

Manchester City Council Report for Information

Report to: Health Scrutiny Committee – 8 February 2023

Subject: Manchester’s Climate Change Framework and Health

Report of: Director, Manchester Climate Change Agency
Deputy Director of Public Health

Summary

In 2022, the Manchester Climate Change Partnership, supported by Manchester Climate Change Agency, updated Manchester’s five year Climate Change Framework (2020-2025) to provide more granular targets for staying within our carbon budget and to highlight the co-benefits of climate action, including tackling health inequality.

The Making Manchester Fairer plan was developed alongside the Framework refresh and so is aligned to it.

Recommendations

The Committee is asked to note the content of the 2022 Update of the Manchester Climate Change Framework (2020-25), its reference to health and wellbeing and its alignment to the Making Manchester Fairer plan.

Wards Affected: All

Environmental Impact Assessment - the impact of the issues addressed in this report on achieving the zero-carbon target for the city

The Manchester Climate Change Framework 2020-25 is the city's high-level strategy for tackling climate change. It sets out how Manchester will 'play its full part in limiting the impacts of climate change', a commitment in the Our Manchester Strategy 2016-25. The Framework’s key aim is for “Manchester to play its full part in limiting the impacts of climate change and create a healthy, green, socially just city where everyone can thrive.”

Equality, Diversity and Inclusion - the impact of the issues addressed in this report in meeting our Public Sector Equality Duty and broader equality commitments

Actions set out in the Manchester Climate Change Framework 2020-25 relate to the need for a just and equal delivery of climate action across Manchester. This includes areas such as community engagement, warmer homes, accessible transport, access to green spaces and tackling fuel poverty. There is also detail in the Framework on creating a ‘just transition’ and a chapter on creating an inclusive, net zero and climate resilient economy.

Manchester Strategy outcomes	Summary of how this report aligns to the OMS/Contribution to the Strategy
A thriving and sustainable city: supporting a diverse and distinctive economy that creates jobs and opportunities	The Manchester Climate Change Framework has the core objective: “To ensure that Manchester establishes an inclusive, zero carbon and climate resilient economy where everyone can benefit from playing an active role in decarbonising and adapting the city to the changing climate.
A highly skilled city: world class and home grown talent sustaining the city’s economic success	The Manchester Climate Change Framework notes: “By 2025 Manchester will be a key player in the global zero carbon economy, recognised as one of the best places in the world to innovate, invest and roll-out new solutions to climate change. Manchester businesses will be rewarded for their commitment to climate action by saving money, attracting talented workers and exporting their products and expertise across the UK and internationally.”
A progressive and equitable city: making a positive contribution by unlocking the potential of our communities	The Manchester Climate Change Framework has the core objective: “To ensure that Manchester establishes an inclusive, zero carbon and climate resilient economy where everyone can benefit from playing an active role in decarbonising and adapting the city to the changing climate.
A liveable and low carbon city: a destination of choice to live, visit, work	The Manchester Climate Change Framework notes: “By 2025 Manchester residents will have cleaner air, be walking and cycling more, be living in more energy efficient homes, have access to high quality green spaces in their neighbourhoods, and be securing good, well-paid jobs in socially and environmentally responsible Manchester businesses.”
A connected city: world class infrastructure and connectivity to drive growth	The Manchester Climate Change Framework has the core objective: “To ensure that Manchester establishes an inclusive, zero carbon and climate resilient economy where everyone can benefit from playing an active role in decarbonising and adapting the city to the changing climate

Full details are in the body of the report, along with any implications for:

- Equal Opportunities Policy
- Risk Management
- Legal Considerations

Financial Consequences – Revenue

Delivery of the Update to the Manchester Climate Change Framework will require revenue expenditure by stakeholders across the city, including the City Council.

Financial Consequences – Capital

Delivery of the Update to the Manchester Climate Change Framework will require capital expenditure by stakeholders across the city, including the City Council.

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Background documents (available for public inspection):

The following documents disclose important facts on which the report is based and have been relied upon in preparing the report. Copies of the background documents are available up to 4 years after the date of the meeting. If you would like a copy please contact one of the contact officers above.

