

Appendix 4 – Climate Change Priorities and Investment

In November 2018 Manchester City Council committed to achieving Zero Carbon by 2038 at the latest and was one of the first cities to develop a COP21 Paris compliant science-based carbon budget. The work with the Tyndall Centre for Climate Change Research at the University of Manchester set a carbon budget of 15 million tonnes CO₂ between 2018-2100. Achieving this requires rapid decarbonisation in the short term and means the city needs to become zero carbon by 2038 at the latest. Manchester City Council declared a Climate Emergency in July 2019 and have also put green recovery at the heart of our Economic Recovery plans.

To stay within the carbon budget the council and the city must halve their emissions over the next five years. There has been some good progress and the direct emissions of Manchester City Council fell by 21% last financial year. This was driven by major investment in energy efficiency and energy generation across the operational estate, and major investments such as the £9.8 million purchase of 27 new electric refuse collection vehicles and changing all our street lights to LED. To achieve the targets the council's next step has to be to decarbonise our energy supply.

The Council is only directly responsible for around 3-5% of the carbon emissions across the city which means we need to work closely with our strategic partners. The Manchester Climate Change Partnership brings together organisations from the city's public, private, community, faith, education and academic sectors that share the common goal to achieve the ambitious objectives and targets in the Manchester Climate Change Framework 2020-25, to not be dependent on the use of fossil fuels for core activities and display leadership within their sector through ambitious and immediate science-based action plans.

To achieve the citywide targets rapid action across the city as a whole is required. The latest data shows that Manchester (and Greater Manchester) are not decarbonising at the rate required. Manchester's emissions fell by 3% in 2018-19 and by 11% in 2019-20 – below the original 13% target which now needs to increase. The new Climate Change Framework for the city 'Framework 2.0' with the Manchester Climate Change Partnership is being developed and will include a more detailed implementation plan. An update on the development of the Framework is scheduled for Environment and Climate Change Scrutiny in February 2022. The Council has a Zero Carbon Action Plan in place with targets on how the reduction needs to be achieved for its own emissions.

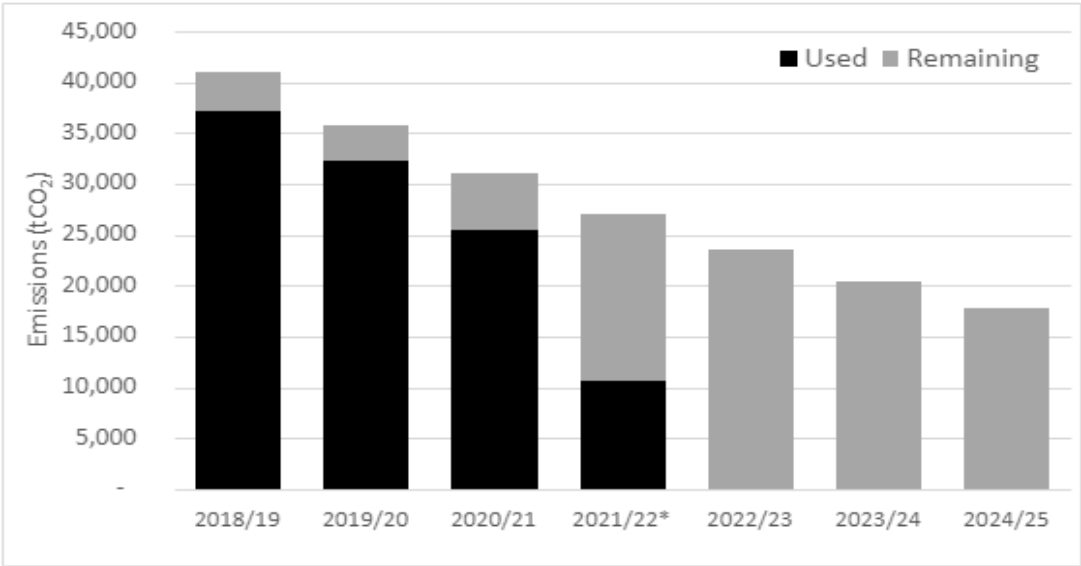
Delivering the Manchester Climate Change Action Plan 2020-25

The [Manchester Climate Change Action Plan](#) sets out the actions the council will take. To achieve the 50% carbon reduction target over the five-year period 2020-25, the council has a target to reduce its emissions by 13% every year, for five years. The CCAP also sets a carbon budget of 119,988 tonnes of CO₂ for the five-year period of 2020-25, calculated using science-based targets.

