

# Carbon Management Plan 2023-2030





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# 1 Introduction

This is the third iteration of Glasgow City Council's Carbon Management Plan (CMP3). It is a critical document which supports our organisation's journey towards net zero carbon. As stewards of the community, we understand the urgency of addressing climate change and its far-reaching impacts.

This plan outlines our commitment to reducing carbon emissions, enhancing energy efficiency, and promoting sustainable practices across all facets of the Council family.

How the Council heats and powers its buildings (with electricity, gas, and oil) accounts for the majority of measurable emissions (74%). The rest of the emissions profile comprises of our petrol and diesel consumption through our fleet use, the street and stair lighting the Council provides across the city, and business travel (air, car, and rail). Additionally, there are emissions that the Council does not currently measure (broadly defined as Scope 3 emissions, discussed further in section 4.4). Understanding how Scope 3 emissions can be measured and tracked is a key action within this Carbon Management Plan.

By fostering a culture of responsible resource consumption and embracing renewable technologies, Glasgow City Council aims to lead by example, inspiring positive change within and outwith our organisational and operational boundaries.

The CMP 2023-2030 will directly support the city target of net zero carbon by 2030 outlined in our [Climate Plan](#).





## 2 Context and Drivers for Carbon Management

Glasgow City Council faces a complex set of drivers which set the context for carbon management. Crucially, the Council recognises that these cannot and should not be viewed in isolation from each other. The principal goal of continuously minimising our environmental impact whilst maximising our contribution to society and the economy underpins CMP3.

Ultimately, a strong performance with respect to carbon emissions reduction should also deliver financial benefits to the Council. The following represent the key carbon drivers for Glasgow City Council:

- [Scottish Government targets](#)<sup>1</sup>
- UK & European targets
- Reducing budgets for local authorities
- Rising and volatile energy costs
- Principle that investments in carbon reduction are generally associated with commensurate reductions in future expenditure
- The need to eliminate the wasting of resources and to increase efficiency
- The Climate and Ecological Emergency

A review of the policy, legislative and economic drivers at local, national and global level is included in Appendix A.

<sup>1</sup> The statutory emissions targets set through Scottish legislation are key drivers of Glasgow's Carbon Management Plan. By 2045, Scotland will be net zero carbon, achieving a 75% emissions reduction by 2030 and a 90% reduction by 2040 as interim targets. boroughs: Mini-Holland programme

## 3 Progress from previous Carbon Management Plan

### 3.1 Emissions Target

The target set by the second CMP (CMP2) was to reduce the Council's carbon emissions by 30% by 2020. This was based on a 2005/06 baseline and equated to a reduction of approximately 60,000 tonnes of carbon dioxide from that year's emissions (tCO<sub>2</sub>).

This target was achieved in 2017/18, three years ahead of schedule and continues to be exceeded. More information on how this target was achieved can be found in this report to the [Net Zero and Climate Progress Monitoring City Policy Committee](#) in September 2022 which provides an update on the progress made regarding the second Carbon Management Plan.

Glasgow City Council worked to achieve its target of a 30% reduction in estate emissions by 2020/21 from a baseline year of 2005/06, hitting this target three years ahead of schedule.

## 3.2 Emissions Reduction Progress

### 3.2.1 From Baseline (2005/06)

Glasgow City Council has come a long way in our journey towards net zero, reducing our carbon emissions by 52% between the baseline year of 2005/06 and 2022/23.

Figure 1 outlines the disaggregation of emissions by source across each year whilst Table 1 plots our total emissions reductions from baseline to date<sup>2</sup>.

#### Glasgow City Council CO<sub>2</sub> Emissions by Source

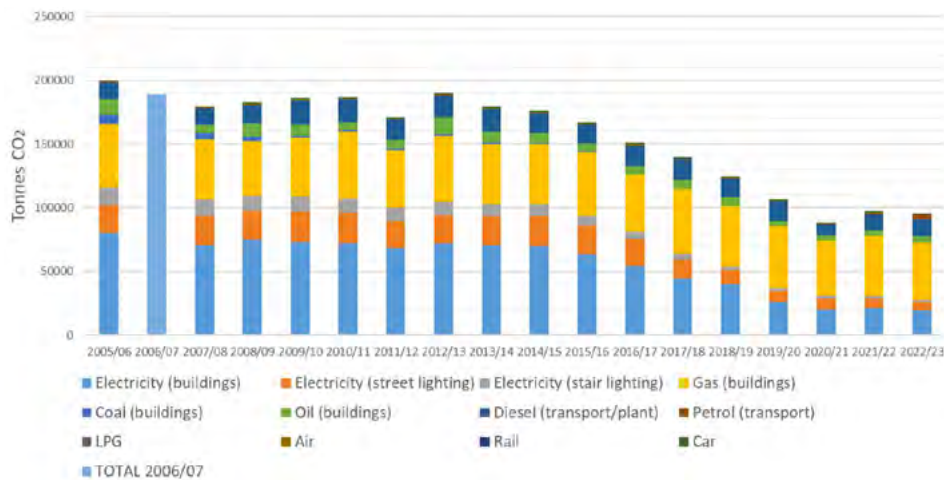


Figure 1 - Emissions reductions from baseline to date disaggregated by source

	Emissions (tCO <sub>2</sub> )	Reduction from previous year	% reduction from baseline
2005/06	199,919		
2005/06	189,180	-10,739	5.37%
2007/08	179,355	-9,825	10.29%
2008/09	182,786	3,431	8.57%
2009/10	186,359	3,573	6.78%
2010/11	186,878	519	6.52%
2011/12	171,225	-15,652	14.35%
2012/13	189,901	18,676	5.01%
2013/14	179,397	-10,504	10.26%
2014/15	175,968	-3,429	11.98%
2015/16	166,938	-9,030	16.50%
2016/17	150,867	-16,071	24.54%
2017/18	139,755	-11,112	30.09%
2018/19	124,780	-14,976	37.58%
2019/20	106,655	-18,125	46.64%
2020/21	87,881	-18,773	56.04%
2021/22	97,363	9,482	51.30%
2022/23	95,231	-2,132	52.37%

Table 1 - Emissions reductions from baseline to date

<sup>2</sup> To note – due to limited availability of historical data, 2005/06 data is provided as a total rather than being disaggregated by source.



	2005/06 Emissions (tCO <sub>2</sub> )	2022/23 Emissions (tCO <sub>2</sub> )	Reduction from baseline (tCO <sub>2</sub> )	Reduction as %
Electricity (buildings)	80,190	19,570	60,620	75.6%
Electricity (street lighting)	21,816	6,404	15,412	70.6%
Electricity (stair lighting)	13,623	1,553	12,070	88.6%
Gas (buildings)	50,197	44,871	5,326	10.6%
Coal (buildings)	6,752	7	6,745	99.9%
Oil (buildings)	12,767	4,953	7,814	61.2%
Diesel (transport/plant)	12,797	13,779	-982	-7.7%
Petrol (transport)	656	3,566	-2,910	-443.6%
LPG	338	0	338	100.0%
Air	782	120	662	84.7%
Rail	NA	7		
Car	NA	402		

Table 2 - Emissions reductions from baseline to date, disaggregated by source

As shown in table 2 (which provides a disaggregation of emissions reduction by source)<sup>3</sup>, emissions from electricity use in our buildings made up a large proportion of overall emissions in the baseline year of 2005/06.

In 2022/23 however, CO<sub>2</sub> emissions from electricity use in buildings accounts for a much smaller proportion of the 2022/23 total, having reduced by 75.6% (60,620 tCO<sub>2</sub>) in the interim period. This trend is similar across electricity use for street lighting and stair lighting which have reduced by 70.6% (15,412 tns) and 88.6% (12,070 tns) respectively.

Emissions from gas consumption in our buildings has remained largely static, achieving only a 10.6% reduction between 2005/06 and 2022/23, underscoring the criticality of addressing gas emissions if we are to reach our overarching net zero carbon by 2030 target.

Whilst gas remains a key challenge for the Council to achieve net zero, other heating-based emissions have however seen success since the previous Carbon Management Plan (CMP2). In the years CMP2 was published (2013), emissions from coal use in Council buildings has dropped from 1,289 tonnes of CO<sub>2</sub> to 7 tonnes, a 99.9% reduction.

### 3.2.2 Current Emissions Profile (2022/23)

In our most recent data year of 2022/23, Glasgow City Council produced 95,231 tns of measurable carbon emissions<sup>4</sup>. Figure 2 below outlines how these emissions are split by their source.

