aspects of the LHEES delivery plan will be more appropriate to be taken forward through any delivery partnership with the private sector that may be established. This has affected the phasing of some of the Actions.

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<sup>2</sup> [Local Heat and Energy Efficiency Strategy](#), Glasgow City Council, pg 62

- Policy developments at national level: The legislative and policy landscape surrounding heat and fuel poverty is continually evolving at both Scottish and UK Government levels. This is affecting the prioritisation of certain Actions within the Delivery Plan.

5.7 Appendix 1 provides a more detailed update on each of the 25 actions. As we understand more from the development of the Model for Climate Investment, we will review all actions in line with this. The RAG rating included within Appendix 1 is therefore based on the current delivery against each of the actions.

5.8 In relation to heat networks, Glasgow is currently in Phase 1 of LHEES Delivery – creating an investible landscape. This is discussed further below and is split into three themes: (i) technical work (ii) financing heat networks and (iii) stakeholder engagement.

## 6. LHEES Delivery Update - Technical Work

6.1 As part of Phase 1 of LHEES delivery, Glasgow City Council has been progressing a number of projects aimed at improving the Council's technical understanding of the opportunities presented by heat networks in Glasgow.

6.2 **GRREC study:** In May 2024, Glasgow City Council completed a study, accessing c. £50,000 of funding from the Scottish Government's Heat Network Support Unit (HNSU)<sup>3</sup>, to assess the technical and economic feasibility of a localized heat network using heat from the Glasgow Recycling and Renewable Energy Centre (GRREC). The GRREC was identified in the LHEES as a key heat source and the area surrounding it was subsequently identified as a primary Indicative Heat Network Zone<sup>4</sup>. This study sought to build on the analysis undertaken within the LHEES. Two heat network scenarios were considered and both showed positive long-term investability and significant carbon reductions for those buildings considered for connection (82-97% carbon reduction compared to current heating systems). Outputs from this study are being used to inform the Model for Climate Investment (discussed in section 7.2 of this report). A [report on the GRREC study](#) was brought to committee in May 2024.

## 6.3 Heat Network Strategic Vision

6.3.1 In May 2025, Glasgow City Council completed a study, accessing c. £140,000 of funding from the Scottish Government's HNSU to develop a strategic heat network vision for Glasgow – building on the analysis undertaken through the LHEES. The study was a significant piece of work and constituted the next stage in LHEES master planning, building on the analysis completed for the

<sup>3</sup> The HNSU is sponsored and managed by the Scottish Government, with partners Scottish Futures Trust (SFT) and Zero Waste Scotland (ZWS) providing a range of support services.

<sup>4</sup> Primary Heat Network Zone – A zone with sufficient demand density and a key renewable or low carbon supply opportunity. Secondary Heat Network Zone – A zone with sufficient demand density but unclarified from a supply perspective.

LHEES to inform the development of the Model for Climate Investment. Key outputs of the study included:

- An Excel Dashboard Tool to assess the 21 Indicative Heat Networks Zones identified in the LHEES, summarising (i) technical characteristics (ii) heat sources and demands and (iii) energy balancing across all IHNZs.
- A multi-criteria analysis to support prioritisation and sequencing of IHNZs for delivery – highlighting major strategic sources like the River Clyde, the GRREC and the South Clyde Energy Centre (currently under construction).

6.3.2 The study provides a strong technical basis upon which to guide stakeholder engagement, procurement and a phased rollout of heat networks across the city. Outputs are being used to inform the development of the Model for Climate Investment by providing the Council with an understanding of the balance between the commercial and socio-economic advantages associated with heat network deployment in the Indicative Heat Network Zones.

#### **6.4 Dalmarnock Village Heat Network**

6.4.1 Glasgow City Council owns one heat network in the city - the Dalmarnock Village Heat Network (formerly Commonwealth Games Athlete's Village Heat Network). Through the LHEES programme, the Council is exploring future options for the Dalmarnock Village (DV) heat network, considering how the network can integrate into wider heat network plans for the city and critically, how the network can support the establishment of a Delivery Vehicle through the development of the Model for Climate Investment (MfCI). It is understood that, in the context of the MfCI, the DV is an anchor asset for the Council – having the potential to catalyse wider heat network rollout in the IHNZ where the DV is located.

6.4.2 In relation to the DV heat network, the following work has been completed or is underway –

- The connection of an additional 41 homes to the DV heat network, now completed.
- Collaboration with Vital Energi (who are responsible for the operation and maintenance of the DV) to identify and progress interventions that can improve the operational efficiency of the DV.
- A feasibility study currently underway (due for completion in March 2026), utilising £50,000 of HNSU funding, to assess the technical and economic feasibility of (i) adding further connections to the DV, including social housing stock alongside a number of GCC and other public sector buildings (ii) decarbonising the network, which is currently heated via gas-CHP, building on the 'HN Strategic Vision' work and (iii) exploring the possible interconnection of the DV to Clyde Gateway's heat network, located in the same area of the city.

