

**Manchester Climate Change**  
**ANNUAL REPORT**  
**2020**

**July 2020**



MANCHESTER  
CLIMATE CHANGE PARTNERSHIP

MANCHESTER  
CLIMATE CHANGE AGENCY



# Contents

## **4 Introduction**

Chair of the Manchester Climate  
Change Partnership

## **6 Part 1**

Manchester Climate Change Partnership  
and Agency Action 2019-20

## **12 Part 2**

Citywide Progress 2019-20:

1. Staying within our carbon budgets
2. Adaptation and resilience to the  
changing climate
3. Health and wellbeing
4. Inclusive, zero carbon and climate  
resilient economy

## **36 Part 3**

Priorities for 2020-21

Manchester Climate Change Partnership  
and Agency Priorities 2020-21

Citywide Priorities 2020-21

# Introduction

## Introduction from the Chair of the Manchester Climate Change Partnership

**2020 is a critical year for climate action. This is the year from which all cities need to start delivering Paris Agreement-aligned action plans. It is the pivotal year that decides whether or not we can get on track to limit global heating to between 1.5 and 2°C.**

This statement had been ringing out since the last UN Climate Change Conference (COP25) in November 2019, designed to start building momentum towards COP 26 in Glasgow. In February 2020 the Manchester Climate Change Partnership added our views to this growing movement, publishing the Manchester Climate Change Framework 2020-25 as the city's strategy for urgent action.

### **Then the world changed.**

The UN and UK Government's ambitions to make 2020 a turning point in global climate action changed almost overnight due to COVID-19.

The resulting decision to delay COP 26 to November 2021 appears to be the last thing we need. In many ways that is true. This delay, however, does give us the opportunity for one essential ingredient for successful talks in Glasgow. The opportunity to build an unstoppable movement to re-imagine the world, the cities and the neighbourhoods where we live, our relationship with the natural environment, and the outcomes we should expect from our jobs, our businesses and our economies.

For the Partnership, the way forward is clear. 2020 provides us with the last chance to get the world on track to meet the goals of the Paris Agreement. And at the same time, 2020 also now gives us the much-needed opportunity to improve our health and wellbeing, save money, invest in technologies that tackle climate change, and grow socially responsible businesses that provide meaningful and rewarding jobs.

The Framework and our letter to Manchester City Council in June 2020 sets out the city we believe is possible. With only 6% of people wanting to go back life pre-COVID, we believe it's the city that the majority of Mancunians want as well.

However, the report on the following pages sets out that while we are making progress towards our goals, it is not yet enough. So, where next?

Vision and strategy. The Our Manchester Strategy is being reset this year. We all need to ensure it sets out the city we have been talking about over the last few months; a green, healthy, fair, inclusive, zero carbon and climate resilient city. Get involved in the consultations being planned by Manchester City Council in Autumn 2020.

Taking personal and organisational responsibility. We already have many examples of individuals, groups and organisations proactively taking action. But we need much more of this. The

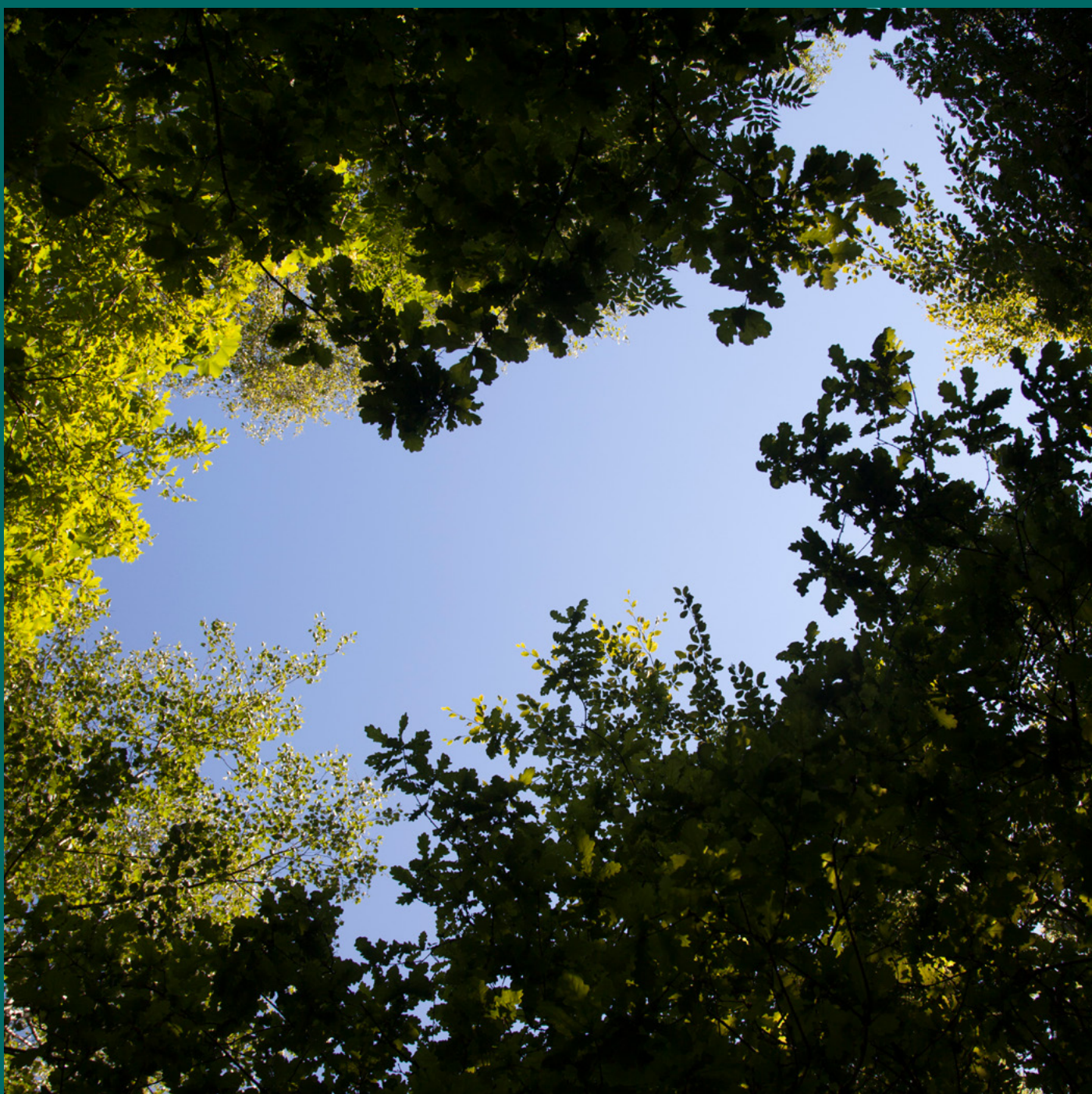
'Get Involved' section of our website can help if you don't know where to start or which step to take next.

Asking for and supporting the structural changes we need. New policies, legislation, infrastructure, financial incentives and other structural changes need a political mandate. Where Manchester City Council, Greater Manchester Combined Authority or Government are proposing such changes, make your voice heard. Support the proposals you like and help improve the ones you don't. No structural change on the horizon? Set out your idea and how it will help us achieve the Our Manchester vision. You can contact local and national politicians at <https://www.writetothem.com/>.

By the time the Partnership produces its 2021 report we need to see these three things coming together. Get it wrong and we miss the opportunity to create the city we know we want. Get it right and we'll not only put ourselves on track to be a healthier, more prosperous, fair and inclusive city, but we'll also have championed a new blueprint for other cities to follow. I hope you'll join us.

### **Steve Connor**

Interim Chair,  
Manchester Climate  
Change Partnership





# Part One

## The Manchester Climate Change Partnership and Agency action in 2019-20

Progress against the actions in the 2019 report:

### 1) Action! Engage, Influence and Support Manchester Residents and Organisations to Take Action Urgently and Over The Long-Term:

#### Residents and communities

*1. Work with partners to expand the range of initiatives to engage and support residents and communities to take action.*

Underway. The Agency is working with Manchester City Council to develop a new programme to support residents and communities to take action on climate change. The Agency led a bid to the National Lottery Climate Action Fund to support the delivery of this programme. The bid was unsuccessful and so alternative funding is currently being sought. A number of local Climate Action Groups have been set up by the City Council in response to the city's Climate Emergency Declaration. These groups are being supported to develop local action plans on climate change through local workshops and events.

#### Organisations

*1. Pioneers: continue to support the ten 'Pioneer' organisations/ sectors (responsible for over 20% of Manchester's CO<sub>2</sub> emissions) to take urgent action in 2019 and to establish their plans for 2020-38.*

Underway. See the summary of MCCC members' progress and new plans at: <http://www.manchesterclimate.com/MCCP>

*2. Fast-movers: engage five new Fast-mover organisations/sectors to take urgent action in 2019 and to establish their plans for 2020-38.*

Not complete. The Partnership have focused on the 'fast movers' / original Partnership members in 2019/20. This approach has been adopted to ensure momentum and the establishment of clear organisation and sector plans, in line with the Climate Change Framework 2020-25. A review of new sectors to be engaged will be undertaken following the new chair's appointment in 2020.

*3. Crucial contributors: engage five new Crucial Contributor organisations/ sectors to help them start their zero-carbon journey.*

Not complete. MCCA was one of the partners in a feasibility study to understand the potential to establish a 'Greater Manchester Zero Carbon Accelerator' to support SMEs to deliver energy efficiency and renewable energy projects. The study identified positive high-level potential but with further work required to engage SMEs and develop an investable pipeline of projects. The intention is for the study and its recommendations to be revisited once the Agency has additional capacity.

## Schools and colleges

### *1. Work with Manchester City Council and other partners to deliver a Youth Climate Action Summit in July 2019.*

Complete. The Agency supported Manchester City Council in the organisation of two summits, one in July 2019 and a follow-up event in January 2020. Over 300 young people aged between 9 and 14 attended the events and voiced their opinions on how they and their schools can start to become zero carbon. Further information on the Summits is available from <http://www.manchesteryouthcouncil.co.uk/news/youth-climate-action-summit-2020>.

### *2. Work with Manchester Environmental Education Network and other partners to engage and support schools and colleges, including through the Eco-Schools programme.*

Underway. The focus in 2019/20 has been on supporting the organisation of the two Youth Climate Action Summits (as above) and establishing new strategic capacity to enable Manchester to increase its youth-focused climate work. The Agency has worked with Young Manchester and Groundwork Manchester to support the creation of a new 'Manchester Climate Action Lead' post to build

capacity in Manchester's youth sector. The recruitment process was underway at the time of writing. Preparations have also been undertaken for the Agency's new 'Manchester Youth Champion for Climate Action' post, which is being established to represent the views of Manchester's young people and influence senior political, educational, business and community leaders. It is envisaged the new Youth Champion will be in post before the end of 2020.

### *3. Work with the Carbon Literacy Project to support the roll-out of climate education to residents and workers across the city.*

Ongoing. Carbon Literacy is one of the '15 Actions' (<http://www.manchesterclimate.com/15-actions>) the Partnership and Agency have developed and started promoting to schools, residents and organisations over the last 12 months.

