



Glasgow City Council

Net Zero and Climate Progress Monitoring City Policy Committee

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Glasgow Climate Programme update

Purpose of Report:

To provide an update on the Glasgow Climate Plan, emissions in Glasgow and future climate reporting plans.

Recommendations:

It is recommended that the Committee note the report.

Ward No(s):

Citywide: ✓

Local member(s) advised: Yes ☐ No ☐ consulted: Yes ☐ No ☐

PLEASE NOTE THE FOLLOWING:

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1. Background

- 1.1 The Council declared a Climate and Ecological Emergency in [May 2019](#).
- 1.2 Glasgow's Climate Plan was subsequently developed and unanimously approved by the City Administration Committee [in June 2021](#).
- 1.3 Following significant review and public consultation, the Climate Plan was revised to account for progress and changing legislation, policy, environmental conditions, technology advancement and economic considerations and was approved by the City Administration Committee in [May 2026](#).
- 1.4 [Glasgow's Climate Plan 2026 -2030](#) continues to have a target to become a net zero carbon city by 2030 and also incorporates the aspiration of a city resilient to climate change as previously outlined in the 2022 Adaptation Plan.
- 1.5 The Plan sets out how activities will be governed and includes reference to statutory reporting requirements on Glasgow City Council.

2. Citywide Emissions

- 2.1 As part of the revision, progress towards the net-zero carbon target will be monitored against a Carbon Budget, developed from data used in the creation of Glasgow's [Net Zero Routemap](#) which was presented to Net Zero and Climate Change Progress Monitoring Policy Development Committee and subsequently approved by the City Administration Committee in November 2024.
- 2.2 The Routemap established the scientific basis underpinning the ambitions set out within Glasgow's Climate Plan and provided a robust foundation for emissions modelling and scenario planning.
- 2.3 Developed using the [ClimateView](#) platform, it enabled the city to better understand city-wide emissions, assess mitigation opportunities and explore potential pathways towards Glasgow's net zero ambition. As part of this work, a city-wide emissions inventory was developed to quantify emissions across the city and provide the baseline from which future emissions pathways could be modelled and monitored. Consideration was given to the integrity of available datasets with 2023 agreed as a robust baseline year.
- 2.4 A Carbon Budget provides us with annual carbon emission targets required to be met if we are to stay on track to meet the projected pathway set out in the Net Zero Routemap. Figure 1 below shows the annual carbon budgets set for the city up to 2030.

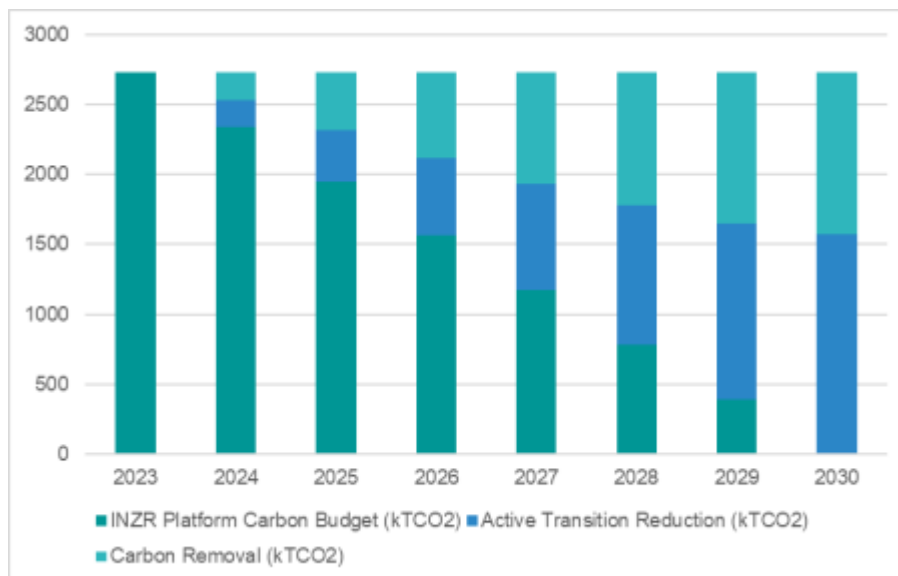


Figure 1: Carbon Budget projection for Glasgow based on NZ Routemap projected pathway