- Continued engagement with Registered Social Landlords who own stock close to the DV, including the Wheatley Group, Tollcross Housing Association, and Parkhead Housing Association.

## 6.5 Other Technical Work

6.5.1 Alongside the key initiative outlined above, Glasgow City Council has progressed the following technical work –

6.5.2 **Net Zero Routemap.** Presented to Committee in [November 2024](#), the Net Zero Routemap provides the scientific evidence to underpin Glasgow's net zero ambition and establishes a scientific basis for scenario planning that is both rigorous and flexible.

6.5.3 **NetZeroCities.** Glasgow was awarded Mission Label Status by NetZeroCities in 2025, joining a cohort of European cities aiming to achieve net zero by 2030. This has allowed Glasgow City Council to receive expert support on a range of initiatives relating to net zero. As part of this, GCC is initiating studies aimed at identifying innovative pathways to further decarbonise and reduce GCC energy bills – part of this will explore how increased deployment of localised power generation may support equitable roll out of heat networks.

6.5.4 **Private Wire Study.** In partnership with the University of Strathclyde and using the University's "Impact Accelerator" funding, Glasgow City Council is exploring how innovative approaches to power transmission may lower the cost of heat for customers connected into future heat networks in Glasgow – namely the exploration of private wire electricity being supplied directly into large heat pumps where heat pumps have been determined as the optimal supply for a heat network.

6.5.5 **DESNZ<sup>5</sup> Advanced Zoning Programme.** Glasgow City Council worked with DESNZ as they developed the English methodology for Heat Network Zoning, with Glasgow being the first local authority in Scotland where this was tested. This supported alignment of the Scottish and UK Government approaches to heat network zoning and allowed GCC to cross-reference the analytical approach taken in the LHEES.

6.5.6 **Grid Capacity Study.** As part of the HN Strategic Vision project – Glasgow City Council worked with Scottish Power Energy Networks (SPEN) to analyse grid capacity at possible energy centre locations in each Indicative Heat Network Zone.

6.5.7 **Townrock Geothermal.** Glasgow City Council worked with Townrock Geothermal who provided an assessment of geothermal supply opportunities per Indicative Heat Network Zone.

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<sup>5</sup> Department for Energy Security and Net Zero, UK Government body

## 7. LHEES Update - Financing Heat Networks

7.1 Glasgow's LHEES highlighted that significant volumes of capital would be required to deliver on the ambitions for district-scale heat networks in the city. As such, a key focus for Phase 1 of LHEES delivery has been identifying financing and funding routes that could enable this. Glasgow City Council has been focusing on the development of a Model for Climate Investment that seeks to identify financing for heat networks.

7.2 **Model for Climate Investment.** As part of the LHEES, Glasgow City Council confirmed intentions to explore the establishment of a model to enable the investment and expertise required to deliver district-scale heat networks in the city and support the wider net zero programme – the Model for Climate Investment (MfCI). An [update report](#) on the MfCI was brought to Committee in May 2025.

7.3 **3Ci Net Zero Neighbourhoods.** During 2025, Glasgow City Council and [3Ci](#) collaborated on a [Net Zero Neighbourhood pilot in Govanhill](#). The joint project aimed to create an actionable investment case for decarbonising the area of Govanhill. A key output of the project was an exploration of possible financial models that could support the mass connection of tenemental stock into heat networks, building on the GRREC study discussed in section 6.2 of this report. This analytical study provided valuable information to inform the investment approach to decarbonisation of heat at a neighbourhood level, ensuring that solutions are responsive to local need.

## 8. LHEES Update - Stakeholder Engagement

8.1 Delivering the LHEES will require comprehensive engagement of a range of different stakeholders including GCC officers, elected members, building owners, residents, and numerous strategic partners including Ofgem and the Scottish Government. The stakeholder engagement activity that is being progressed in Phase 1 of the LHEES delivery is outlined in the sections below.

8.2 **CCI Workshop.** In March 2025, the Centre for Civic Innovation (CCI) facilitated a workshop for NRS Sustainability which examined how LHEES engagement could be designed to ensure maximum impact and support for the heat transition. The workshop (i) scoped key groups to engage with, (ii) helped outline rationales for engagement, (iii) created stakeholder engagement processes per identified group and (iv) identified next steps for NRS Sustainability.

8.3 **Internal Engagement for Policy Alignment.** Robust engagement across relevant GCC teams continues through the LHEES programme to ensure that policy is aligned across the multiple strategic Council priorities which the LHEES addresses. Whilst the LHEES programme is led by NRS Sustainability, it receives critical input from, and provides output into, multiple departments across the Council including –

- **Economic Development.** Economic Development are leading on developing the Model for Climate Investment. NRS Sustainability provides strategic and technical support into the MfCI.
- **Housing.** NRS Sustainability and Housing maintain a close working relationship to ensure alignment of priorities across teams under the LHEES programme. NRS Housing have responsibilities for the aspects of the LHEES that relate to the retrofit of domestic properties to address heating-based emissions and fuel poverty.
- **Planning.** Planning teams are currently developing the second iteration of the City Development Plan and work is ongoing to ensure that the priorities of the LHEES are embedded within the CDP2.
- **Finance/Legal/Procurement.** Finance, Legal, and Procurement are all supporting the development of the Model for Climate Investment.