## 2) Influencing Policy:

**1. Manchester Climate Change Framework 2020-38 and Action Plan 2020-22: Develop a final draft Framework and Action Plan, based on the latest science and the needs of Manchester residents and organisations.**

Complete. The Partnership revised this action to focus on urgent action over the next five years, resulting in the Manchester Climate Change Framework for 2020-25. Additionally, the Partnership chose to promote the development of action plans for all organisations, sectors, households, schools and communities, in line with the aim to build a citywide movement. On that basis the Framework is not accompanied by a single action plan, rather a growing number of action plans, with the first round produced by members of the Partnership, as above.

**2. Manchester Industrial Strategy: Aim to influence the final strategy to ensure it is fully aligned with and contributes to the city's climate change commitments.**

Complete. The Partnership contributed to the Strategy's development through bespoke workshop sessions and as a member of the Our Manchester Forum, with support from the Agency. The Strategy was approved by the City Council in September 2019.

## 3) Honest Communication and Reporting:

Honestly and transparently report and communicate the city's progress against its climate change commitments.

**1. Annual Communications: Deliver the Annual Report and Conference 2020.**

Complete. The Annual Report was published and a launch webinar held on 21st July 2020. The Annual Conference will be held on 22nd July 2020.

**2. Social Media: Social media and website articles to highlight progress and areas where more work is needed, on an ongoing basis.**

Ongoing on Twitter at @McrClimate and at [www.manchesterclimate.com](http://www.manchesterclimate.com).



## 4) Knowledge Sharing With Other Cities:

Share our experiences, learn from others, and contribute to a global movement of cities acting on climate change.

### 1. *Contribute to the city's participation in the Covenant of Mayors and Eurocities networks.*

The Agency is the point of contact for Manchester's participation in the European<sup>1</sup> and Global Covenant of Mayors<sup>2</sup>. Over 2019/20 the Agency has started to develop the city's participation through a new relationship with the secretariat for the EU Covenant of Mayors, Energy Cities. Work to date has included participating in an Energy Cities event at the European Week of Cities and Regions in October 2019<sup>3</sup>, engaging with Energy Cities-led projects supporting other cities<sup>4</sup>, and participating in Phase 1 of the URBACT Zero Carbon Cities project (see below).

The Agency has been representing Manchester in the Eurocities Climate Change Strategy Roundtable<sup>5</sup>, a group of approximately 20 cities with ambitious climate change commitments, since April 2019.

### 2. *Contribute to the URBACT Zero Carbon Cities<sup>6</sup> project to further develop Manchester's plans and to learn from best practice in the other six partner cities; Bistruta Frankfurt, Modena, Tartu, Vilvoorde, and Zadar.*

The Agency has supported Manchester City Council (as the project lead) with the delivery of Phase 1 of the project (September 2019 to March 2020)<sup>7</sup> and the submission of a successful application for Phase 2. The Agency is bidding to represent Manchester in the delivery of Phase 2 (June 2020 to August 2022), which will focus on the refresh of the Manchester Climate Change Framework.

1 [https://www.eumayors.eu/about/covenant-community/signatories/overview.html?scity\\_id=12114](https://www.eumayors.eu/about/covenant-community/signatories/overview.html?scity_id=12114)

2 <https://www.globalcovenantofmayors.org/cities/manchester/>

3 <http://www.manchesterclimate.com/news/2019/10/zero-carbon-europe-whats-going>

4 <http://www.manchesterclimate.com/news/2020/06/manchester-climate-change-framework-2020-2025-tomorrow-webinar-18th-june>

5 <http://www.eurocities.eu/>

6 <https://urbact.eu/zero-carbon-cities>

7 <http://www.manchesterclimate.com/news/2019/12/zero-carbon-cities-study-visit-modena-october-2019>

## 5) Operations and Governance:

**1. Partnership and Ambassadors: expand the current Manchester Climate Change Board into a wider Manchester Climate Change Partnership and Ambassadors scheme.**

Partnership: underway. the Manchester Climate Change Board became the Manchester Climate Change Partnership in [May 2019]. Membership of the Partnership will be developed following the appointment of the new chair in 2020.

Ambassadors: not complete. The Ambassadors scheme has not been developed during 2019-20. As above, the Partnership's focus has been on existing members and the development of their organisation and sector-specific plans. The scheme will be reviewed following the appointment of the new chair in 2020.

**2. Diversity and Inclusion: Diversity and Inclusion Sub-group: establish the terms of reference and work plan for the sub-groups work during 2019-20.**

Underway. The group's terms of reference and work plan are in development. Work has been delayed due to COVID-19 and is expected to be completed during 2020-21.

**3. Youth Board: Review the membership and terms of reference and put in place new arrangements for 2019-20.**

Underway. The Youth Board recruited new members in early-2020. The Board now has eight members between 13 and 28 years old. Work is currently underway to set out their priorities for 2020-21.

**4. Agency Development: establish plans for the development of the Manchester Climate Change Agency during 2019-20**

Complete. The Agency's Board of Directors have agreed a development plan for 2020-21. The plan is to expand the Agency from three members of staff to 13, subject to funding.

**5. MCCP Chair: appoint the new chair of MCCP.**

Not complete. The role was advertised during November and December 2019. However, a suitable candidate was not found. The Partnership re-advertised the role on 2nd July 2020, with a 10th August 2020 deadline. (This was originally planned for Spring 2020 but was delayed due to COVID-19).



# Part Two

## Citywide Progress 2019-20

### **This section provides progress against the four objectives in the Manchester Climate Change Framework 2020-25:**

- Staying within our carbon budgets
- Climate adaptation and resilience
- Health and wellbeing
- Inclusive, zero carbon and climate resilient economy

The Carbon Budgets and Adaptation and Resilience sections of this report have been produced by two independent advisory groups<sup>8</sup>; the Zero Carbon Advisory Group and the Adaptation and Resilience Advisory Group. These groups have been established by Manchester Climate Change Partnership and Manchester Climate Change Agency to provide independent monitoring and reporting against the city's commitments.

The advisory groups for Health, Wellbeing and Climate Change, and Inclusive, Zero Carbon and Climate Resilient Economy are not yet in place and will be established during 2020-21. (These sections have been produced by Manchester Climate Change Agency, based on data available publicly and from partners).

The Partnership and Agency believe this approach is important to ensure the city has an honest and transparent view of progress against its commitments. As a result it will enable the city to celebrate and encourage more activity in the areas where good progress is being made, at the same time as focusing attention on areas where progress is not yet good enough and new interventions are required.

Given the Framework was published in February 2020 this section does not cover a full year's report on progress against its objectives. Where indicators and data are not yet available, work will be undertaken during 2020-21 to put them in place, in time for the Annual Report 2021.

<sup>8</sup> <http://www.manchesterclimate.com/advisory-groups>





## Staying within our carbon budgets

### ***Our headline objective for 2020-25:***

*To ensure that Manchester plays its full part in helping to meet the Paris Agreement objectives by keeping our direct CO<sub>2</sub> emissions within a limited carbon budget, taking commensurate action on aviation CO<sub>2</sub> emissions and addressing our indirect / consumption-based carbon emissions.*

This section has been produced by the Manchester Zero Carbon Advisory Group<sup>9</sup>:

***Simeran Bachra,***  
UK Cities Manager, CDP (chair)

***Dr Ali Abbas,***  
Joint-coordinator, Manchester Friends of the Earth

***Dr Joe Blakey,***  
Lecturer, University of Manchester

***Prof Paul Hooper,***  
Centre for Aviation, Transport and the Environment, Manchester Metropolitan University

***Dr Christopher Jones,***  
Knowledge Exchange Fellow, Tyndall Centre for Climate Change Research at the University of Manchester

***Matt Rooney,***  
Principal Consultant, Anthesis

This section covers progress against our three sub-objectives for:

- Direct CO<sub>2</sub> emissions
- Aviation emissions
- Consumption-based emissions

<sup>9</sup> <http://www.manchesterclimate.com/zero-carbon-advisory-group>



### Direct CO<sub>2</sub> Emissions

Reported local area data for Manchester’s energy CO<sub>2</sub> emissions in 2018 (2.03 MtCO<sub>2</sub>)<sup>10</sup> show a 2% fall in emissions from 2017 (2.07 MtCO<sub>2</sub>). Local and regional CO<sub>2</sub> emissions data is currently only available to 2018. If Manchester follows the UK national average emissions change in 2019 (4% reduction from 2018) then CO<sub>2</sub> emissions for 2019 are projected to be 1.95 MtCO<sub>2</sub>.

The breakdown of Manchester’s CO<sub>2</sub> emissions from energy by end user type for 2018 is shown in figure 1.

Manchester has seen a similar trend to the wider UK in terms of sectoral emissions trends. While emissions have reduced over time in industrial, commercial and domestic sectors (driven in part by significant decarbonisation of the national electricity grid since 2013), transport emissions have not fallen significantly. Transport therefore now accounts for an increasingly large share on the city’s climate change impact.

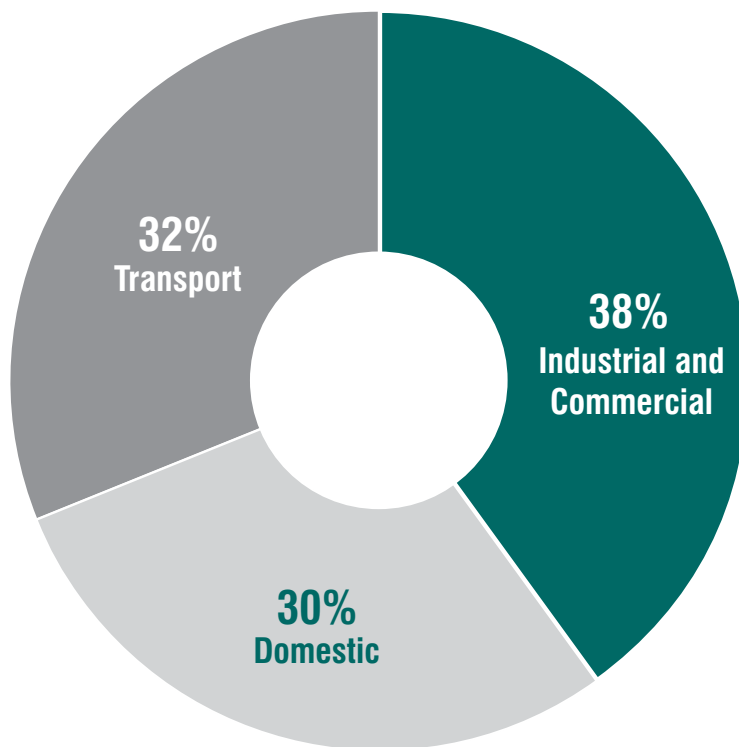


Figure 1: Manchester Emissions by sector 2018. BEIS 2020 Local Authority and Regional CO<sub>2</sub> Statistics