Figure 1 shows the CO₂ emissions for each year of the CCAP 2020-25, against the annual emissions budget.

The graph commences from the baseline year, 2018/19 to highlight the year-on-year budget reduction. From 2018/19 until the current year, the Council has remained within the emissions budget.

Figure 1: Carbon Budget



*Includes emissions up to Q2 April – September 2021
The carbon budget for 2021-22 is 27,056 tonnes.



27,056 tonnes CO₂ – Emissions **Budget 2021-22**
10,657 tonnes CO₂ – Emissions released to date **2021-22***

*Emissions to date include best estimates due to billing timelines; the annual report qualifies actual emissions

In 2022/23 the council will continue our focus on reducing its own emissions and to lead by example in its commitment to acting on climate change and in showing leadership across the city with residents and external partners.

The Council has emitted 10,657 tonnes of CO₂ between April and September 2021; 39% of the available budget – these are the most up to date figures for the year. The emissions relate to Council buildings, streetlights, waste collection and operational fleet, and business travel. The chart below shows a quarter-by-quarter view of emissions from April 2019 for the total Council direct CO₂ emissions. Seasonal differences are shown, e.g., energy consumption and emissions peak in winter, the impact of COVID-19 and overall trends.

Note: where emissions data for the latest quarter has to include some element of a best estimate, for example where accurate billing or monitoring data will become available in future periods, figures are marked as (p) for provisional; where emissions data for the past quarter is revised, on the basis of more accurate data becoming available, figures are marked as (r) for revised. As data is being verified for the whole year at the time of writing this report, figures are marked as (r) for multiple quarters.

Data from two years is included since COVID-19 has meant that emissions in 2020-21 were unusual and in some instances, it is more meaningful to compare Q2 in 2021-22 to Q2 in 2019-20 than to the previous year.