8.4 **Internal Upskilling – Danish Board of District Heating Event.** On the 8<sup>th</sup> of October 2025, Glasgow City Council hosted colleagues from the Danish Board of District Heating (DBDH) for an event aimed at upskilling officers and Elected Members on the LHEES and heat networks. The event discussed how the commercial and ownership models for heat networks work in Denmark (where the heat network sector is mature) and highlighted how Glasgow's ambitions around heat networks will impact on different services within the Council. The event was well attended with 13 Elected Members and 6 officers across Roads and Planning services in attendance.

8.5 **'Commit to Connect' MOU.** NRS Sustainability Officers, with support from Legal Services and Scottish Futures Trust, have developed a legally non-binding Memorandum of Understanding (MOU), aimed at owners of large buildings within the LHEES Indicative Heat Network Zones (IHNZs). By collecting signatories of the MOU, the Council can build investor confidence in heat networks in the City. The MOU is also operating as an engagement mechanism for key stakeholders within the IHNZs. Alongside this, officers will request that building owners voluntarily complete a **Building Assessment Report** (discussed in section 4.2 of this report) which at present only public sector organisations are mandated to complete. The Sustainable Glasgow Partnership is currently working to design and deliver launch events for the MOU, starting with the initial signature of Sustainable Glasgow members. Launch events anticipated to take place before 2026.

8.6 GCC have been active in engagement with Gren in relation to their Energy on Clyde project which seeks to increase the volume of district heating available in the city.

## 9. Summary of Next Steps

9.1 Over the next 12 months, the following developments are expected in relation to LHEES delivery:

- The **Model for Climate Investment** will progress market engagement to inform the Outline Business Case development and the ultimate partnership arrangement. This will involve robust market engagement. The Financial Business Case is projected for completion by November 2026.
- Glasgow City Council will launch the '**Commit to Connect**' MOU and begin collecting signatures from buildings owners within Indicative Heat Network Zones, alongside collection of Building Assessment Reports. This will confirm the technical suitability of buildings to connect alongside their appetite to connect.
- There will be developments in the **legislative and regulatory regimes** in Scotland and the UK including (i) the establishment of HNTAS (ii) secondary legislation for the Heat Networks Act may be published (iii) a new Heat in Buildings Bill will be brought before Scottish Parliament.
- The Scottish Government funded, GCC-led feasibility study into the **Dalmarnock Village** will be completed in March 2026 and next steps will be determined from this.
- There will be **continued engagement** across a range of stakeholders relevant to the heating decarbonisation sector.

## 10. Policy and Resource Implications

### Resource Implications:

*Financial:* There are no new financial implications arising from the report.

The report raises no new legal issues.

### *Legal:*

*Personnel:* The delivery of the LHEES has been managed through current staff resources within the Sustainability and Housing Teams.

*Procurement:* No procurement issues raised by this report.

### Equality and Socio-Economic Impacts:

*Does the proposal support the Council's Equality Outcomes 2021-25? Please specify.* Yes. The delivery of the LHEES supports Equality Outcomes. Progress towards decarbonising heat in Glasgow will require the creation of new training and employment opportunities.

*What are the potential equality impacts as a result of this report?* One of the aims of the LHEES is to help reduce fuel poverty rates across Glasgow. Action to mitigate high fuel costs is likely to benefit all equality groups.

*Please highlight if the policy/proposal will help address socio-economic disadvantage.*

**Climate Impacts:**

*Does the proposal support any Climate Plan actions? Please specify:*

A reduction in fuel poverty across the city via the development of local heat networks and improved energy performance of housing.

*What are the potential climate impacts as a result of this proposal?*

Yes. The LHEES supports the ambition of the Climate Plan and the need to reduce carbon emissions relating to Glasgow's built environment. In reducing emissions from heat and improving energy efficiency, the LHEES will broadly support the Climate Plan and Glasgow's journey toward net zero carbon by 2030. Specifically, it supports Actions 8, 9, 14, 15, 17, 23, 24, 34, 39, 41, 42, 44, 46, 50.

*Will the proposal contribute to Glasgow's net zero carbon target?*

A reduction in carbon emissions relating to the heating of buildings both by reducing demand for heat and decarbonising the supply of heat. Support will be provided to the green economy in the form of the creation of jobs and increased green investment into the city.

**Privacy and Data Protection Impacts:**

Yes. By reducing emissions relating to the built environment, the LHEES will have a direct positive impact on Glasgow's net zero carbon target.

Not directly applicable to this report. Any data used is either publicly available or will be transferred under the jurisdiction of a Data Sharing Agreement between project partners.