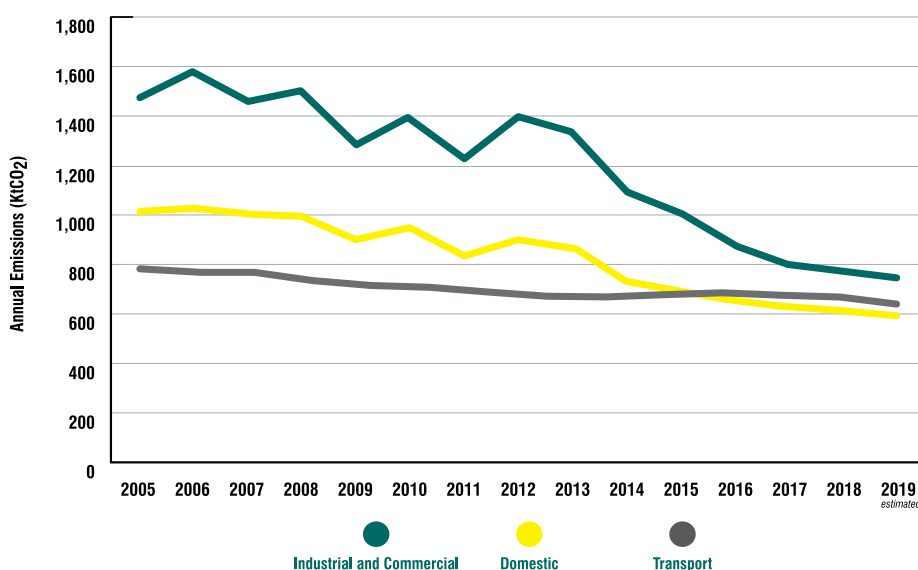


Figure 2: Sectoral CO<sub>2</sub> emissions for Manchester (BEIS 2020)

<sup>10</sup> <https://www.gov.uk/government/collections/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics>

**Our objective for 2010-20:**

To reduce direct (Scope 1 and 2) CO<sub>2</sub> emissions by 41% against a 2005 baseline by 2020, from our climate change strategy 2010-20<sup>11</sup>.

Our direct CO<sub>2</sub> emissions are estimated to be 40% lower in 2019 than in 2005 and on track for the 41% target.

Since 2015 we have also reported progress against a notional carbon budget for 2005-2020. This budget was not formally set in the 2010-20 strategy but we felt it was important to help the city start to understand a carbon budget-based approach (this is the approach now adopted as part of the city's new strategy for 2020-25; further information below).

This would equate to a carbon budget for 2005 to 2020 of 41.7 MtCO<sub>2</sub> with a linear (straight line) reduction rate. Since 2005 we have emitted 40.7 MtCO<sub>2</sub>. Therefore, while emissions are estimated to be 40% lower in 2019 than in 2005 and on track for the 41% target, there is only 0.9 MtCO<sub>2</sub> remaining in the carbon budget for this period. With annual emissions estimated to be around 1.95 MtCO<sub>2</sub> in 2019 this would require a significant change in annual emissions in 2020 to remain within this budget.

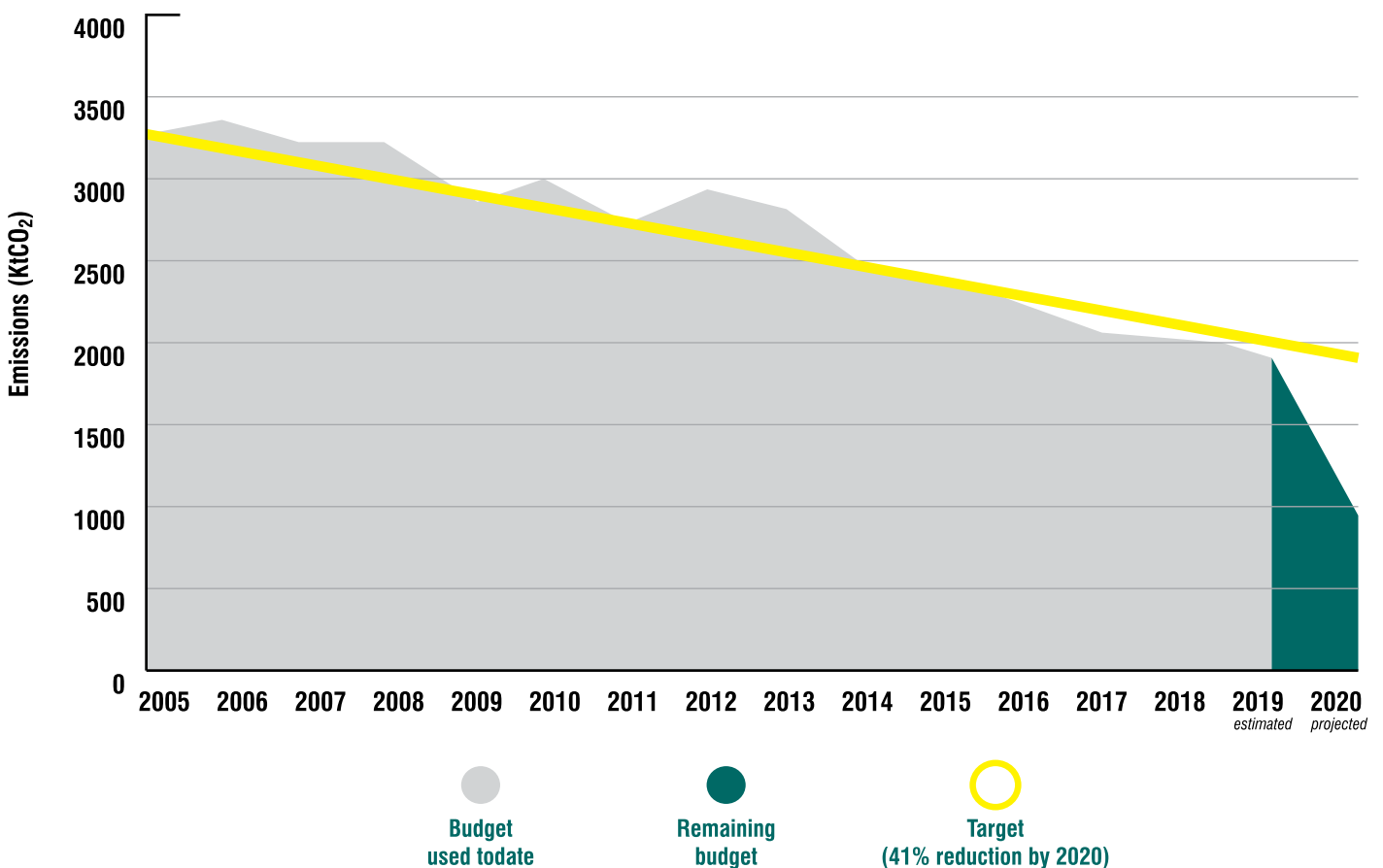


Figure 3: Progress against 2020 Target

11 <http://www.manchesterclimate.com/previous-plans>

**Our objective for 2020-25:**

*To emit a maximum of 15 million tonnes CO<sub>2</sub> from our homes, workplaces and ground transport from 2018. We will reduce our direct CO<sub>2</sub> emissions by at least 50% between 2020-25. In line with this budget we will emit:*

- A maximum of 6.9 million tonnes during 2018-22,
- A maximum of 3.6 million tonnes during 2023-27.

This sets a commitment for the city to limit its carbon emissions from energy from 2018 onwards to 15 MtCO<sub>2</sub>. Figure 4 shows Manchester's emissions (provisional for 2019) compared to a pathway that evenly distributes the carbon budget over time. The emissions estimated for 2018 and 2019, the first two years of the carbon budget period, show Manchester is not yet following the recommended pathway meaning the carbon budget is being used at a faster rate. Emissions fell in these years by 2% and 4% respectively. This is against the 13% year-on-year reduction in emissions that are set out in the Climate Change Framework.

Based on the data for 2018 and projected emissions for 2019, 26% of Manchester's remaining carbon budget for 2018 to 2100 has been used in the initial two-year period (2018 and 2019). The distribution of the carbon budget can be in a variety of ways, however slower reduction rates must be compensated for by faster reduction rates in the future to keep within the budget.

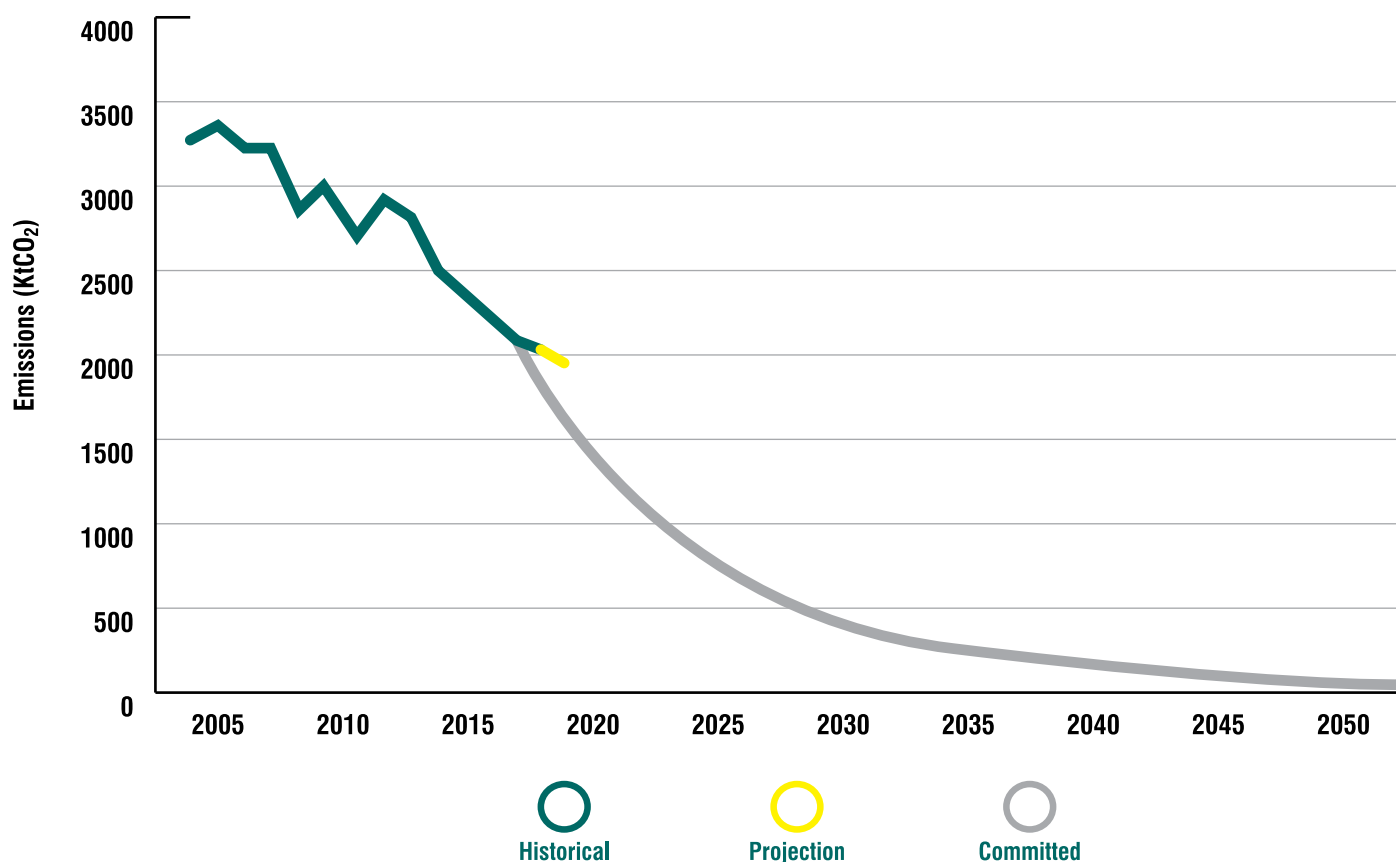


Figure 4: Progress against UN Paris Aligned Carbon budget

Figure 5 shows how much of Manchester's carbon budget, split into 5-year periods have been used so far. Over 2018 and 2019, 58% of the 2018 to 2022 interim carbon budget has been used.