- 2.5 Glasgow has monitored its citywide emissions since 2005 via data produced by the Department for Energy Security and Net Zero (DESNZ), formerly the Department for Business, Energy and Industrial Strategy (BEIS), which releases [data on carbon emissions](#) for local authorities annually, two years in arrears and it is this data that will be compared against the Carbon Budgets.
- 2.6 Glasgow's CO₂ emissions in 2024 totalled 2,121.5 kilo-tonnes¹ of carbon dioxide (ktCO₂). This represents a 3.3% reduction from the 2023 total of 2,192.8 ktCO₂ and a 50.6% reduction from the baseline year of 2006 (a total reduction of 2,176 ktCO₂). Figure 2 below plots emissions since baseline, per the DESNZ data.

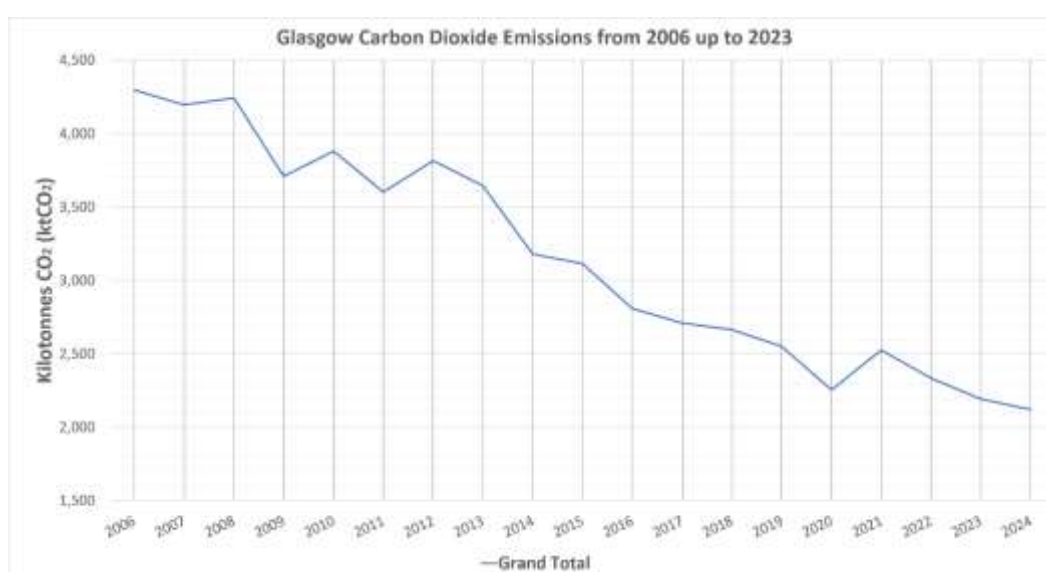


Figure 2 - Glasgow CO₂ emissions 2006-24

¹ 1 kilo-tonne (kt) is equal to 1000 tonnes.

- 2.7 Figure 3 below shows that emissions reduction progress since 2023 is ahead of the Carbon Budget target.