## 11 Recommendations

The Committee is asked to:

- 1) Note the contents of this report, and
- 2) Request a further update in 12 months



## Appendix 1 – Progress Update on LHEES Delivery Plan



Action ID	Action	How We Will Get There	Status update - November 2025	Measurable outcomes	RAG
<b>L1</b>	Evaluate delivery models for deploying heat networks in Glasgow, including establishing an energy partnership, and agree development route	<p>Identify the most practical and feasible mechanism for delivering heat networks in Glasgow considering –</p> <ul style="list-style-type: none"> <li>• GCC risk appetite</li> <li>• GCC investment capacity</li> <li>• GCC investment appetite</li> <li>• Market appetite</li> </ul>	£4m internal budget committed to exploration of delivery models. Strategic Outline Case completed, moving into OBC stage with commercial dialogue anticipated in November. Should a formal partnership be determined the optimal approach, this is set for establishment in 2026.	<p>Establishment of appropriate model for delivering heat networks in Glasgow.</p> <p>Launching of procurement to deliver preferred model.</p>	
<b>L2</b>	Initiate technoeconomic feasibility studies for all primary indicative Heat Network Zones	<p>Initiate techno-economic feasibility studies for all primary indicative Heat Network Zones.</p> <p>A prioritisation list will be developed for sequencing of feasibility works. Primary zones will be prioritised first whilst supply opportunities are clarified for secondary zones. Where opportunities are identified, secondary zones will be reclassified as primary and proceed to feasibility.</p> <p>This action will help to clarify specific Heat Network Zones for formal designation.</p>	Technoeconomic study completed for South 2 IHNZ (containing the GRREC). Existing work completed for city centre via Climate Neutral Innovation District (CNID) remains within scope. Recently confirmed Scottish Government funding for feasibility on the Dalmarnock Village including (i) expansion (ii) decarbonisation and (iii) coupling with Clyde Gateway heat network. Recently completed HN Strategic Vision consultancy work included full prioritisation and phasing of IHNZs. A decision has been made to leave full feasibility to any forthcoming delivery vehicle.	Completion of feasibility studies relating to the primary Indicative Heat Network Zones (IHNZs)	

L3	Commence development of business cases for all zones where heat networks have been determined as a feasible heat decarbonisation pathway	<p>Upon the completion of techno-economic feasibility studies, develop zone specific business cases.</p> <p>Indicative Heat Network Zones that show the most potential will be prioritised. This LHEES serves as the citywide strategic business case.</p>	This action will be progressed through the MfCI.	Completion of business cases for all primary Indicative Heat Network Zones (IHNZs)	
L4	Initiate development of a full business case for a heat network in Indicative Heat Network Zone South 2 and City	<p>Build on the recently completed technoeconomic feasibility study for harnessing surplus heat from the GRREC to develop a full business case for a heat network in indicative Heat Network Zone South 2.</p> <p>Build on the development of the Climate Neutral Innovation District by initiating development of a full business case for City Indicative Heat Network Zone.</p> <p>This action will help to clarify specific Heat Network Zones for formal designation. Heat Network Zones will be subject to a Strategic Environmental Assessment at the point of designation.</p>	This action will be progressed through the MfCI. Full technoeconomic feasibility study completed for South 2 and existing work on City through the Climate Neutral Innovation District remains in scope.	Initiation of full business case development for Indicative Heat Network Zones 'South 2' and 'City'	
L5	Ensure that the upcoming Net Zero Roadmap is developed in conjunction with the zone-specific outputs of the LHEES	<p>Ensure LHEES zone specific outputs are landed into the upcoming Net Zero Roadmap.</p> <p>This should involve a more integrated assessment of the wider impacts on energy systems should heat networks be implemented in the zones, including an assessment on the interaction between retrofit and district heating.</p>	NZRM utilised analysis and policy positions within the LHEES to inform outputs. NZRM now completed and has been completed in full alignment with the LHEES.	Completion of a Net Zero Roadmap that incorporates the outputs of the LHEES.	