In order to stay within our budget we now need to reduce emissions by 14.8% every year from 2020, up from the 13% target we originally set ourselves. The Climate Change Framework 2020-25 sets out six headline actions that need to be delivered for the city to meet its targets. Three of them are particularly important for us in meeting our direct emissions objective:

### Buildings

As shown in figure 2, there has been a decrease in energy related emissions from industrial, commercial and domestic buildings within the city. Emissions from these sources have fallen by 41% from 2010 to 2018. This may largely be attributed to emissions associated with electricity (Scope 2) halving in this period.

Figure 6 shows how much of the progress in the domestic sector can be attributed to improvements with electricity supply (-58% reduction since 2010). Emissions from gas consumption, largely reflecting energy demand for space and water heating in homes, has not declined to the same extent (-18% reduction since 2010)<sup>12</sup>. This highlights the immediate importance of improving energy efficiency of the housing stock and decarbonising heating supply.

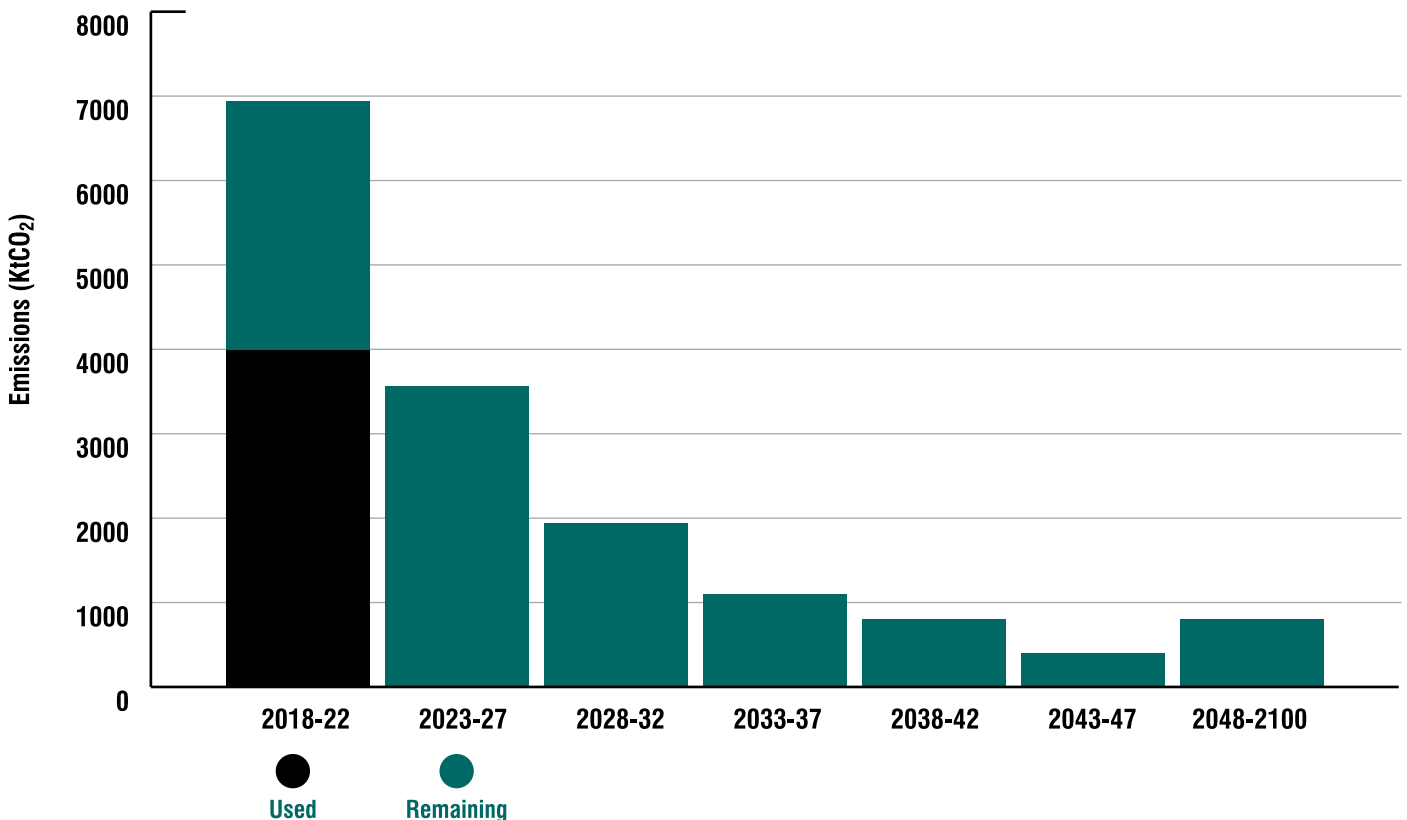


Figure 5: Proportion of 5 year interim carbon budgets used 2018-2019

### Renewable energy

As of 2019 Manchester has an estimated 21 MW of installed solar PV. With no reported hydro, wind or anaerobic digestion reported in the statistics for local renewables, this is currently the extent of Manchester's locally generated renewable electricity. According to these statistics only around 3% of households in Manchester have a domestic PV system installed, representing significant opportunity to increase capacity<sup>13</sup>.

### Transport (excluding aviation)

As shown in figure 2 emissions from surface transport have remained relatively static over the past decade, falling by only 6% between 2010 and 2018<sup>14</sup>. Unlike electricity supply there has been no fundamental transformation in surface transport emissions. There is a significant need to transform transport around the city, including through active travel and public transport.

Produced by Manchester Zero Carbon Advisory Group – Direct CO<sub>2</sub> Emissions Sub-group

*Dr Christopher Jones,*  
Tyndall Centre for Climate Change Research at the University of Manchester

*Simeran Bachra,*  
CDP

*Matt Rooney,*  
Anthesis

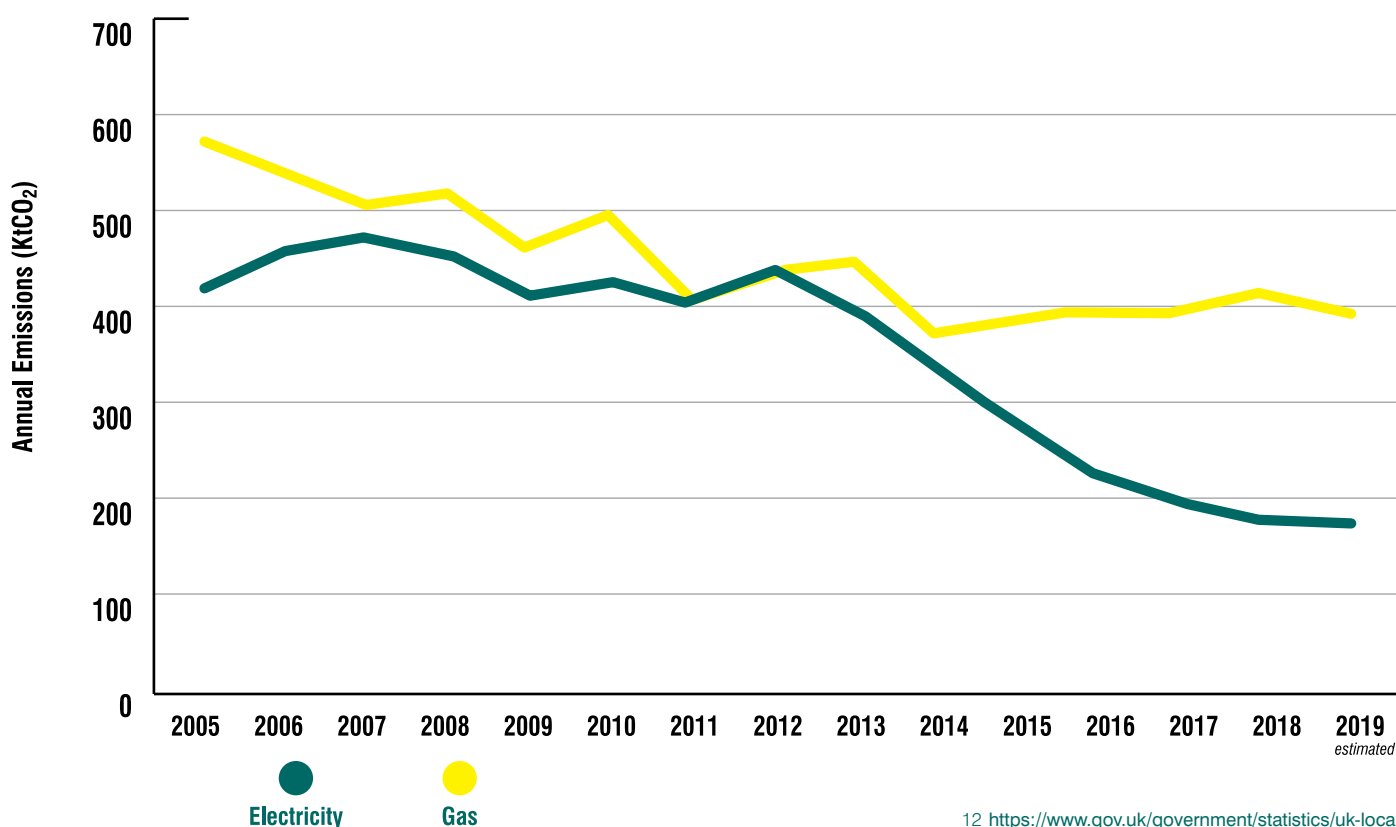


Figure 6: Emissions Associated with Domestic Buildings in Manchester

<sup>12</sup> <https://www.gov.uk/government/statistics/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-to-2018>

<sup>13</sup> <https://www.gov.uk/government/statistics/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-to-2018>

<sup>14</sup> <https://www.gov.uk/government/statistics/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-to-2018>

## Aviation Emissions

### Our objective for 2020-25:

We want the emissions from all flights from Manchester Airport to be fully aligned with the Paris Agreement. We believe this means operating within a limited carbon budget for UK aviation, as part of a wider international budget.

