

Glasgow's Climate Plan



Revision 2026-2030

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Reading this Document

This Climate Plan document includes information about climate change, the benefits of climate action, current legislation and policies, descriptions of the categories considered

To assist in navigating all the information, the following may be useful:

You can click on the page numbers in the Contents page to jump straight to a section.

A Glossary of climate terms used in this document is on [page 64](#).

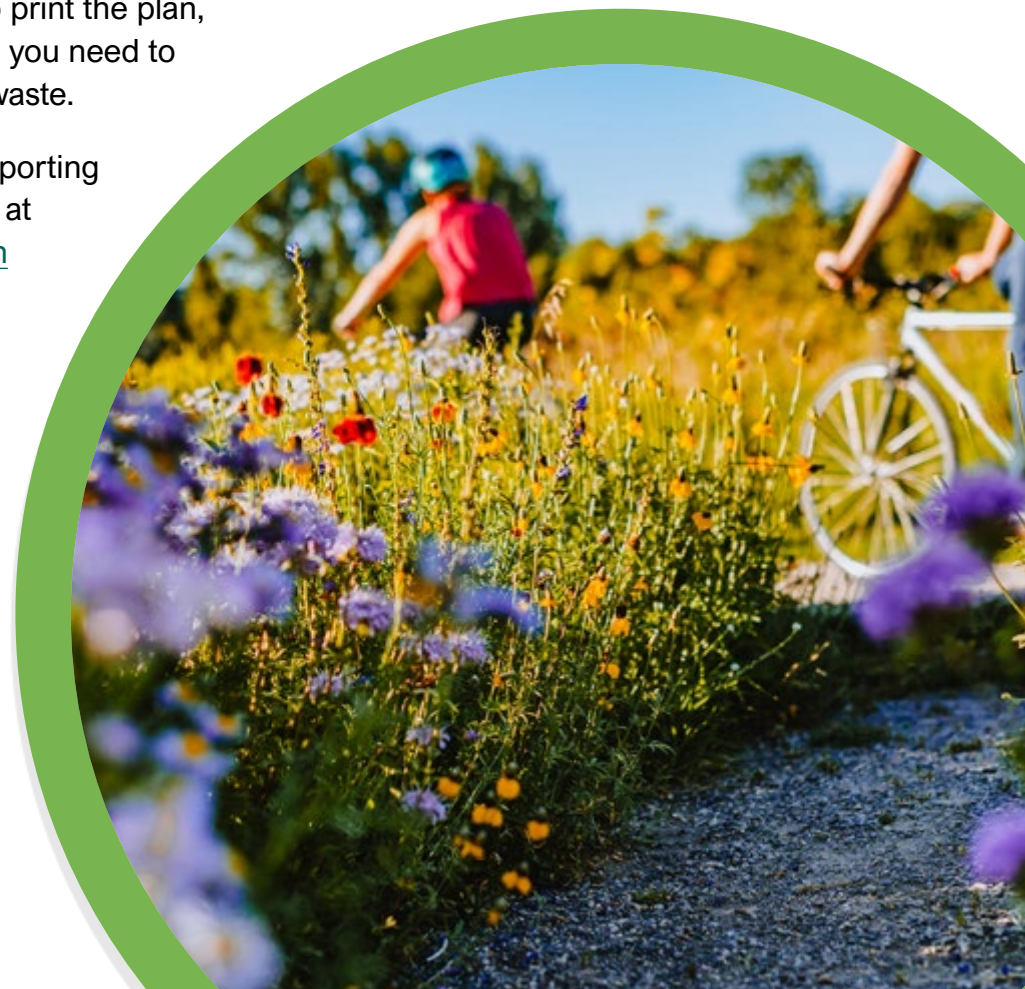
Policies and documents referred to include web links to provide further information – click on blue underlined text to visit external sites.

We have included icons and descriptions of benefits that can arise from climate action on [page 8](#). A more detailed description of the Benefits is available at www.glasgow.gov.uk/climateplan

The detailed Climate Action Plan and a list of the lead organisations and key partners referenced in the Action Plan is available at www.glasgow.gov.uk/climateplan

The Climate Plan is also available in separate sections for ease of sharing or printing on our webpage www.glasgow.gov.uk/climateplan. If you need to print the plan, please print only the sections you need to save on unnecessary paper waste.

A Quick Guide and other supporting documents are also available at www.glasgow.gov.uk/climateplan



Foreword



Glasgow, Our Dear Green Place

Foreword by Councillor Angus Millar

Convener for Climate, Transport and City Centre Recovery

Glasgow, once the cradle of the industrial revolution, is proud to have built a growing reputation as a global leader in the fight against climate change. Having hosted the crucial COP26 climate summit Glasgow's commitment to creating a sustainable, resilient, and equitable future is clear - in fact it underpins our approach to creating a thriving city for our citizens, businesses, institutions, and visitors.

Since Glasgow's Climate Plan was published in 2021, Scotland has retained its net zero by 2045 target, 5 years ahead of the rest of the UK. However, Scotland has acknowledged that significant action is still needed, and the independent Climate Change Commission emphasizes that Scotland must act immediately and at rapid pace across all sectors to meet its deadline. Glasgow is committed to ensuring that our Climate Plan stays relevant and effective and mirrors this shift in the pace and scale of climate action needed.

Through this revision of Glasgow's Climate Plan, we have identified ways that we can continue to work collectively on projects at the pace and scale that address not only environmental issues but support the required transformation of our economy and help us address key social challenges such as health inequality, child and fuel poverty.

We know that the journey to net zero will require us to overcome hurdles, but if we make significant progress on climate projects, they will deliver co-benefits – such as warmer homes, cleaner air, healthier lives and green job opportunities, while helping lift families out of poverty.

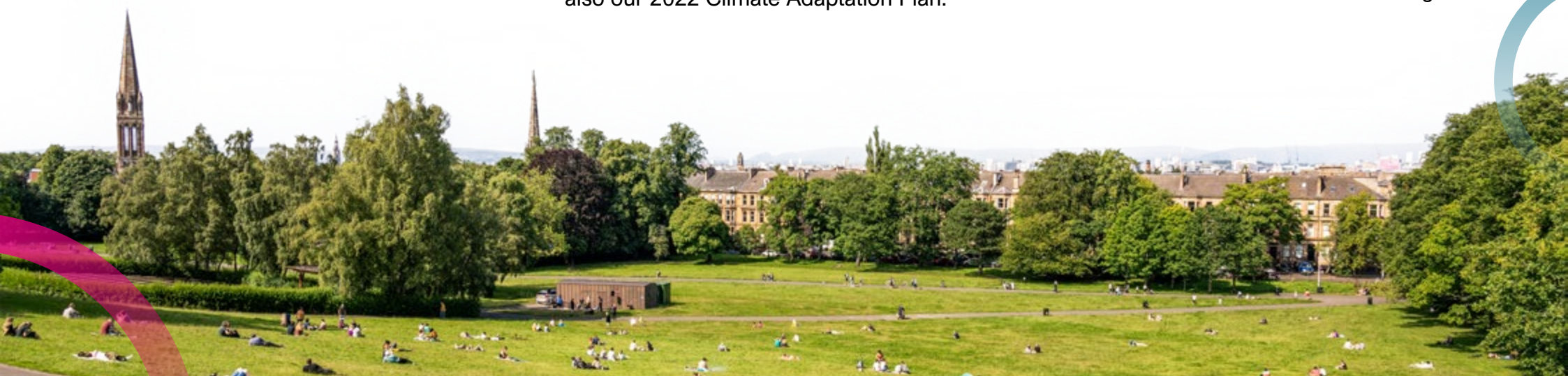


Within this plan you will read about pioneering initiatives like our Circular Economy Route Map, through which Glasgow is demonstrating that by working within communities and with business, economic prosperity and environmental stewardship can go hand-in-hand. You will also see that Glasgow's dedication extends to nurturing a deep connection with nature, actively preserving and expanding its green spaces for the well-being of both its residents and the environment. Glasgow's ongoing work to develop its Model for Climate Investment has the potential to unlock the finances needed to deliver our climate ambitions and deliver on key projects as outlined in our Net Zero Routemap and Local Heat and Energy Efficiency Strategy.

At its heart, this plan retains Glasgow's commitment to become a net-zero carbon city by 2030. This target has driven significant action across the city and has enabled significant progress to be made that would otherwise not have been realised. However, now is not the time to slow down or step back from these targets. In fact, this revised plan will show that to continue progress towards this target, we need to further enhance our collaborative approach to prioritising and delivering action. As a result, the revised plan brings together the essential priorities of climate mitigation and adaptation, setting out the actions needed to make our city more resilient to the impacts of climate change and get as close to net zero as possible by 2030 in one coherent strategy. This revision therefore supersedes not just Glasgow's 2021 Climate Plan but also our 2022 Climate Adaptation Plan.

We believe that Glasgow stands as an inspiring example of a city actively and passionately building a greener, more equitable, and more resilient future for all. Our independent evaluation through the Carbon Disclosure Project and Council Climate Action Scorecards in 2025 reinforces that belief by scoring us amongst the top performing cities committed to taking climate action.

This plan should make clear Glasgow's undiminished ambition to radically reduce our contribution to climate change, tackle poverty in our city, increase opportunity and equity, and to do it alongside our great citizens and institutions. Success will require us to redouble our efforts and work in partnership with communities and all sectors of the economy across the city to secure a lower carbon future for Glasgow.





**Why does climate
action matter?**

Benefits for everyone

The range of Climate actions outlined in this plan contribute to reducing our emissions and help make us all more resilient to the existing and upcoming impacts of climate change, but the wider positive gains for us across the city reach much further. Understanding these wider benefits helps us all to understand the true value of climate action. It also helps us to ensure that tangible benefits are felt by residents and businesses across the city.

Focussing on a fair and just transition to Net Zero carbon is in the interests of everyone, whether motivated by addressing fuel and child poverty, improvements to our health and wellbeing, supporting community empowerment and cohesion, or to reduce our contribution to, and the impacts of, climate change, we need to continue to take action. Within our Climate Plan we have outlined 18 benefits of climate action for Glasgow, which can be seen in Figure 1 below with fuller descriptions overleaf.

