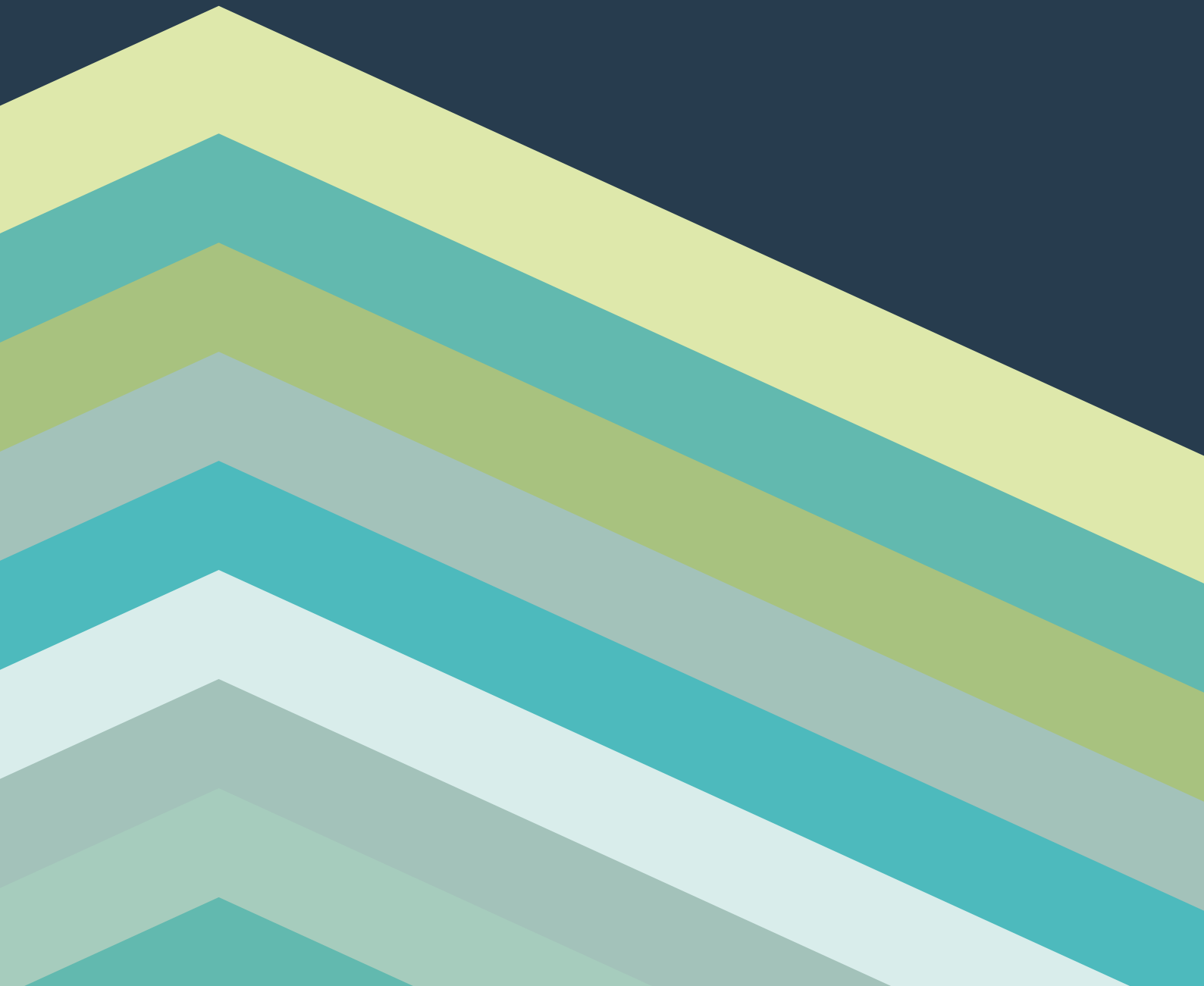


CLIMATE EMERGENCY RESPONSE GROUP

**Committing to delivery:
Certainty and leadership for a
just transition to a net zero,
climate resilient future for Scotland.**

**Briefing Paper:
Greening commercial buildings**

August 2023





Create the right environment for commercial building sector commitment to a large-scale retrofit and heat decarbonisation pilot in every Scottish city

SUMMARY of CERG's proposal

The Scottish Government should use its policy, fiscal and convening powers to work with commercial building owners, tenants and investors in developing large-scale retrofit, heat decarbonisation and climate resilience pilot in every Scottish city. Many owners and tenants of offices, shops and industrial units are looking to meet their own net-zero commitments through greening their property portfolios and workplaces. However, there is a lack of clarity on standards and heat technologies, making it difficult to plan the package of works and raise the necessary funding. This barrier to delivery can be removed through the right balance of regulation, incentives, and support for coordination.