### Introduction

Manchester Airport is located within the city boundaries and is part-owned by the city – Manchester City Council has a 35.5% share in Manchester Airport Holdings Ltd (MAG), which owns and operates Manchester, East Midlands and Stansted airports.

Emissions from flights aren't directly included in the city's carbon budget because there is currently no agreed way of allocating responsibility for them. However, the city's carbon budget is dependent on aviation emissions being managed at UK level. To calculate the city's carbon budget in line with the Paris Agreement, Tyndall Centre researchers proposed an allocation of 1,262 MtCO<sub>2</sub> for all UK aviation CO<sub>2</sub> emissions. An example pathway that meets this allocation has emissions remaining at 2018 levels until 2030 and then falling to zero by 2075<sup>15</sup>.

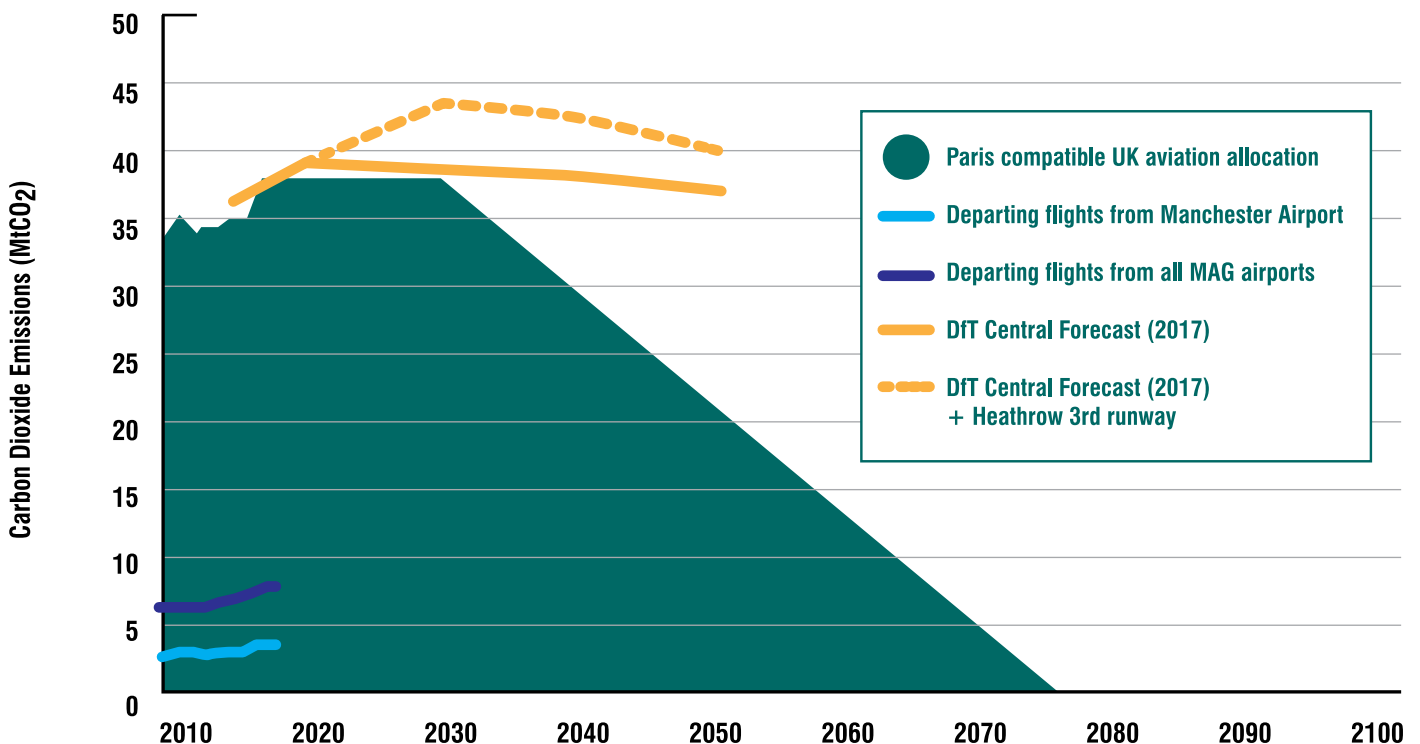


Figure 7: UK aviation pathways (Broderick, 2020)

<sup>15</sup> [https://www.research.manchester.ac.uk/portal/files/83000155/Tyndall\\_Quantifying\\_Paris\\_for\\_Manchester\\_Report\\_FINAL\\_PUBLISHED\\_rev1.pdf](https://www.research.manchester.ac.uk/portal/files/83000155/Tyndall_Quantifying_Paris_for_Manchester_Report_FINAL_PUBLISHED_rev1.pdf)



This aviation budget was then deducted from the UK's total carbon budget for energy, along with a similar budget for shipping. The remaining budget for heating, power and ground transport was then apportioned down to a city level. This is how Manchester's 15 million tonne carbon budget for direct emissions was calculated (see above 'direct emissions' section).

It's therefore important that we monitor emissions from flights at Manchester Airport and other UK airports to ensure they are following the Paris-aligned pathway. If aviation uses a greater share of emissions from the UK carbon budget, this will leave less for heating, power and ground transport.

It's also worth noting that the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)<sup>16</sup> will require airlines to offset any growth in international aviation emissions above a 2020 baseline. However, the Tyndall Centre report, as referenced above, concluded that current carbon offset arrangements are currently open to criticism as being ineffective at reducing emissions. The Aviation Sub-group have accepted the recommendation that emissions reduction credits should not be recognised in the monitoring of aviation targets<sup>17</sup>.

### 2019 aviation emissions

In 2019, UK aviation emissions are projected to have increased by 2.9% from 38 to 39 MtCO<sub>2</sub> based on the growth in passenger numbers. Over the same period, we estimate that Manchester Airport's aviation footprint increased by 4.5% from 3.6 to 3.7 MtCO<sub>2</sub><sup>18</sup>.

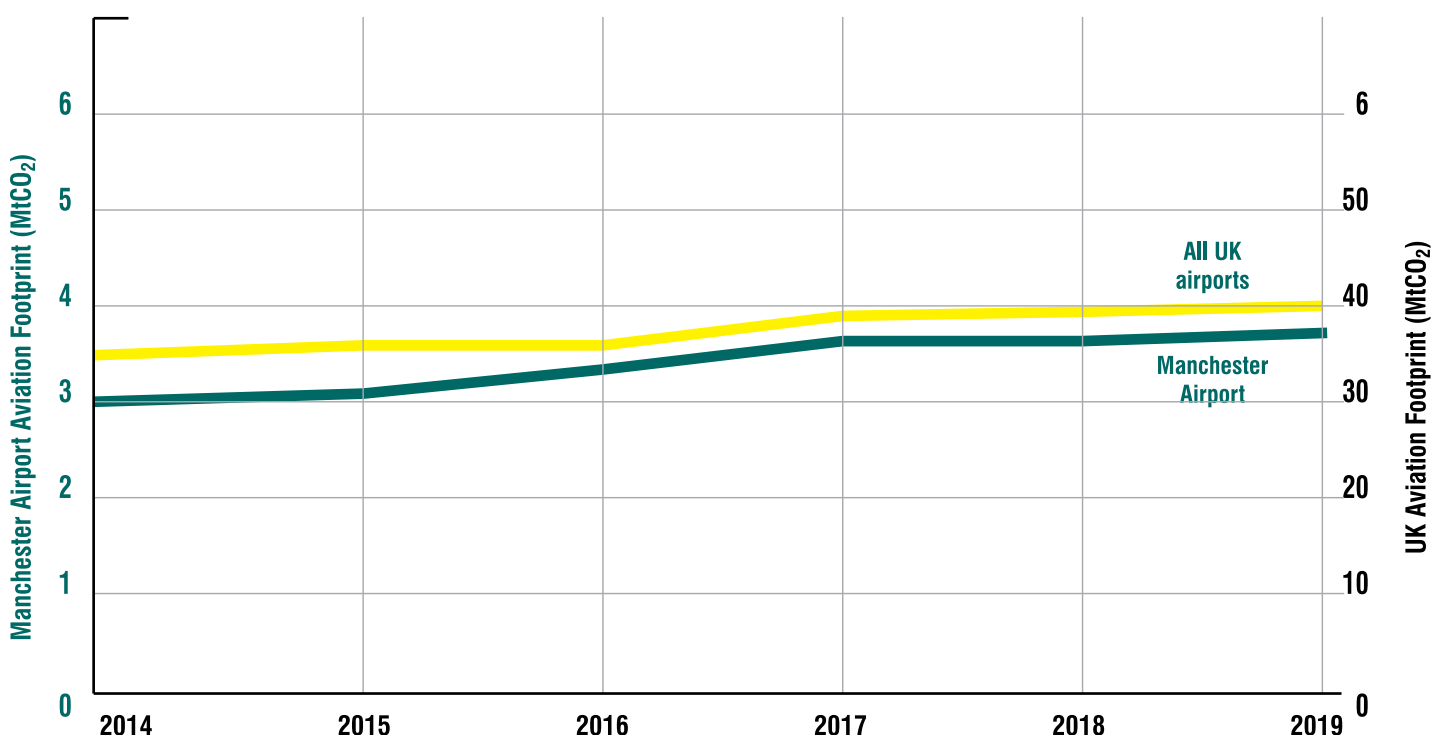


Figure 8: UK and Manchester Airport Aviation Footprints

<sup>16</sup> <https://www.icao.int/environmental-protection/CORSIA/Pages/default.aspx>

<sup>17</sup> Aviation Sector Emissions and the Manchester Climate Change Framework (Dr John Broderick, Tyndall Centre, February 2020): [http://www.manchesterclimate.com/sites/default/files/Manchester%20Aviation%20Emissions\\_Review%202020.pdf](http://www.manchesterclimate.com/sites/default/files/Manchester%20Aviation%20Emissions_Review%202020.pdf)

<sup>18</sup> Manchester Airport's aviation footprint comprises carbon emissions associated with taxiing, take-off, cruise and landing for departing flights.

Drawing on passenger data from the Civil Aviation Authority<sup>19</sup>, the Aviation Sub-group has modelled the emissions from all departing passenger flights from Manchester Airport, taking into account the whole duration of the flight.

Between 2014 and 2017, the annual emissions from Manchester Airport flights rose 20% from 3.0 MtCO<sub>2</sub> to around 3.6 MtCO<sub>2</sub> – shown in Figure 9. Whilst emissions from departing

flights in 2018 were only marginally more than the previous year, 2019 saw emissions increase by 4.5% to 3.7 MtCO<sub>2</sub>.

Flights to Europe (including domestic emissions) comprised 64% of emissions in 2019 (Figure 9). These are the journeys that are most easily replaceable by other modes of transport and are a key area of intervention now and in the future.