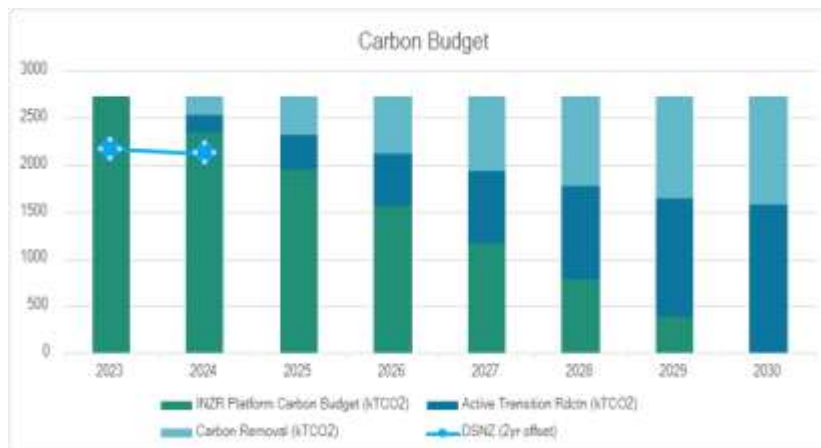


Figure 3: Carbon Budget vs DESNZ data

- 2.8 Work is ongoing with regards to how we manage the residual emissions position in the carbon budget. Tree planting activity in the city is ongoing, helped by funding raised through a Community Municipal Investment however, this will only contribute a small amount of sequestration relative to the target. The Sustainable Glasgow Partnership is exploring ways to develop regional and national approaches to sequester carbon on behalf of cities as the economic engines of the regions.

3. Sectoral Emissions

- 3.1 The sectoral carbon emissions profile for the period 2006 until 2024 from the DESNZ data can be found in Figure 4 below, with the corresponding figures contained in Table 1 below.

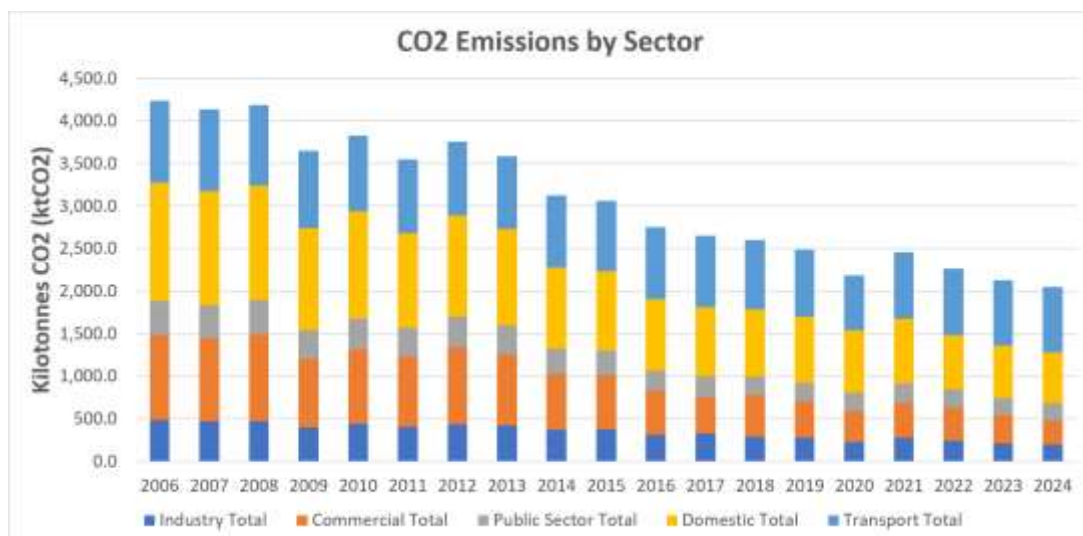


Figure 4 - CO₂ Emissions by Sector 2006-24

Sector	Total Emissions 2024 (ktCO ₂)	Emissions change 2023-24			Emissions change 2006-24		
			ktCO ₂	%		ktCO ₂	%
Domestic	596.3	▼	- 20	- 3.2%	▼	- 795.5	- 57.2%
Transport	772.5	▲	+ 5.6	+ 0.7%	▼	- 188.1	- 19.6%
Industrial	195.1	▼	- 15.9	- 7.5%	▼	- 287.3	- 59.6%
Commercial	283.2	▼	- 48.4	- 14.6%	▼	- 715.9	- 71.7%
Public Sector	204.9	▲	+ 5.9	+ 3%	▼	- 200.6	- 49.5%