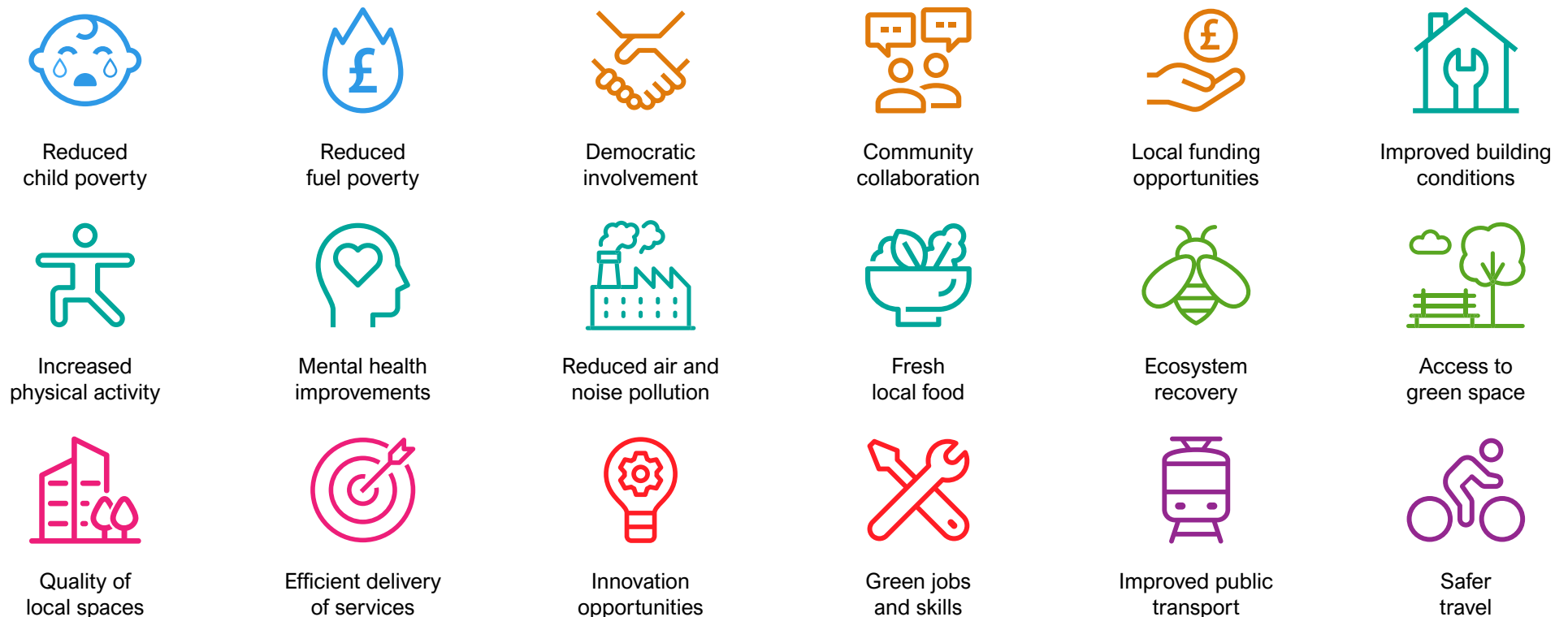


Figure 1 Benefits

Reduced Child Poverty



Around one third of children in Glasgow are believed to be living in poverty.

Reducing the amount that families spend on energy or transport can support a reduction in poverty. Providing opportunities for skills or employment can also help alleviate the complex pressures resulting in child poverty.

Reduced Fuel Poverty



A fuel poor household is one where more than 10% of net income is required to pay for reasonable fuel needs after housing costs have been deducted and the remaining household income is not enough to maintain an acceptable standard of living. Insulating homes reduces emissions and can also reduce the amount spent on energy and therefore can reduce fuel poverty. Localised energy systems help to protect consumers from global energy price changes and can help to reduce energy bills in homes and protect against rising costs.

Democratic involvement



Climate action is needed at all scales, from government to businesses and in people's day to day life. Community agency and democratic involvement means improving the processes for communities to shape their own priorities and local environment.

Community collaboration



Climate focused projects can bring benefits on a community level. Groups of people often come together to help tackle climate change through climate focused projects and even once the initial project is finished, the bonds and sense of community can remain, supporting a sense of togetherness in the community.

Local funding opportunities



As climate action is a priority at national and local levels, there is funding available to drive climate action. The availability of funding opportunities is a great benefit to communities, not only for climate action, but also to provide other opportunities, meaning that communities have the opportunity to incorporate aspects that are top priorities in their area into climate projects.

Improved building conditions



We need to ensure that when we develop or repair buildings, we do so in a way which prepares the building for the impacts of a changing climate. This can help to improve their overall condition and can also support positive mental and physical health.

Increase in physical activity



Climate actions can help to support a healthy active life. Switching to active travel such as walking or cycling where possible, can reduce emissions and increase physical health.

Mental health improvements



Climate change itself can cause anxiety, worry and sometimes climate guilt. However, taking climate action provides the opportunity to help people with their mental health. Examples include changing modes of transport which helps physical health which in turn can support good mental health; improved building conditions, increased skills and opportunities; greater access to green space and community led action which can increase socialising and community cohesion, fight isolation and provide a sense of community.

Reduced air and noise pollution



Burning fossil fuels creates greenhouse gas emissions and also creates other emissions which have negative impacts on air quality. Many of the actions we can take to reduce our transport emissions, including walking and cycling more and using public transport, will reduce the amount of fossil fuels used and therefore improve air quality.

Fresh local food



Our food systems create a lot of emissions, from growing, processing, storing, transporting, selling, and processing food waste. Choosing food that is produced locally will reduce emissions and also has the benefits of increasing the accessibility of fresh local produce, supporting the local economy and encouraging the use of local spaces for food growing which in turn can support community cohesion and skills development.

Ecosystem recovery



Many actions that we take to help climate change also help to support our ecosystems. By taking mitigation action to slow down global warming we can help to support key ecosystems like oceans and rainforests. Locally, tree planting helps adapt to climate change and can support mitigation and trees also provide new homes for wildlife, such as birds and insects.

Access to green space



Natural and biodiverse spaces have the ability to protect us from the impacts of climate change in a variety of ways and so climate action to increase green space means greater opportunity for people to use and enjoy the natural environment.

Quality of local spaces



In order to tackle climate change, an important action we can all take is looking at what we buy and the waste we create. By considering this we are very likely to see a reduction in litter. Litter occurs for many reasons, but reducing the waste that can become litter is a great step to creating better local environments.

Efficient delivery of services



Climate action needs resources and attention, but it can also help us to be more efficient in the work we do. Many climate actions are likely to reduce the strain placed on our public services either by reducing demand on these services or changing the way they are delivered.

Innovation opportunities



Although in many aspects of climate work we know what actions are needed, there are still many challenges and barriers to taking action. This is driving new ways of doing things and can benefit us through the development of new skills, opportunities, products or technology.

Green jobs and skills



Linking closely to the opportunities for innovation is the creation of green jobs, skills and opportunities for education. To reduce emissions and become resilient to climate impacts, we need to support new industry. New industry, ideas and approaches will create jobs, upskilling opportunities and the chance to learn new things.

Improved public transport



Transport is one of the largest sources of emissions in Glasgow. Actions to reduce emission can be switching to active travel, public transport or electric vehicles. To encourage this switch, public transport needs to be easy, attractive, and accessible. This will drive improvements including connecting transport routes, making tickets cheaper and improving the overall reliance of the full system.

Safer travel



Switching to active travel reduces emissions however to help people choose active travel options for their journeys, these routes need to be made safe. By segregating cycle lanes or adding lighting to walking routes, people should feel safer in their local area and supported to cycle and walk.

Each of the benefits outlined on the previous pages and highlighted throughout the climate plan, demonstrate how the actions within will make a real difference to the lives of people in Glasgow.

Some real examples of how people and organisations across the city can see the benefits of taking climate action are available at www.glasgow.gov.uk/climateplan.

Working Together

Glasgow City Council can't address all challenges or meet the climate goals alone - we need our businesses, institutions, and citizens to all continue to contribute to delivering a happier, healthier, and equitable city. Climate change affects everyone differently and it is crucial that the lived experiences and priorities of everyone in the city are considered.

It is crucial that everyone feels supported and enabled to share those experiences and have agency in the design and delivery of mitigation and adaptation actions. Our actions must be developed and delivered with our citizens, communities, and businesses.

Through embedding engagement with citizens, businesses and communities into our climate work, we will strive to make sure climate activity is built upon the input of the people of Glasgow, creating meaningful impact and change.

People from across the city have shown their passion to tackle the climate and ecological emergency, raising their collective voice to support action both in the city and internationally, it is critical that we continue to listen to our citizens and seek to address those issues within our control, and supporting those outside our control. We will work with others to address mis-information around climate issues and support the delivery of practical solutions.

We will support organisations across the city to work together and learn from each other to make sure that climate action is underpinned by what is important to the people of Glasgow.

The decisions that we all make on a daily basis can make a big difference to our progress towards our climate goals. The actions highlighted within this plan aim to enable and support all citizens to make positive climate decisions wherever possible.



Why do we need a climate plan?



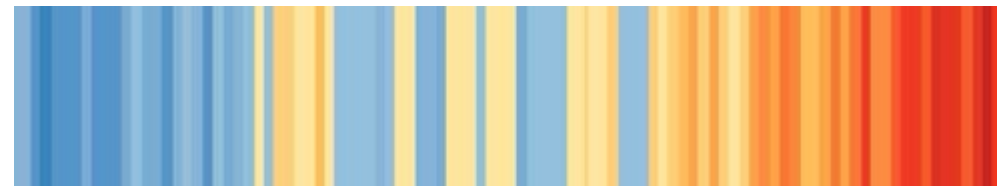
International Context

The annual UN Conference of the Parties on Climate Change (COP) drives global action on climate change. The 2015 [Paris Agreement](#), adopted by 195 nations at COP21 is a legally binding international treaty to combat climate change by holding global warming to well below 2°C, preferably to 1.5°C, compared to pre-industrial levels. It requires all countries to submit nationally determined contributions (NDCs) for reducing emissions, adapt to climate change impacts, and provide climate finance.

Combating climate change and dealing with its consequences is a global issue that needs to be addressed internationally, domestically and locally.

Glasgow hosted COP26 in 2021 where the [Glasgow Climate Pact](#) was adopted, with agreements to build resilience to climate change, to curb greenhouse gas emissions, to provide finance to developing countries, and for the first time, nations were called on to phase down unabated coal power and inefficient subsidies for fossil fuels. Further COPs have maintained a clear intension to keep 1.5°C within reach, mobilised more funding for developing countries, linked climate action with nature conservation, committed to develop renewable energy further, ramped up practical solutions to mitigation and adaptation and developed a centralised carbon crediting mechanism.

However, 2024 was the first time the global average temperature exceeded 1.5°C above the pre-industrial average and based on current policy settings, the International Energy Agency's (IEA) [World Energy Outlook 2024](#) advised that global carbon dioxide emissions are set to peak imminently, but the absence of a sharp decline after that means the world is on course for a rise of 2.4°C in global average temperatures by the end of the century, well above the Paris Agreement goal of limiting global warming to 1.5°C.



Professor Ed Hawkins of the University of Reading. The original graphic was first published on his blog Climate Lab Book on 22 May 2018 in a post titled "Warming stripes"

In advance of COP30 in November 2025, a report¹⁷ from the World Meteorological Organization (WMO) in October 2025 advised that the global average concentration of CO₂ surged by 3.5 ppm from 2023 to 2024 - the largest increase since modern measurements started in 1957.

The main outcomes from COP30¹⁸ included maintaining plans in line with the 2015 [Paris Agreement](#), [climate finance](#) and aligning global trade with climate objectives, developing indicators to measure progress towards [adaptation](#), and to develop a [just transition mechanism](#) to financially support countries transitioning to low carbon economies.

UK Context

At a national level, the UK has committed to reach Net Zero greenhouse gas emissions by 2050, with any residual greenhouse gas emissions balanced by removals, and in November 2024 the UK Prime Minister announced the UK's Nationally Determined Contribution (NDC) target to reduce all greenhouse gas emissions by at least 81% by 2035, compared to 1990 levels.¹⁹

The UK Carbon Budgets are provided by the UK's Climate Change Committee (CCC) and set out a balanced pathway to achieve credible emissions reductions across different sectors of the UK economy from 2025 to 2050. In February 2025, the CCC advised

“ The Seventh Carbon Budget should be set at 535 MtCO_{2e} for the period 2038 - 2042, which will require UK emissions to fall to 87% below their 1990 levels.²⁰ ”

- Climate Change Committee, London, 2025

The Committee also reports to UK Parliament on adaptation measures and provided its latest report on progress in adapting to climate change in April 2025. The CCC advised that the UK's preparations on climate change were inadequate and that it 'must act without further delay to improve the national approach to climate resilience.'²¹

The UK Government subsequently published [The Carbon Budget and Growth Delivery Plan](#) in October 2025.