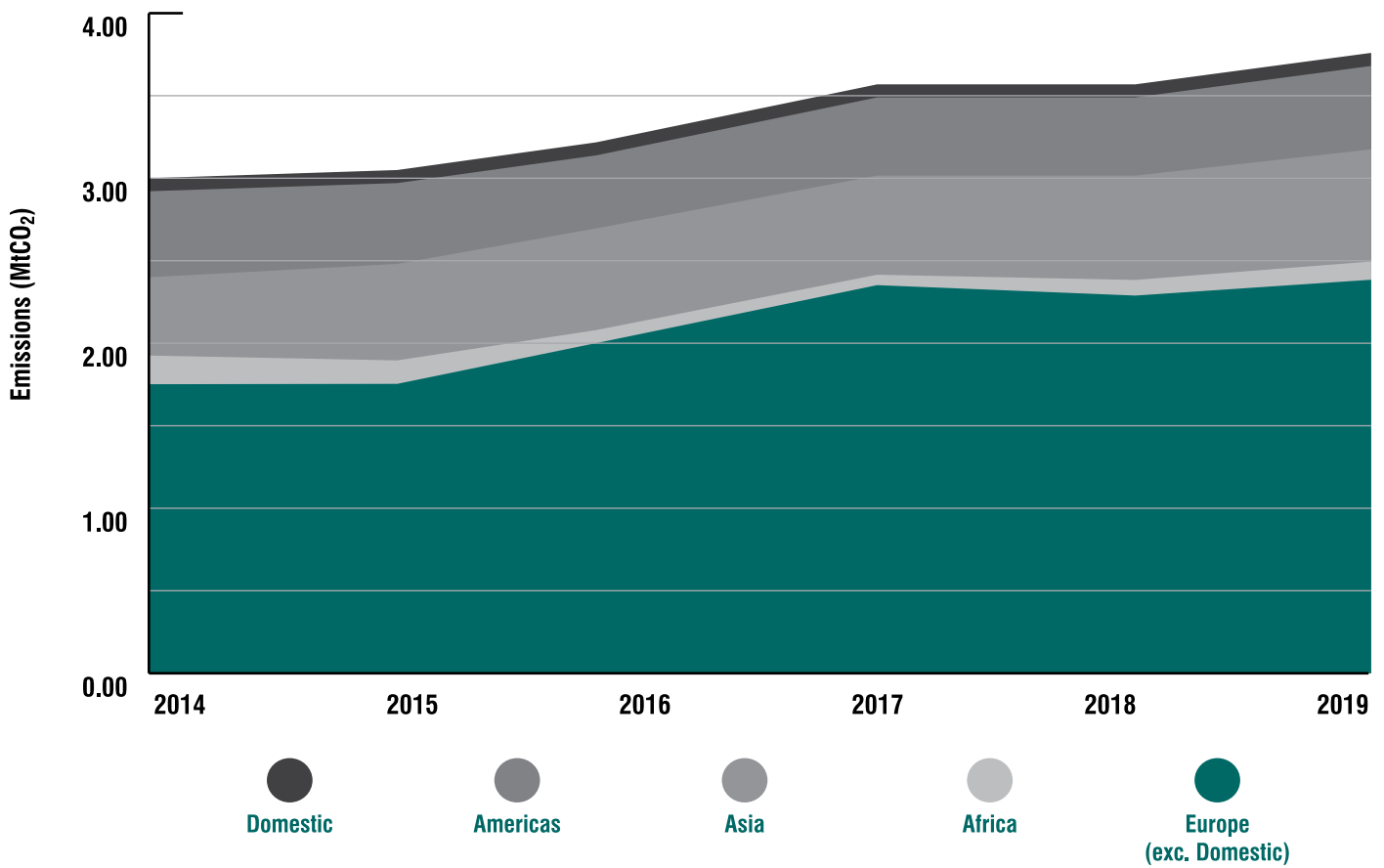


Figure 9: Carbon footprint of departing flights from Manchester Airport by destination

<sup>19</sup> UK airport data for 2019 (Civil Aviation Authority): <https://www.caa.co.uk/Data-and-analysis/UK-aviation-market/Airports/Datasets/UK-Airport-data/>

## Flights taken by Manchester residents

Our analysis also enables us to estimate the aviation footprint of Manchester residents.

In 2019, 4.8% of aviation emissions at Manchester Airport related to flights taken by Manchester residents (0.18 MtCO<sub>2</sub>).

We have also assessed flights taken by Manchester residents from other UK airports. These account for a further 0.025 MtCO<sub>2</sub>.

The total aviation footprint of Manchester residents in 2019 was therefore 0.20 MtCO<sub>2</sub>, with 88% of this relating to flights taken from Manchester Airport.

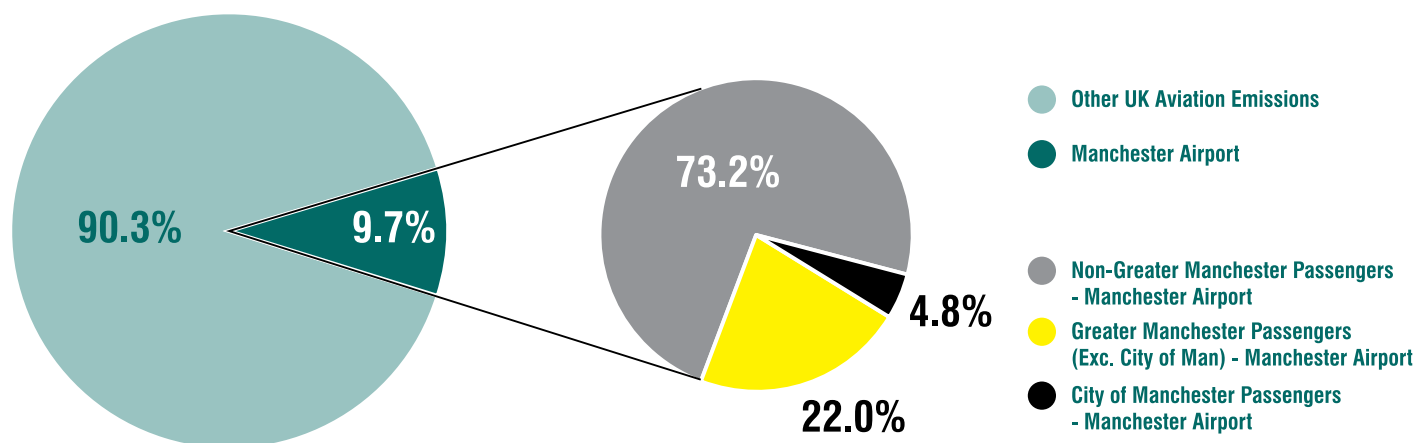


Figure 10: Manchester Airport aviation footprint by where passengers reside.

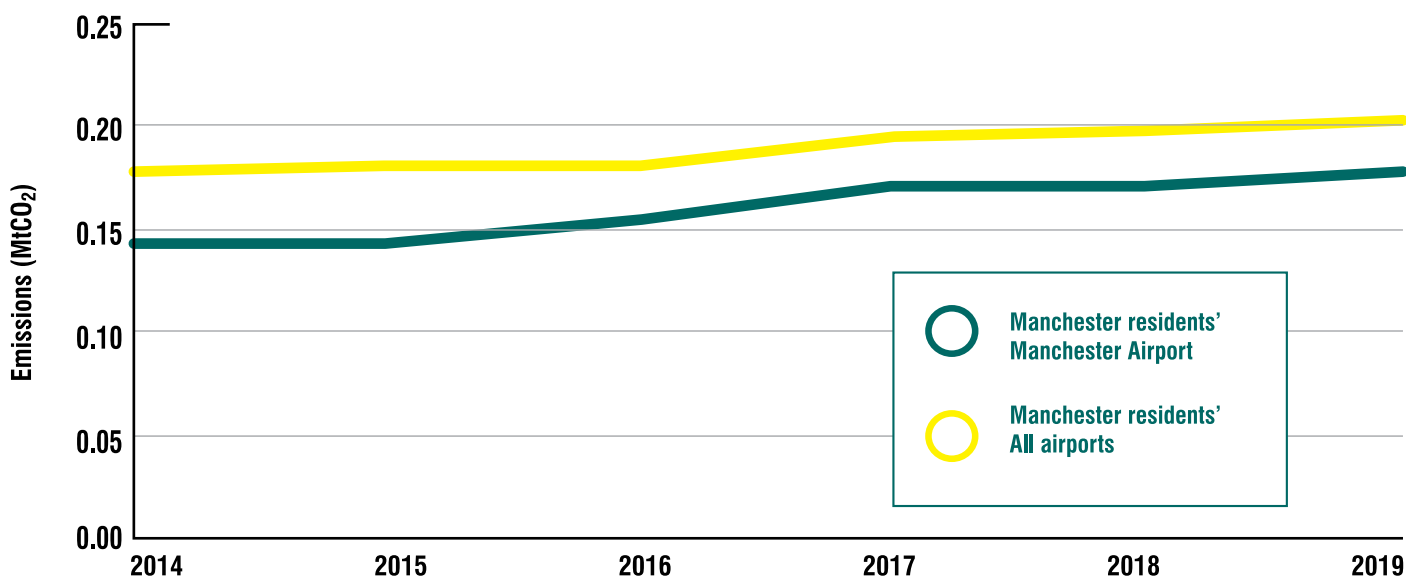


Figure 11: Emissions from flights taken by Manchester residents

If emissions from flights taken by Manchester residents follow the pathway proposed by Tyndall Centre researchers for UK aviation emissions - remaining at 2018 levels to 2030 and then falling to zero by 2075 - this would equate to an absolute carbon budget of no greater than 6.6 MtCO<sub>2</sub> to the end of the century.

The Zero Carbon Advisory Group will propose the adoption of this budget to the Manchester Climate Change Partnership, so that it can be considered as part of the upcoming refresh of the city's Climate Change Framework.