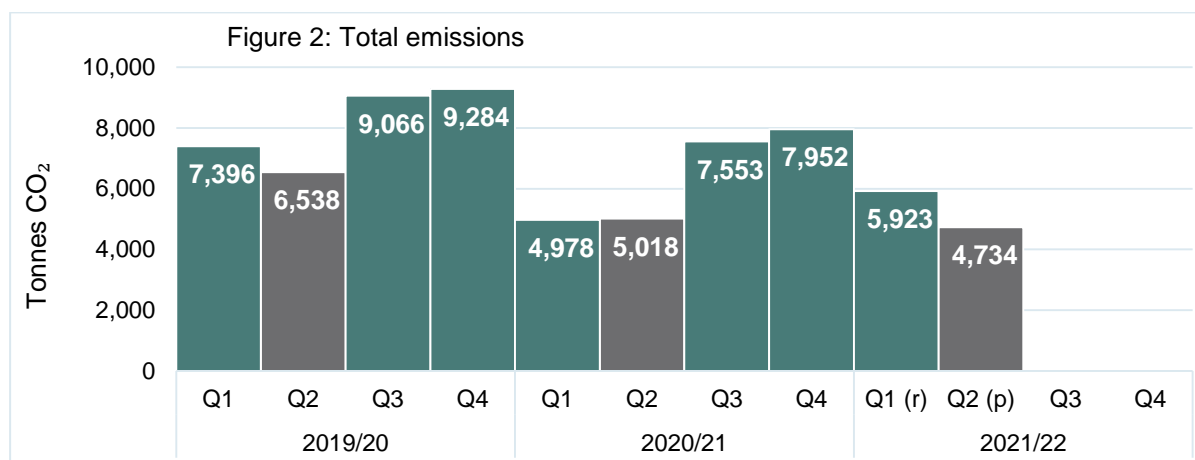


Figure 2 shows the Council's total emissions and reflects the overall downward trend seen across the level of emissions generated from Council buildings, streetlights, waste collection and operational fleet, and business travel, alongside expected seasonal trends. Total emissions in Q2 2021-22 are 6% lower than Q2 in the previous year and 28% lower than Q2 in 2019-20 (pre COVID-19).

As well as reducing our own emissions, the CCAP also requires us to play our full part in supporting the city to meet its science-based carbon budget including ensuring a just transition for residents. The CCAP has five key themes which are summarised below.

Climate Change Action Plan progress and upcoming priorities for 2022/23

Buildings and Energy

Progress to date

- Completed a feasibility study and obtained delegation from Executive to enter into negotiations for the purchase of a Large-Scale Energy Generation project for the Council to save 7,000 tonnes of CO₂ per annum. The options for delivering this are a Power Purchase Agreement or the purchase of a solar farm.
- Delivering Phase 1 and Phase 2 of the Carbon Reduction Plan to decarbonise the Council's operational estate.
- The Leisure schemes above included upgrading eight sites with energy conservation measures last financial year: Wythenshawe Forum; East Manchester Leisure Centre; Hough End Leisure Centre; Arcadia Sports Centre; Moss Side Leisure Centre; North City Family and Fitness Centre; Belle Vue Sports Centre; and Manchester Tennis and Football Centre. The improvements included a range of measures such as upgrading to LED lighting, improving lighting controls, upgrading Building Management Systems, and installing variable speed drives, as well as solar panel installations at seven of the sites, and an energy efficient combined heat and power plant at the Wythenshawe Forum.
- Spending £19million allocated to the Council through the government's Public Sector Decarbonisation Scheme, which focuses on the decarbonisation of heat including improvements to Council buildings across the city.
- Completion and connection of the Civic Quarter Heat Network to save 1,600 tonnes of CO₂ per annum
- Adopting the Manchester Build Standard within the Council's Capital Programmes.

2022/23 Priorities

- Progress the Large-Scale Renewable Energy Generation project for the development or purchase of a suitable solar farm and / or direct renewable energy Power Purchase Agreement (PPA).
- Explore funding opportunities to deliver Phase 3 of the Estates Carbon Reduction Programme.
- Deliver an approach to housing retrofit with housing partners and progress work on plan for MCC Northwards housing stock
- Continue to develop a new Local Plan for the city

Transport and Travel

Progress to date

- Decarbonised the first 50% of the Council's Refuse Collection Vehicles (through purchasing 27 electric alternatives)
- Developed a Staff Business Travel Policy, which was approved at Personnel Committee in December 2021
- Developed the City Centre Transport Strategy

- Working with TfGM on strategic transport projects (including preparation for High Speed 2 and Northern Powerhouse Rail, Metrolink expansion and tram-train options, bus reform and the Clean Air Zone).

2022/23 Priorities

- Implement and embed the Staff Travel Policy across the Council and monitor progress
- Continue to decarbonise the Council's fleet, including the remaining Refuse Collection Vehicles.
- Delivering the City Centre Transport Strategy.
- Continuing work with TfGM to deliver strategic transport projects (including preparation for High Speed 2 and Northern Powerhouse Rail, Metrolink expansion and tram-train options, bus reform and the Clean Air Zone).

Consumption based emissions and suppliers

Progress to date

- Implemented an additional 10% environmental weighting for social value and adopted this as standard in all tenders to influence suppliers
- Developed a plan to reduce single use plastics across the Council and at events, to become a single use plastic free organisation by 2024.