2022 Update of Manchester's Climate Change Framework 2020-2025:

<https://www.manchesterclimate.com/content/2022-update>

Making Manchester Fairer plan

https://www.manchester.gov.uk/download/downloads/id/28760/making_manchester_fairer_plan_-_pdf.pdf

1.0 Introduction

- 1.1 The Manchester Climate Change Partnership (MCCP) and Agency (MCCA) have been given the responsibility to set the city's strategy for tackling the climate emergency.
- 1.2 In 2020 the Manchester Climate Change Framework was published; it is the city's high-level strategy for tackling climate change. The Framework's key aim is for "Manchester to play its full part in limiting the impacts of climate change and create a healthy, green, socially just city where everyone can thrive". This is aligned to a key commitment in the Our Manchester Strategy 2016-25.
- 1.3 The Framework was updated in 2022 to ensure it remains a live document, responsive to a changing city and an increasingly urgent climate emergency, to provide more granular information on the scale of action needed for the city to stay within its carbon budget, and to highlight the co-benefits of climate action including on tackling health inequalities.

2.0 Background

- 2.1 Manchester's Climate Change Framework 2020-25 (the Framework) was developed with support from the Tyndall Centre for Climate Change Research at the University of Manchester.
- 2.2 It calculates a science-based target for the city to reach zero carbon emissions by 2038 and sets a total carbon budget of 15m tCO₂ for the period 2018-2100. It also sets a target for the city to reduce its emissions by 50% by 2025, with further milestones along the way to 2038.
- 2.3 The Tyndall Centre method includes direct, energy-related emissions in the city's carbon budget, sometimes described as territorial emissions. Indirect emissions are not included in the budget but are addressed by the Framework.
- 2.4 The Framework identifies four headline objectives for the city to tackle:
 - Staying within our carbon budgets
 - Climate adaptation and resilience
 - Health and wellbeing
 - Inclusive, zero carbon and climate resilient economy
- 2.5 It also identifies six priority areas:
 - Buildings (existing and new)
 - Renewable energy
 - Transport and flying
 - Food
 - The things we buy and throw away
 - Green infrastructure and nature-based solutions

3.0 The 2022 Update to the Climate Change Framework Update

3.1 The purpose of the 2022 Update to the Framework is to:

- Present the findings of detailed modelling done to identify granular targets for reducing the city's direct emissions by 50%, to help the city stay within its carbon budget.
- Provide an overview of ongoing work carried out in support of the Framework's other headline objectives, notably on adaptation to climate change.
- Recommend specific actions for delivery at local, regional, and national level by government and the wider public sector, private companies and third sector organisations, and communities and individuals, that will support our transition to a zero carbon and climate resilient city.

4.0 The city's direct emissions

4.1 Manchester's carbon budget relates to its direct emissions. These are defined by the Tyndall Centre as carbon dioxide emissions from our energy system, i.e., the gas, electricity and liquid fuels used to power and heat our homes and businesses and to transport us around the city.

4.2 Manchester has not been reducing its direct emissions by the targeted 13% per year and so we are not currently on track to stay within our carbon budget and are at risk of missing our first milestone: to reduce the city's direct emissions by 50% by 2025.

4.3 The Update unpacks the sources of Manchester's current direct emissions to clarify where focus is required to get back on track. It sets out in granular detail the scale of action needed to reduce our direct emissions from buildings and transport by 50%, and the scale of increase in renewable energy generation needed to support this, using an evidence base provided by Anthesis' SCATTER carbon data tracking model.

4.4 The Update sets out two scenarios for the city to remain within its carbon budget and reach zero carbon by 2038. It does not identify a preferred scenario, rather, it illustrates that an increased scale and urgency of action is needed to meet the city's goals.

5.0 Consumption-based emissions

5.1 The city's indirect, or consumption-based, emissions are those that occur from the services and goods we buy, use, and ultimately dispose of. Whilst they are not included within our carbon budget, indirect emissions are important as they are commonly 60% larger than direct emissions and so contribute to the city's overall climate impact.

5.2 The Update provides an overview of research by the University of Manchester to help the city understand its indirect emissions – it estimates the city's footprint was over 3m tCO₂e in 2019; and identifies sectoral hotspots for us to

focus on for maximum impact, including construction, food and drink, waste, and wastewater.

- 5.3 The Update also presents a new agreement reached by members of Manchester's Climate Change Partnership (MCCP), with support from its Zero Carbon Advisory Group, which notes the importance of tackling aviation emissions through national policy to avoid displacement of emissions from one UK airport to another, and of international industrial collaboration to deliver the technologies and processes needed for zero emission flights.