2022/23 GCC CO<sub>2</sub> Emissions by Source

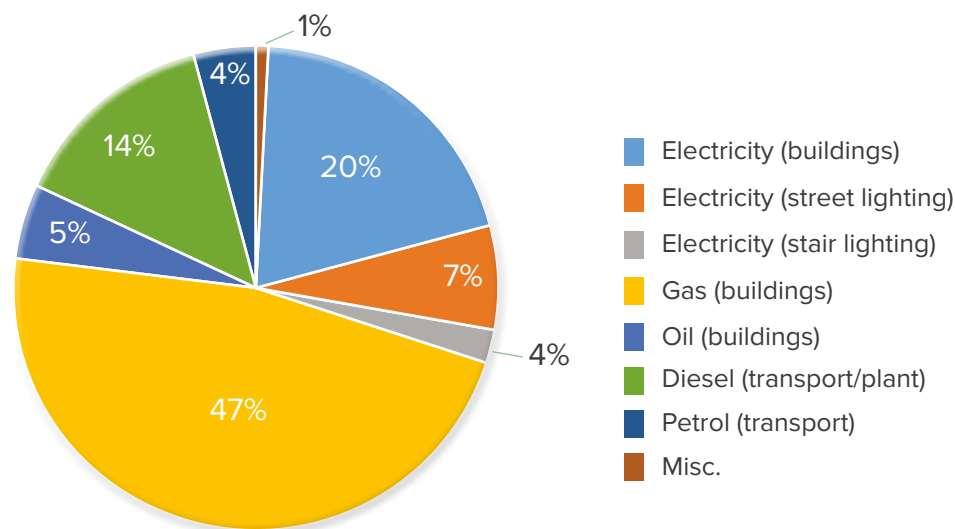


Figure 2 - 2022/23 Carbon Emissions disaggregated by source

<sup>3</sup> To note – due to limited availability of historical data, rail and car emissions are not included in 2005/06 data.

<sup>4</sup> A reminder that Scope 3 emissions are largely excluded from this data (with the exception of business travel) due to the challenges in measuring and monitoring them.

As discussed in section 3.2.1, emissions from gas use are a significant contributor to Council emissions, accounting today for 47% of emissions across our estate. Electricity use for our building's accounts for 20% of overall emissions whilst street lighting and stair lighting account only for 7% and 2% respectively.

Emissions from business travel (air, rail and car), which are represented as 'Misc.' in Figure 2, account for 0.6% of the Council's overall emissions. Within this, 76% of business travel emissions are associated with car use.





### 3.3 CMP2 Projects

The reduction in Glasgow City Council's emissions have been achieved from a range of interventions delivered at local level alongside larger national trends such as the ongoing decarbonisation of Scotland's electricity grid.

Some of the key projects that have been delivered by the Council and family with a direct impact on our own emissions are outlined in Table 3 below.

Project	Emissions	Description
Building Management Systems (BMS)	Reducing building energy use through optimisation	Since inception some GCC buildings have had no installed control system, or a limited control system utilising timer control only. The on-going BMS upgrades are changing all the systems to be temperature controlled throughout the year and adding a monitoring system to a manned bureau service in case of problems. Utilising the latest available technologies including fast capable internet connection GCC can ensure that temperatures are properly maintained within our buildings.
Biomass	Replacing carbon intensive heating with low carbon alternative	Targeting our heavy carbon intensive heating systems, the council has implemented a pilot to install biomass heating systems to replace some of the coal and oil-fired boilers that have previously provided heat for Council properties across the city. These systems reduce our reliance on carbon intensive heating systems whilst maintaining the needs of users by producing heat and hot water from a renewable green source.
Demand Side Management	Reducing building energy use through optimisation across a network of buildings	Building Management System Demand Side Management opportunities have been explored to connect several buildings via a smart grid where, upon connected, services can be stopped or halted for a limited time with no detriment to users within the buildings. Smart grids such as this have proven to be effective in Glasgow in the past and given their nature, can be improved upon by adding more connected services or by adding more buildings to the grid. Initial work identified a suitable building in the education estate for installation of suitable equipment with further GCC buildings identified for phase 2. However, pandemic restrictions delayed deployment. The initial contract will be extended for one year to further develop the feasibility of this approach for GCC buildings.
Solar PV installation	Reducing building energy use through local generation	Local generation of energy from solar PV installation can reduce direct consumption from the grid and therefore reduce both costs and overall carbon emissions. At present 33 GCC or ALEO buildings benefit from installed solar PV generation with a further 2 buildings benefit from solar PV installed by Community Energy Groups.
GRREC	Processing waste to generate low carbon electricity	The Glasgow Recycling and Renewable Energy Centre (GRREC) became fully operational in 2019. The site is in joint ownership between GCC and Viridor and therefore low carbon electricity generated on-site increases the overall amount of renewable or low carbon energy generated by GCC
Fleet	Reduction on fossil fuel reliance	In 2022, 108 diesel GCC vehicles were replaced with electric vehicles. Modelling of typical fuel usage indicates this equates to around 299 tCO <sub>2</sub> per annum. In 2023, the Refuse Collection Vehicle (RCV) fleet size was reduced from 129 to 95, equating to less fuel consumption.

Project	Emissions	Description
City Building Fleet	Reduction on fossil fuel reliance	<p>Downsized and rightsized fleet and installed vehicle telematics bringing CO<sub>2</sub> emission reduction and in last year (2022/23) reduced fuel costs by 40%. Telematics currently installed in 299 City Building vehicles with plans to extend this to the wider fleet.</p> <p>Data gathered from this activity will form the basis of our progress monitoring against targets.</p>
City Building Just Transition Skills	Upskilling the organisation	<p>Upskilling of workforce and add-on elements to apprenticeships in renewable technologies. A significant green accredited training programme on Just Transition skills was undertaken by the workforce in 2022 -2023.</p> <p>Contributes towards the Just Transition Skills Action Plan jointly prepared by GCC and Skills Development Scotland.</p>

Table 3 - CMP related projects to date



## 4 Scope - Organisational and Operational Boundaries

### 4.1 Scope of Delivery

Delivery of the CMP3 will address emissions across all Scopes (Figure 3 highlights how emissions are categorised into three distinct Scopes<sup>5</sup> however, it should be noted that the image is referencing citywide emissions rather than organisational emissions). At present however, the Council is not able to confidently measure and track emissions from all aspects of the list below. This relates specifically to Scope 3 emissions and at present, this is typical for local authorities across Scotland. The challenges surrounding Scope 3 emissions are discussed further in section 4.4 below.

Therefore, whilst the Council will continue to deliver actions that lower emissions across all Scopes, CMP 2023-2030 targets relate to activity that can, at present, be confidently measured across Scopes 1 and 2 and 3.

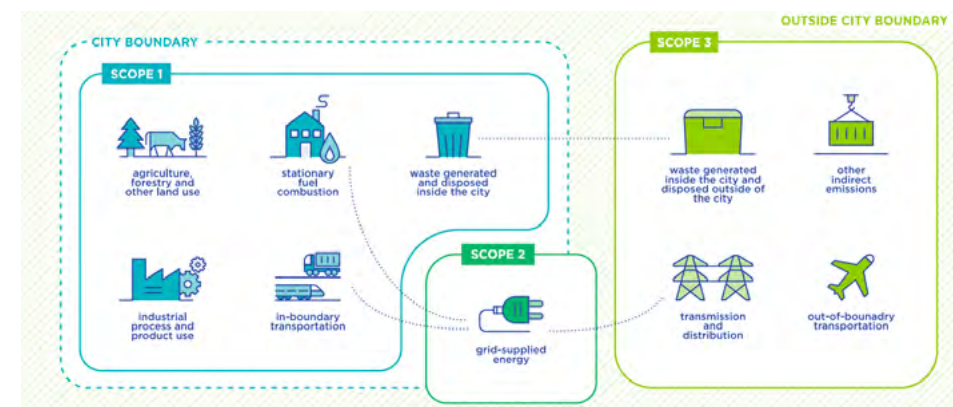


Figure 3 - Categorisation of Scope 1, 2 and 3 Emissions Source – C40 Cities Alliance [https://www.c40knowledgehub.org/s/article/Consumption-based-GHG-emissions-of-C40-cities?language=en\\_US](https://www.c40knowledgehub.org/s/article/Consumption-based-GHG-emissions-of-C40-cities?language=en_US)

<sup>5</sup> For a description of how emissions are categorised into 'Scopes' see here: <https://www.weforum.org/agenda/2022/09/scope-emissions-climate-greenhouse-business/>

## 4.2 Carbon Management - Priority Focus Areas

Table 4 an overview of the different areas of focus for CMP 2023-30 delivery. This summary frames the approach to reaching net zero that the Carbon Management Plan 2023-30 will take.