L6	Complete Building Assessment Reports (BARs) for required GCC owned buildings	<p>Complete Building Assessment Reports for required GCC owned buildings, prioritising those that are of a high suitability for heat network connection and are located within indicative Heat Network Zones.</p> <p>Facilitate and support other public sector organisations in Glasgow to discharge this duty.</p>	<p>GCC is currently developing a software platform to complete BARs duty, having committed £20,000 to this. As Glasgow is the largest local authority in Scotland, GCC likely has the most amount of BARs to complete. This is why an approach that automated the process is being pursued. The platform is due for completion before 2026.</p>	<p>Number of BARs completed.</p> <p>Improved 'confidence per MWh' level within Indicative Heat Network Zones.</p>	
L7	Facilitate and support public sector organisations to discharge their duty to complete BARs	<p>Create a generic email for BAR submission to GCC.</p> <p>Engage with public sector organisations to facilitate BAR submission</p>	<p>Received BARs from following organisations SEPA, Historic Environment Scotland, Glasgow Clyde College, Clyde Gateway, Police Scotland, Royal Conservatoire of Scotland. GCC is engaging with public sector bodies through MOU/BARs initiative. NRS Sustainability officer has been named as appropriate contact for BARs submission.</p>	<p>Number of BARs completed.</p> <p>Generic email created.</p> <p>Improved 'confidence per MWh' for submitting organisations heat demand data.</p>	
L8	Work with the nondomestic sector in Glasgow to promote the voluntary submission of BARs ahead of expected national legislation	<p>Promote the voluntary submission of BARs for non-domestic buildings, prioritising those within indicative Heat Network Zones.</p> <p>This will refine the heat network zoning process as per the regulations and allow for building prioritisation based on suitability and connection interest from high heat consuming properties</p> <p>GCC will work with organisations and groups already engaged with the non-domestic sector, such as the Sustainable Glasgow Board and the Chamber of Commerce, to facilitate delivery.</p>	<p>GCC is hosting an event before 2026 to engage and incentivise non-domestic building owners to voluntarily submit BARs alongside signature of our 'Commit to Connect' MOU</p>	<p>Number of non-domestic BARs completed.</p> <p>Improved 'confidence per MWh' level within Indicative Heat Network Zones.</p>	

<b>L9</b>	<p>Quantify the maximum potential for heat extraction from the River Clyde to support identification and legal designation of Heat Network Zones where the River Clyde is the primary supply option.</p>	<p>Build on the recently completed assessment of the renewable heat extraction potential in the River Clyde and incorporate the findings into the development of techno-economic feasibility studies and business cases for indicative Heat Network Zones where the River Clyde presents as a key supply opportunity.</p> <p>This will be delivered in cognisance of the work being undertaken to better quantify the River Clyde as a supply opportunity for the Climate Neutral Innovation District though will consider the river as a whole.</p>	<p>The HN Strategic Vision consultancy work provided analysis as to the maximum potential of heat extraction from the River Clyde. This included consideration of how the Clyde could be used as a primary heat source across multiple Indicative Heat Network Zones.</p>	<p>Completion of technical feasibility studies for all Indicative Heat Network Zones within proximity of the River Clyde that include the potential to extract heat from the river.</p>	
<b>L10</b>	<p>Quantify opportunities for low carbon or renewable heat supply in Glasgow where potential is less clarified including, though not limited to:</p> <ul style="list-style-type: none"> <li>• Deep geothermal</li> <li>• Heat from mine workings</li> <li>• Heat from wastewater treatment plants/ wastewater network</li> <li>• Ground Source</li> <li>• Other sources of waste heat</li> </ul>	<p>Work with relevant stakeholders to quantify the renewable or low carbon heat opportunities in Glasgow to support the development of techno-economic feasibility studies and business cases for indicative Heat Network Zones. Including, though not limited to:</p> <ul style="list-style-type: none"> <li>• Deep Geothermal. incorporate the outputs of the recently completed pilot study into the potential for deep geothermal heat extraction.</li> <li>• Mine Workings. Work with the Coal Authority to produce a geospatial database highlighting any potential locations suitable for the extraction of heat from disused mine workings.</li> <li>• This work will consider the outputs from the current project to develop a 3D Mine Map being delivered by the University of Strathclyde</li> <li>• Wastewater. Utilise Scottish Water Horizons recently launched tool for analysis of heat potential from the wastewater network to clarify supply opportunities within secondary indicative heat network zones.</li> <li>• Work with Scottish Water Horizons to clarify the opportunity to extract heat from the Shieldhall Wastewater Treatment Plant.</li> <li>• Geothermal. GCC will work internally with our Geotech team to provide initial ground suitability for heat pump install within</li> </ul>	<p>The HN Strategic Vision consultancy work provided supply side analysis across all Indicative Heat Network Zones. This included an assessment of geothermal, energy from waste, water source heat pumps, heat recovery from (i) wastewater (ii) distilleries (iii) launderettes and (iv) bakeries. This analysis also included an energy balancing assessment which considered the supplies available in the context of the demand proximate. The opportunity for deep geothermal will be taken forward through the Model for Climate Investment.</p>	<p>Quantified assessment of the potential for renewable or low carbon heat supply for use in the production of technical feasibility studies for all Indicative Heat Network Zones.</p> <p>Reclassifying of secondary Indicative Heat Network Zones to primary.</p>	