Table 1 - CO₂ Emissions by Sector 2006-24

3.2 Figure 4 and Table 1 above highlight some key points:

- ▼ Emissions from the Commercial sector reduced the most between 2023-24, witnessing a 14.6% reduction (48.4 ktCO₂).
- ▼ Domestic emissions and Industrial emissions continue their downward trend, reducing their emissions from the previous year by 3.2% (20 ktCO₂) and 7.5% (15.9 ktCO₂) respectively.
 - Objective analysis of the DESNZ data is challenging, but the trends suggest two key drivers. First, domestic emissions likely fell the least because households have less purchasing power than businesses to invest in energy-saving initiatives. Second, industrial emissions fell less than commercial ones because industrial operations require a fixed minimum of energy and lack operational flexibility.
- ▲ Transport emissions rose slightly by 0.7% between 2023-24 and remains the highest emitting sector at 772.5 ktCO₂, continuing this trend from the previous year. This is anticipated to continue as emissions from stationary energy continue to reduce due to the ongoing decarbonisation of the electricity grid.
- ▲ Public sector emissions rose 3% (5.9 ktCO₂) between 2023-24.
 - The rise in public sector emissions can largely be attributed to emissions from gas consumption, and emissions categorised as 'other' (use of other non-gas or non-electricity sources such as fuel oil, gas oil, or diesel). Gas emissions across the public sector rose 6.3 ktCO₂ (4.5%) between 2023-24 whilst emissions categorised as 'Other' rose 6.9 ktCO₂ (42.4%) during the same period.
 - Glasgow City Council is likely not the driver behind the emissions increases seen within the public sector in Glasgow in 2024. The Council's own emissions data, as reported in the Annual Updates on Carbon Management Plan 3 Activity to the Net Zero and Climate Progress Monitoring City Policy Committee show a reduction from 98,151 tCO₂e in 2023/24 (as reported in [March 2025](#)) to 95,216.95 tCO₂e in 2024/25 (as reported in [April 2026](#)).

4. Source Emissions

- 4.1 The profile of carbon emissions by source for the period 2006 until 2024 from the DESNZ data can be found in Figure 5 below, with the corresponding figures contained in Table 2 below.

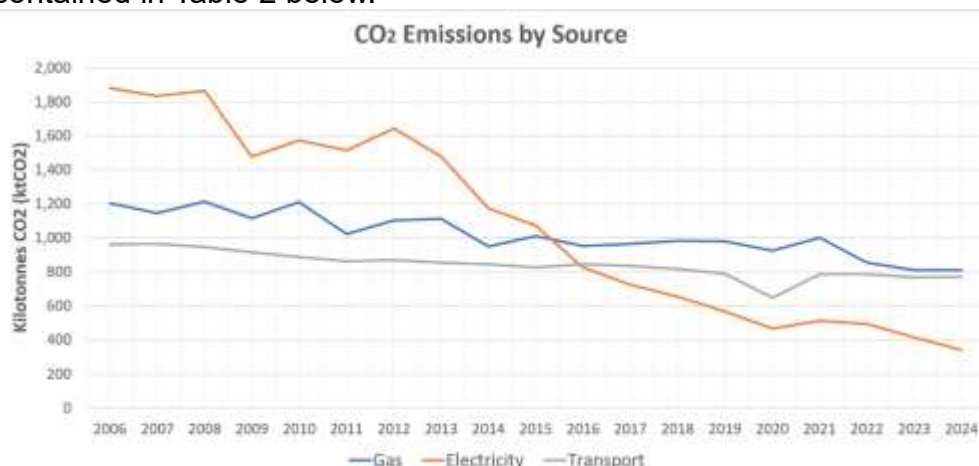


Figure 5 - CO₂ Emissions by Source 2006-24<<<

Source	Total Emissions 2024 (ktCO ₂)	Emissions change 2023-24			Emissions change 2006-24		
			ktCO ₂	%		ktCO ₂	%
Gas	812.4	(▲)	+ 2.5	+ 0.3%	▼	- 392.9	- 32.6%
Electricity	341.7	▼	- 73	- 17.6%	▼	- 1,537.6	- 81.8 %
Transport	772.5	(▲)	+ 5.6	+ 0.7%	▼	- 188.1	- 19.6%