Category	Description	Scope
Buildings	How the Council consumes energy across its estate is a key focus for the CMP 2023 – 2030 and alongside decarbonising energy, reducing the amount of energy used also presents opportunity from a cost-saving perspective. Data gathered from this activity will form the basis of our progress monitoring against targets. Emissions from our buildings account for 73% of our total emissions.	1 and 2
Other Energy	This will focus on energy consumed by Council assets outside of the Council estate. For example, street and stair lighting, traffic controls and events. Data gathered from this activity will form the basis of our progress monitoring against targets. Currently available data indicates that street and stair lighting account for 8.4% of our total emissions.	1 and 2
Fleet	Glasgow City Council has a large fleet, consisting of circa 1600 vehicles. CMP3 will focus on how the Council can reduce emissions associated with these assets. Data gathered from this activity will form the basis of our progress monitoring against targets. Currently available data indicates that fleet emissions account for 18.2% of total emissions. .	1 and 2
Waste	Addressing emissions from waste produced by Glasgow City Council is within the scope of the CMP3. The <a href="#">Resource and Recycling Strategy</a> includes a range of actions which aim to address a reduction of waste and associated carbon emissions across the city. However, the priority for CMP3 is to gather baseline information on waste generated specifically by GCC activity. Data gathered from this activity will form the basis of our progress monitoring against targets.	3
Business Travel	This includes use of transport for business use, covering personal car use, taxis, flights, trains, busses. These are the only Scope 3 emissions that the Council can currently confidently track. Data gathered from this activity will form the basis of our progress monitoring against targets. Currently available data indicates that business travel account for 0.6% of our total emissions.	3
Procurement	Emissions associated with the council's portfolio are addressed in part through CMP 2023-2030 however, as is similar across most Scope 3 emissions, the Council cannot confidently measure these at present. Steps are being taken to address this (outlined within section 4.4).	3
Staff Engagement	Emissions associated with staff activity including working from home and travel to and from work are within scope for the delivery of CMP 2023 - 2030. Staff travel information has been collected recently as part of a major survey exercise and a new travel plan is currently being developed. It is anticipated this will be ready for adoption in spring 2024.	3
Energy Generation	Glasgow City Council has the opportunity to increase the proportion of renewable energy projects across the city. Where possible GCC buildings will be provided a direct link from these. This will contribute to the reduction in emissions associated with energy use. Data gathered from this activity will be included in progress monitoring against targets.	
Offsetting	Glasgow City Council recognises the challenges associated with reliance on offsetting to reach net zero. Whilst the Council will not rely on offsetting as a key contributor to net zero, it recognises that offsetting will likely be required to play a role. This is discussed further in section 4.3 below.	NA

Table 4 - Key areas of focus for CMP3



### 4.3 Balancing our Emissions

The balancing of emissions refers to the practice of compensating for greenhouse gas emissions produced by one source by reducing or removing an equivalent amount of emissions elsewhere<sup>6</sup>. This could be achieved through biological carbon sequestration (e.g. [carbon sinks](#)) or by geological carbon sequestration (e.g. [carbon capture storage](#)).

**It is not the ambition of Glasgow City Council to rely on any form of offsetting as a principal mechanism of reaching net zero by 2030.**

Instead, it will be measured as part of the response to the ecological emergency and adaptation project delivery and monitoring of adaptation projects on council owned land. In delivery of the CMP 2023-30, the Council maintains focus on direct mitigation of emissions. The balance between offsetting and mitigation of emissions will require constant review as the project landscape evolves.

In this respect, the Council will continue to progress policies designed to create natural carbon sinks, through our [nature-based solutions programme](#), [Open Space Strategy](#), City Development Plan<sup>7</sup>, Forest and [Woodland Strategy](#), and the ongoing regeneration of vacant and derelict land.

### 4.4 Scope 3 Emissions

Scope 3 covers all indirect emissions (aside from those accounted for under Scope 2) from the activity of an organisation<sup>8</sup>.

Scope 3 emissions can typically be significantly higher than Scope's 1 and 2 for any organisation and as such are an important inclusion in the delivery of carbon reductions for Glasgow City Council.

However, as there is no national clarity at present on how to confidently track Scope 3 emissions and associated reductions, the priority outlined in this iteration of the Council's carbon management focuses on the establishment of a Scope 3 baseline and is detailed within the action plan below. Currently the only aspects of Scope 3 emissions which can be confidently tracked are those associated with business travel.

The new [Sustainable Procurement Strategy 2023-27](#) has a strong focus on measuring carbon and Scope 3 emissions. Objective 1 within the Strategy supports the Council's net zero, ecological and adaptation ambitions:

*Action 1.04: To support the climate change agenda, we will explore how we can reduce our carbon emissions within our supply chain regarding Scope 1, 2 and 3 emissions.*

The Council has also been part of the Scottish Government and Zero Waste Scotland consultation to determine what Scope 3 tools are available in the marketplace. The Council is awaiting the outputs of the consultation before Scope 3 supplier is appointed to measure the baseline of Scope 3 emissions.

This will support the delivery of both the CMP3 and the Sustainable Procurement Strategy. An action related to Scope 3 is included within the Action Plan.

<sup>6</sup> For a detailed discussion on carbon offsetting, see here - <https://environmentagency.blog.gov.uk/2021/05/10/carbon-offsetting-reviewing-the-evidence/>

<sup>7</sup> The second City Development Plan is now in development. The first CDP can be found [here](#).

<sup>8</sup> <https://www.gov.scot/publications/public-sector-leadership-global-climate-emergency/pages/9/>

## 5 Target Setting

In setting a new target for CMP 2023-30, Scope 1 and 2 emissions that we can confidently track and measure alongside business travel (which is classed as Scope 3), will be the focus. The Council understands however that a wide range of actions will contribute to reducing our emissions, and an inability to measure these will not prevent the Council progressing with emissions reduction interventions in these sectors of our emissions profile.

The focus on Scope 1 and 2 emissions follows the approach taken in the previous carbon management plan and will allow the Council to confidently track progress across these emissions categories. As outlined in section 4.4 above work will continue to better understand how Scope 3 emissions can be tracked on an annual basis with a view to incorporating them into future target setting.

The CMP 2023-30 aligns itself with the overarching citywide target of net zero carbon by 2030. It is noted that Glasgow City Council is the biggest employer in the city and will continue to take an approach of leading by example to help spearhead progress towards 2030 alongside influencing other organisations in the city to follow the same approach.

Glasgow City Council aims to achieve Net Zero Carbon across the organisation by 2030<sup>9</sup>

<sup>9</sup> Financial year is used for reporting of Glasgow City Council emissions whilst citywide emissions use calendar year. Therefore, whilst our target lists 2030 to align with the citywide target, this refers to the 2029/30 data year within the context of CMP3.



The Council believes that in order for this plan to be actionable, a pragmatic approach is to set interim targets to sit below our overarching 2030 net zero target. To ensure interim target is ambitious but achievable, **a three-year time frame has been adopted, leaving four years to progress from our interim target to net zero.**

This ensures that the Council is working toward the net zero target established for the city whilst tracking and evaluating progress through the adoption of an interim target.

Both the policy and technological landscapes are evolving quickly, and it is believed that a 3-year interim target will provide the best tool to measure and track progress, whilst ensuring we can be agile to adapt to climate solutions that will emerge before we reach 2030.

## 5.1 Reaching Net Zero Carbon by 2030

Table 5 highlights the average annual reduction achieved since our baseline year as 6,158 tCO<sub>2</sub>. Whilst a notable achievement to date and a confirmation of the Council's continual effort to reduce emissions, interventions to reduce carbon emissions are producing increasingly diminishing returns – more effort is required to accomplish smaller gains.

	Emissions (tCO <sub>2</sub> )	Reduction from previous year	% reduction from baseline
2005/06	199,919		
2005/06	189,180	-10,739	5.37%
2007/08	179,355	-9,825	10.29%
2008/09	182,786	3,431	8.57%
2009/10	186,359	3,573	6.78%
2010/11	186,878	519	6.52%
2011/12	171,225	-15,652	14.35%
2012/13	189,901	18,676	5.01%
2013/14	179,397	-10,504	10.26%
2014/15	175,968	-3,429	11.98%
2015/16	166,938	-9,030	16.50%
2016/17	150,867	-16,071	24.54%
2017/18	139,755	-11,112	30.09%
2018/19	124,780	-14,976	37.58%
2019/20	106,655	-18,125	46.64%
2020/21	87,881	-18,773	56.04%
2021/22	97,363	9,482	51.30%
2022/23	95,231	-2,132	52.37%
Average Reduction (tCO <sub>2</sub> )		6,158	3.08%

Table 5 - Average emissions reductions per annum

Assuming the Council continued to achieve this reduction per annum, by 2029/30 organisational emissions would have reduced by 74% from baseline. Figure 4 outlines this trendline and this is supported by the data in table 6 which highlights that by 2030, following a trend in line with previous years, remaining emissions would sit at 52,125 tCO<sub>2</sub>.