		<p>indicative heat network zones.</p> <ul style="list-style-type: none"> <li>• Other Sources of Waste Heat. GCC continue to be actively involved in the newly launched Waste Heat Steering Group which is evaluating how best to unlock the potential for waste heat in Scotland.</li> </ul>			
<b>L11</b>	Embed the LHEES Delivery Plan into the Climate Programme to ensure appropriate governance established	<p>Update the Climate Programme to include the LHEES Delivery Plan</p> <p>This will be presented to the Climate Board to ensure buy-in across all GCC service areas</p>	This action is complete.	Updated Climate Programme	
<b>L12</b>	Embed the LHEES into the upcoming Climate Change Engagement Framework	<p>Include LHEES engagement considerations within the upcoming Climate Change Engagement Framework. This should include mapping and phased engagement of potential customers within Heat Network Zones alongside a citywide communications campaign to raise the profile of district heating in Glasgow.</p>	<p>The LHEES is being embedded into the developing approach to Climate Engagement, which will look to use the LHEES as a pilot strategy. In parallel to this the following engagement initiatives/activities have taken place: the creation of a 'commit to connect' MOU, a CCI facilitated workshop, Upskilling sessions for elected members and officers, updates to relevant working groups, committees and boards. Aspects of the engagement programme for the LHEES will most likely be taken forward via the emerging delivery vehicle. Such activities may include the engagement approach to residents in the city - the timing of which is important.</p>	<p>Production of a Climate Change Engagement Strategy that considers engagement relating to heating-based emissions.</p>	
<b>L13</b>	Incorporate LHEES outputs into the development of the Community Renewable Energy Framework (CREF)	<p>Ensure that opportunities for community heating schemes are included in the upcoming CREF being delivered through the Climate Plan.</p> <p>This will have a direct link to the delivery areas identified for the On Gas Grid LHEES Consideration</p>	<p>The CREF has now been launched and pre-applications for all sites have been received. Heating systems are in scope for CREF projects. GCC is also considering options to further integrate the CREF and the LHEES through the Model for Climate Investment, this is being actively explored.</p>	<p>The publication of a framework for community renewable energy schemes that incorporates considerations around community heating schemes.</p>	

L14	Work with GCC Climate Finance Framework to identify investment into required infrastructure. This will include identification of funding streams including though not limited to -the Scottish National Investment Bank and the Strathclyde Pension Fund Organisation	Work with organisations including, though not limited to, SNIB and SPFO, 3Ci to develop better understanding on how to leverage finance at scale for large scale district heating or energy efficiency projects.  This action will be delivered through the GCC Climate Finance Framework.	This action is being progressed through the Model for Climate Investment initiative, which is scoping sources of patient public sector capital to support its ambitions.  Work with 3Ci on their Net Zero Neighbourhoods initiative is now complete - the study analysed the Govanhill area of the city (within one of the LHEES primary IHNZs) to scope the connection of the tenemental stock into a prospective heat network.	Annual updates on successful investments will be brought to Committee	
L15	Initiate the production of an options appraisal report for the ownership and future development of the existing heat network at the Dalmarnock Village (Formerly the Commonwealth Games Athlete's Village)	Develop an options appraisal report in conjunction with GCC Asset Management and Vital Energi to assess, though not limited to – <ul style="list-style-type: none"><li>• Future ownership models</li><li>• Pathway to decarbonising the heat network including increased operational efficiency and decarbonised supply</li></ul>	GCC has recently been awarded Scottish Government funding to scope options for the future of the Dalmarnock Village including (i) adding connections (ii) decarbonising (iii) interconnection with Clyde Gateway's heat network. The future of the Dalmarnock Village is being considered in conjunction with the MfCI.	Decision on ownership model of Dalmarnock Village heat network.  Options appraisal report highlighting potential routes to decarbonisation.	
L16	Ensure the LHEES is embedded into the development and delivery of Council policy on energy, housing, planning, and development.	Work with GCC partners to ensure the LHEES is embedded into the delivery of the <ul style="list-style-type: none"><li>- Local Housing Strategy</li><li>- Housing Retrofit Strategy and Delivery Plan</li><li>- City Development Plan</li><li>- Carbon Management Plan</li></ul>	<b>Local Housing Strategy (Housing Retrofit Position Statement).</b> NRS Sustainability and Housing maintain a close working relationship to ensure alignment of priorities across teams under the LHEES programme. NRS Housing have responsibilities for the aspects of the LHEES that relate to the retrofit of domestic properties to address heating-based emissions and fuel poverty. The HRPS has built on the work completed through the LHEES.  <b>City Development Plan 2 (CDP2)</b> Work on producing City Development Plan 2 (CDP2) commenced in 2023. It is anticipated that CDP2 will be adopted in 2027. In the Fourth National Planning Framework (NPF4), Policy 19 Heating and Cooling sets out a requirement for local development plans to take into account the area's Local Heat and Energy Efficiency Strategy (LHEES). The spatial strategy should take into account any areas of heat network potential and any designated Heat Network Zones (HNZs).	Publication of strategies relevant to the LHEES with the ambitions of the LHEES embedded within them.	