The CCC provided further insight in March 2026 advising that the total additional cost of a single fossil fuel price spike of 2022 magnitude is likely to be as large as the total net additional cost of meeting the pathway to Net Zero across every year to 2050. It also assessed that:

“ The transition to net zero is set to deliver far greater health and wellbeing co-benefits than costs. Cleaner air, warmer homes, more active travel and healthier diets strongly outweigh downsides like extra public transport time or potential congestion from increased EV use.²² ”

- Climate Change Committee, London, 2026

The Scottish Context

The [Climate Change \(Scotland\) Act 2009](#) established a statutory framework and introduced a greenhouse gas emissions target of 80% reduction by 2050 from the baseline year 1990, with an interim target of 42% by 2020.

The Act also imposed duties on public sector bodies, requiring that they act in a way:

- Best calculated to contribute to the delivery of the Act's emissions reduction targets.
- Best calculated to deliver any statutory adaptation programme.

In direct response to the UN Paris Agreement, the Act was amended by the [Climate Change \(Emissions Reduction Targets\) \(Scotland\) Act 2019](#) which set out a greenhouse gas emissions target of 100% reduction by 2045 from the baseline year 1990, or in other words, identifying a “net-zero emissions target year” of 2045, with interim targets of 56% by 2020, 75% by 2030 and 90% by 2040.

However in April 2024, the Scottish Government accepted a report by the UK government's independent advisors – the Climate Change Committee (CCC) – which warned that Scotland's 2030 target was no longer credible²³, and announced it planned to drop the 2030 interim target of 75 percent.

[The Climate Change \(Emissions Reduction Targets\) Scotland Act 2024](#) was enacted with the 90 percent emissions reduction target by 2040 and net zero emissions target by 2045 remaining in place.

In 2025, the Scottish Government produced a draft climate plan template for Scottish Local Authorities and advised that, when developing their own climate plans, they should identify corporate and area wide activities in terms of mitigation (reducing emissions), adaptation, and acting in the most sustainable way, in other words they should cover the full scope of the climate change duties. It further advised that LA Climate Change Plans (CCPs) should cover:

- corporate (organisational) assets and activities and the emissions generated by these, including relevant scope 3 emissions
- area wide activities and emissions, many of which will lie outside the control of the LA but within their sphere of influence.
- Also that climate change duties require to be met as LAs ‘exercise [their] functions’ which include:
- corporate operational functions
- delivery of public services within the authority area
- policy making functions or influence
- discharging of other mandatory duties
- exercise of regulatory powers.

Following publication of the Climate Change Committee's Scotland's Carbon Budgets advice²⁴ in May 2025, the [Scottish Government set Scotland's carbon budgets in the Climate Change \(Scotland\) Act 2009 \(Scottish Carbon Budgets\) Amendment Regulations 2025](#) in October 2025. And in November 2025 it published its [Climate Change Plan 2026 – 2040](#).

Glasgow Context

Glasgow City Council's Strategic Plan puts the challenges and aspirations of Glasgow's people and communities at the heart of every council decision. As part of its purpose, it will shape the authority's response to the climate emergency in line with the broad ambition of the UN's Sustainable Development Goals. The plan sets out four Grand Challenges including:

Fight the climate emergency in a just transition to a net zero Glasgow.

Each Grand Challenge is supported by missions that cover ambitious aims including delivering sustainable transport, supporting residents into sustainable and fair work and becoming a net zero carbon city by 2030. The plan is reviewed annually to ensure it remains fit for purpose and to update commitments in line with changing circumstances.

Glasgow declared a climate emergency in 2019 and the subsequent Glasgow Climate Plan of 2021 influenced the current Strategic Plan and continued to support the Grand Challenges, missions and commitments.

SUSTAINABLE DEVELOPMENT GOALS



Despite the Scottish Government's relaxing of its interim targets, the council remains committed to its Net Zero target of 2030, seeing this level of ambition as necessary to continue to spur on further progress in climate action.

While it is recognised that this goal will be challenging to meet, the urgency of the climate emergency requires cities (where density presents opportunities to progress more quickly than in other areas) to set a faster pace of action.

Glasgow will continue to strive towards its ambitious 2030 target, and to use this sense of urgency to galvanise action across the public and private sector

A Resilient City

Climate impacts are not bound to specific places; they affect all of Scotland and the world in different ways. They can also affect each of us in different ways depending on our community, and economic and social background. This means we need to work together across the city, regionally and nationally to take action.

Glasgow is already experiencing warmer temperatures, more heavy rain, and drier summers due to climate change, and this will continue. We must both adapt to these changes (adaptation) and reduce our emissions (mitigation) to minimise the impacts of climate change.

Flooding, damage and disruption from severe weather have already had major impacts on communities in the city, damaging property, flooding homes and gardens, and disrupting transport networks; and extreme weather and sea level rise will continue to affect Glasgow

Weather, climate and air quality also play a significant role in people's health with a disproportionate impact on vulnerable groups such as the elderly, individuals with pre-existing conditions, children and the economically and socially vulnerable.

You can explore more detailed information on the impacts on Glasgow at the [Met Office](#). There is however significant National governance associated with Adaptation action.

[The Scottish National Adaptation Plan 3 \(SNAP3\)](#) sets out the actions that the Scottish Government will take between 2024 and 2029 to increase resilience to climate impacts.

It is clear that local authorities play a key role in adaptation and this plan aims to support to all five outcomes set out in the national approach:

- Nature Connects
- Communities
- Public Services and Infrastructure
- Economy, Business and Industry
- International Action



As a key partner in the [Metropolitan Glasgow Strategic Drainage Partnership](#), we continue to deliver schemes across the city which reduce flood risks and impacts, improve water quality, bring greenspace improvements through blue-green interventions, and increase drainage capacity.

Along with our work on biodiversity and nature based solutions we are taking action to tackle flood and heat risk. Glasgow City Council also has a responsibility to prepare our public services for current and future climate risks.

As a service provider for education, care and critical infrastructure, understanding the risks and developing actions to increase resilience is essential for all in the city. Supported by the Adaptation Capability Framework, we can ensure that adaptation action is embedded throughout council operations.

We cannot do this alone. By participating in the available networks, including [Climate Ready Clyde](#) and the [Public Sector Climate Adaptation Network](#), we will support action in the city and at a regional scale.





A look at our emissions journey

Current emissions overview – the data

Glasgow has been tracking its carbon emissions for 20 years using data provided by the UK Government. This data is published 2 years in arrears and so the latest information we have at publication relates to 2023.

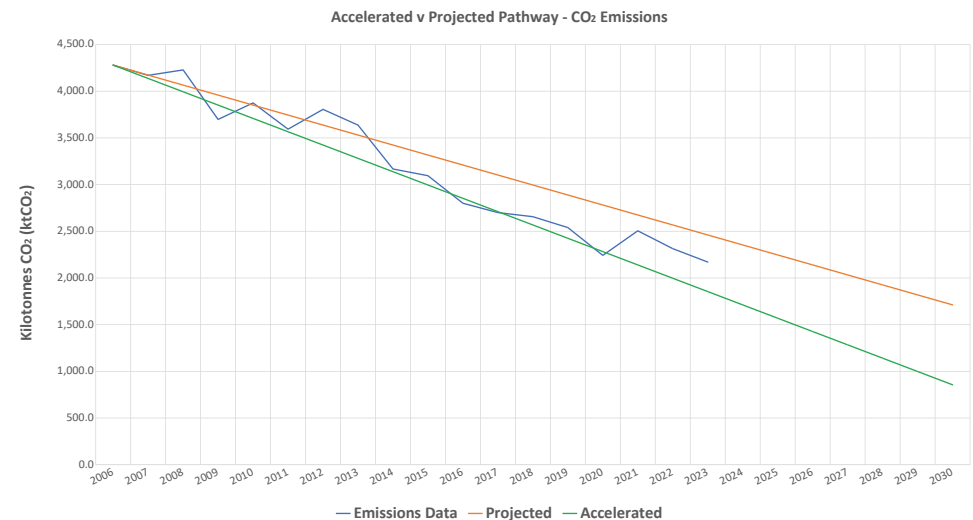
We met our initial 2020 target of a 30% reduction in carbon emissions by 2015, five years ahead of schedule. Since the baseline year of 2006, Glasgow has reduced its emissions on average by 2.9% per annum.

Glasgow's carbon dioxide (CO₂) emissions in 2023²⁵ totalled 2,170.4 kilo-tonnes of carbon dioxide (kt CO₂). This represents a **6.2% reduction from the 2022 total of 2,314.1 ktCO₂** and a **49.3% reduction in emissions from the baseline²⁶**.

As a percentage of the baseline year of 2006, in 2023 Glasgow reduced its emissions by **3.4%**. By maintaining an average annual reduction of 2.9% reduction, emissions can be forecast to reduce by **69.6%** by 2030 from the baseline – this would be a considerable achievement for a post-industrial city like Glasgow.

It should be noted however that emissions reductions get increasingly more difficult as we continue to make progress and have to tackle the more stubborn emissions.

More information on our environmental performance is at <https://glasgow.gov.uk/article/6019/Environmental-Performance>.



Emissions 2006-23 and Projected/Accelerated Pathways

Glasgow's Net Zero Carbon 2030 target

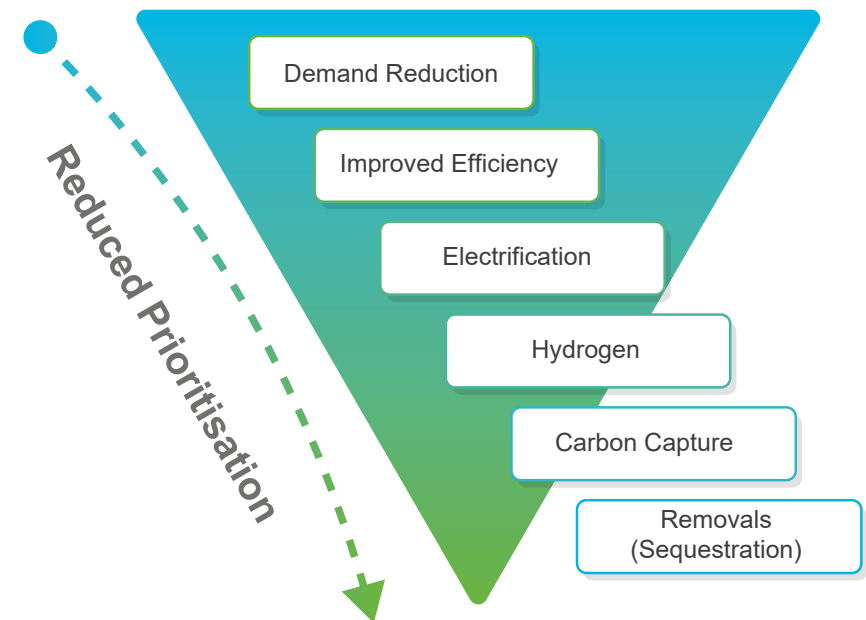
One of the primary actions within the original Climate Plan was to develop a city-wide [Net Zero Routemap](#), the aims of which were:

- help us develop a deeper understanding of the data and science that underpins effective prioritisation of actions, which helps us progress towards our Net Zero carbon target of 2030
- develop an enhanced methodology for tracking and management of emissions reduction activity and create a tool which provides a transparent public facing engagement mechanism
- and to develop a rough order of magnitude cost breakdown to help inform the funding required to implement these actions.