Table 2 - CO₂ Emissions comparison by Source 2023-24 & 2006-24

- 4.2 Figure 5 and Table 2 above highlight some key points:

- ▼ Electricity continues to be the source of the fastest reducing emissions, reducing by 17.6% (73 ktCO₂) between 2023-24 and by 81.8% (1,537 ktCO₂) from the baseline. This aligns with data that shows Glasgow increasing its installed solar PV capacity from 21MW in 2023 to 24MW in 2024². Alongside this, grid electricity in Scotland continued toward net zero between 2023 and 2024, with the proportion of electricity generation by renewable rising from 70.7% to 73.1% of total fuels.³
- ▲ Both gas and transport emissions have seen statistically insignificant increases between 2023-24 of 0.3% (2.5 ktCO₂) and 0.7% (5.6 ktCO₂).
 - DESNZ data on gas consumption shows a small reduction of 44GWh between 2023 (4,502.7GWh) and 2024 (4,458GWh), amounting to a 1%

² <https://scotland.shinyapps.io/sg-scottish-energy-statistics/?Section=RenLowCarbon&Subsection=RenElec&Chart=RenElecCapacity>

³ <https://scotland.shinyapps.io/sg-scottish-energy-statistics/?Section=RenLowCarbon&Subsection=RenElec&Chart=ElecGen> - -

drop in consumption – which is of the same statistical insignificance as the emissions shift.

- Active Travel projects support alternatives to car transport and it is reasonable to surmise that without these, transport emissions may have increased further. Examples have been provided below, full information is provided in the reports to the Environment and Liveable Neighbourhoods City Policy Committee in [January 2024](#) and [February 2025](#):

- o Garscube Road and the North Woodside Road and Raeberry Street phases of Connecting Woodside were completed in 2022/23,
- o In 2023, Phases 6 and 7 of the East City Way provided a further 2.6km of segregated cycle infrastructure.
- o The South City Way project, completed in 2024, delivers 3km of dedicated, cycle infrastructure and a number of upgraded and reprioritised junctions from the Queens Park area of the city to the Merchant City. In the 3 years prior to February 2025, over 13% of all trips on the network were undertaken by bike and over 2.7m cycle journeys recorded along the route.
- o 20 new secure cycle hangers were installed across the city centre in September 2023. The new shelters provide a secure place to store bikes temporarily for visitors to the city centre.
- o Glasgow's Cycle Hire scheme was expanded with nearly 1,050 standard pedal cycles available in early 2024.

▼ Whilst gas and transport emissions have reduced from the baseline, the rate of reduction is substantially slower than that seen for electricity.

5. Evolution of Citywide Emissions Reporting

- 5.1 Since publication of the Net Zero Routemap, the [Scottish Climate Intelligence Service](#) (SCIS) has become the national standard for area-wide greenhouse gas emissions reporting across Scotland. SCIS provides all Scottish local authorities with a consistent greenhouse gas inventory, clear methodological documentation and technical support for the ClimateView platform. Alignment with SCIS will ensure Glasgow's emissions reporting remains consistent with national practice and supports improved benchmarking, collaboration and transparency across all Scottish local authorities.
- 5.2 Transitioning to an SCIS-aligned inventory will result in changes to both the scope and source of emissions reported. Unlike the emissions dataset used to support the original Net Zero Routemap and previous committee reporting, the SCIS methodology includes a broader range of emission sources and additional greenhouse gases beyond carbon dioxide (CO₂) thus the reported baseline and annual emissions history will require to be updated. The SCIS methodology also relies on additional processing of national datasets, resulting in annual emissions data becoming available later in the year.