Introduction

This paper is one of a set of four briefing papers published by the [Climate Emergency Response Group](#) (CERG). These papers set out detailed proposals for immediate action on four priority issues which could deliver a significant step-change in the Scottish Government's response to the climate emergency. These priority issues are:

1. Introduce a **Net Zero Test** to inform all policy and investment decisions.
2. **Enable local authorities to unlock the finance needed** to drive action on climate change mitigation and adaptation.
3. Introduce **fiscal levers as part of a coherent strategy to reduce car reliance** and improve places for people.
4. Create the right environment for **commercial building sector commitment to a large-scale retrofit and heat decarbonisation pilot in every Scottish city**.

CERG believes meaningful, measurable action against these four proposals this year is essential to a) meet the 2030 climate targets and b) give businesses, investors and citizens the clarity they need. All proposals are within the powers of the Scottish Government and strongly align with the Scottish Government's wider commitments and priorities.

While each briefing paper stands alone as a single proposal, there are strong overlaps and common themes across CERG's four proposals, including:

- The need for **policy certainty and an enabling environment** that provides the confidence and clarity needed for investors, businesses and citizens to act;
- A focus on **finance** - aligning all public investment with the transition, securing private finance, and delivering financing mechanisms that ensure the upfront costs of the transition are affordable to all;
- Opportunities **for private sector and public engagement** to enable a just transition.

A report containing summaries of all CERG's 2023 proposals is available [here](#).



Structure of the briefing paper

The theme for this briefing paper was selected by CERG members through a scoping and prioritisation exercise based on [CERG's assessment of progress in 2022](#) and the group's understanding of the current policy and political context.

The proposal was developed and ground-tested through an iterative and inclusive process which included stakeholder workshops, expert interviews, discussion with Scottish Government officials and document analysis.

Each briefing paper sets out a clear rationale for why action is required this year and what could be achieved, recommendations for immediate action and how these recommendations should be reflected in the 2023-24 Programme for Government, budget, and other forthcoming Scottish Government announcements. Consideration is given to the resource needs to deliver the recommendations.

Next Steps

CERG members look forward to the opportunity to have an open discussion with Ministers and Scottish Government officials about the recommendations set out in this briefing paper.

The group offers its collective knowledge and experience to the Scottish Government to explore how to turn these proposals into measurable changes that have an impact on investment, capacity and policy delivery and ultimately deliver the net zero, climate resilient economy and society that Scotland needs.

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Context and rationale for the proposal

The Scottish Government has set a target for the ‘equivalent of’ 50,000 non-domestic buildings to be heated by zero emissions technologies by 2030 ((out of total 220,000 – which includes 23,000 public sector buildings). Offices, shops, and leisure facilities are often the linchpin to mixed tenure approaches to retrofit and decarbonisation – without their participation, projects are often not technically or financially feasible, and can place a disproportionate cost on individual property owners.

Meeting targets:

Scotland’s buildings account for 20% of its ghg emission, with 7% coming from non-domestic buildings. The Scottish Government aims to reduce buildings emissions by 68% compared to 2020 levels by 2030 and reach zero emissions by 2045. The UK CCC Progress report concludes this target is ‘extremely stretching’.

To reach this target, the Heat in Buildings Strategy aims for ‘the equivalent of’ 50,000 non-domestic buildings to be heated by zero emissions technologies by 2030 (out of total 220,000 – which includes 23,000 public sector buildings). While the non-domestic sector represents a small number of buildings compared with domestic properties, reaching net-zero emissions in Scotland’s buildings cannot be achieved without their full engagement:

- Non-domestic buildings are responsible for big heating and cooling demand (hotels, leisure centres) and can be anchors for heat networks.
- Many buildings are mixed use or mixed tenure and require cooperation of all owners/tenants.
- Many buildings require whole building solutions such as communal heating or solid wall insulation.

In addition to emissions reduction targets, the Heat Networks (Scotland) Act 2021 sets targets for the amount of heat supplied by heat networks - 2.6 Terawatt hours (TWh) of output by 2027 and 6 TWh by 2030 – 3% and 8% respectively of current heat supply compared with 1.5% at present. The First National Assessment of potential heat network zones¹ made clear the critical role non-domestic buildings will play in making heat networks viable propositions: over 80% of identified heat demand in zones was attributed to non-domestic buildings and over 65% of the total identified heat demand in zones could be attributed to anchor loads alone.² (Heat Networks Delivery Plan).