Alongside the development of the Net Zero Routemap for Glasgow, there is complementary work being led by the [Scottish Climate Intelligence Service \(SCIS\)](#) at a national level to ensure that all public sector organisations are taking a consistent approach to emissions tracking and recording, which uses the [ClimateView tool](#).

The development of Glasgow's Net Zero Routemap includes the use of a software platform (ClimateView), which assists us in addressing the evolving challenge that climate change presents.

Energy, Heat, Transport and Waste make up over 95% of the city's emissions, and therefore these were the focus of the study. The hierarchy used to assess the priority and planning of mitigation actions was assessed in line with the Climate Change Committee (CCC) Pathway to Net Zero priorities here:



Climate Change Committee Pathway to Net Zero priorities

As a result of this assessment, two pathways were developed:

A **projected pathway**, which forecasts emissions based on the ambitions of the current policy and strategies, and an **accelerated pathway**, which has been modelled on what could be achieved if many of the barriers were removed and opportunities accelerated, including limiting reliance on carbon capture and removals as much as possible. Both pathways are built using the same inventory data, but the type of mitigation action and the speed at which action happens differs between pathways.

The projected pathway forecasts a 60% reduction of our emissions from baseline figures by 2030. The accelerated pathway forecasts an 80% reduction in emissions.

The City's net zero target is based upon maximising emissions reduction whilst utilising carbon removal to address the residual emissions. Based on the average percentage emissions reductions seen since 2006, we are exceeding the projected pathway but fall short of the accelerated pathway and the emissions gap outlined in each pathway will require reliance on carbon removal, through activity such as carbon capture or sequestration.

Further emissions reductions are possible, and we can continue to deliver projects which can have significant positive impacts on our emissions but we need to activate different approaches and levers to change.

Through our annual emissions reporting we can see the positive impact that city policies and practices are having alongside national policy and activity. This has been underpinned by the ambitious Net Zero carbon 2030 target, which has stimulated a different pace and scale of delivery that would not have been achieved without it.

Within this revision of the Climate Plan, we have committed to continuing to strive towards our Net Zero carbon target by 2030.

Innovative approaches are being utilised to accelerate action, these include the development of a [Model for Climate Investment](#), and the delivery of large-scale renewable energy supplied heat networks. More information on our prioritised actions can be found in the Climate Action Plan available at www.glasgow.gov.uk/climateplan.

And we have, for the first time, developed a Carbon Budget which will provide us annual carbon emission targets to aspire to.

Having annualised science-based carbon budgets enables us to track and record progress at a much more granular level.

We will be able to see where we stand in relation each yearly budget and understand if we remain on or ahead of target or falling behind the targets and need to address why this is happening. **The chart in Fig 2 shows the carbon budgets set for the city up to 2030, based on the projected pathway.**

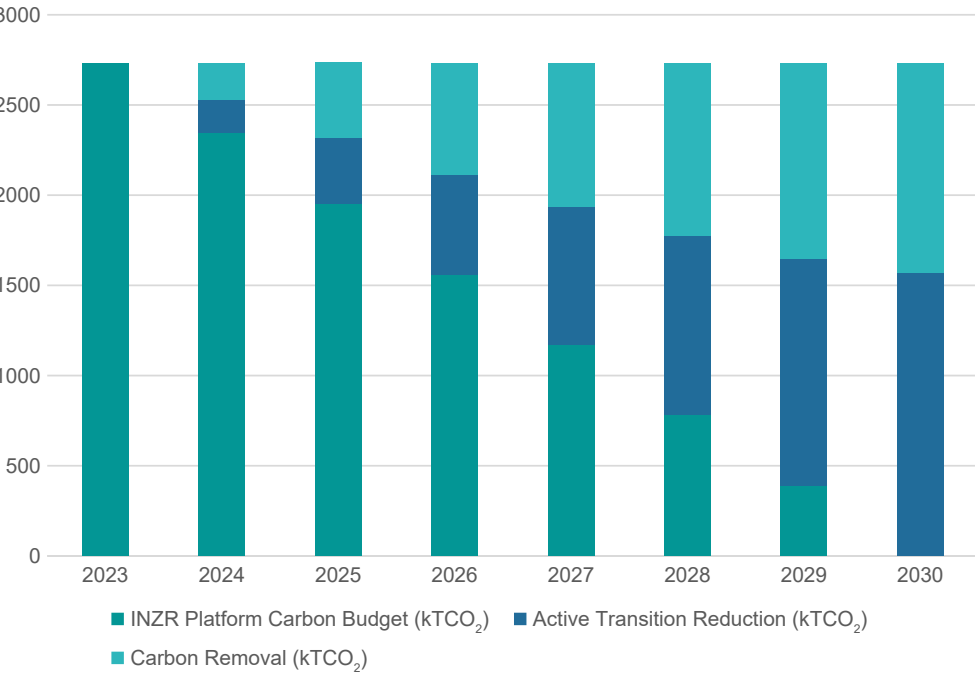


Fig 2 Carbon Budget projection for Glasgow based on the Net Zero Routemap projected pathway

The development of the Routemap has highlighted that a systems-based approach to deploying net zero interventions is required to facilitate systemic change at the pace required.

Actions should not be viewed in isolation and need to be considered holistically to ensure that the full impacts of each are understood and delivered with minimal negative impact to those living and working in the city.

This revised Climate Plan has been designed to consider the systemic nature of climate based activity and align with a data led approach to the fair and just delivery of climate action.



Broadening our emissions reporting

As outlined, we remain committed to Glasgow's Net Zero Carbon 2030 target.

However, since Glasgow started tracking its emissions journey, there have been significant improvements in what emissions data is available.

As a result, one of the key priorities within this plan is to understand how best we can transition from monitoring and reporting on only carbon dioxide (CO₂) to a more comprehensive approach which includes other greenhouse gases, starting with methane and nitrous oxide.

Widening our monitoring of greenhouse gas (GHG) emissions is another step towards having more complete, scientifically-aligned, and transparent climate action.

This proposed development in our emissions reporting has been stimulated by our role as an [EU Mission City](#), which requires us to recognise that while CO₂ is the most prevalent GHG, other gases like methane (CH₄) and nitrous oxide (N₂O) are significantly more potent contributors to climate change.

As an EU Net Zero Mission city, we will access the support of specialists within the European Mission to help us through this change in reporting, and to ensure that we align the requirements on us both as an EU Mission City and also through our statutory reporting. The actions within the plan ensure that we can share a clear narrative on what changes and impacts will result.



Glasgow's wider achievements



Our work on climate isn't just about emissions reduction, some of the city's key policies, plans and milestones that set the scene for this revision, and wider climate achievements since the launch of the Climate Plan in 2021 are shown here and more details are available at www.glasgow.gov.uk/Sustainability.





**Wider influences
on the climate plan**

Various external influences have shaped the development of this revised plan including new opportunities available through advancing technology, new legislation and challenges such as funding and an accelerating change to the climate. These are discussed below:

Challenges

As part of the review, challenges and key risks were identified and a risk assessment was conducted. Key risks and mitigations are identified later in this Plan.

Our Climate Plan has been updated to include new and updated actions to ensure we deal appropriately with challenging objectives and support us in how we manage the delivery of the plan. Some original actions have also been removed following review if the challenge faced is too great for the city alone to deal with.

Resources and Engagement

The Climate Plan sets out a target for the city as a whole and therefore it relies on involvement of residents, organisations, and visitors to Glasgow. Prioritising engagement across all the diverse groups requires resource and an understanding of each community. As acknowledged by the Climate Change Commission, influencing behaviour change is a critical aspect to working on climate and adaptation projects.

But finding capacity to make the changes required alongside the day-to-day activities necessary for the running of home life, organisations and services vital to the city, is a challenge.

At this point in our journey, Glasgow understands the breadth of resources needed to deliver on most aspects of this Climate Plan. This is being supported at a national level by the development of the Scottish Climate Intelligence Service and the range of support available through organisations such as the [Sustainable Scotland Network](#) and international partnership such as the [Carbon Neutral Cities Alliance](#). Glasgow will continue to advocate for additional support and resource to help progress climate action.

Our Climate Plan places a high priority on communication and engagement with individuals and groups across the city, promoting the breadth of benefits of participation.

Funding

There continues to be financial challenges in bringing about the scale and pace of the transformation required to reach our aspirations and targets for Net Zero Carbon by 2030. The development of Glasgow's [Net Zero Routemap](#) provided rough order of magnitude costings for each mitigation activity, but adaptation projects are still largely under-developed in terms of cost modelling.

Therefore, whilst we have an improved understanding of the costs, there is still a need to identify and access the funding for the delivery of many aspects of the climate plan.

Our Climate Plan includes new objectives around Climate Finance and Green Economy recovery to address this challenge.

Governance and progress tracking

Governance mechanisms are important in helping us to achieve our aims of a more equitable, sustainable, and low carbon city. Inconsistent use of measurable outcomes has made monitoring and reporting of progress more difficult.

Our Climate Plan has been developed with learning from the Net Zero Routemap which has provided the scientific evidence and basis for prioritising climate action. The Plan is costed where this is achievable, and includes target dates, measures and sources of data. A Carbon Budget will keep the focus on tracking our progress.

Accelerating climate change

The rate of change of climate change is accelerating and so the pace of transformation will need to increase. There is also a need to ensure there is more focus and prioritisation of actions that can bring about the greatest improvements for people, nature and place.

The outputs from work such as the Net Zero Routemap, LHEES, Circular Economy Routemap, Thriving City Portrait and Model for Climate Investment have provided a pathway and guidance on how to meet our critical objectives and priority areas for action have been identified.

Carbon removal

Glasgow's aspiration is to be net zero carbon by 2030 and as outlined by the Net Zero Routemap, achieving this will require the use of carbon capture and removal methods.

As a densely populated urban area, Glasgow faces the challenge of identifying land for the volume of trees required to capture the anticipated levels of residual carbon emissions. Carbon capture and removal options that might be suitable are not yet mature enough for consideration. However, we are working with the [Carbon Neutral Cities Alliance](#) to understand more fully the potential options available to us and are advocating for a national approach to carbon capture and removal.

Our Climate Plan adds a new objective to identify and implement a citywide approach to carbon sequestration in line with a national approach and also look to influence the national approach to the management of residual emissions.



Opportunities

This review allowed us to consider additional activities that could be included in the Plan and improve how we communicate about and socialise the plan.

Broader context

In August 2023 Glasgow created its [Thriving City Portrait](#), which presents a vision for the future of how Glasgow can thrive within planetary boundaries. The holistic approach of the Thriving Glasgow Portrait encourages us to consider the interactions and wider benefits of social and climate actions as we move forward in this plan. The definitions act as a guide to inspire collaborative action and achieve a shared vision of a future Glasgow.

In developing our Climate Plan, we considered the range of themes included in the Portrait as well as how aspirations could be better communicated.

Wider Benefits

It is acknowledged that climate action can have a positive effect on other aspects of city life including addressing fuel and child poverty.

Our Climate Plan takes the opportunity to communicate these wider benefits as part of activities usually described as climate action.



Technology

The rise in the use of Artificial Intelligence (AI) creates complexities regarding positive and negative impacts. AI has the potential to bring many benefits to society, including more efficient processes and enhanced decision making capabilities however, the infrastructure required can have environmental consequences – with a recent report by the BBC citing that data centres in Scotland are using enough tap water to fill **27 million half-litre bottles a year to assist cooling**.¹ Globally, it is estimated that data centres use more water than the whole of Denmark.²

However, by utilising systems-based thinking, we can identify benefits, such as using the heat generated by data centres to support the development of heat networks.