6.0 Adaptation and resilience

- 6.1 While bold action on climate change mitigation (reducing our emissions) is vital, the global and local climate is already changing, and many climate impacts are already 'locked in' and deemed irreversible even under the most ambitious emissions reduction scenarios.
- 6.2 The Update provides an overview of work by Manchester Metropolitan University and MCCP's Adaptation and Resilience Advisory Group to help the city assess its vulnerability to climate risk, define the characteristics of a climate resilient city, and establish principles to guide both ambition and practical action, including how green infrastructure and nature-based solutions can support these efforts.

7.0 Health and wellbeing

- 7.1 The actions we need to take to reduce our emissions and adapt the city to climate change also have the potential to improve the health and wellbeing of Manchester's residents. Conversely, actions that improve our health and wellbeing can also help to tackle the climate crisis.
- 7.2 The Update presents a summary of the link between health inequalities and climate change, including both direct and indirect impacts. It also presents seven recommendations that were co-designed with stakeholders where direct control for delivery lies within Manchester:
- 7.2.1 To carry out a vulnerability assessment to map where climate change will exacerbate health inequality so action can be prioritised.
- 7.2.2 To develop city-scale indicators to track the impacts of climate change on health inequalities.
- 7.2.3 To incorporate health equity and climate action into Council policies and strategies.
- 7.2.4 To implement the Making Manchester Fairer plan.
- 7.2.5 To share knowledge across the health sector to support its decarbonisation and adaptation.

- 7.2.6 To maximise uptake of Carbon Literacy and NHS toolkits to support climate action in the health sector.
- 7.2.7 For MCCP's Health & Wellbeing Advisory Group (which also reports to the Health & Wellbeing Board) to expand this list of recommendations to encompass collaborative action across Greater Manchester and a clear set of asks of national government.
- 7.3 Throughout the Update, the co-benefits of climate action are highlighted and categorised by their potential to help us reduce our carbon emissions; boost our adaptive capacity; increase the inclusivity, productivity, and sustainability of our economy; and improve the health and wellbeing of our communities – with over 20 co-benefits to Health and Wellbeing cited.

8.0 Inclusive, zero carbon and climate resilient economy

- 8.1 Meeting our goals on climate action can also help Manchester to establish a more inclusive economy where everyone can benefit from playing an active role in decarbonising and adapting the city to the changing climate.
- 8.2 The Update provides an overview of activity underway to build demand for, and increase supply of, green skills into make sure that local businesses and residents can make the most of the new opportunities that the shift to a zero carbon city offers.

9.0 Challenges, enablers and examples of good practice

- 9.1 The transition to a zero carbon, climate resilient city presents significant economic, technical, institutional, societal, and regulatory challenges. The Update highlights a selection of these to provide context to the topics covered and the actions being recommended.
- 9.2 It also highlights where policies at local, regional, and national level are incentivising and enabling actions of a similar type and magnitude to reinforce the feasibility and credibility of the actions being recommended.
- 9.3 Finally, to illustrate that climate action is possible, the Update signposts examples of good practice from within Manchester, the wider city region and across the UK.

10.0 Ensuring a just transition

- 10.1 Ensuring that all of Manchester's residents are protected from the impact of climate change, that actions to help the transition to a zero carbon and climate resilient city do not have a negative impact on the most vulnerable people, and that the costs of change do not fall unevenly on those that are least able to afford them, is a constant theme throughout this Update.

10.2 The recommended actions have been developed with this in mind and the cost of living crisis is recognised as a key challenge in this chapter of the Update.

11.0 Financing the transition

11.1 The cost of the transition to a zero carbon and climate-resilient city, is significant. The Local Area Energy Plan for Manchester estimates the cost to decarbonise the city's energy system is over £13bn (£4 billion by 2030).

11.2 This level of capital investment is beyond the reach of public finances and so private finance is critical to our success. The scale of private funds available is sufficient to support substantial activity, however, new approaches must be developed to unlock this resource.

11.3 The Update summarises the challenges and developing climate measures at sufficient scale, volume, and predictability to attract the patient capital investment needed to accelerate progress and achieve the ambitious climate change targets that Manchester has set.

12.0 Recommended Actions in the Update

12.1 To achieve our climate goals, action needs to be taken urgently and by everyone – by government at local and national level, by institutions and organisations in the public, private and voluntary sector, and by residents and communities across the city.