As shown in this CMP, the Council has made significant progress towards our Net Zero targets. The progress that has been made to date should give us confidence that we can continue to head towards both the interim and 2030 target at pace. Notwithstanding the need to intensify our approach and ensure we are learning from where we have been able to have the most impact on our emissions.

Previously, due primarily to the funding and legislative landscape, large scale progress in the key sectors of heat and transport decarbonisation has been slow. This cannot continue.

### Glasgow City Council CO<sub>2</sub> Emissions Trend

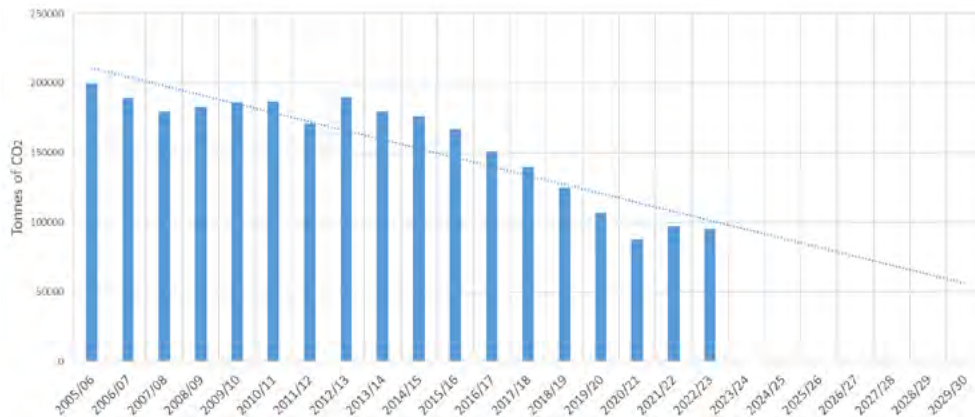


Figure 4 - GCC Total Emissions to date and trendline to 2030/31

The opportunity that now faces the Council in the latter stages of our transition to a net zero organisation is that it is these very sectors that are now of key interest and focus.

	Emissions Trend (tCO <sub>2</sub> ) per year	% reduction from baseline
2022/23	95,231	52.4%
2023/24	89,073	55.4%
2024/25	82,915	58.5%
2025/26	76,757	61.6%
2026/27	70,599	64.7%
2027/28	64,441	67.8%
2028/29	58,283	70.8%
2029/30	52,125	73.9%

Table 6 - Projected emissions to 2030 using average annual reductions to date

In addition to this, based on the information shown within Figure 4 and Table 6, it is clear that we need to increase in the rate of emissions reduction. It is important therefore to acknowledge that whilst our focus will be on reduction of emissions wherever possible, we need to consider the contribution that sequestration activity will have in our ambition to reach net zero by 2030.

Based on known sequestration activity, it is unlikely that it will account for 26% of baseline emissions that are left once the projected reduction of 74% has been achieved. Therefore, our trajectory needs to be more ambitious than projected. As such, it is reasonable to assume that emissions will have to reduce by at least 80% by 2030 to have a practical chance of reaching net zero.



As the landscape continues to evolve around the quantification of sequestration (which will be progressed through CMP3 delivery), the 80:20 split is seen as an ambitious but reasonable target aimed at indicating what absolute reductions would likely have to be. However, Glasgow City Council will work to meet and, where possible, exceed this target.

GCC will review progress towards this regularly and provide an annual update on our options. The Forest and Woodland Strategy, and its ambition to catalogue every tree in the city, will be key to supporting our approach to sequestration accounting. It will give us an existing sequestration value that can be considered as part of the balancing of our emissions over time.

## 5.2 Interim Target

Based on the data and projections presented in section 5.1 above, alongside the 52% emissions reduction that has been achieved to date, Glasgow City Council requires to reduce emissions by a further 28% from baseline to reach an 80% absolute reduction by 2030. This equates to a reduction of 55,247 tCO<sub>2</sub> from the present data year (2022/23), which would leave a remaining 39,984 tCO<sub>2</sub> in 2029/30.

In order for the net zero targets to be achieved, Glasgow City Council has a target to reduce emissions by 3.9% per annum from baseline year. This translates to a carbon budget of an average of 7.893 tCO<sub>2</sub> per annum.

To put this in context, this amounts to **9.4 times the emissions typically produced from heating and powering the city chambers per annum** (839 tCO<sub>2</sub> in the most recent data year). This average per annum reduction is highlighted in table 7.

	Target Reduction of 7,893 (tns CO <sub>2</sub> ) per year	% reduction from baseline	
2022/23	95231		
2023/24	87338	56%	
2024/25	79445	60%	
2025/26	71552	64%	Interim Target
2025/26	63659	68%	
2027/28	55766	72%	
2028/29	47873	76%	
2029/30	39980	80%	Net Zero Target

Table 7 - Per annum reduction required to meet net zero target

It is likely however that emission reductions will not be strictly incremental, and this may mean that some years see less reduction than the 3.9% average whilst other years may see a higher reduction than the average required to meet 80% by 2030. Some interventions may have bigger impacts within an individual year, such as multiple simultaneous building connections into a low carbon district heating or a significant increase in renewable energy generation should possibilities like deep geothermal or further wind turbines be delivered.

Therefore, this CMP has set an interim target, based on the incremental reductions, to provide flexibility in delivery whilst maintaining focus on progress in the shorter term.

To ensure momentum is maintained towards the overall Net Zero 2030 goal, **the CMP 2023-30 highlights an interim target of achieving a 64% reduction from baseline by 2025/26**, as we progress towards net zero. This would require the Council to reduce emissions by 23,679 tCO<sub>2</sub> from the current data year (2022/23), which would leave a remaining 71,552 tCO<sub>2</sub> by 2025/26.

## Glasgow City Council has set an interim target of achieving a 64% emissions reduction in 2025/26 from a 2005/06 baseline year.

Work is underway to develop the emissions reduction quantification of any CMP actions within the first year of delivery. This will enhance our understanding of our projected progress towards these targets based on agreed actions.

### 5.3 Future Decarbonisation Opportunities

Whilst not modelled into the target setting exercise, the Council must continue to be aware of the opportunities, of future developments on our trajectory to net zero and the interim target outlined above. This could include though not limited to –

- **Heat Network Connection.** Connection to a heat network supplied using a low carbon or renewable source of heat can significantly lower a building's emissions. Glasgow's recently released Local Heat and Energy Efficiency Strategy (LHEES) takes the first steps in strategically planning where heat networks would be the most viable in the city. The connection of Council assets is seen as a way of bolstering the business case for larger-scale district heat networks.

- **Energy Partnership.** The LHEES has also set out plans for the exploration of whether a joint venture ownership model between the Council and private partner could assist in unlocking the scale of private finance required to reach net zero. If delivered, this may significantly increase the asset portfolio of the Council as it could be acting in part as a utility provider.
- **Decarbonisation of the Grid.** As the electrical grid continues to decarbonise in Scotland, reductions will be achieved in electricity emissions regardless of local action to reduce demand.
- **Net Zero Routemap.** A 6 month consultancy piece to provide a science based approach to the creation of net zero scenarios at a city wide scale. This will include consideration of the priority actions for GCC and how these link into the system wide approach to achieving Net Zero by 2030.



## 5.4 Related Policy and Projects

Considering the targets outlined above, there are a number of key actions and projects planned for delivery across Glasgow City Council. The incorporation of these projects into the delivery of the CMP 2023-2030 will ensure that any established target has an ambition and pace that is consistent across the plans for the Council family. The relevant strategies under which the following projects will be delivered are outlined in Appendix A.