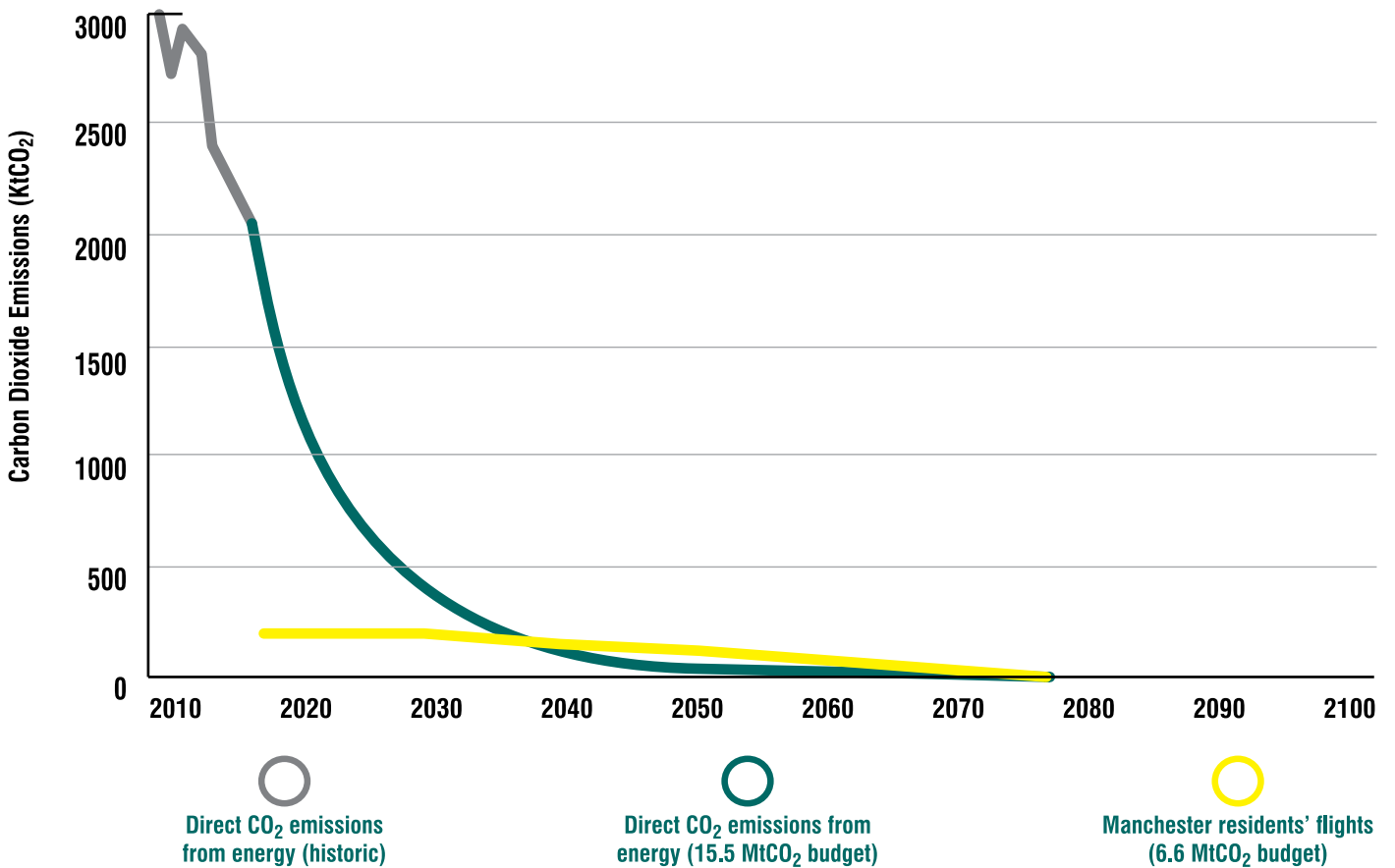


Figure 12: Carbon budgets for energy and Manchester residents' flights (Broderick, 2020)

## Conclusion

The city's carbon budget of 15 MtCO<sub>2</sub> for heating, power and ground transport is based on the premise that emissions from flights departing UK airports remain at 2018 levels to 2030 and then decrease to zero by 2075.

However, an increase in aviation emissions of 4.5% at Manchester Airport and a projected increase of 2.9% across the UK in 2019 suggests that this assumption is not being met<sup>20</sup>.

The COVID-19 pandemic has led to a dramatic reduction in flights in the short term, but the long-term impacts on passenger numbers and on investment into efficiency improvements and fleet renewal are still uncertain.

The extent and longevity of the impact of the COVID-19 pandemic remains to be seen but local plans, policies and actions should be aligned to the Tyndall Centre's proposed UK aviation budget, such that growth in demand does not exceed improvements in aircraft efficiency.

We all have an important role to play in managing aviation emissions - from residents and businesses deciding whether flying is essential, to MAG's business plan aligning with the Tyndall Centre's proposed UK aviation budget, to Manchester City Council working with other cities and the UK Government to establish a Paris-aligned national aviation strategy.

The Zero Carbon Advisory Group Aviation Sub-group will continue to monitor aviation emissions and refine the methodologies used in the production of this annual report. We will also work with members of the Partnership to quantify the footprint of business flights taken by their staff.

Produced by the Manchester Zero Carbon Advisory Group - Aviation Sub-group:

**Dr Ali Abbas,**  
Manchester Friends of the Earth

**Dr Joe Blakey,**  
University of Manchester

**Dr John Broderick,**  
Tyndall Centre for Climate Change  
Research at the University of  
Manchester

**Prof Paul Hooper,**  
Centre for Aviation, Transport and the  
Environment, Manchester Metropolitan  
University

<sup>20</sup> We have not yet been able to account for aircraft efficiency improvements since 2016, although historically these haven't been sufficient to compensate for the annual growth in demand.

## Consumption-based Emissions

### ***Our objective for 2020-25:***

*To better understand the broader climate change impact of the city's consumption of goods and services and take action to develop more sustainable consumption practices for the city's residents and organisations.*

A consumption-based approach is an alternative way to understand the impact of Manchester's actions on planetary carbon emissions.

Manchester's carbon budget for direct CO<sub>2</sub> emissions (as above) is based on the United Nations Framework Convention on Climate Change's (UNFCCC) 'production-based' approach to carbon footprinting. This approach counts emissions and removals directly occurring within the city and those emissions which occur to produce electricity consumed within the city.

However, it excludes many emissions associated with the things consumed in the city because lots of these occur beyond its boundary. Consider, for instance: a punnet of strawberries grown in Cheshire; a mobile phone

manufactured in Zhengzhou, China; or cement produced in the Peak District.

This is where understanding our consumption-based footprint is useful. A consumption-based approach measures all of the carbon emissions resulting from goods and services consumed within the city, regardless of where they are produced.

Monitoring and managing our consumption-based footprint is therefore an additional and vital part of our commitments to help the planet become zero carbon and meet the goals of the Paris Agreement.

## Understanding Manchester's Consumption-Based Footprint

In November 2019 the Tyndall Centre was commissioned by the Manchester Climate Change Agency to review the city's climate change targets. As part of this review Dr Christopher Jones made a series of recommendations on how Manchester might measure and manage its consumption-based emissions<sup>21</sup>.

This review noted that obtaining accurate and up-to-date data for city-level consumption-based footprints is a major challenge. Centrally, there is currently insufficient data on trade flows in and out of the city. This means that city-level consumption-based footprints rely heavily on assumptions, downsampling and estimations, painting a fuzzy picture.

Moreover, given the lack of local-level data it is very hard to account for change that is specific to Manchester. We cannot, therefore, currently track our progress year-on-year effectively or set aggregated consumption-based emissions targets.

Nonetheless, based on a study by the C40 Cities Group<sup>22</sup> we can estimate that Manchester's consumption-based footprint is around 60% greater than its production-based footprint. Drawing upon this and Department for Business, Energy and Industrial Strategy (BEIS) data<sup>23</sup>, we can roughly estimate the city's consumption-based footprint to be around 3.3 MtCO<sub>2</sub> (Figure 13 opposite).

<sup>21</sup> <http://www.manchesterclimate.com/targets-2020>

<sup>22</sup> <https://www.c40.org/researches/consumption-based-emissions>

<sup>23</sup> <https://data.gov.uk/dataset/723c243d-2f1a-4d27-8b61-cdb93e5b10ff/emissions-of-carbon-dioxide-for-local-authority-areas>



## Moving Forwards

As set out in the Manchester Climate Change Framework 2020-25, we now need to undertake additional work to better understand the broader climate change impact of the city's consumption of goods and services and take action to develop more sustainable consumption practices for the city's residents and organisations.

The Consumption-Based Emissions Sub-Group of The Manchester Zero Carbon Advisory Group, led by Dr Joe Blakey (The University of Manchester), will work to expand our understanding of Manchester's consumption-based emissions, enabling the city to better monitor and manage them.

Whilst we can only currently paint a fuzzy picture of Manchester's consumption-based footprint, following the Tyndall Centre's advice we will work towards understanding and tracking key imported emissions hotspots. We have already made progress in some areas. We now know, for instance, that flights taken by Manchester residents accounted for 0.20 MtCO<sub>2</sub> in 2019.

From reviewing previous studies, the Tyndall Centre advise that other likely hotspots of consumption-based emissions include: food and drink, construction, clean and waste water, and non-food manufactured goods.

We will work towards understanding these hotspots and improving our understanding of Manchester's overall consumption-based footprint. That way, we can identify key areas where the city can reduce emissions associated with the things we consume.

Produced by The Manchester Zero Carbon Advisory Group: Consumption-Based Emissions Sub-Group

*Dr Joe Blakey,*  
University of Manchester

**2.1 MtCO<sub>2</sub>**  
Production-based  
emissions

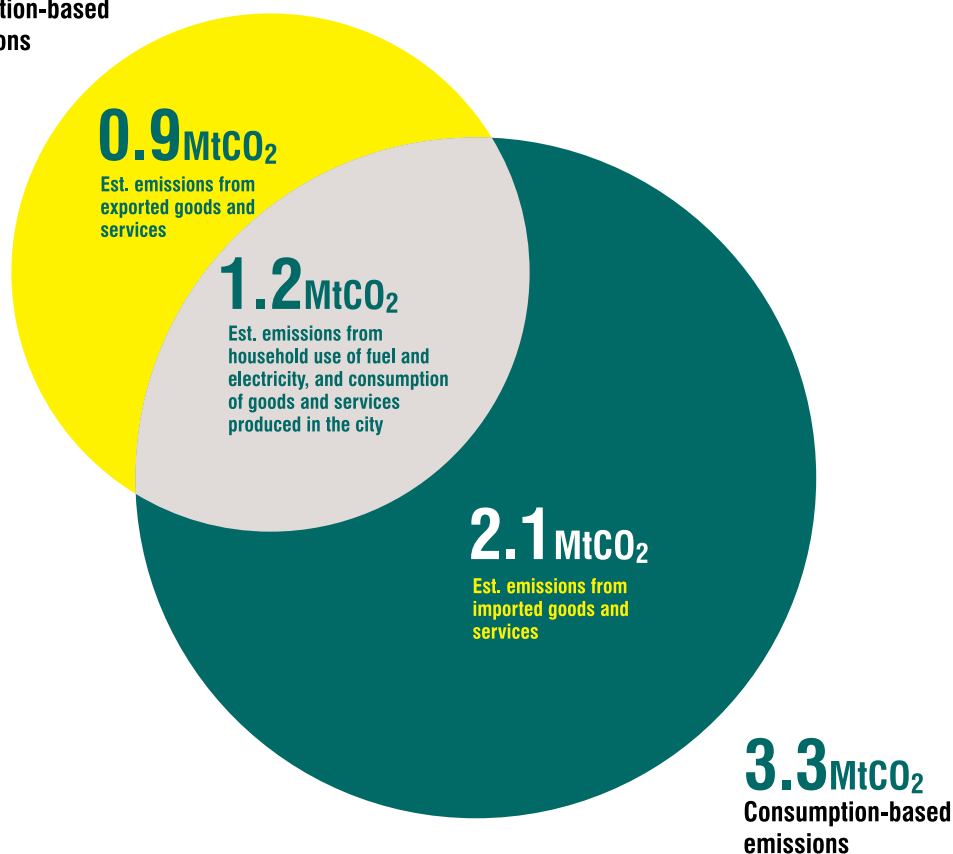


Figure 13: Estimated consumption-based footprint for the City of Manchester. Based on 2017 BEIS data and the consumption-based footprint of the C40 cities.