		<p>In accordance with the NPF4, the relationship between LHEES and CDP2 will be reciprocal – with each one informing the other. With input from the findings of the work undertaken for the LHEES, CDP2 could:</p> <ul style="list-style-type: none"> <li>• where known, identify and designate appropriate areas for infrastructure to support zero emission heating, including appropriate space needed for upgrading electricity networks (to support greater network capacity for powering of heat pumps – whether installed in individual buildings or as part of a heat network – and electric vehicles) and appropriate areas for energy centres and heat storage in areas of heat network potential and in designated HNZs;</li> <li>• where known, identify areas for co-locating developments with a high heat demand, large scale thermal storage opportunities and sources of low and zero emission heat supply; and</li> <li>• where known, reflect Heat Network Zones.</li> </ul> <p>As part of officers work developing the Proposed Plan for CDP2, scrutiny of the existing NPF4 policy wording contained within NPF4 Policy 19 Heating and Cooling has been deemed to be comprehensive and in keeping with the overall aspirations for LHEES within Glasgow so there is no requirement for any additional CDP2 Heating and Cooling policy wording to be prepared. There will, however, likely be a need for some Glasgow specific policy guidance to be prepared which will cross reference Glasgow's LHEES as the national and local situation on LHEES evolves and as further guidance on Policy 19 Heating and Cooling becomes available from the Scottish Government. Potential sites for energy centres for LHEES are also being considered.</p> <p><b>CMP3</b></p> <p>The LHEES was successfully embedded within the CMP3, which include actions to complete Building Assessment Reports, an exploration into future options for the Dalmarnock Village alongside commitments in relation to GCC-owned buildings within Indicative Heat Network Zones.</p>		
<b>L17</b>	Identify opportunities for project development across local authority boundaries.	Work with regional partners such as Clydeplan and Glasgow City Region alongside relevant bordering local authorities to identify scope for projects that may exist across authority boundaries.	Regional projects and programmes are being considered in the context of the Model for Climate Investment. GCC continues to engage with GCR member authorities to scope opportunities for cross border alignment.	Identification of LHEES related opportunities that exist across local authority boundaries.

<b>L18</b>	Develop a local authority ECO-flex scheme	GCC will work with partners to develop an ECO-Flex scheme for Glasgow which will allow the city to maximise on the funding opportunity presented by ECO	In 2025, information was gathered to inform the approach, including an assessment of existing ECO investment in Glasgow and a review of Birmingham City Council's LA Flex Scheme as a potential exemplar. During 2026/27, NRS officers plan to engage with energy companies to maximise the impact of current ECO investment and develop proposals for a local-authority ECO-flex scheme aimed at widening household eligibility and increasing investment in energy efficiency and decarbonisation measures across the city.	Successful development of an ECO-flex model.  Increased number of properties treated using ECO-flex funding.	
<b>L19</b>	Develop a Housing Retrofit Strategy that focuses on addressing poor energy efficiency in pre-1919 tenement	Work with partners in Housing to support the development of a pre-1919 strategy and ensure that this utilises and builds upon the LHEES	GCC completed Glasgow's first Housing Retrofit Position Statement (HRPS) in September 2025. The statement provides, for the first time, a clear picture of home retrofit activity in the city. It identifies opportunities to scale up delivery in support of net zero and fuel poverty objectives, translating the strategic priorities of the LHEES, LHS and Climate Plan into practical actions. Retrofit of pre-1919 housing is highlighted as a key thematic priority. The HRPS outlines overarching plans to adopt a "repair first" and "gradual retrofit" approach to improve the condition, enhance energy efficiency, and support decarbonisation of these buildings. An early action from 2026 onwards is the adoption of "first-step" energy efficiency measures by engaged homeowners, supported by collaboratively produced technical guidance, tailored advice, and an enabled supply chain.	Production of a Glasgow Retrofit Strategy with a focus on pre-1919 tenements.	
<b>L20</b>	Direct funding and advice for retrofit through EES:ABS and wider funding sources into Delivery Areas identified within the LHEES.	Ensure that the EES:ABS programme and other funding/programme opportunities are maximised and continue where feasible in conjunction with business as usual.  Utilise the Delivery Areas identified for the Poor Energy Efficiency as a Driver of Fuel Poverty consideration in the LHEES.	During financial years 2023/24 and 2024/25 – GCC has spent £7.66M of ABS funding. The Housing Retrofit Position Statement (HRPS), which is due to be brought to Committee in November 2025, further develops the LHEES Delivery Areas to identify the city's least energy efficient homes where poor fabric energy efficiency is felt to be driving fuel poverty. Actions are identified to target existing retrofit grants and homeowner investment at improving these homes (ABS, ECO, Social Housing Net Zero Heat Fund SHNZHF, Private Sector Housing Grant PSHG, Private Sector Minimum Energy Efficiency Standard investment from 2028). Proactive steps continue to be taken to overcome existing barriers to project delivery and to ensure the annual ABS budget is spent as a top priority.	Amount of EES:ABS funding spent.  Number of properties successfully treated.  Positive impact on fuel poverty in targeted properties.	