2022/23 Priorities

- Ensure the 10% environmental weighting within the social value element of the tendering process is delivered effectively and results are tracked, in order to influence suppliers
- Implement the plan to eradicate single use plastics across the Council and at events, working towards being single use plastic free by 2024

Climate Adaptation and Sequestration

Progress to date

- Delivering the Tree Action Plan (Year 2 complete), including a £1m contribution by MCC for the tree planting programme
- Shared the learning from West Gorton Park into new developments including Victoria North and Mayfield
- Implementation of the Tree Opportunity Mapping study to identify sites for new tree planting and better management of existing trees.

2022/23 Priorities

- Continue delivery of the Tree Action Plan and identify funding opportunities
- Delivery of the Green & Blue Strategy and revised Implementation Plan

Influencing behaviour and being a catalyst for change

Progress to date

- Worked across all the city's neighbourhoods to embed climate action into place ward plans with the support of the three Climate Change Neighbourhood Officers.
- Supported the delivery of the 'In Our Nature' programme with Manchester Climate Change Agency and other partners.
- Started to embed zero carbon ambitions into our decision-making processes including capital gateway decisions.
- Worked with and influenced Greater Manchester and the UK government to attract funding for projects and to participate in international networks.
- Provided funding for the Manchester Climate Change Agency to ensure that it is sufficiently resourced and to grow the Partnership to have more direct influence over the city's CO₂ emissions.
- Worked with the Manchester Climate Change Partnership to produce a revised Manchester Climate Change Framework.

2022/23 Priorities

- For MCC to continue to lead by example in its commitment to acting on climate change across all areas of the Council and in showing leadership across the city with residents and external partners.
- Develop and deliver a programme of work to achieve Gold Carbon Literacy Accreditation by March 2025 and develop a wider training programme to fully embed the Council's Zero Carbon ambition across services.
- Work closely with Manchester Climate Change Partnership and Agency to communicate effectively and proactively about climate change action to the city's residents and businesses.
- Actively engage residents and communities in the work they can do to tackle climate change, including continuing to work with Manchester Climate Change Agency and other partners to deliver the 'In Our Nature' programme
- Continue to embed zero carbon ambitions into all decision-making
- Continue working with and influencing Greater Manchester and the UK government to attract funding for projects
- Work with Manchester Climate Change Partnership to deliver the revised Manchester Climate Change Framework which includes a detailed implementation plan setting out actions required to remain within the city's carbon budget.
- Deliver a Schools Conference with a key focus on climate change, to support schools to decarbonise.
- Support the development of green skills in the city's workforce through the refreshed Work & Skills Strategy

The updated Climate Change Action Plan is due to go to Environment and Climate Change Scrutiny and Executive September 2022.

Investment Strategy

Revenue Budget

When the Climate Emergency was declared, additional funding was identified to fund:

- Two additional posts within City Policy – these have been established as part of the Zero carbon team in the policy unit.
- A time-limited full-time post to deliver carbon literacy training – the post has been established in HROD.
- Funding a further £300k was included in the 2020/21 Revenue Budget which includes:
 - Funding for the Climate Change Agency and new Chief Executive position – the Chief Executive and chair are now in post and the council has supported further additional capacity within the Agency.
 - Additional programme management resources in City Policy – this is in place as part of the Zero Carbon team.
 - Additional external expertise as required
 - Tree Opportunity Mapping commission and resource to manage – commission to be completed by March 2022. The additional resource was a time-limited part-time post.
 - Development of a supplier toolkit for the city to inform procurement and commissioning activity – completed

All of the above remain in place and the associated work has been delivered or is in the progress.