Service/ALEO	Description
Cleansing (Waste)	<p>Glasgow City Council is cognisant of the need to monitor emissions from the waste produced by our own activities in order to understand the full scope of our carbon footprint. As such, an action to baseline GCC's waste is included within the CMP3 delivery plan. It is intended that outlining this action as a necessary step to reaching net zero will help to leverage in the funding required.</p> <p>Whilst ongoing resource and budgetary constraints have prevented the Council from baselining emissions from our waste in previous years, the requirement to do so through the <a href="#">Public Bodies Climate Change Duties Reporting</a> alongside the recognised need for a step change as we come closer to 2030 means that the Council now has to focus on how to better understand and reduce our waste-based emissions.</p>
Procurement	<p>Through the Sustainable Procurement Strategy, the Council has committed to exploring how Scope's 1,2 and 3 emissions can be reduced within our supply chain. There are also commitments to:</p> <ul style="list-style-type: none"> <li>• Ensure GCC sourcing strategies and tender evaluation align and support suppliers which have net zero goals</li> <li>• To work with the Scottish Government/Council Depts and partners such as Skills Development Scotland and Chamber of Commerce to identify and consider practicable carbon counting methodologies that allow suppliers to quantify embodied carbon within the procurement process.</li> <li>• To work with our suppliers to improve the climate resilience of our supply chains and reduce their vulnerability to climate risks.</li> <li>• To increase the council's sustainable performance by utilising the council's Sustainable Steering Group and continuing to deliver the sustainable Procurement Action Plan as derived from the Scottish Government's Flexible Framework Tool.</li> </ul>
Fleet	<p>Key projects include -</p> <ul style="list-style-type: none"> <li>• <b>Replacement programme.</b> Replacing older vehicles with newer Euro 6 vehicles, reducing Nox emissions and optimising fuel use.</li> <li>• <b>Fleet Telematics.</b> Fleet telematics will be used to analyse fleet use and optimise the fleet size, with the aim of reducing the number of vehicles in the fleet, which will contribute directly to the Council's climate change objectives and the CMP3. The system will also be used to help support a reduction in fuel usage by monitoring and improving driving behaviours i.e. reducing harsh acceleration, harsh braking and vehicle idling</li> <li>• <b>EV Charging Infrastructure.</b> Infrastructure is being expanded to support current EV fleet as infrastructure at present is insufficient and also not located optimally. Expansion of charging infrastructure is also future planning for the next batch of EVs (with Health and Social Care Partnership aiming to have 360 new EVs by 2026).</li> <li>• <b>EV HGV.</b> Increase in electric heavy goods vehicle fleet is planned.</li> <li>• <b>Pool Vehicles.</b> Project underway to reinstate pool vehicle usage in the Council, which was halted due to the social distancing requirements of Covid-19.</li> </ul>
Corporate Asset Management	<ul style="list-style-type: none"> <li>• GCC Property and Land Strategy 2019-2029 covers all operational property and seeks to reduce the size of the overall estate. The CMP will help with the identification of property and land that can support future decarbonisation projects.</li> </ul>
Glasgow Life	<ul style="list-style-type: none"> <li>• Glasgow Life continues to deliver its LED lighting replacement programme across all premises in their remit alongside other interventions to improve the efficiency of their energy use including insulation, VSD, and BMS install.</li> </ul>

## 5.5 Supporting action

Additionally, the CMP 2023-30 will build on a number of policy commitments that will guide decision making as they relate to emissions reductions:

- GCC will 'commit to connect any buildings in its estate to a heat network should connection be considered practical and feasible
- GCC will commit to the install of solar PV on all suitable roofs in its own estate by 2030
- Where practical and feasible GCC will commit to connect to renewable energy generation from non-building mounted installations (such as ground-mounted solar or wind turbines
- GCC will commit to the removal of fossil fuel based heating systems where viable and as soon as practicable.







## 6. Governance – Roles and Responsibilities

Reducing carbon emissions associated with Glasgow City Council's assets and activities is a strategic objective that cuts across all services and department. **Delivery of the CMP 2023-2030 is owned by all services across the Council family.** NRS Sustainability will play a key role in coordinating delivery to ensure targets are achieved in a balanced and timely manner alongside having specific responsibility over certain aspects of delivery.

### 6.1 Governance process

The Council has set up a Climate & Sustainability Board to ensure the delivery of the Glasgow Climate Plan through a Climate and Sustainability Programme of which the CMP 2023-2030 plays a key role. The Board is chaired by the Executive Director of Neighbourhoods, Regeneration & Sustainability, and membership includes Directors from across the Council.

A Sustainability Programme Management Office (PMO) oversees the governance and monitoring of the Climate Programme and reports progress to the Board and as part of this will monitor progress of the CMP 2023-30.

Figure 5 below visually highlights the governance structure of the Climate and Sustainability Programme as it would relate to the CMP 2023-2030 working group.

- City Administration Committee - Approval
- Net Zero and Climate Progress Monitoring City Policy Committee - Reporting and review
- The Climate and Sustainability Board - Oversight of delivery
- The CMP3 Working group - Delivery focussed activity tracking and co-ordination

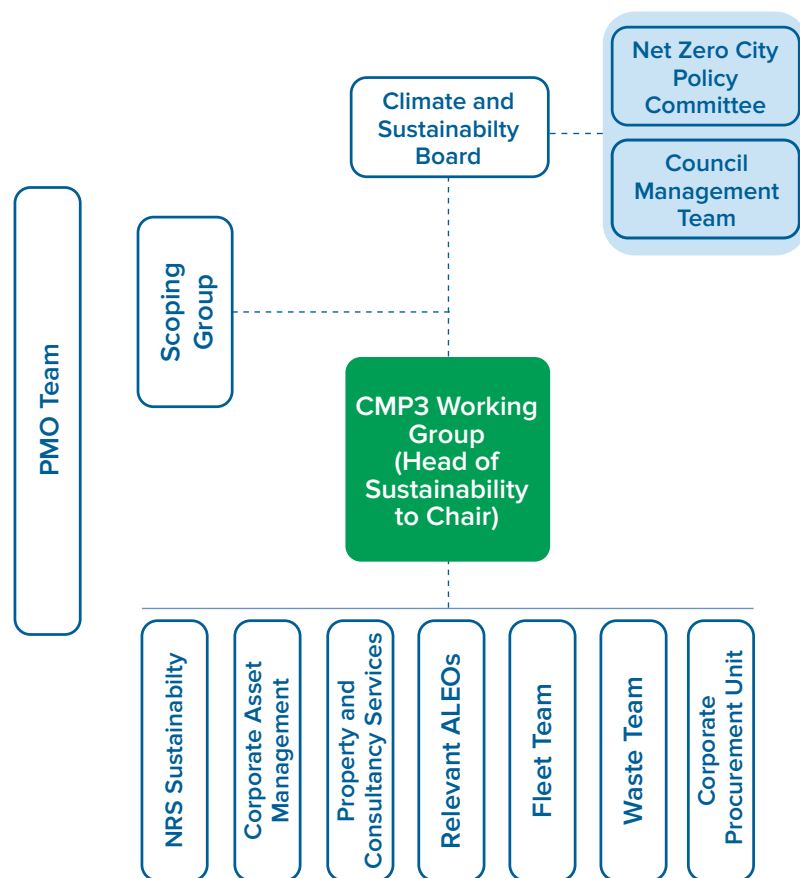


Figure 5 - Climate and Sustainability Programme Governance Structure

## 6.2 Delivery Roles and Responsibilities

### 6.2.1 CMP 2023-2030 Delivery Working Group

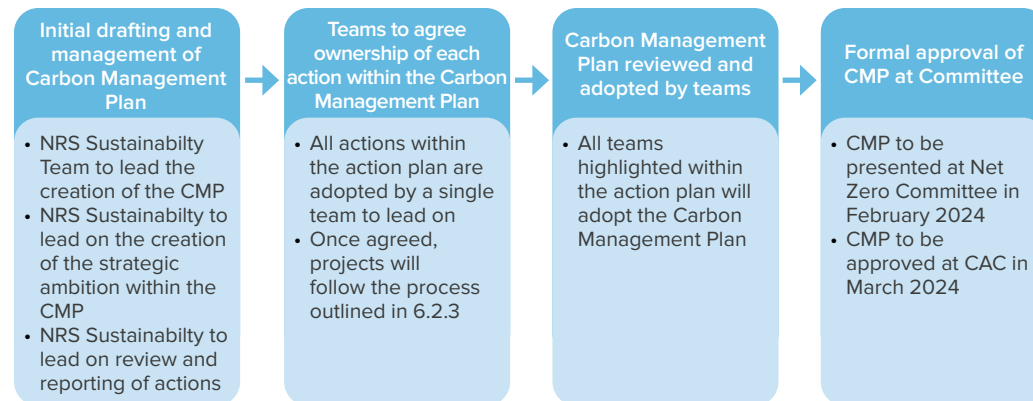
Ongoing delivery of CMP 2023-2030 related projects will be monitored internally by a Delivery Working Group, which meets bi-monthly and is composed of appropriate representatives from the following services and departments.

- NRS Sustainability PMO
- NRS Sustainability
- Corporate Asset Management (CAM)
- Property and Consultancy Services
- Relevant ALEOs
- Fleet Team
- Waste team
- Corporate Procurement Unit (CPU)

The action plan detailed below in section 7 outlines the key staff responsible for each action identified. This action plan will form the basis of the Delivery Working Group monitoring and reporting. Glasgow Life, City Building Services and the Health and Social Care Partnership have agreed to be part of this working group.