Many investors and developers are embracing this agenda as part of their EST commitments. Major commercial property occupiers are also demanding top green credentials for their buildings, though this tends to be at the top end of the market. This means there are market incentives to upgrade commercial buildings, as landlords risk losing significant occupier demand, impacting achievable rents, value, and liquidity of assets. However, in the absence of clear policy guidance, the approach to decarbonising heat is scattered and inconsistent, meaning opportunities for place-based approaches are missed.

¹ <https://www.gov.scot/publications/first-national-assessment-potential-heat-network-zones/pages/5/>

² <https://www.gov.scot/publications/heat-networks-delivery-plan/pages/4/>



Policy certainty

Commercial building investors, owners and tenants are frustrated by the lack of clarity over standards for energy efficiency and the phase out of fossil fuel heating. Stakeholders recognise the part they must play in the net zero transition and want to be involved in the development of fair regulations that are effective and pragmatic in terms of compliance. Early signalling will avoid the wasteful installation of new fossil-fuel heating systems and encourage the planning for the best zero emissions heating solution.

The Heat in Buildings proposals for regulation are an excellent early opportunity for the Scottish Government to show it is genuine in its pledge to work more closely with business in the development and implementation of regulation, as stated in the government's New Deal for Business³. Given the significant legal complexities in the commercial building sector in terms of who is responsible for compliance with regulation, there is an urgent need for this group and the Regulatory Joint Taskforce to engage with the forthcoming Heat in Buildings bill proposals. This will help ensure that any regulations are workable and can be introduced swiftly with support from the sector.

In relation to the Heat in Buildings regulatory proposals, consideration should be given to a mandate to connect to a heat network for large buildings located within a designated heat zone. Mandatory connections for these anchor loads can make heat networks more cost effective, lowering costs for everyone, therefore making it more affordable for smaller commercial properties in the same heat zone. This provision is in the current Energy Security Bill for England. It may be that the Heat in Buildings regulations would make such a provision redundant as a heat network would probably be the most cost-effective option. If such a mandate is put in place, it must be accompanied by rapid clarity on when the connection will be available, the costs of connection and the price of energy, or it could slow down development activity and resultant economic benefits.

The proposed Energy Performance Certificate (EPC) reforms are an important complement to regulation and will help with better collection of information, improving awareness and measuring performance. These will enable owners and landlords to better understand the baseline for their property and pathway to zero emissions. It would be useful for the EPC review to take account of the need for large scale anchor heat loads / energy users to change their building systems to lead to lower flow and return temperatures to enable city wide district heating systems.

While regulation is under development, there is an immediate opportunity for owners and investors to voluntarily commit to taking action to cut emissions in their buildings portfolio ahead of regulation. This could be a commitment to install zero emissions heating at the point of replacing their existing system, and/or to connect to a heat network if appropriate to their location. They have their own net zero commitments to meet, driving a demand for 'green' buildings. Convening these early adopters, particularly critical anchors, will demonstrate the commitment to decarbonise heat from the sector, providing a more attractive proposition for investors.

Strategic coordination

Convening and coordinating the key stakeholders for a large-scale heat networks and place-based retrofit programmes requires considerable time, expertise, and leadership. If successful, it can help overcome the 'demand security gap' for investors and local authorities who can underwrite infrastructure costs.

³ <https://www.gov.scot/news/developing-a-new-deal-for-business/>



The key role for local authorities is to provide leadership, strategic direction and attract investment as well as guarantee anchor loads through their estate. The Scottish Heat Network Support Unit provides advice on developing business cases and capital grant funding for implementation. However, resources for taking a strategic overview and coordinating heat networks by local authorities is lacking. Already some local authorities are running to catch up with private investors who may ‘cherry pick’ the most lucrative properties for smaller heat networks, leaving the more difficult to connect properties behind.

A strategic approach would encourage larger networks which are less risky, more inclusive and provide greater certainty. At the moment, private developers can’t rely on a network being available at the right timescale. Place-based programmes can help by coordinating mixed tenure whole building and neighbourhood approaches for heat networks but also for energy efficiency improvements which require whole-building solutions or smaller communal heating systems. These place-based programmes are most successful when layered with other investments in transport and energy infrastructure (see CERG’s proposal to initiate a strategic programme to enable local authorities to unlock the finance needed to drive action on climate change mitigation and adaptation).