12.2 The Update has co-designed over 175 recommended actions organised into four categories according to where there is agency to act; that is, where there is direct control to deliver, affect or influence the required change or outcome:

- To be delivered locally, where direct control lies in Manchester
- To work on at city-region level, with Greater Manchester partners
- To advocate for national government to do
- To do differently, where there are opportunities to innovate

13.0 Key messages of the 2022 Update

13.1 There are five key messages within the Update:

- Urgent action is needed to reduce direct emissions from our buildings and ground transport, and to increase renewable energy generation, if Manchester is to stay within its carbon budget.
- Decisive action is needed to assess the city's vulnerability to climate change and to ensure we are adapting our infrastructure, buildings, economy, and residents to be resilient to a changing climate.
- Everyone has a role to play – individuals, organisations, local and national government – and there is a great deal we have the power to achieve locally, if we work collaboratively.

- The cost of transitioning to a zero carbon, climate resilient city cannot be borne solely by the public purse, so we need to find innovative ways to unlock private finance investment.
- Tackling the climate crisis brings opportunities to deliver wider strategic ambitions, including improving people's health, reducing fuel and food poverty, creating new jobs and economic growth, and delivering a greener city for everyone.

14.0 Alignment with the Making Manchester Fairer plan

- 14.1 The Global report of the Lancet Countdown states: *“A persistent fossil fuel addiction is amplifying the health impacts of climate change, and compounding the concurrent energy, cost-of-living, food, and COVID-19 crises we face. Climate change is exacerbating food insecurity, health impacts from extreme heat, the risk of infectious disease outbreaks, and life-threatening extreme weather events. The delay in the adoption of clean energies has left households dependent on dirty fuels, vulnerable to energy poverty, and exposed to dangerous levels of fuel-derived air pollution. These impacts are compounding with today’s multiple, concurrent crises.”*
- 14.2 Professor Sir Michael Marmot, Advisory Group Chair and Director of the UCL Institute of Health Equity (IHE) said: *“When we talk about climate change health inequalities are often forgotten. Action to improve health equity can be consistent with measures to reduce GHG emissions. But this requires careful consideration of who benefits and who pays for different policy measures: the costs must not be unfairly borne by people on low incomes, who bear least responsibility for the emissions that cause climate change. To avoid this health equity must be an explicit policy goal of achieving net-zero emissions by 2050.”*
- 14.3 The Making Manchester Fairer plan recognises that: *“Places that provide the conditions for good health have good air quality, transport links and easy access to green space. Climate change is one of the biggest public health threats and challenges we face. The people whose health is being harmed first and worst by the climate crisis are the people who contribute least to its causes.”*
- 14.4 The Making Manchester Fairer theme ‘Improving housing and creating safe, warm and affordable homes’ recognises that *“Working across all tenures, and in particular the private rented sector, we must make significant progress towards achieving a net zero carbon housing offer in order to reach our target to become a zero-carbon city by 2038.”* This directly aligns to the targets and recommendations within the Buildings section of the city’s Climate Change Framework.
- 14.5 The Making Manchester Fairer theme ‘Places, transport and climate change’ recognises that:

- *“Living in a greener environment can promote and protect good health, aid recovery from illness and help with managing poor mental and physical health conditions”.*
- *“Climate change will mean that Manchester will face warmer summers with an increased likelihood of very intensive heatwaves. This will negatively impact health with increased levels of dehydration, heat stroke and death.”*
- *“Neighbourhoods and communities in Manchester with the worst transport links and access to green spaces have some of the poorest health outcomes.”*
- *“People living in disadvantaged areas of the city are more likely to have other health conditions due to their socioeconomic position which are then further impacted by poor air quality.”*

These directly align to the targets and recommendations in the Transport and Adaptation & Resilience sections of the city’s Climate Change Framework.

14.6 Manchester Climate Change Agency (MCCA) co-leads with Manchester City Council the section of Making Manchester Fairer called ‘Improving our surroundings, the environment where we live, transport, and tackling climate change’; within which there are six actions listed. Each action is described below and includes a read across to the text, targets, and recommendations in the city’s Climate Change Framework and where appropriate an update on activity by MCCA to enable delivery.

14.7 The first action states: *“We will work with partners to build evidence of the impact good green space has on Manchester residents’ health, so we can prioritise provision of new or improved green space based on vulnerability to climate change and health inequalities”.* This aligns to the Green Infrastructure section of the Climate Change Framework which states:

- Green Infrastructure and Nature Based Solutions have an essential role to play in helping Manchester to meet its climate change objectives, both adapting the city to the changing climate (by helping to manage flood risk and heat stress) and helping to reduce our CO2 emissions (to stay within our carbon budget we need to become a net remover of carbon).