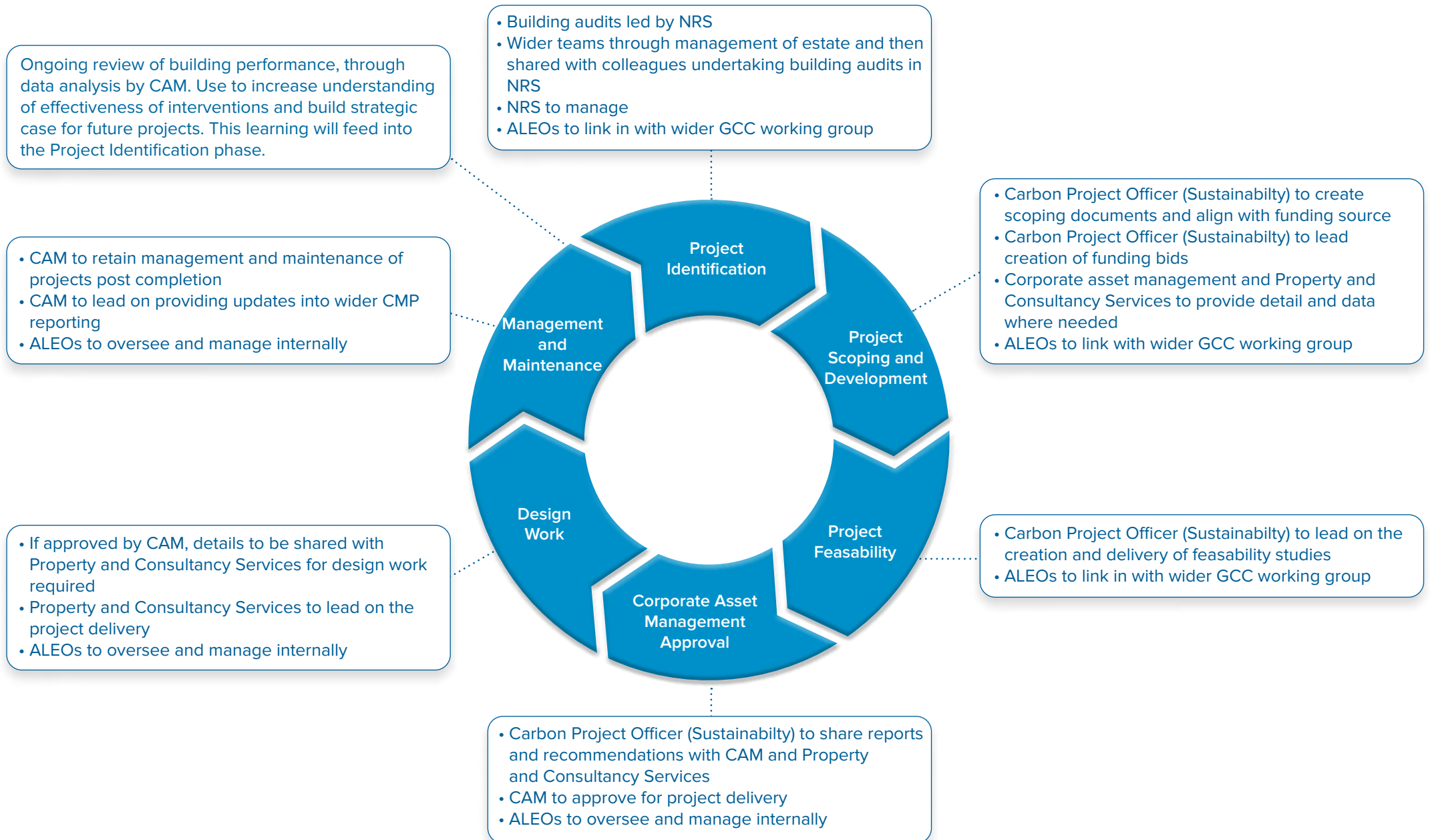
### 6.2.2 CMP Development and Approval process

The process chart below outlines the steps taken in the creation of the CMP3.





## 6.2.3 Project Development Process / Roles and Responsibilities



## 6.2.4 Utilities management

Utilities management is a key aspect of managing our carbon emissions. Utilities management falls within the remit of staff within the Sustainability team with the energy usage database and billing validation processed through the Inspired Energy system. An updated process document for this has been produced.

Appropriate personnel in other sections will be supplied with training and access to the Inspired Energy system to facilitate greater understanding of energy usage within their respective areas. Issues identified will feed through into the query tracker<sup>10</sup> with an improved process for prioritising and setting of target dates for remedial action and the measurement of performance against these.

Utilities budgets will continue to be held within Neighbourhoods, Regeneration and Sustainability, however the requirements will be adjusted within the reporting process to encourage greater service ownership and promote on-site staff behavioural change to reduce energy usage. Monitoring of utilities, both through consumption and cost, will be made available to senior management on a quarterly basis.

## 6.2.5 Project Identification

The Sustainability Team will manage and report on the overall progress of the CMP3 including the progress of building audits across the whole GCC estate. The output from these audits will be a range of identified projects which will each contribute to reduction of our emissions.

The Sustainability Team also maintain a broad remit to identify and sign post to projects that could deliver on the targets set out in the CMP 2023-2030.

However, in addition project identification can also be initiated by any service within the Council family. The CMP 2023-2030 targets will support services to identify where their area has opportunity to decarbonise the footprint of their own activities. The CMP working group will be the operational forum for discussion of potential projects.

Glasgow Life will remain in the CMP Working Group and share any projects identified on GL managed sites with the Group. Project scoping, development and feasibility work will include Glasgow Life properties too where appropriate.

## 6.2.5 Onboarding to the Climate Programme

Once approval is granted and dependent on scale, risk etc, newly identified projects, which contribute to the delivery of CMP 2023-2030 will be individually assessed for inclusion onto the Climate and Sustainability Programme (SCP).

The lead responsible team / project owner will work with the Sustainability PMO to follow the SCP scoping process. This will include assessment of:

- How projects support strategic objectives of the Council
- How projects support Glasgow's Climate Plan
- Benefits and risks
- Impacts to other services
- Financial implications
- Resource implications

These two activities may operate concurrently and the PMO will be available to assist in broader queries regarding legal and financial options.

<sup>10</sup> query tracker - previously known as 'carbon management query tracker'

### 6.2.6 Project Delivery (including feasibility and funding)

As outlined in the Action Plan, Project owners will be identified for each project. They may in turn require the support of a wider delivery team, including staff from Property and Consultancy Services which would be agreed as part of the scoping process. The Project manager and owners will be expected to report on progress through the CMP 2023-2030 working group and via required PMO mechanisms.

### 6.2.7 Reporting

For any onboarded projects, the PMO will assess and determine an appropriate reporting cycle. In all cases this will consider other reporting and governance requirements and seek to minimise duplication or overly onerous administration.





## 7 Action Plan

### Proposed CMP3 Action Plan Themes:

- Decarbonising our Energy
- Delivering Efficiencies
- Understanding our Energy Consumption
- Tracking Progress
- Expanding the Scope
- Funding
- Supporting behaviour change

Action No	Action	Owner	Completion Date	How We Will Measure Progress	Impact on Carbon Emissions	Funding
<b>DECARBONISING OUR ENERGY</b>						
1	Install Solar PV on all suitable GCC estate locations by 2030	NRS Sustainability Project Officer to lead feasibility, procurement and installation. Project officer (project section) to lead on management support.  Corporate Asset Management Team ongoing management and maintenance.	31/12/2030	Solar PV installations	Completion of this action will provide significant carbon reductions for Glasgow City Council	GCC Capital/ SALIX
2	Ensure the Community Renewable Energy Framework (CREF) enables the delivery of projects to provide electricity via direct wire to GCC buildings.	NRS Sustainability Project officer (policy section) to lead with management support	31/04/24	<ul style="list-style-type: none"> <li>• Number of assets in progress and installed</li> <li>• Volume of energy connected to GCC buildings</li> </ul>	Direct wire renewable energy provides cost saving and carbon emissions reduction for GCC whilst supporting the development of alternative community-based models of delivery	Identified through the CREF and CARES
<b>DELIVERING EFFICIENCIES</b>						
3	Improve the operational efficiency of the Dalmarnock Village heat network	NRS Engineering Group Manager	31/12/24	Output report on operational efficiency	Report will include recommendations on reducing associated emissions by optimising operation of the heat network	SALIX  Public Sector Heat Decarbonisation
4	Deliver a lighting replacement scheme across the GCC education estate.	Corporate Asset Management Team	31/3/25	Lighting replacement complete across education estate.	Successful replacement programme will have direct positive impact on emissions reduction across the Council estate	CEEF
5	Deliver a lighting replacement scheme across the Glasgow Life estate.	Glasgow Life Facilities Manager	31/03/29	Progress will be measured by Glasgow Life using the tracker proposed for development in action 15	Replacing the lighting of Glasgow Life facilities with more efficient LED lighting will have a direct positive impact on emissions reductions.	GL CEEF, SALIX