There is no doubt that the scale of the task to decarbonise assets and the finance and commercial models needed to do this work is an area for urgent attention. These large projects take significant time to plan, manage, finance and implement with all the practical considerations of businesses and people occupying the buildings.

Climate resilience

In addition to emissions reductions, there is increasing awareness of the need for retrofit design to also improve resilience to climate impacts such as warmer summers and more extreme weather events – taking a whole systems approach. The UK CCC progress report 2022 states, “the policies to address overheating in existing buildings and flood risk in both new and existing buildings are missing.”

The point of retrofit or installing a new heating system is the most cost-effective and least disruptive time to also include measures to address climate resilience (e.g., ventilation for overheating, repairs and maintenance for extreme weather events). Glasgow City Council is funding Sniffer to deliver a pilot project exploring the best ways of providing advice and support to SMEs on adaptation.⁴ This could be extended and help inform design of retrofit and heat decarbonisation programmes.

There is also growing awareness of the need to recognise embodied energy in materials and take a circular approach to building materials. The Heat in Buildings Bill regulations offer an opportunity to consider how climate resilience and circular approaches are considered as part of the heat transition.

Inclusive economy:

Energy efficient, resilient, and zero emissions buildings will help increase productivity and competitiveness of the Scottish economy. Beyond reducing emissions, many other benefits can be realised:

⁴ <https://www.sniffer.org.uk/news/climate-resilience-support-for-glasgow-smes>



- Businesses will cut energy bills, reducing costs, and improving productivity. Business Energy Scotland's advice reports and SME Loan Fund help businesses prepare for connecting to low carbon heat sources.
- Place-based approaches boost investment in local businesses and housing, delivering wider benefits in tackling inequalities, improving health and community well-being.

However, while energy efficiency measures may save commercial properties money, the switch to low carbon heat can be expensive. Tax incentives such as a reduction in Land and Buildings Transaction Tax (LBTT) for purchases of more energy efficient buildings and reduction in business rates would be useful, as well as other incentives to close the gap on refurbishment and running costs. The Scottish Government could also explore other tax incentives, e.g., through corporation tax, with the UK Government.

To ensure heat networks are inclusive they need to be developed at town and city scale – this spreads the risk and cross-subsidises those properties that are more expensive to connect or can't afford to connect. In addition, government grants, loans, and investment through UKIB and SNIB are needed to make heat networks the most attractive option for decarbonisation.

Public sector bodies facilitating economic development should consider how they can support heat decarbonisation – either in relation to their own estate, or in relation to their role as investor, regulator, or asset manager (see also CERG's proposal on the Net Zero Test).

Projects should also be encouraged to consider opportunities for to create clean and affordable power to enhance energy security and create a return on investment.

Existing barriers to delivery

- **Policy signal:** The Scottish Government intended to consult on regulatory proposals in late 2022 but this has been delayed. Without a clear policy signal, building owners and landlords are waiting for clarity before they can consider how they can comply. Thus, despite willingness to embrace this agenda, investment in retrofit is stalled.
- **Political leadership and risk appetite at local and regional level:** local authorities tend to be risk-averse given the many demands on their budgets and duties they must fulfil.
- **Awareness:** many building owners are not aware that they will need to renovate their buildings for zero emissions heating and to adapt to a future climate with risks of overheating and more extreme weather events. Many will need to coordinate with other tenures to have whole building works done and it is not clear who or how that coordination will happen.
- **Legal complexities:** Building owners, investors, tenants, and leaseholders all have a role to play but it is not always clear who will be responsible for compliance with regulation on heat and energy efficiency. Any regulation must be cognizant of these legal complexities, so it is practical for those responsible to implement.
- **Practical issues:** large scale infrastructure projects such as heat networks and building retrofit are time consuming and prone to delay. Coordinating and implementing works in occupied buildings can be difficult, along with meeting town planning requirements. Timing of the different phases of the project are crucial to meet landlord and occupier business needs.
- **Finance:** the business case for the heat transition often does not stack up and simply is not a priority compared with dealing with the cost-of-living crisis, Brexit and recovering from



COVID impacts. The costs and risks of not adapting to climate impact are not well understood. In addition, building owners / tenants are suffering the perverse consequence of 'greener' buildings attracting higher rateable values.