In order to deliver the commitments within the Estates Carbon Reduction Action Plan further funding of £1m was made available via the Capital Fund to:

- Deliver large scale remote Renewable Energy e.g. Solar PV generation projects which is progressing with delegation granted by Executive in January 2022.
- Deliver a Zero Carbon whole building retrofit pilot.
- Develop the next / ongoing pipeline of investments through a series of building audits focusing on the deployment of proven energy efficiency measures.
- Embed the Manchester Build Standard / Standards within the decision making processes which include consideration of Net Present Value and Asset Management Plan; Whole Life Costing, Internal Carbon Costing, and Energy Intensity Measures.
- Support awareness raising and behaviour change across residents, partners and council staff, by utilising the three Climate Change Neighbourhood Officers across the wards, continuing to rollout carbon literacy training to all staff and members, and officers and members continuing to engage with partners regionally, across GM and the city.
- Provide additional capacity within the Strategic Housing Team to support the work outlined in the Action Plan including to develop the segmentation approach to considering carbon reduction across the domestic house estate which is outlined in the appended action plan.

- Additional capacity to support the development and funding of neighbourhood schemes and priorities as the schemes are developed.

£4m revenue will be spent in supporting the delivery of the zero carbon action plan by 2025.

To support the continued delivery of our zero carbon ambition, this includes an additional £0.7m of revenue per year to support for the 6 key areas outlined here has been recommended. This includes additional capacity to develop a funded programme for housing investment and retrofit, a city-wide energy and infrastructure plan, embed awareness and behaviour change across the council and to maximise the benefits from the 10% procurement weighting for low carbon measures. All making direct contribution to the Climate Change Action Plan 2020-25.

| Focus | Description |
|---------------------------------|---|
| Housing Investment & Retrofit | Developing new retrofitting programmes across social and private sectors |
| Energy & Infrastructure Support | Supporting zero carbon energy planning & infrastructure and Green & Blue Infrastructure delivery |
| Procurement | Supporting effective delivery of our 10% procurement uplift across MCC |
| City Policy Zero Carbon Team | New capacity to meet our commitment to be Single Use Plastic free by 2024 and to provide added capacity across the whole CCAP |
| Sustainable Staff Travel | Delivery of the new Staff Travel Policy and supporting staff to make sustainable travel choices |
| Carbon Literacy | Delivering a comprehensive Carbon Literacy programme which secures our target Gold standard by 2025 |
| Total | £700k p.a. |

A further £100k is available to support the delivery of priorities not listed in the table above. This could include work with the food system, or support to schools, where a small amount of funding could enable greater progress. Proposals for the use of this funding will be brought back to this Committee along with the updated climate change action plan in June.

Capital Strategy and Investment

Reducing carbon emissions is included within the Capital Strategy as one of the key priorities for capital investment. The development of all capital schemes and associated investment must consider the effect on carbon and work is taking place to understand how investment can be classified in terms of carbon impact as well as financial. The

costs of new build programmes to higher environmental standards and meeting the needs of the Local Plan and planning requirements will also be considered, running alongside investment in green spaces and places including trees and green walls which will require revenue resources for ongoing maintenance. As schemes are developed the higher cost to meet environmental standards will be included. The previous Capital Budget priorities included

- Retrofit of the Council's operational estate. Energy generation and charging infrastructure including Solar PVs on suitable buildings and sites, Batteries, EV Charging Infrastructure and Heat Pumps. Phase 2 of the Carbon Reduction Plan will require an additional £15m investment.
- Funding for a large scale energy generation scheme dependent on the outcome of the feasibility study. Funding for the feasibility study is included within the revenue funding requirements above. This work is now progressing and the latest update presented to January 2021 Executive.
- Northwards managed Council housing stock retrofit and energy generation. Specific schemes will be developed with Northwards through the capital funding available in the Housing Revenue Account capital programme. Funds are required to maintain the Decent Homes Standard within Manchester's housing stock and, in addition, will support innovative climate change investment; essential health and safety works including the installation of sprinklers in multi storey blocks; and public realm environmental works. There is limited funding within the HRA to cover all of these priorities and further work will be carried out to identify options to deliver more extensive carbon reduction measures given the constraints in place.
- Supported the purchase of 27 electric waste vehicles.
- Investment in planting of beacon trees, mature trees, street trees and hedgerows informed by the Tree Opportunity Mapping exercise. Work will also continue to deliver the carbon reduction priorities within:
 - Delivery of Northern and Eastern Gateway projects
 - Changes to the way Highways projects are designed and delivered
 - Investment in public transport and active travel infrastructure such as cycling and walking. This will include progressing the pipeline of schemes for funding via the Greater Manchester Mayor's Challenge Fund.
 - Work with the Department for Education on how carbon efficient schools can be delivered given the constraints with the current levels of Department for Education funding and unit cost.