Our Climate Plan addresses the expansion in the use of data and the infrastructure required to support it.

Priorities

The information obtained through the Net Zero Routemap has provided pathways and guidance on how to meet our critical objectives and allows us to determine a clearer prioritised approach to how we deal with the climate challenge. Categories were prioritised using a combination of impact, scale of carbon emission reduction, ease of implementation, and cost of action.

Our Climate Plan has been updated to show our Priority activities as well as new areas for action.

Broader emissions reporting

Glasgow can capitalise on our networks and obtain support from global agencies. This means we can now look to gain expertise in developing our reporting capabilities.

Our Climate Plan includes actions to include reporting on Scope 3 and broader greenhouse gas emissions.

Resilience

Glasgow is becoming warmer and wetter and we are already seeing the effects of climate change on our city. Glasgow must adapt to new issues and prepare for further impacts on how we live and our health.

Our Climate Plan now includes both mitigation and adaptation activity and includes actions on climate risks and resilience.



International and National landscape

International policy

Since the publication of the Glasgow Climate Plan in 2021, the international landscape has been unsettled. From summer 2021, with the easing of pandemic related restrictions, global economies began opening up and energy prices start to increase. This was referred to as the “**cost of living crisis**”.

The Russian invasion of Ukraine in February 2022 exacerbated wholesale gas price rises and tipped the world into a global energy crisis.

The tensions in the Middle East in 2026 has led to a drop in the stock markets and oil prices rising to their highest since 2022 and is expected to have a knock-on effect to global markets.

This has impacted both energy supply and energy prices.

In the UK in October 2021 the Price Cap level increased with Ofgem citing a 50% increase in the wholesale price of gas. The Ofgem Price Cap increased again by 54% in April 2022 and continued to rise until October 2023. Energy prices have fallen since summer 2023 but are still well above pre-energy crisis levels and a further rise in the price cap was implemented in October 2025.

Even those not in fuel poverty (as defined by the UK and Scottish governments) may struggle with their energy bills with Ofgem, advising that money owed to energy suppliers as at June 2025 was at a record high of £4.4bn³ and the UK Government advising that default rates for payments of energy bills by direct debit were at a record high.⁴ It was expected that there would be little prospect of large cuts to bills in the near future however Ofgem announced in February 2026 that households using both electricity and gas could expect a 7% reduction from April 2026. This will be in part possible by changes to the funding of environmental and social schemes.⁵

In this revision of the Climate Plan we have considered how actions relating to climate change can also address the real issues of fuel poverty and family poverty resulting from changes in energy pricing.



In addition to the global conflicts affecting energy, the policies of the administration in the USA, one of the largest global powers, have led to concerns around climate change action.

The USA first attempted to withdraw from the Paris Agreement in 2020 and formally withdrew in 2025 with this coming into effect in January 2026. This impacts on the global ability to reduce carbon emissions and also sends a message that the climate agenda has been downgraded in priority. The USA also seeks to reduce financial support to other countries for climate change mitigation and adaptation efforts significantly impacting the reach of climate efforts.

In our Climate Plan we place communication and engagement as a key priority in addressing the climate challenge.

Energy supply and demand

The global demand for energy rose at a faster-than-average pace in 2024⁶ resulting in higher demand for all energy sources, including oil, natural gas, coal, renewables and nuclear power.

The greatest increase was for electricity and following on from 2023 when the volume of renewable energy generated across the world broke all previous records,⁷ in 2024 it was expected that renewables would account for almost half of global electricity generation by 2030, with the share of wind and solar PV doubling to 30%.⁸

However, the outlook for growth of renewables has been reduced slightly by 5% since 2024, predominantly due to global policy changes in China and the USA (which sees a reduction of 50%).⁹

In 2025, in the EU, renewable energy produced more electricity than fossil fuels for the first time.¹⁰

In the UK, achieving net zero will greatly increase electricity demand and – with 43.8% of energy used in the UK imported in 2024 (up 3.4% on 2023), the UK is reliant on electricity supply from other nations and is vulnerable to global conditions.

It should be noted that Scotland is a net exporter of electricity with 21.0 TWh of electricity exported and 1.3 TWh imported in 2024.¹¹ In 2024 UK output from coal, oil and gas were all at record low levels with 21.7% of its primary energy obtained from low carbon sources, up from 20.8% in 2023, with 37% of this from bioenergy, 25% from nuclear, and 20% from wind. This can in part be related to price reductions for many clean energy technologies worldwide and in 2024 clean energy investment outnumbered fossil fuel by a factor of ten.¹²

In 2025, in England, Wales and Scotland, in a record year for electricity produced by renewables, more electricity was generated by wind than by gas. However electricity produced from fossil fuels did also rise slightly.^{13 14}

While this all shows positive continued (albeit slightly slower) growth of renewables in place of fossil fuels, this raises challenges about the demand on electricity networks. In our Climate Plan we comment on the need to engage with Government and energy distributors to ensure long term viability of much needed transmission infrastructure.

Domestic policy

UK and Scottish government policy has also impacted on Climate activity. UK Carbon dioxide emissions were 4.1% lower in 2024 than 2023 and are now 18% lower than 2019. The largest driver of the long-term fall in emissions has been the decrease of emissions from power stations, due to the shift in fuel use from coal to gas and renewables.¹⁵

In support of the UK's 2025 NDC commitment, improved positive action includes expanded permitted developments which has increased the opportunity for more renewable energy projects.

The UK has however shifted its approach to the manufacture of electric vehicles several times in the past few years. This was perceived as a roll back of commitments and has since been revised. The Government published its [Carbon Budget and Growth Delivery Plan](#) in October 2025.

In face of this uncertainty, the council remains committed to its target of becoming a net zero carbon city by 2030, adamant that the city will not ease up on our ambition.

Our Climate Plan also incorporates actions on climate adaptation to ensure our city is resilient to the inevitable impacts of a changing climate.

This, and Scotland's removal of the 2030 interim target of 75% emissions reduction, has led to a shift in public opinion of climate change issues. From a national and international perspective, the UK (including Scotland) has been seen to have weakened its stance on climate action and there has been a drop in market confidence.

In October 2025, the Climate Change Committee formally advised the UK Government to prepare as a minimum for weather extremes that will be experienced if global warming levels reach 2°C above preindustrial levels by 2050.¹⁶



Legislation

Laws can impact directly on the city’s own direction. A desktop review was conducted of local and national legislation enacted since approval of the Climate Plan in June 2021 as well as any upcoming legislation, and the ones with the most impactful changes related to climate activity are shown below.

More information is available at www.glasgow.gov.uk/Sustainability

Our Climate Plan includes many actions that have been revised directly because of changes to legislation.

				
Overarching	Resources: Food, Water, Waste	Heat	Transport	Energy
Environment Act 2021	Circular Economy (Scotland) Act 2024	Heat Networks (Scotland) Act 2021	The Building (Scotland) Amendment Regulations 2022	Energy Act 2023
National Planning Framework 4 (NPF4)	Environmental Protection (Single-use Plastic Products) (Scotland) Regulations 2021	New Build Heat Standard Heat in Buildings Bill	The Public Charge Point Regulations 2023	The Town and Country Planning (General Permitted Development) (Scotland) Amendment Order 2024
Community Wealth Building (Scotland) Bill	Plastic Packaging Tax (General) Regulations 2022		The Town and Country Planning (General Permitted Development) (Scotland) Amendment Order 2023	Clean Power 2030 Action Plan
	Producer Responsibility Obligations (Packaging Waste) Amendment (Scotland) Regulations 2022			Great British Energy Act 2025

City policy

Some key policies, strategies and plans incorporating climate activity developed by the council family since 2021 are below. More information on these policies is at www.glasgow.gov.uk/Sustainability

Our Climate Plan includes many actions that have been revised directly because of new policies.

Overarching Air Quality Action Plan In addition, the City Development Plan 2 is in preparation and drafts consider the Climate Plan aspirations.	 Heat Local Heat & Energy Efficiency Strategy (LHEES)	 Communication, Engagement and Skills Children and Young People's Climate Charter Just Transition Implementation Plan Just Transition Skills Action Plan	 Climate Governance Glasgow City Council's Sustainable Procurement Strategy	 Resources: Food, Water, Waste Updated Circular Economy Routemap incorporating the Plastics Reduction Strategy
 Transport The Glasgow Transport Strategy – Spatial Development Framework Active Travel Strategy	 Energy The Council's Carbon Management Plan 3	 Green Economy Glasgow Green Deal Greenprint for Investment Model for Climate Investment	 Natural Environment & Biodiversity New Conditions of Let for Events in parks Forestry and Woodland Strategy Glasgow Tree Plan Portal Local Biodiversity Action Plan (LBAP) Delivery Plan 2024-2029	

Describing the plan



The Climate Plan supersedes previous versions as well as the Climate Adaptation Plan. However, crucially, it retains the key aspirations of a net-zero carbon city by 2030 and ensuring Glasgow is resilient and able to thrive in a changing climate.

The Plan includes background on the need for a clear set of ambitions regarding climate activity and also a detailed Action Plan showing what the aspirations are and describing these in detail. The Action Plan has been developed based on all the influences, guidance, opportunities and risks described beforehand and is now arranged into the following sections:

Categories

A description of each Category starts on [page 50](#) and the Plan is costed at Category level.

Objectives

Each Category includes key Objectives and this new version also clearly shows the wide range of benefits resulting from each of these.

Actions

Measurable Actions support each Objectives, and in line with Scottish Government guidance, the Action Plan identifies if the Action will support mitigation or adaptation – with some actions supporting both. Each action has a target delivery date and outcome and identifies if the activity will be delivered by the council, supported or influenced by the council, or delivered by other organisations in the city.

The Action Plan is available at www.glasgow.gov.uk/climateplan.

Action Plan Categories

 Communication, Engagement and Skills	 Climate Governance	 Climate Risk Assessment
 Green Economy	 Transport	 Heat
 Energy	 Resources: Food, Water, Waste	 Natural Environment & Biodiversity
 Carbon Capture	 Built Environment	

Focus on Delivery

Following the governance process described in the next Section, each Action has an identified owner which may include the Council, the Sustainable Glasgow Partnership, other public bodies and private organisations. Action owners will be expected to progress delivery and provide updates regularly to the council's Climate and Sustainability Board.

Glasgow's Climate Plan describes the activity required by the city to reduce its contribution to exacerbating climate change and to adapt to the unavoidable impacts already caused by climate change.

The sheer scale of the task at hand means that the council cannot do this alone and so working in partnership with all stakeholders in the city, through all facets of society, is critical to continue the progress that has already been made.

Where an Action owner is not part of the Council, council officers will engage and seek to obtain progress updates directly or by using publicly available information. The council will also endeavour to support city organisations in their progress.

Actions will be assessed by reference to performance indicators and progress will be reported annually to the appropriate Council Committees.

Cost of Delivery

The estimated cost of the Climate Plan mitigation activity has been developed as part of the Net Zero Routemap and valued at £23.5Bn. This sum can only be brought to bear on this work by bringing together public subsidy and grants with private finance and funding. (Source: Net Zero Routemap).



Costs have been identified against Categories in the Action Plan, however there are some mitigation activities that were not covered by the Net Zero Routemap such as Communication and Engagement, Governance, Green Economy, Natural Environment activities, and some Built Environment activities, these do not therefore have a cost associated. Most adaptation activities still need to be costed and this will be progressed through 2025/6.