Action No	Action	Owner	Completion Date	How We Will Measure Progress	Impact on Carbon Emissions	Funding
6	Glasgow Life to complete programme of energy efficiency improvements across its estate. This will include the installation of BMS, VDS, loft insulation, IES energy monitoring, DX Units, sensor taps, thermostatic mixing valves, pipe insulation and IRC urinal flushing valves in suitable locations.	Glasgow Life Facilities Manager	31/03/29	Successful install following proposed programme of works	Reducing the amount of energy required to operate and maintain Glasgow Life facilities will have a direct positive impact on emissions reductions.	SALIX, GL CEEF, Water Efficiency Fund
<b>UNDERSTANDING OUR ENERGY CONSUMPTION</b>						
7	Achieve 100% coverage of gas and electricity meters with automatic readers	Corporate Asset Management Team  NRS Sustainability Energy Co-ordinator.	22/01/2029	Number of automatic readers installed	The increase in automatic readers will increase our confidence in data gathered and enable more effective gas and electricity use in buildings	This will be funded through existing budget allocated to Utilities Monitoring contract.
8	Complete full building audits for all properties in GCC estate. This will include discharging the requirement to complete Building Assessment Reports (BARs) as set out in the Heat Networks (Scotland) Act 2021. This work will inform the ongoing delivery of the LHEES by allowing effective engagement prioritisation and development of feasibility works	NRS Sustainability Project Officer (project section) with supporting technical officers.	31/12/2024	Number of building audits completed. Number of BARs completed.	Building audits and BARs will support prioritisation of projects, leading to cost-effective delivery of carbon reduction interventions across the city.	N/A
9	Formalise and adopt roles and responsibilities for managing utilities across the Council. Documented operational procedures will be produced and made available to all relevant employees	NRS Sustainability (project section) Energy Co-ordinator and Energy monitoring Officer	31/12/24	Approved documented procedures in place for utilities management.	N/A	N/A



Action No	Action	Owner	Completion Date	How We Will Measure Progress	Impact on Carbon Emissions	Funding
10	Review how costs for utilities are apportioned and allocated across Council services to find a method which incentivises Services to reduce consumption	NRS Head of Sustainability	31/12/24	Development of a new procedure for apportioning energy use across Services	Implementation of Service responsibility for energy consumption will incentivise autonomous action to reduce consumption.	N/A
11	Review and update the Carbon Management Query Tracker to ensure the Tracker can operate effectively and efficiently in monitoring energy performance within the Council estate.	NRS Sustainability Project Officer (projects section)	30/06/24	A Carbon Management Query Tracker that is up to date and reflective of the current state of the carbon management programme across the Council	Refreshing the tracker will allow for more effective prioritisation of interventions across the Council	N/A
12	Identify a pilot construction project led by GCC and undertake a scope 3 emissions analysis, review findings and feed into wider project delivery	Head of Corporate Asset Management and NRS Sustainability Group Manager	31/07/24	The scope 3 emissions analysis will provide data which can be used in other projects	Lessons learnt will be more widely applicable.	This will require funding. Yet to be identified
TRACKING PROGRESS						
13	Develop emissions reduction reporting for all projects within CMP3 and formalise the internal GCC processes and responsibilities associated with their implementation.	NRS Sustainability Project Officer (projects section)	31/12/2024	Emissions reduction reporting for all relevant projects within CMP3 action plan	This action will support the prioritisation of projects by tracking the costs and benefits from both a financial and environmental perspective.	N/A
14	Appoint a consultant to create our Scope 3 emissions baseline and bring a subsequent report to Committee detailing this.	NRS Sustainability Project Officer (projects section)	Consultant appointed – 31/03/24 Report brought to Committee – Summer 2024	Scope 3 baseline completed	Understanding the baseline of our Scope 3 emissions will help to effectively prioritise action within cost and resource constraints.	This will require funding. Yet to be identified. Should use the guidance report to be produced by SG in early 2024 and include Procurement colleagues in its development

Action No	Action	Owner	Completion Date	How We Will Measure Progress	Impact on Carbon Emissions	Funding
15	Create a tracker to monitor Glasgow Life's ongoing lighting replacement scheme proposed in action 5 . This tracker will outline what works have been completed alongside highlighting the percentage of LED lighting within non-converted building.	Glasgow Life Facilities Manager	31/03/24	Creation of tracker	Tracking progress will help to prioritise action within existing resource and financial constraints	N/A
16	Create a methodology for measurement and accounting of carbon sequestered by GCC.	NRS Sustainability Project Officer (projects section)	31/03/25	Methodology designed and operational figure calculated for existing sequestration	Understanding the impact sequestration of carbon emissions will help to prioritise pace and focus towards GCC net zero 2030 target	N/A
17	To ensure that quarterly reporting on consumption is considered by Leadership.	NRS Sustainability Group Manager	From 31/03/24	Accurate quarterly data provided to leadership to demonstrate emissions impacts. Data logged and stored for historic analysis	This is a longer term action to ensure progress towards targets is being tracked and managed	N/A
18	Complete project to baseline waste produced by GCC	NRS Waste and Recycling Team	30/06/25	Creation of report which baselines waste produced by GCC	Understanding the profile of our waste-based emissions will support prioritisation of action	This will require funding. Yet to be identified
<b>EXPANDING THE SCOPE</b>						
19	Identify pathways for reducing emissions produced through our supply chain	Corporate Procurement Unit – Procurement Officer	30/06/24	Clarified options for reducing emissions across the GCC supply chain.	Understanding how to effectively reduce emissions across the supply chain will help to effectively prioritise action within cost and resource constraints. Link to outcomes of action 13.	N/A
20	Review the staff travel survey every 3 years. This survey informs the creation of actions required within to reduce our emissions associated with business travel	NRS Transport Planning and Delivery Group Manager	28/02/27	Report reviewing outputs from staff travel plan	Understanding the travel behaviour of GCC staff will help to scope action to reduce associated emissions	N/A

Action No	Action	Owner	Completion Date	How We Will Measure Progress	Impact on Carbon Emissions	Funding
<b>FUNDING</b>						
21	Submit funding applications into the Scottish Public Sector Heat Decarbonisation Fund to provide funding for actions identified through the building audit actions (action 8)	NRS Sustainability Project Officer (projects section)	30/06/25 Ongoing submissions into each available round. submissions into each available round	<ul style="list-style-type: none"> <li>• number of bids submitted</li> <li>• number of successful bids</li> </ul>	Funding decarbonisation interventions will have a direct positive impact on emissions reduction across the Council estate	N/A
22	Identify new funding streams that can continue to support continued carbon reduction across the Glasgow City Council estate and its activities	All – NRS Sustainability to oversee through PMO	Ongoing	Proportion of funding applications submitted to those available	Unlocking new funding stream will assist in financing emissions reductions projects	N/A
<b>SUPPORTING BEHAVIOUR CHANGE</b>						
23	Create an energy management module through the Climate Literacy training update onto GOLD	NRS Sustainability Project Officer (policy section)	1/12/24	Completion of course creation. <ul style="list-style-type: none"> <li>• number of staff to complete course</li> </ul>	Upskilling staff will lead to a more effective delivery and prioritisation of emission reduction projects	N/A
24	Require carbon literacy training for GCC employees, focus initially on staff with asset management responsibilities	NRS Sustainability Project Officer (policy section)	1/12/25	Number of staff trained	Upskilling staff will lead to a more effective delivery and prioritisation of emission reduction projects. Use of both GCC training and that available from Scottish Government	N/A
25	Deliver training in energy monitoring and reporting processes to relevant GCC and ALEO staff.	NRS Sustainability (project section) Energy Co-ordinator / Energy monitoring Officer	30/6/24	Completion of training to all relevant staff	Upskilling staff will lead to a more effective delivery and prioritisation of emission reduction projects	N/A
26	Review historic data and associated estate activity. Use data from previous projects to build the case for investment in future projects	Energy Co-ordinator / Energy monitoring Officer	31/12/2024	Case study creation for key estate activities.	Improved learning about actual impact of projects	N/A



## 8 APPENDICES



# APPENDIX A – Policy and Legislative Review

## 1.1 International Context

**1.1.1 [Paris Climate Agreement \(2015\)](#).** Legally binding treaty agreed at COP21. Agreement to limit global warming to well below 2C, preferably 1.5C.

**1.1.2 [IPCC Special Report on Global Warming of 1.5C \(2018\)](#).** This report, produced by the Intergovernmental Panel on Climate Change, outlined that the world had 12 years to significantly ramp down carbon emissions and keep global warming under 1.5°C if catastrophic environmental breakdown is to be avoided. This target, the report highlighted, was feasible but lay at the ambitious end of the target set out in the Paris Climate Agreement (which compelled nations to keep their temperature rises to between 1.5-2°C).