14.8 The second action states: *“With partners, we will map risk and vulnerability to climate change and health inequalities to better understand their distribution and demonstrate the impact of climate change on health in Manchester, monitoring progress over time so we can target those most at risk and support a just and equitable transition to becoming zero carbon.”* This aligns to the Adaptation and Health sections of the Climate Change Framework and the following recommendations:

- Manchester City Council (MCC) to lead a detailed climate risk and vulnerability assessment of the city and produce an adaptation plan, directing priority action towards increasing the resilience of our critical infrastructure and most vulnerable communities, and ensuring that nature-based solutions are given sufficient time to develop their adaptive services.

- The city's health sector to work collaboratively to carry out a vulnerability assessment that maps at hyperlocal level where climate change will exacerbate health inequality so that action can be prioritised and targeted.

[MCCA](#) have supported progressing these actions, having produced a city wide framework for vulnerability assessment and principles for progressive resilience as well as a [City Pack for Manchester](#), with the Met Office UK Climate Resilience programme, describing the broad impacts of climate change on the city over the 21st century.

14.9 The third action can be summarised as “*We will produce a Heatwave Plan for Manchester including a hot weather warning system to help communicate the effects of heatwaves and what residents can do to reduce them....*”. This specific action is not replicated in the framework, however the following recommendation within the Health section of the Climate Change Framework reflects the city's broader ambition to better understand, track and monitor the link between climate and health:

- Manchester Climate Change Agency to work with the Health and Wellbeing Advisory Group to develop city-scale indicators to track and report the impacts of climate change on health inequalities.
- In developing city-scale indicators, the direct (extreme heat, flooding) and indirect (air quality, food and energy insecurity) impacts of climate change would be considered.

MCCA and MCC have worked with the Met Office's Urban Heat Service to develop a Heat Pack for Manchester with a particular focus on areas more vulnerable to heat exposure. In addition, MCCA has worked with the University of Exeter to support development of their Local Climate Adaptation Tool (LCAT) which is intended to better inform decision-makers on the impact of heat and actions that can be put in place to mitigate the impact for residents and inform future planning decisions that adapt to a changing.

14.10 The fourth action includes “*Improving the quality and connectivity of walking and cycling routes across the city....*”, which aligns to the Transport section of the Climate Change Framework. This includes multiple recommendations around access to public transport, improved connectivity of modes of transport, as well as behaviour change to support the transition to active travel, for example:

- Schools to encourage walking/wheeling and cycling to school via road safety education campaigns and school street schemes.
- Deliver the Streets for All Strategy and Bee Network ambition for an integrated, affordable, and sustainable transport system, which will join up buses, trams, cycling and walking by 2024 and rail by 2030.
- Incentivise sustainable travel behaviour change and deliver public transport and active travel schemes into and within the city centre, targeting 90% of all morning peak trips to the city centre by public transport or active travel.

14.11 The fifth action includes “*Make sure all city strategies put both climate change and health equity at the heart of planning and ensure a just and equitable transition to a zero-carbon city....*”. This aligns to the Health and Transport sections of the Climate Change Framework, including the following recommendations:

- Manchester City Council (MCC) to incorporate health equity and climate action into its policies and strategies in a consistent and transparent manner and implement methods to measure their impact.
- MCC to adopt the principles of the 15-20-30 minute neighbourhood within planning policy to ensure residents can access essential services without the need for a car.
- MCC to implement reductions in speed limits across the city to help reduce emissions and support delivery of road safety programmes.

14.12 The sixth action includes “*Monitor and evaluate actions to improve air quality and the resulting health outcomes...*” which aligns to the Health section of the Climate Change Framework (see 14.9) and to the following recommendation within the Transport section:

- Deliver the GM Clean Air Plan to improve air quality.

15.0 Recommendations

The Committee is asked to note the content of the 2022 Update of the Manchester Climate Change Framework (2020-25), its reference to health and wellbeing and its alignment to the Making Manchester Fairer plan.

16.0 Appendices

2022 Update to the Manchester Climate Change Framework 2020-2025:
<https://www.manchesterclimate.com/content/2022-update>

Making Manchester Fairer:
https://www.manchester.gov.uk/download/downloads/id/28760/making_manchester_fairer_plan_-_pdf.pdf