Following the publication of the first Climate Plan, the [Glasgow Green Deal](#) subsequently provided a nine-year programme designed to transform the city's economy and the [Greenprint for Investment](#) in 2021 provided a portfolio of investment projects that would support the push for net zero. The Council has also continued to develop its thinking on climate finance and its engagement with the investor community and has established a Climate Investment Board, chaired by the Leader of the Council.

A specialist team has been tasked with developing the council's relationship with the private sector so investment can be attracted to the city for crucial climate initiatives such as local heating networks, energy efficiency in buildings, renewable energy projects, electric vehicle charging infrastructure, and other schemes that can accelerate decarbonisation of the city.

The approach to a [Model for Climate Investment](#), with a project budget of £4m, was approved in 2024 and, in addition to the creation of a delivery vehicle for net zero projects, the creation of a Climate Investment Vehicle is being explored. This is expected to be a city level investment fund, managed by an external fund manager, and established to help plug the funding gap for net zero projects in the city. A [Community Municipal Investment](#) arrangement has also been launched and will initially support funding for renewable energy and city greening projects.





Programme Governance

Overarching Programme Governance

Key to achieving our bold targets and vision for a more sustainable, low carbon and equitable city are effective governance mechanisms. Good governance enables a strategic approach to climate and adaptation activities and supports the implementation of projects, effective progress tracking, risk management, and meaningful collaboration.

The Climate Plan forms the core of a wider Climate and Sustainability Programme which is Glasgow City Council's dedicated climate and sustainability governance and implementation structure.

The Programme serves to onboard, monitor, and support sustainability projects across the Council's activities and facilitate a strategic approach to the Council's climate mitigation and adaptation activities as well as report on progress of activities led by other city organisations.

Governance of the programme is managed through standard programme management tools and techniques and has been updated to incorporate the necessary activities required across both adaptation and mitigation actions to ensure clear and consistent monitoring of progress and identification of barriers to successful delivery.

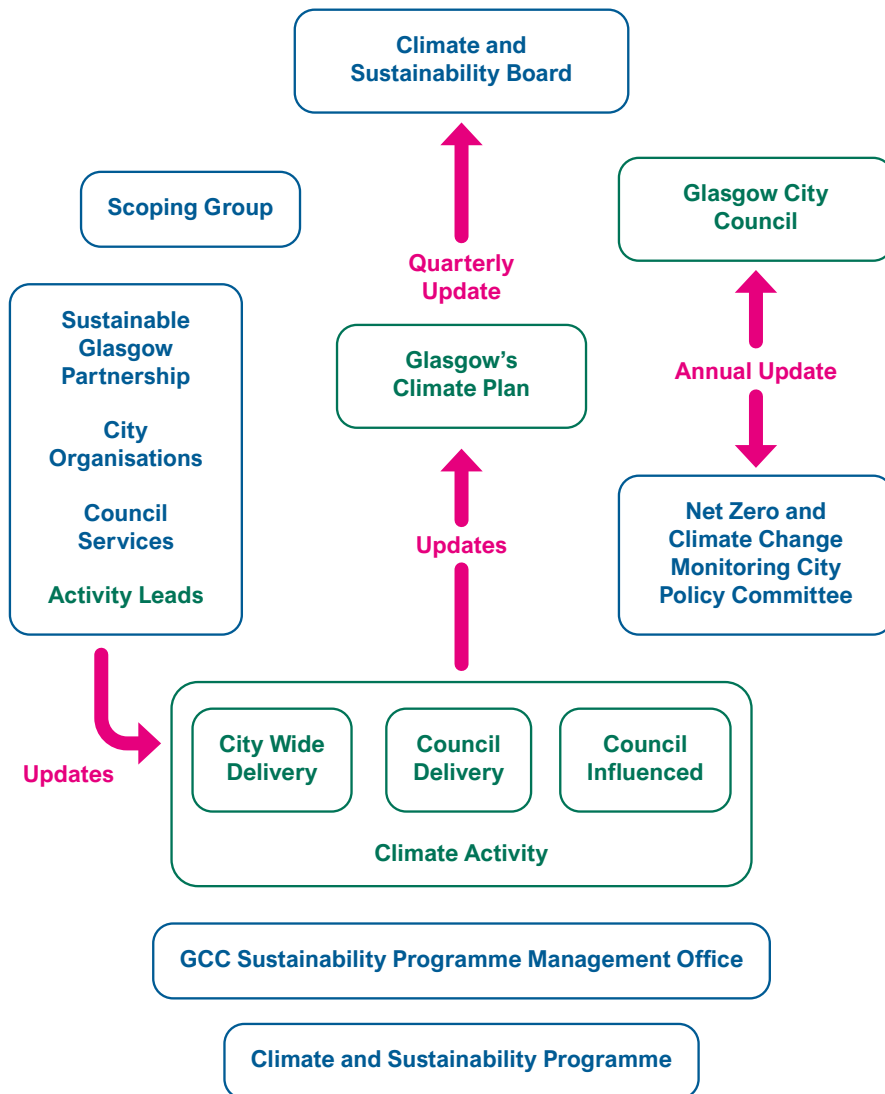
The revised Climate Action Plan will continue to include short, medium, and long-term actions with a Red/Amber/Green (RAG) scoring for each. The RAG status compares the progress of the Action against its target delivery date and outcome. The Climate Plan, its progress and status, will be reported each year at a meeting of the Full Council.

It is uncommon for reports to be invited regularly, and this illustrates the importance given to the climate change agenda by Glasgow City Council, and the desire of its elected members to scrutinise activity and support progress.

The Climate Plan is reviewed annually and progress is also reported to the council's Net Zero and Climate Progress Monitoring City Policy Committee. Any significant issues or changes are highlighted to this committee.

To support ongoing progress, a Climate & Sustainability Board has been established within the council to drive and review the delivery progress of the Programme, including discussion and action on key topics relating to the Climate and Sustainability agenda.

The Board is chaired by the Executive Director of Neighbourhoods, Regeneration & Sustainability and membership includes Directors from across the Council. The Board provides strategic direction and executive steer in relation to climate activity and recommends when proposals need to be put to the City Administration Committee for a Council decision.



The Board is supported by a Climate Scoping Group, which is chaired by the Head of Sustainability and is comprised of senior managers of sustainability, procurement, legal, corporate finance, economic development, property, planning and service departments. Senior officer representation ensures oversight and effective support for projects across Council services.

Underpinning all of this, a Sustainability Programme Management Office supports the governance, delivery and monitoring of the Programme, including delivery of the actions within the Climate Plan.

Collaboration



Collaboration across city-wide partners is essential for successful delivery of the Climate Plan. [The Sustainable Glasgow Partnership](#) is an innovative partnership that brings together major city stakeholders to collaborate on climate solutions. Sustainable Glasgow is led by a Board, chaired by the Leader of the Council and supported by four thematic hubs that enable public and private sector collaboration to enhance delivery of actions in relation to their specific theme. The Hubs report on progress to the Board on a quarterly basis.

More information is at sustainableglasgow.org.uk

Mitigation reporting

The requirements on Scottish Local Authorities include that councils must act in a way that is:

- Best calculated to contribute to Scotland's national emissions reduction targets.
- Best calculated to help deliver Scotland's statutory Climate Change Adaptation Programme.
- Considered to be the most sustainable.

The Climate Change (Scotland) Act 2009 places climate change duties on relevant public bodies to reduce greenhouse gas emissions, contribute to delivery of the Scottish National Adaptation Plan, and to act in the most sustainable way.

Beyond direct emissions, local authorities must also report on:

- How we will align financial resources, such as capital investments and procurement, to reduce emissions.
- Qualitative information on our "wider influence" in mitigating emissions through functions such as land use planning, transport, and economic development.
- A narrative of key actions in our decarbonisation strategy, including a timeline of how targets will be achieved.

[The Climate Change \(Duties of Public Bodies; Reporting Requirements\) \(Scotland\) Order 2015](#) and [The Climate Change \(Duties of Public Bodies: Reporting Requirements\) \(Scotland\) Amendment Order 2020](#) require public bodies to submit annual climate change reports.

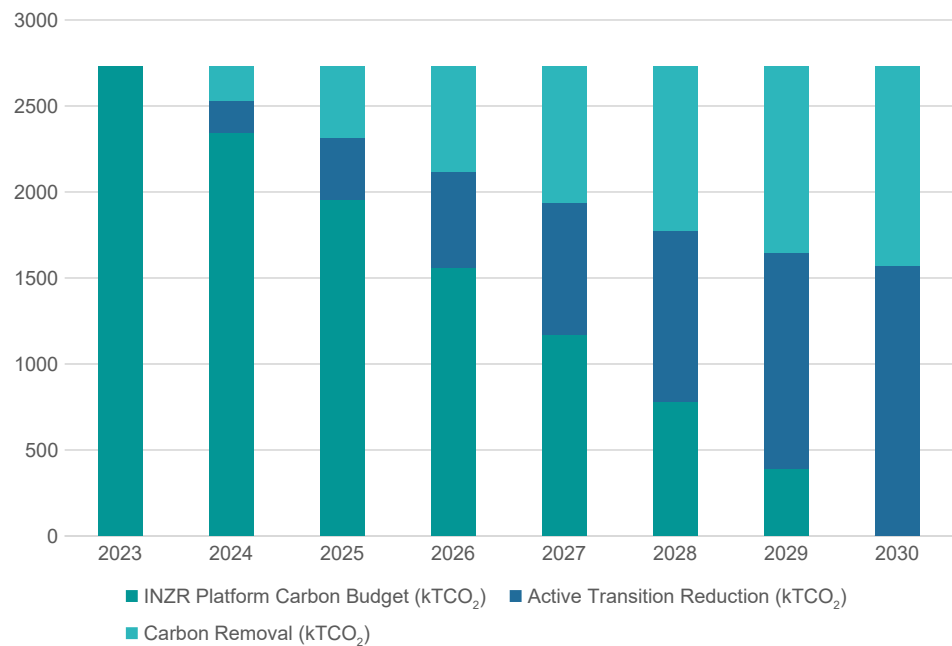
The primary support for this reporting comes from the Sustainable Scotland Network (SSN), with legislative and policy guidance provided by the Scottish Government. This support includes guidance documents, tools, workshops, and networking opportunities to help authorities understand and meet their reporting obligations. Reports are submitted using a standard template and are published on the Sustainable Scotland Network (SSN) website.

Citywide emissions are also be collected and reported on an annual basis using data provided by the Department for Energy Security & Net Zero (DESNZ). It should be noted that this information is 2 years in arrears on publication. This information feeds into our ClimateView platform and is used to help track, manage and deliver mitigation activity across the city.

Both sets of emissions reports can be viewed on the Council's [Environmental Performance](#) webpage.

Carbon Budget

For the first time the progress of the city’s mitigation activities will be monitored against an annual Carbon Budget, derived from the Net Zero Routemap, which projects the required amount of carbon dioxide (CO₂) emissions reduction each year. The Carbon Budget will be reviewed annually.



Carbon Budget projection for Glasgow based on the Net Zero Routemap projected pathway (2024)

It should be noted that the 2023 carbon emission value for Glasgow of 2,170 kTCO₂ obtained from the annual UK Government publication varies slightly from the value of 2,732 kTCO₂ we are using in our Carbon Budget for that year.

This is due to additional available sources of local information that we can consider as part of our local monitoring. We will however continue to use both data sets and monitor the trend of both.