As a result, the Council has already put in place investment of approximately **£192m** to deliver the 5-year Plan. The breakdown of this funding by source is as follows:

- **£76.4m** via the Council (including investment in LED streetlighting replacing lights with LED lights with lower emissions, the completion of the Civic Quarter Heat Network powering council buildings with cleaner energy, Estates Carbon Reduction, purchase of Electric Refuse Collection Vehicles, Tree Planting, and new climate change posts)

- **£65m** from UK Government (including funding for Mayfield Park, Public Sector Decarbonisation Scheme which has funded part of the Council's carbon reduction programme to reduce the carbon output of our operational estate, Active Travel, Social Housing Development Fund, HNIP grant contribution to Civic Quarter Heat Network)
- **£41m** from the GMCA (including Active Travel, GM Mayors Challenge Fund)
- **£4.3m** from the European Union (including ERDF funded Unlocking Clean Energy, Horizon 2020 funding for West Gorton Park, URBACT C-Change and Zero Carbon Cities projects and e-cargo bikes).
- **£4.3m** from partners (including One Manchester contribution to the Social Housing Decarbonisation Fund)
- **£1.1m** from the Manchester Climate Change Agency (including Zero Carbon Communities and Climate Resilience)

In order to reduce its direct carbon emissions by at least 50% by 2025 will require significant additional investment.

The Council has an important leadership role working alongside the Manchester Climate Change Partnership and GMCA. This includes the development of the Local Plan and the implementation of the Manchester Low Carbon build standard for new developments planned for 2023, the delivery of the Green and Blue infrastructure plan and related pieces of work. Our direct investment will include work such as delivering the Tree Action Plan (year 2 complete including a £1m contribution from MCC for tree planting programme) and rolling out the learning from West Gorton Park into new developments including Victoria North and Mayfield.

Last year the Council formally adopted the Manchester Low Carbon Build Standard for all new developments directly delivered by the council, following its endorsement by the Manchester Climate Change Agency. The Standard sets minimum expectations which should be followed by all Council schemes, with zero carbon exemplar schemes actively encouraged.

A significant challenge remains the retrofit of the city's housing stock. The Council has worked with Greater Manchester on the recently approved *retrofitGM: Accelerating the Renovation of Greater Manchester's Building* to reduce carbon emissions from how buildings are heated. The strategy has the three aims of boosting skills, improving access to funding and investment and speeding up delivery, and the work is led by the GM Decarbonisation Taskforce which includes our Registered Providers. The council is holding a Low Carbon Homes event in March designed to be a call for action for this work.

As the majority of the Council's carbon emissions are from its existing corporate estate and the Council has a responsibility to reduce emissions across the Northwards and partner managed housing stock, significant investment will be required to bring these buildings up to carbon efficient standards. This represents a major opportunity to both establish Manchester as a centre for green technology and services, and to work with

local skills providers to ensure that the city's residents are given the best possible opportunities to access these new careers.

There will also be specific investment required with the forecast additional projects identified in this report including:

- moving to a sustainable transport system across the City, including investment in cycle lanes and electric charging points;
- continued investment in the Corporate Estate to improve energy efficiency given the estate accounts for roughly 70% of the Council's carbon emissions;
- investment in a solar farm (directly or via a PPA) to provide electricity to the Council's estate;
- retrofit works to the Council's housing stock to move towards it being carbon neutral; and
- further investment in green energy solutions.

Capital investment aimed at reducing carbon must focus on projects which will make the biggest difference in order to make the most effective use of our resources.