L21	Run all Delivery Areas identified in the LHEES through Energy Saving Trust's Portfolio Energy Asset Tool (PEAT)	Run all identified Delivery Areas through PEAT analysis to better quantify those areas that present the highest opportunity	<p>The PEAT-OR scenario tool was run for all Glasgow properties in LHEES 'On-Gas' Categories 1, 2 and 3, separating these where relevant to the methodology (ie. heat pumps not being considered for Category 3 properties, to favour fabric and other measures PEAT-OR may have deemed suitable in each specific case). The scenario specs are as follows:</p> <ul style="list-style-type: none"> <li>- High ambition. There are no targets or limits in this scenario, and properties have as many measures installed as PEAT-OR considers relevant/useful.</li> <li>- Social. This is limited to properties owned by Local Authorities and Housing Associations, and has a SAP score target of B.</li> <li>- Private. Limited to owner-occupied and privately-rented properties, and has a SAP score target of C.</li> </ul>	Completion of PEAT analysis for all LHEES Delivery Areas	
L22	Publish updated guidance and support to the public via the Council Website relating to fabric-based interventions, including finance options and EPC targets.	<p>Ensure that the Council website has a dedicated information page, developed in partnership with other organisations, relating to how residents can reduce their demand for heat and decarbonise their heating systems.</p> <p>This will include links to relevant sites to ensure accurate information is provided without the need for continuous review.</p> <p>This will include novel information on heat networks and the potential benefits.</p>	<p>The GCC webpage for affordable warmth has been updated in 2025 to give details of Area Based Schemes, ECO eligibility and GCC Statement of Intent (which allows the Council to flexibly access ECO funding).</p> <p>Further development of this action is being undertaken in line with the Housing Retrofit Position Statement (HRPS) which is being brought to Committee in November 2025. The HRPS provides up-to-date information on the planned approach to increase home retrofit activity. Proposals to signpost relevant homeowners via the GCC website will be further developed during 2026/27 in line with wider objectives. The Housing Retrofit Position Statement will seek to enable homeowner retrofit activity by:</p> <ul style="list-style-type: none"> <li>- developing information, advice and support services (which are likely to require public funding to ensure accessibility and effectiveness).</li> <li>- increasing public awareness of retrofit through a clear and targeted communication strategy with priority messaging aligned to Glasgow's climate and housing objectives.</li> </ul>	<p>Publication of content on GCC website.</p> <p>Number of interactions on webpage.</p>	
L23	Support the Glasgow City Region to explore the challenges and opportunities presented around regional housing retrofit delivery	Explore the opportunities and recommendations of the following upcoming reports: Scottish Enterprise work on regional supply chain capacity, Skills Development Scotland's CESAP, and interim and final reports from the Scottish Government's Green Heat Finance Taskforce.	The Regional Retrofit Strategy and Action Plan was approved by GCR Cabinet in February 2025. The Housing Retrofit Delivery Group (HRDG) will oversee the delivery of actions to accelerate retrofit in the Region. The Strategy has five focus areas: Maximising the benefit of existing retrofit funding; Maintenance and Disrepair; Finance and Funding; Improving the Customer Journey; and Data and Digital Platforms. Recent activity includes work with Retrofit Agencies/One Stop Shops and Existing Funding Streams. Glasgow City Council is an active participants in this and fed into the development of the Regional Retrofit Strategy and Action Plan.	Updates on the work of the Regional Housing Retrofit Delivery Group will be delivered to the Glasgow City Region Chief Executive's Group	

<b>L24</b>	Continue to implement a large-scale energy efficiency programme aimed at retrofitting the highest consuming buildings in the council estate, ultimately applying to all nondomestic buildings.	Continue with an energy efficiency retrofitting programme for public sector buildings and complete at least 25% of the highest consuming buildings in the council estate.	During FY23/24 and 24/25 Glasgow Life spent just over £2.87M on energy efficiency projects across their estate, covering the retrofit of approximately 39 buildings.  Proposals for the large scale retrofit of GCC assets is being explored in conjunction with the Model for Climate Investment.	Number of buildings retrofitted.  Amount of energy saved from fabric improvements.	
<b>L25</b>	Work with small businesses via Business Gateway to provide advice and support aimed at reducing energy consumption and improving energy efficiency.	Ensure business advisors explain energy issues to 75% of businesses they support	This action, which aims to provide energy advice to businesses in Glasgow, is being delivered through GCR-led initiatives aimed at developing a consistent Glasgow City Region approach on Green Business Support. The initiative, called ExtendPlus, was established in partnership with the University of Strathclyde, and funded through the Shared Prosperity Fund. ExtendPlus Project was set up to provide 500 local businesses in Glasgow and the region with Carbon Baseline Assessments. Over the 12 months of the programme, around 300 businesses have accessed the Carbon Baseline Assessment process. An evaluation of the intervention is currently being undertaken by the GCR Intelligence Hub. This included information relevant to the LHEES.	Number of businesses engaged with in relation to energy.  Number of engagements with GCC/Business Gateway.	