## 1.2 Scottish Legislative Context

**1.2.1 [Local Government in Scotland Act \(2003\)](#).** Statutory duty on local authorities to demonstrate Best Value alongside a contribution to sustainable development.

**1.2.2 [Climate Change \(Scotland\) Act 2009 and Climate Change \(Emissions Reduction Targets\) \(Scotland\) Act 2019](#)** Statutory framework for greenhouse gas emissions reductions in Scotland, setting an interim 42% reduction target for 2020, with the power for this to be varied based on expert advice, and an 80% reduction target for 2050. Updated in 2019 by Climate Change (Emissions Reduction Targets) (Scotland) Act 2019, which set legally-binding targets for greenhouse gas emissions reduction, in relation to a 1990/95 baseline, of 75% by 2030, 90% by 2040 and net zero by 2045.

**1.2.3 [The Climate Change \(Duties of Public Bodies: Reporting Requirements\) \(Scotland\) Order 2015](#).** Requires public bodies to submit an annual Climate Change Report to Scottish Ministers, detailing compliance with the climate change duties. Amended in 2020 by the Climate Change (Duties of Public Bodies: Reporting Requirements) (Scotland) Amendment Order 2020, introducing additional reporting requirements from 21/22 onwards.

**1.2.4 [Heat Networks \(Scotland\) Act 2021](#).** Legislation to provide a regulatory environment for the development of heat networks in Scotland. Places a duty on public sector organisations to complete a Building Assessment Report (BARs) to assess properties within estate for suitability to connect into a heat network. This provision of the Act is now live.

## 1.3 Scottish Policy Context

**1.3.1 [‘Public Sector Leadership on the Global Climate Emergency’ Guidance \(2021\)](#).** Guidance to Scotland’s public bodies on their leadership role in the shared national endeavour to tackle the global crises of health, climate emergency and biodiversity loss.

**1.3.2 [Progress Reducing Emissions in Scotland – 2021 Report to Parliament](#).** Climate Change Committee’s tenth annual Progress Report to the Scottish Parliament, as required by the Climate Change (Scotland) Act 2009. Highlighted the importance of electricity decarbonisation on the net zero agenda as a whole and the challenges in decarbonising Scotland’s other sectors.

**1.3.3 [National Planning Framework 4](#)**. NPF4 sets out the Scottish Government's priorities and policies for the planning system up to 2045 and how the approach to planning and development will help to achieve a net zero, sustainable Scotland by 2045

**1.3.4 [Scottish Energy Strategy \(2017\)](#)**. Set targets for equivalent of 50% of energy used for heat, transport and electricity in Scotland to be supplied from renewable sources by 2030.

**1.3.5 [Securing a Green Recovery on a Path to Net Zero: Climate Change Plan 2018-2032 \(2020\)](#)**. Sets target to end our contribution to climate change by 2045. Commits to reducing emissions by 75% by 2030 (compared with 1990) and to net zero by 2045. Places further emphasis placed on public sector bodies to demonstrate leadership and reduce emissions.

**1.3.6 [Energy Efficient Scotland Programme \(2020\)](#)**. Aims to reduce fuel poverty and carbon emissions by making homes and buildings more energy efficient. Proposed standards for non-domestic buildings (and domestic).

**1.3.7 [Protecting Scotland's Future: the Government's Programme for Scotland 2019-2020](#)**. Includes requirement to accelerate fleet decarbonisation from 2025 and to decarbonise public sector buildings from 2024.

**1.3.8 [Heat in Buildings Strategy \(2021\)](#)**. Sets out a vision for the future of heat in buildings, outlining the steps required to reduce greenhouse gas emissions from Scotland's built environment whilst maximising economic opportunities and ensuring a just transition.

Proposes a target for all publicly owned buildings to meet net zero emission heating requirements by 2038 and sets out intention to place a statutory duty on local authorities to prepare Local Heat and Energy Efficiency Strategies (LHEES) with a publication due by the end of 2023.

**1.3.9 [New Build Heat Standard](#)**. Requires all new buildings consented from 2024 to use heating systems with zero direct emissions.

**1.3.10 [Energy Performance of Buildings \(Scotland\) Regulations 2008](#)**. Requires building owners or provide an Energy Performance Certificate when the building is to be sold or let, and requires owners or occupiers of public buildings to display an Energy Performance Certificate in a prominent place, clearly visible to visiting members of the public.

**1.3.11 [Landfill \(Scotland\) Regulations 2003, as amended by Waste \(Scotland\) Regulations 2012](#)**. Introduced ban on landfilling of biodegradable municipal waste by 2021, later amended to 2025.

**1.3.12 [Scotland's Zero Waste Plan \(2010\)](#)**. Sets ambitious agenda for reducing waste, recognising the carbon reduction benefits of doing so.

## 1.4 Economic Levers

**1.4.1 [UK Emissions Trading Scheme](#)**. Carbon emissions trading scheme in operations since 2021 following UK departure from EU. Cap and trade scheme with cap reducing in line with UK 2050 net zero target.

**1.4.2 [Climate Change Levy](#)**. Introduced through UK Climate Change Programme. Tax on non-domestic electricity use.



**1.4.3 [Scottish Landfill Tax \(1996\)](#).** Aimed to encourage waste producers to produce less and recover more value from it, via an increasing per-tonne charge.

## 1.5 Glasgow Context

**1.5.1 [Local Heat and Energy Efficiency Strategy](#).** Strategic framework for the decarbonisation of Glasgow's built environment alongside an action plan that focuses on deployment of heat networks. Potential of GCC estate commitment to connect.

**1.5.2 [Climate Plan](#).** The Climate Plan provides a framework for Glasgow to deliver net zero carbon by 2030.

**1.5.3 [Glasgow Strategic Plan 2022-2027](#).** Sets out priority themes and commitments to be delivered in the period of 2022-2027 by the Council and wider Council family.

**1.5.4 [Fleet Strategy 2020-2030](#).** Strategy aims to have a carbon neutral GCC vehicle fleet, with a target of only electric or hydrogen powered vehicles operating by 2030.

**1.5.5 [Property and Land Strategy 2019-2029](#).** Plan for management of GCC property and land.

**1.5.6 [Sustainable Procurement Strategy 2023-27](#).** Sets out how it intends to ensure that its procurement activity delivers value for money and contributes to the achievement of the authority's broader aims and objectives such as the 2030 net zero target, and support Scotland's National Outcomes.

**1.5.7 [City Development Plan 2 \(CDP2\)](#).** The CDP2 is currently under development and sets out the Council's vision and strategy for land use alongside providing the basis for assessing planning applications.

**1.5.8 [Glasgow Economic Strategy 2022-2030](#).** The Glasgow Economic Strategy sets out the clearly defined actions the city will take to deliver an inclusive, sustainable and more productive economy for our city.

## APPENDIX B – SCOPE 3 EMISSIONS CATEGORIES

Upstream or Downstream	Scope 3 Category	Example	Example Calculation Methodology	Expected Data Maturity
<b>Upstream</b>	Purchased goods and services	Cradle to gate emissions of purchased goods and services	Estimated	Red
	Capital Goods	Cradle to gate emissions of capital goods	Estimated	Red/Amber
	Fuel and energy that's not scope 1 or 2	Transmission and distribution losses from electricity Cradle to gate emissions of purchased fuel (well to wheel)	Calculated by energy data	Green
	Upstream transportation and distribution	Transportation of products purchased	Estimated or provided by suppliers	Red/Amber/ Green
	Waste	Waste collection emissions, emissions from landfill	Provided by suppliers	Green
	Business travel	Air travel	Provided by travel suppliers	Green
	Employee commuting (and home working)	Employee commuting; home working (telecommuting)	Estimated – based on government data or employee surveys	Red/Amber
	Upstream leased assets	Student halls not owned by institution	Estimated or provided by supplier	Amber
<b>Downstream</b>	Downstream transportation and distribution	Transportation of products sold (in vehicles not owned by organisation)	Estimated	Red
	Processing of sold products	Processing of intermediate products by downstream organisation	Estimated or provided by organisation	Red/Amber
	Use of sold products	End use of goods and services	Estimated	Red
	End of life of sold products	Waste disposal of products sold at their end of life	Estimated	Red
	Downstream leased assets	PFI	Estimated	Red
	Franchises	Operation of franchises e.g. international campuses for universities	Estimated or provided by franchise	Amber/Green
	Investments	Operation of investments	Estimated	Red

Source: Scottish Government <https://www.gov.scot/publications/public-sector-leadership-global-climate-emergency/pages/9/>