Year	INZR Platform Carbon Budget (kTCO2)	Active Transition Reduction (kTCO2)	Carbon Removal (kTCO2)
2023	2732	0	0
2024	2342	188	202
2025	1952	365	416
2026	1561	556	615
2027	1171	765	796
2028	781	995	956
2029	390	1259	1083
2030	0	1573	1160

Carbon Budget projection for Glasgow based on the Net Zero Routemap projected pathway (2024)

Adaptation Reporting

There is significant National governance associated with Adaptation action.

The [Scottish National Adaptation Plan 3 \(SNAP3\)](#) sets out the actions that the Scottish Government will take between 2024 and 2029 to increase resilience to climate impacts. It is clear that local authorities play a key role in adaptation and this plan aims to support to all five outcomes set out in the national approach.

The Metropolitan Glasgow Strategic Drainage Partnership (MGSDP) delivers schemes across the city which reduce flood risks and impacts, improve water quality, bring greenspace improvements through blue-green interventions, and increase drainage capacity. Although much of this activity is region-wide, our Climate Plan includes monitoring and reporting of key parts of this activity which has a direct bearing on the city.

Glasgow City Council also has a responsibility to prepare our public services for current and future climate risks. But we cannot do this alone. Fully participating in the available networks including [Climate Ready Clyde](#) and the [Public Sector Climate Adaptation Network](#) will support action at a local and regional scale.



Risk Management

The Council maintains a [Corporate Risk Register](#) which is reviewed on a half yearly basis and includes a specific risk item on climate which has remained a consistent 12/15 for the past two years:
Insufficient response to climate and ecological emergency

The Climate and Sustainability Programme maintains its own risk register in the same format where key risks are collated from each of the Climate Plan actions. Each action in the Climate Plan is managed using standard project management tools and techniques including risk and issues logs.

As part of the development of this plan, key risks have already been identified and will be regularly monitored and where viable, reduced or mitigated. Some of the key risks are closely related to the Challenges mentioned earlier and include:

Risk	Description	Mitigation	Risk Rating
Resources	Risk of insufficient Resources	Identification of external finance	● M
Data	Risk of insufficient data to allow robust progress monitoring	Use of the Net Zero Routemap output, use of Climate View, engagement with national and international bodies	● L
External Issues	Risk of external issues impacting delivery of the Climate Plan	Provide support to residents and organisations, climate communication and engagement, advocate for climate support	● M
	Risk that other pressures will impact the involvement of key stakeholders	Communicate wider benefits of climate action	● M

● High Risk

● Medium Risk

● Low Risk



Review

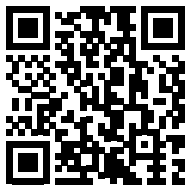
This revision adopts an iterative approach to ensure accounting for the continual changes and advancements in climate change mitigation and adaptation approaches and technology.

A Change Request process requiring approval by the Climate and Sustainability Board will ensure that any further revisions obtain suitable scrutiny.

Revisions are further managed through the commitment to undertake an annual progress review and provide an update to Council Committee on successes, challenges, recommended additional action or support required.

Get in touch

If anything you've seen or read in this document interests you, and you want to learn more or get involved with climate action please contact the Sustainability Team at Glasgow City Council on: sustainability@glasgow.gov.uk



The Climate Action Plan Categories



The Climate Action Plan shows the Categories, key Objectives and individual Actions. This Climate Action Plan can be reviewed at www.glasgow.gov.uk/climateplan.

A detailed description of each Category is shown on the following pages.

 Communication, Engagement and Skills	 Climate Governance	 Climate Risk Assessment	 Green Economy
 Transport	 Heat	 Energy	 Resources: Food, Water, Waste
 Natural Environment & Biodiversity	 Carbon Capture	 Built Environment	

Communication, Engagement and Skills

To achieve the actions within this plan and reach our targets we need to build knowledge and understanding and strengthen common cause. By sharing information about climate topics, continuing to build skills, and prioritising wide-reaching and meaningful engagement, we can create a strong foundation for all climate activity.

The actions highlighted within this theme align closely with the Scottish Government aim for engagement:

“Everyone in Scotland recognises the implications of the global climate emergency, fully understands and contributes to Scotland's response, and embraces their role in the transition to a net zero and climate ready Scotland.”

- Net Zero Nation: public engagement strategy

By removing barriers preventing anyone from being involved with climate action, we can reduce the inequality of impacts and increase the opportunity to help realise the goals of the Climate Plan and enable a Just Transition. Disadvantaged groups are disproportionately affected by the impacts of climate change and this plan aims to support those groups to reduce these impacts.

This supports our goal for every Glaswegian to be able to reskill and upskill to participate in the just transition to a net zero and climate resilient economy (source [‘Just Transition Skills Action Plan’](#)).

Building on the clear intention within this plan for climate communication, engagement and skills development, the actions within this theme prioritise availability of accessible information and resources about climate topics and on developing and continually improving the way we work together to make sure everyone across all generations has the opportunity to get involved and bring people to the heart of climate action and building a more resilient city. Having this focus is the key to delivering a just transition towards a climate friendly and resilient city.



Climate Governance

Glasgow's declaration of a climate and ecological emergency has paved the path to making climate change a cross-cutting priority for the city. Glasgow City has made strong commitments to climate leadership, but continuing to deliver on these requires coordinated action across departments, sectors, and communities.

Therefore, embedding climate change in all decision-making and planning processes and in the creation of policies and strategies is of ultimate importance.

Seeing climate change through the lenses of both mitigation and adaptation strategies is critical to ensure any actions aimed at achieving net zero targets, avoid any potential negative environmental and social impacts, and lead to a city which is resilient to climate impacts, especially for the most vulnerable. Transparent decision-making, inclusive engagement, and robust monitoring systems are essential to ensure accountability and progress. Glasgow is committed to aligning with the National

approach to use ClimateView to provide robust transparent information on progress towards our goals. Strong governance ensures that climate action is equitable, inclusive, and aligned with the city's broader social, health and economic goals.



Transport

Transport is the second highest emitting sector and although reductions have been achieved, the pace has been slower than needed. In order to further reduce transport contributions to climate change, it is essential to improve the accessibility and affordability of sustainable transport modes and active travel, thus reducing the number of miles travelled in private vehicles and Glasgow's [Transport Strategy](#) aims to achieve this.

Public transport is the backbone of how people move around a sustainable city, so Glasgow's system needs to be affordable and accessible for everyone, safe, with facilities for ticket and infrastructure integration. A transport system that is powered through electricity and renewable and low carbon sources will maximise carbon reduction efforts. The Glasgow City Region Bus Partnership is critical to Glasgow's transport system.

Further to reducing the carbon emissions from transport, building resilient transport systems is critical. With more flooding, heatwaves, and extreme weather events, the transport infrastructure needs to be climate-proof to resist weather impacts and avoid service interruptions or risks to the population's health and wellbeing.

The actions within this category aim to develop a resilient, decarbonised city transport system.



Heat

How we heat our buildings contributes to a significant proportion of the city's carbon emissions. Addressing emissions from heating and hot water is critical for both mitigation and adaptation.

Glasgow has the highest heat demand in Scotland, due to the relatively compact and dense nature of the city. This urban form presents potential for substantial carbon reductions, and new opportunities for social and economic models of heat delivery.

Transitioning to low-carbon heating solutions, such as district heating, and energy-efficient retrofits, will significantly reduce emissions and improve comfort for residents. The wide range of actions included within the [Local Heat and Energy Efficiency Strategy](#), alongside the [Housing Strategy](#) and the [Housing Retrofit Position Statement](#) will deliver on decarbonisation of heat supply as well as addressing fuel poverty and energy security. Likewise, progressing the [Carbon Management Plan 3](#) will help reduce heat related carbon emissions in the council's buildings.

Key focus areas for Glasgow's strategy to decarbonise heat include:

- Ensuring that any transition to low carbon heating can be achieved without increasing fuel bills
- Deploying district-scale heat networks
- Addressing the complexities around decarbonising pre-1919 tenemental stock
- Targeted energy efficiency interventions at those most at risk of fuel poverty
- Accelerating the rate of individual heat pump installation in domestic properties, targeting able-to-pay / high carbon emitters first
- Using the decarbonisation of the Council's own estate to support wider decarbonisation in areas where the Council are located
- Working with the Scottish and UK Government's to advance legislation and regulation that will be critical to the de-risking of heating system transition at both individual and district levels

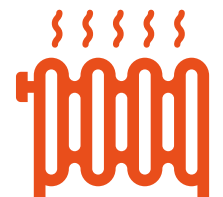


Heat Networks and Building Owners

Glasgow's LHEES identified 21 Indicative Heat Network Zones (pg.88, LHEES), where it is understood that heat networks would be the most economically viable. It is important to emphasise that the zones identified at this stage are indicative only. Glasgow City Council is awaiting forthcoming legislation from the Scottish Government which will establish the statutory framework for the formal designation of Heat Network Zones and clarify the implications for building owners located within or outside of those zones.

In the interim, domestic property owners situated within the current Indicative Heat Network Zones who are considering transitioning to renewable heating **should not delay investment on that basis alone and may proceed with the installation of individual heat pump systems where appropriate.**

For owners of large non-domestic buildings within Indicative Heat Network Zones, engagement with Glasgow City Council should be undertaken prior to decisions on alternative heating systems to understand their building's potential role in the future deployment of heat networks in their area.



Built Environment

Glasgow's built environment plays a central role in shaping the city's carbon footprint and resilience to climate change. As the city grows and regenerates, it's essential to ensure that planning and housing sectors including investors, developers and infrastructure owners support green, resilient, and inclusive communities, leaving no one behind.

Creating new thriving places is essential in meeting the needs of residents and visitors now and for the natural environment, households, built environment and transport infrastructure of those who will choose to live and work here in future years.

The city has committed to meeting housing needs in Glasgow and creating the policies for new developments to be climate ready. This entails building and providing homes and a built environment that are not only affordable but also low carbon, energy efficient, and climate resilient.

Providing that will require improved fabric energy efficiency and clean heating systems for residential buildings, while also safeguarding Glasgow's historic buildings, and implementing alternatives to the retrofit of pre-1919 tenements as set out in the Housing Retrofit Position Statement.

Buildings are responsible for a significant share of emissions, primarily through heating and energy use, but also in their construction and demolition. Addressing climate considerations and adapting buildings and infrastructure to climate hazards is crucial.

Ensuring the built environment is resilient and effectively adapted to climate change, and reducing emissions associated with how we heat our buildings presents opportunities to create an environment where Glasgow can ensure a just transition to net zero and an adapted city that is equitable for all.

While it is an imperative to decarbonise our built environment if the city is to reach Net Zero, the scale of the challenge associated with the retrofit of "hard-to-treat" buildings in the city (namely Glasgow's tenemental stock) from both a financial and technical perspective is recognised.



Energy

The greatest share of emissions in Glasgow city comes from energy and heat as the city still relies heavily on fossil fuels, particularly for heating and transport.

Overall energy consumption within the city is estimated at around 9,600TWh/a with around 5,200GWh/a (54%) attributed to the serving of some form of heating demand across the residential and non-residential sectors.

Crucially fuel poverty remains a concern, with around 25% of the population struggling with their energy bills.

Supporting energy efficiency measures and decarbonising the energy sector offers impactful opportunities to reduce emissions and improve quality of life.

Increased reliance on electricity to decarbonise these sectors will require significant investment into national grid infrastructure, and it is a priority of the Council to ensure that consumers are protected from associated energy costs increases.