- **Tax incentive:** Business rates and LBTT could be used more effectively to incentivise decarbonisation.
- **Supply chain:** there are significant shortages in the supply chain to meet the growing demand for retrofit and green heat installations. This affects the whole building sector.
- **Mixed tenure:** many SME's are located in mixed tenure / mixed use buildings and it is a legal and logistical challenge coordinating and agreeing improvement works.
- **Access to clean affordable power and infrastructure:** heat and retrofit projects tend to focus on the demand side without considering opportunities for local generation of clean power.

With its ambitious targets and the Heat Networks (Scotland) Act in place, Scotland could be a very attractive place for investment. Addressing these barriers and providing the right signals and political leadership could help Scotland bring in private investment and UK-wide funding to large scale projects.

RECOMMENDATIONS FOR IMMEDIATE ACTION

The Scottish Government should commit to:

1. **Provide policy certainty:** The **Programme for Government should commit to** introduce the **Heat in Buildings Bill in early 2024** with a consultation on the Bill in autumn 2023. The Bill should include regulatory requirements for energy efficiency and phase out of fossil-fuel heating for all buildings, including non-domestic buildings. The proposed regulations would be based on extensive engagement with investors, owners, and tenants consistent with the New Deal for Business.⁵ The regulations should consider the need for requiring mandatory connections for premises within a heat zone for large buildings (similar to requirements for England in the Energy Security Bill)⁶ and linked to provisions in the Heat Networks (Scotland) Act 2021.
2. **Convene voluntary pledges:** Work with the local authority to convene high profile early adopters and key 'anchor loads' - major commercial building investors, owners, and tenants - in each city to pledge:
 - a. to switch to zero emissions heating at point of replacement of existing heating system.
 - b. to complete Building Assessment Reports to build evidence base for heat zones.
 - c. to work with the public sector to meet their collective corporate climate targets through coordinated building decarbonisation.This will effectively de-risk investment and enable projects to be taken forward more quickly.
3. **Support pilot projects in every city:** Commit to work with city local authority leaders and key commercial building owners and tenants to pilot large-scale retrofit and heat decarbonisation programmes involving public sector and private assets in each city. (This

⁵ <https://www.gov.scot/groups/business-new-deal-for-business-group/>

⁶ <https://www.gov.uk/government/publications/energy-security-bill-factsheets/energy-security-bill-factsheet-heat-networks-regulation-and-zoning>



links with CERG's proposal to 'initiate a strategic programme to enable local authorities to unlock the finance needed to drive action on climate change mitigation and adaptation').

4. **Lead on climate resilience:** Projects receiving public support will be required to integrate climate resilience measures into retrofit design.
5. **Resource coordination role for heat networks:** Provide support for strategic planning of heat networks to create a pipeline of projects and greater certainty for the sector. This would include engagement, encouragement and coordination of building owners and tenants, and working with the private and public sector to drive forward developments.
6. **Introduce fiscal incentives** – use non-domestic rates relief for businesses making energy efficiency improvements and/or decarbonising heat (building on Heat in Buildings Strategy commitment to explore options). Engage with the UK Government in the exploration of how corporation tax incentives could also be developed.
7. **Require public sector support:** work with public sector agencies such as Crown Estate Scotland and Scottish Water to encourage the use of heat from water linked to their control for heat decarbonisation projects such as the development of large-scale heat networks.

Resource requirements

Delivery of this proposal requires funding (resource and capital) at the national, regional and local level. CERG believes some of this funding is already allocated to this agenda and could be focused on delivering the recommendations in this proposal. Other funding can be identified through smarter use of public sector capacity. This forward investment in staff and capital will enable Scotland to attract the large sums of private funding looking for solid net zero projects for investment. Specifically we recommend:

- Resource coordination role for heat networks and place-based retrofit projects.
- Resource local authorities to work with private and public partners to convene voluntary pledges for anchor loads.
- Focus public capital funding for pilot place-based project in each city.
- More effective collaboration with the public sector estate to guarantee anchor loads and public sector bodies such as Crown Estate Scotland and Scottish Water to support heat decarbonisation.

ABOUT CERG

CERG is a group of Scottish public, private and third-sector leaders who work together to inform and influence the Scottish Government's response to the climate emergency.

Collectively, the group has considerable expertise across sectors and a first-hand understanding of the practical steps that must be taken for Scotland to deliver on its vision for a net zero, climate resilient future.

CERG focuses on identifying solutions and actions that can be taken now to overcome the well-documented challenges of the transition to net zero and enable delivery to flow. Since 2019, CERG



has published a series of reports setting out practical, immediate actions that can, and must, be taken now to avert the worst impacts of the climate crisis. The group also publishes annual assessments of the Scottish Government's progress to delivering on CERG's recommendations.