- 5.3 Consequently, future city-wide emissions reporting will be scheduled to align with the SCIS publication schedule.
- 5.4 Glasgow has also been working alongside SCIS and ClimateView to develop Glasgow's ClimateView dashboard. The purpose of this dashboard is to provide a data led overview of activities contributing to Glasgow's emissions and present information on action being taken to reduce these emissions. The information contained within the ClimateView dashboard is aligned with both the SCIS methodology and the reviewed actions within Glasgow's Climate Plan and is designed to present information for the public in an accessible way.

6 Policy and Resource Implications

Resource Implications:

Financial: There will be financial implications to fund the delivery of the actions proposed in Glasgow's Climate Plan. Funding may be required to support studies and research, support action on the ground, as well as communications and capacity building activities.

Legal: The delivery of the Climate Plan strongly supports the requirement to fulfil the Public Bodies Duties on Climate Change under Climate Change (Scotland) Act (2009).

Personnel: There may be resource impacts as actions are developed and passed onto the appropriate areas within the delivery/stewardship.

Procurement: There are likely to be procurement implications associated with actions proposed both for developing guidance and policy and potentially procuring services such as consultancy from academic institutions.

Council Strategic Plan: Glasgow's Climate Plan supports the Council Strategic Plan Grand Challenge 3 "Fight the climate emergency in a just transition to a net zero Glasgow", specifically Mission 2 "Become a net zero carbon city by 2030" and also supports GC3 Mission 1 "Deliver sustainable transport and travel aligned with the city region", GC2, Mission 1 "Support Glasgow residents into sustainable and fair work", GC2, Mission 2 "Support the growth of an innovative, resilient and net zero carbon economy" and GC4,

Mission 1 “Create safe, clean and thriving neighbourhoods”.

Equality and Socio-Economic Impacts:

Does the proposal support the Council’s Equality Outcomes 2025-29? Please specify.

This paper does not include any proposals. The Plan aims to ensure that those citizens most vulnerable, due to their socio-economic circumstances or geographical location, are not disproportionately affected by climate impacts or left behind in the transition to a net zero society.

What are the potential equality impacts as a result of this report?

Positive impact. This report demonstrates the continuing positive reduction in carbon dioxide in Glasgow and provides update on the planned Climate Plan actions. The actions proposed in Climate Plan will deliver positive equality impacts. The Plan aims to address the impacts of climate change and ensure not only that those most vulnerable in our society are not disproportionately disadvantaged by the costs of the transition to a net zero economy, but also that they don't bear the brunt of the impacts of climate change. The Plan will continue to work towards meaningful engagement with communities in the City, specifically young people, disability groups, women and residents in geographic areas worst affected by flood or overheating who may at times be disproportionately affected by climate impacts or are likely to bear the costs of interventions disproportionately.

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

Place Based Climate Action is known to provide multiple wider benefits, it supports action to address environmental loss, improve quality of place, helps to reduce socio economic inequalities, and supporting economic prosperity. The Climate Plan has people and a just transition at its core. It includes wider benefits of climate action.

Climate Impacts:

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

Monitoring of CO2 emissions demonstrates the requirement for continued support of the Climate Plan and Glasgow’s ambition to be a net zero carbon and climate resilient City.

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

This paper does not include proposals but demonstrates the continued journey to a net-zero carbon city by 2030.

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

This paper does not include proposals but demonstrates the continued journey to a net-zero carbon city by 2030.

Privacy and Data Protection Impacts:

Are there any potential data protection impacts as a result of this report
Y/N

If Yes, please confirm that a Data Protection Impact Assessment (DPIA) has been carried out

7 Recommendations

It is recommended that the Committee note the report.