Through the [Carbon Management Plan 3](#), Glasgow City Council are concentrating efforts to reduce the energy consumption in its buildings and reduce the whole organisation's carbon footprint. At a city-wide scale, supporting energy efficiency actions, deploying heat networks and increasing the rollout of renewable energies and the [Community Renewable Energy Framework CREF](#) will lead to the deployment of more sustainable energy sources, alongside creating green jobs and working to address fuel poverty. In order to achieve the priorities within this section at scale and pace there needs to be a focus on securing financing to accelerate delivery.



Resources: Food, Water, Waste

To ensure we support Glasgow as a thriving city, we need to consider the ways in which we use resources. The food and water we consume and waste we create are all important parts of this category.

It is important for the environment and our health that we support the development of a sustainable food system across the city. Bringing opportunities for locally grown food, skills development, and greening of spaces across the city as well as emissions reduction through lowering food miles.

There is a growing body of evidence that demonstrates how a circular economy provides tools to tackle emissions, while addressing a just transition to a green economy for cities, communities and businesses. Glasgow has ambitious policies to improve waste reduction and recycling. Glasgow's [Circular Economy Route Map to 2030](#) outlines the vision of a circular city. Its implementation will help encourage residents, visitors, organisations and

business to reuse and recycle, following the waste and circular hierarchy.

Glasgow aims to prevent waste at source, promote reuse and repair, and ensure that recycling is accessible and effective. The city is also working to promote the use of lower-carbon, plant-based packaging options through procurement, supporting sustainable lifestyles and reducing the environmental impact of food and goods. A thriving circular economy will not only cut emissions but also create green jobs, reduce resource dependency, and foster innovation across industries.



Green Economy

Glasgow's commitment to reducing the city's contributions to climate change goes beyond mitigating emissions and adapting to climate hazards, the city has committed to ensuring a just transition to a green economy. This transition offers opportunities to create green jobs, attract investment, and build resilience through affordable opportunities. Sectors such as construction, energy, transport, and manufacturing are poised for transformation through innovation and sustainability.

To achieve a just transition to a green economy, the city needs robust and sustained support. Glasgow City Council has already started implementing various measures to support this transition, many of which are encapsulated in documents such as the [Just Transition Skills Action Plan](#) and the [Sustainable Procurement](#) strategy as well as a Green Investment Model, and a Community Municipal Investment Platform, among others.

Additional investment and funding sources will be important to further strengthen the climate agenda and support projects aiming at decarbonising activities and climate-proof the city, and our relationship across the city region plays an important role in this. Supporting low-carbon industries, reskilling workers, and fostering entrepreneurship will ensure that the city remains competitive and inclusive.



Climate risk assessment

In this Climate Plan we have highlighted how adaptation and mitigation actions both contribute towards our city-wide approach to tackling the Climate Emergency. It is important to consider both aspects when taking climate action as there can be positive trade-offs, or unseen impacts of the changes made. In all mitigation actions taken, consideration to current and future climate risks should be given to ensure long term impacts of the changes made. Similarly in all adaptation action, it is important to strive not to increase emission as a result. By taking this dual approach to action, we can create multi benefit and resilient changes in our city.

Glasgow faces a range of climate risks, including increased rainfall, flooding, heatwaves, shifting weather patterns and associated health inequalities. As the climate changes and weather events increase their intensity, it will be essential to develop a deeper understanding of the potential risks that climate hazards could pose to Glasgow City Council, residents and visitors, the built environment, natural habitats, and the economic environment of the city.

Our work across the city region through working with [Climate Ready Clyde](#), is integral to developing our understanding of how we can best take action to reduce climate risks. There are a range of actions also included which are focussed on building the resilience of both places and communities to climate risks as we strive to become a thriving city.



Natural environment

Glasgow's natural environment is a vital asset in the city's response to climate change, supporting both mitigation and adaptation efforts. The city is home to a variety of habitats, including urban woodlands, rivers, parks, and green corridors, which provide essential ecosystem services and support a wide range of species. It is therefore important to continue to protect them, and where possible increase their size and number.

Glasgow is a signatory to the [Berlin Urban Nature Pact](#) and commits to “a Pact for the future of humanity as well as urban nature and biodiversity, the basis of the well-being and health of our citizens.”

Implementing the [Local Biodiversity Action Plan](#) alongside the Pollinator Plans, the [Forestry and Woodland Strategy](#) and the [Open Space Strategy](#), will be fundamental in maintaining and growing tree canopy cover across the city. This will prolong their benefits to health and wellbeing, as carbon sinks and protecting the city's biodiversity.

What's more, nature-based solutions are central to Glasgow's climate plan, offering low-cost, high-impact interventions that deliver multiple benefits. Delivering more of these solutions across the city will bring about more instances for absorbing carbon

emissions and reducing impacts from weather events.

The air we breathe is also an important part of this category.

The city has undertaken a range of projects which have had positive impact on air quality in the city. From the Low Emission Zone to the increasing deployment of cycling infrastructure, we know the air quality in the city is improving. But we need to ensure that we continue to consider the impacts of our actions on air quality.

The River Clyde is a vital resource for the city, in fact it also features in other categories for its potential as a heat source. The actions within this section also focus on protecting the natural environment of the river.

Through working collectively across communities and developing measures to protect and expand the natural environment and biodiversity, Glasgow can create a greener, healthier, and more resilient city for future generations.



Carbon Capture

Achieving Net Zero Carbon will require clear implementation of the mitigation actions detailed in this Climate Plan. There will be a need to deliver a range of actions to further remove residual emissions to allow us to reach a net zero carbon position.

Therefore, both nature-based solutions and carbon removal technologies will be essential to complement the delivery of those ambitious and challenging mitigation measures. The setting of annual carbon budgets will enable us to track our progress in all areas of our net zero journey.

Work with external partners will be needed to explore the potential for the nature based solutions required to overcome the emissions gap, identify best practice going forward, and align our efforts to national guidance. Opportunities for carbon sequestration would benefit from both greater research and a national approach, to further understand the capacity of the city and how we can work with other less densely populated local authorities.

While emission reductions remain the priority, carbon removal offers a pathway for hard to address emissions sectors and legacy emissions. It also provides co-benefits such as biodiversity enhancement, improved air quality, and community engagement in climate action.



Glossary of Terms

Word / Phrase	Definition
Biodiversity	This refers to the variety of plant and animal life in an area and how they interact within habitats and ecosystems (like lakes and native forests).
Blue-Green infrastructure	Natural infrastructure designed to include features which have several benefits such as managing rainwater, mitigating flood risk, improving air quality, and enhancing biodiversity and community well-being. Examples include ponds, lakes, rivers, streams (blue) and parks, gardens, woodlands, street trees and green roofs (green).
Carbon budget	A carbon budget is a way for countries to limit how much greenhouse gases they emit over a fixed time in policy or law.
Carbon Capture and Removal	This means using technology to take carbon dioxide from the atmosphere or to capture the carbon dioxide before it is emitted to the atmosphere.
Carbon Sequestration	The removal and storage of carbon from the atmosphere.
Circular Economy	In a circular system, materials and products never become waste, instead they keep being used, and nature is revived. A Circular Economy is based on three principles: • Eliminate waste and pollution • Circulate products and materials • Regenerate nature and it is underpinned by a transition to renewable energy.
Climate Adaptation	Adaptation is making changes to better prepare and protect against climate impacts, whilst also taking advantage of any opportunities that occur as a result of the impacts.

Word / Phrase	Definition
Climate Change	The changing climate and weather being experienced globally as a result of increasing temperature from global warming.
Climate Justice	Recognises that the people who have created the least emissions are usually the same people who are now being affected by climate impacts the most.
Climate Mitigation	Mitigation means reducing the emission of greenhouse gases that are released to the atmosphere.
Climate resilience	A state of being capable of accommodating climate change. Could be a mindset, environment or a culture
Climate vulnerability	A state of being at risk of being destabilised by climate change. Could be a mindset, environment or culture
Co-Benefits	Great additional benefits that you might see from taking climate action. They help us to understand that taking climate action not only helps the planet, but people and our economy too.
Decarbonisation	Removal of emissions released from a project, building, company. For example, decarbonisation of a building would mean removing all emission sources from the building.
Ecosystem	A biological community where living organisms (plants, animals, microbes) and non-living components (air, water, sunlight, soil) interact with each other
Energy Efficiency	Using energy (electricity, gas, petrol etc) in a way that reduces waste as much as possible.
Fossil fuel	A fuel derived from geological deposits of plant and animal remains, such as coal, oil, or natural gas.
Fuel Poverty	Inability to meet the energy cost at home. The cost to maintain satisfactory level of heating are over 10% of household's monthly income after housing costs have been taken away.
Global Warming	More GHGs in the atmosphere are leading to more heat being trapped in the atmosphere. This is leading to an increase in temperature globally.

Word / Phrase	Definition
Green Economy	A green economy is low-carbon, resource efficient and socially inclusive.
Greenhouse Effect	The process where Greenhouse Gases trap and hold heat in the atmosphere, preventing heat from escaping to space. An essential process to keep Earth warm.
Greenhouse Gas	A gas which can trap and store heat in the atmosphere. Also known as GHGs and includes Carbon Dioxide, Methane, Nitrous Oxide and F-gases.
Heat Network	A system where heat is supplied from a central source to consumers by distributing hot water in underground pipes
Heat pump	A heat pump is a cleaner, more efficient alternative to a gas boiler. It collects heat from the air, water, or ground and uses electricity to raise it to a useful temperature for heating your home or building.
Just Transition	Means that the journey to reduce emission and adapt to climate impacts is fair and creates a better future for everyone – regardless of where they live, what they do, and who they are
Net Zero	When the amount of emissions being added to the atmosphere by emission sources is the same as the amount of emissions being removed from the atmosphere by emission sinks, emissions are balanced and the overall amount of emissions in the atmosphere does not change.
Nature Based Solutions	Addressing climate change by protecting, restoring or sustainably managing natural ecosystems to help mitigate and adapt to climate change.
Offsetting	An action or activity (such as the planting of trees or carbon sequestration) that compensates for the emission of greenhouse gases to the atmosphere.
Planetary boundaries	The planetary boundaries are nine systems with a defined limit. Crossing the limits increases the risk of generating large-scale abrupt or irreversible environmental changes.

Word / Phrase	Definition
Renewable Energy	Energy which is not finite (does not run out). There is a limited amount of fossil fuels, and they will eventually run out. This term usually refers to energy which will not run out like wind or solar.
Scope 1,2 and 3 emissions	Emissions are the Greenhouse gases produced by human activity. They are generally split into direct emissions (greenhouse gases produced directly within the city boundary) and indirect emissions (greenhouse gases generated outside the city boundary, but driven by city activity). These are then further subdivided into three scopes: Scope 1 refers to the direct emissions from operations that come from within the city area as a direct result of activity.; Scope 2 refers to indirect emissions such as emissions from the generation of purchased electricity. Scope 3 are all other indirect emissions that occur through related activity outside the city boundary or in the supply chain of an organisation. (https://ghgprotocol.org/scope-3-frequently-asked-questions-0)
Sustainable Development Goals	Global goals set by the United Nations to protect the planet, end poverty and provide peace and prosperity for everyone by 2030
Sustainable procurement	This means that during purchasing decisions, Environmental, Social, and Governance (ESG) factors are included.
Target 2030	This is the Scottish Government's "Scotland's Learning for Sustainability Action Plan 2023-2030" It aims to build an inspiring movement for change so every 3-18 place of education becomes a Sustainable Learning Setting by 2030.

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