## International Reporting: Global Covenant of Mayors and CDP

As a member of the Global Covenant of Mayors, Manchester also produces an inventory (database) of emissions that follows the World Resources Institute's Global Protocol for Cities (GPC) accounting standard<sup>24</sup>. This standard is promoted by the Global Covenant of Mayors and CDP and is considered best practice internationally, offering greater consistency, comparability and relevance as more cities and regions look to report.

Manchester's reports to CDP, since 2019, are submitted by the Manchester Climate Change Agency and are available on the Manchester Climate website<sup>25</sup>. The 2020 Report will be submitted and published online in August 2020.

To help us to establish our GPC inventory we use the SCATTER tool<sup>26</sup>. SCATTER was commissioned by the Government's Department for Business, Energy and Industrial Strategy (BEIS), to help UK local authority areas to take action on climate change.

The opposite diagrams provide a summary of and comparison between our BEIS and GPC/SCATTER data:

The GPC/SCATTER method of reporting differs from the BEIS Local Authority Emissions data. This is due to three main reasons:

1. GPC/SCATTER includes other greenhouse gases beyond CO<sub>2</sub> (such as Methane and Nitrous Oxide)
2. GPC/SCATTER includes estimates of emissions from other sources not currently accounted for by BEIS (such as waste, aviation and livestock)
3. Methodological differences in estimates may exist (for example with on-road transport, 'other' non-electric/non-gas fuels, large industrial installations, there is limited visibility of source data and methods published by BEIS/DfT).

On that basis, we currently have two overlapping reporting regimes for the city's action on CO<sub>2</sub> reduction:

- This report: against our sub-objectives for direct, aviation and consumption-based emissions, and
- CDP/Global Covenant of Mayors report: using the GPC/SCATTER methodology

Work will be undertaken by the Manchester Zero Carbon Advisory Group in 2020 and 2021 to identify how best to align these two reporting regimes.

<sup>24</sup> World Resources Institute, Global Protocol for Community-Scale Greenhouse Gas Emission Inventories (GPC) (2014) [https://ghgprotocol.org/sites/default/files/standards/GHGP\\_GPC\\_0.pdf](https://ghgprotocol.org/sites/default/files/standards/GHGP_GPC_0.pdf)

<sup>25</sup> <http://www.manchesterclimate.com/gcom-cdp-reports>

<sup>26</sup> Anthesis, Setting City Area Targets and Trajectories for Emissions Reduction (2020) <https://scattercities.com/>

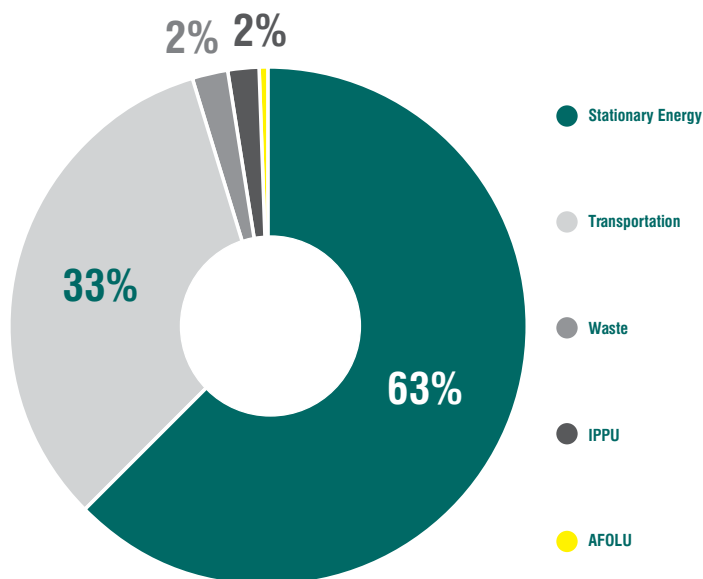


Figure 14: SCATTER 2017 inventory category breakdown (Scope 1 “Direct” and Scope 2 “Indirect” only).

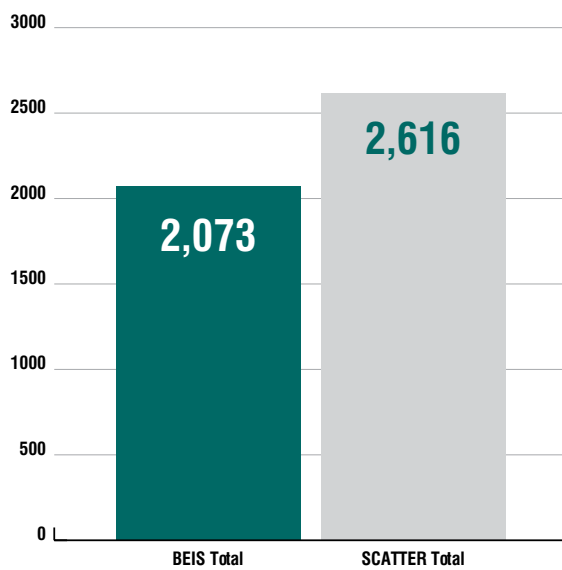


Figure 15: SCATTER inventory totals 2.62MtCO<sub>2</sub>e (2017 BEIS LA CO<sub>2</sub>: 2.07MtCO<sub>2</sub>).

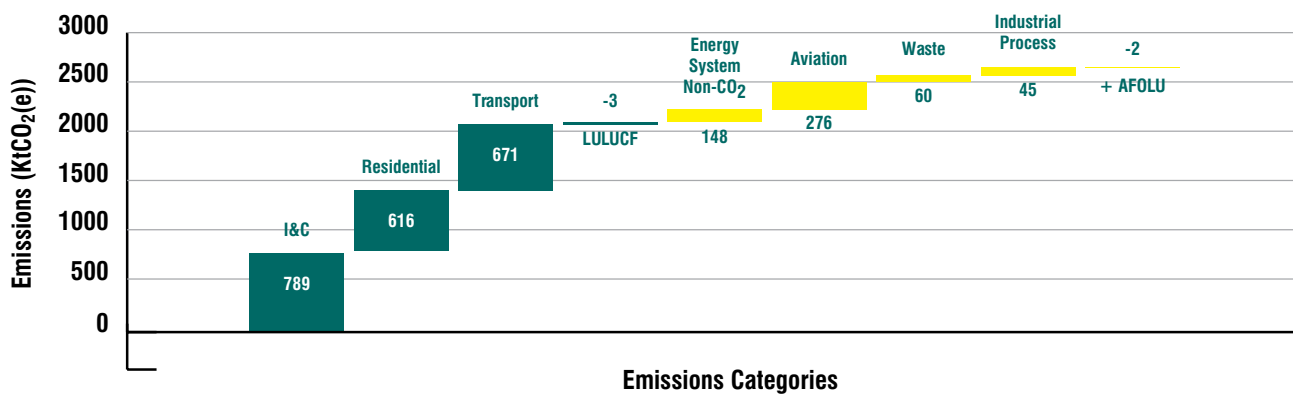


Figure 16: Key differences between BEIS LA and SCATTER inventory reporting.

## 2. Resilience to a Changing Climate

### **Our objective for 2020-25:**

*To adapt the city's buildings, infrastructure and natural environment to the changing climate and to increase the climate resilience of our residents and organisations.*

Manchester is facing the prospect of an increasingly unstable climate with a higher frequency of extreme weather events. The city is also experiencing gradual changes in the climate with a projected shift towards higher temperatures and seasonal changes in precipitation patterns with drier summers and wetter winters.

Flooding is Manchester's most prominent extreme weather and climate change risk. Floods in February 2020 provide one of the latest examples of the major damage that these events can cause. Storms and high winds, which may occur alongside flooding events, are also a significant risk. Although they are currently uncommon, droughts, heatwaves and wildfires are risks to Manchester going forwards.

Extreme weather and climate change risk such as these can negatively affect Manchester's communities, businesses, infrastructure and natural environments. Responses to adapt and build resilience are needed. The Manchester Climate Change Framework 2020-25 recognises this need and includes the above climate change adaptation and resilience objective. This will increase the focus on this element of the climate change agenda in Manchester, complementing efforts going into reducing CO<sub>2</sub> emissions. The Climate Change Framework places particular emphasis on reducing flood risk and enhancing green infrastructure (GI) and nature-based solutions (NBS) as a key response to the changing climate.

Although the risk associated with climate change cannot be eliminated altogether, it is possible to build capacity and take action to adapt and build climate resilience. Here, it is increasingly understood that green infrastructure can help to reduce risks linked to flooding and high temperatures for example, whilst also providing a range of other benefits. Work is required during 2020 and 2021 to establish a set of indicators for monitoring progress against our Adaptation and Resilience objective.

In the meantime, the following outlines key projects and activities that have progressed in 2019 and 2020, which are helping Manchester to make progress in this area:

- **IGNITION:** the headline objective of this project is to establish innovative funding and delivery mechanisms to increase Greater Manchester's urban green infrastructure over the next two decades. To date the project has produced a green infrastructure baseline that will be used to better understand and plan the enhancement of existing and new green spaces in Manchester. <https://www.greatermanchester-ca.gov.uk/what-we-do/environment/ignition/>
- **GrowGreen:** an €11.2m project running from 2017-22, coordinated by Manchester City Council, to support cities to develop and implement plans to become greener and better adapted to climate change.

Manchester's new community park in West Gorton is due to open in July 2020 and will demonstrate how nature-based solutions such as swales, bio-retention tree pits, rain gardens and permeable paving can be used to reduce surface water flooding in urban areas. Work on Manchester's Green and Blue strategy refresh has commenced and a piece of work has been commissioned to develop a river valley strategy for Manchester demonstrating how they

can be better utilised to mitigate the impact of climate change and maximise other benefits such as improved biodiversity and health and wellbeing. [www.growgreenproject.eu](http://www.growgreenproject.eu)

- **Northern Gateway development:** this development, on the River Irk is planning to invest over £16m into flood mitigation and river works alongside major enhancements to the existing green spaces.
- **Mayfield development:** Mayfield will include a new multifunctional city park to provide recreation space for Manchester residents and visitors, manage flood water, and increase biodiversity. It will be the biggest creation of public open space in the city since the Victorian parks were created.

During 2020 and 2021 work is planned to:

1. Further develop the Adaptation and Resilience objective, including the establishment of indicators to enable progress to be monitored
2. Encourage research and planning to include climate risk and associated adaptation and resilience responses.
3. Include adaptation and resilience in the engagement, education and support activities delivered by Manchester Climate Change Agency, Partnership, and their partners
4. Start to deliver the 'Green Infrastructure and Nature-based Solutions' action in the Climate Change Framework

Taking these steps will enhance our ability to adapt and build resilience to climate change. Making progress is further supported by the existence of strong stakeholder networks in Manchester, and more widely in Greater Manchester and beyond. Our key challenge is to increase recognition of the risks posed by climate change to Manchester's prosperity and quality of life, and to link adaptation and resilience responses to other priorities in the city.

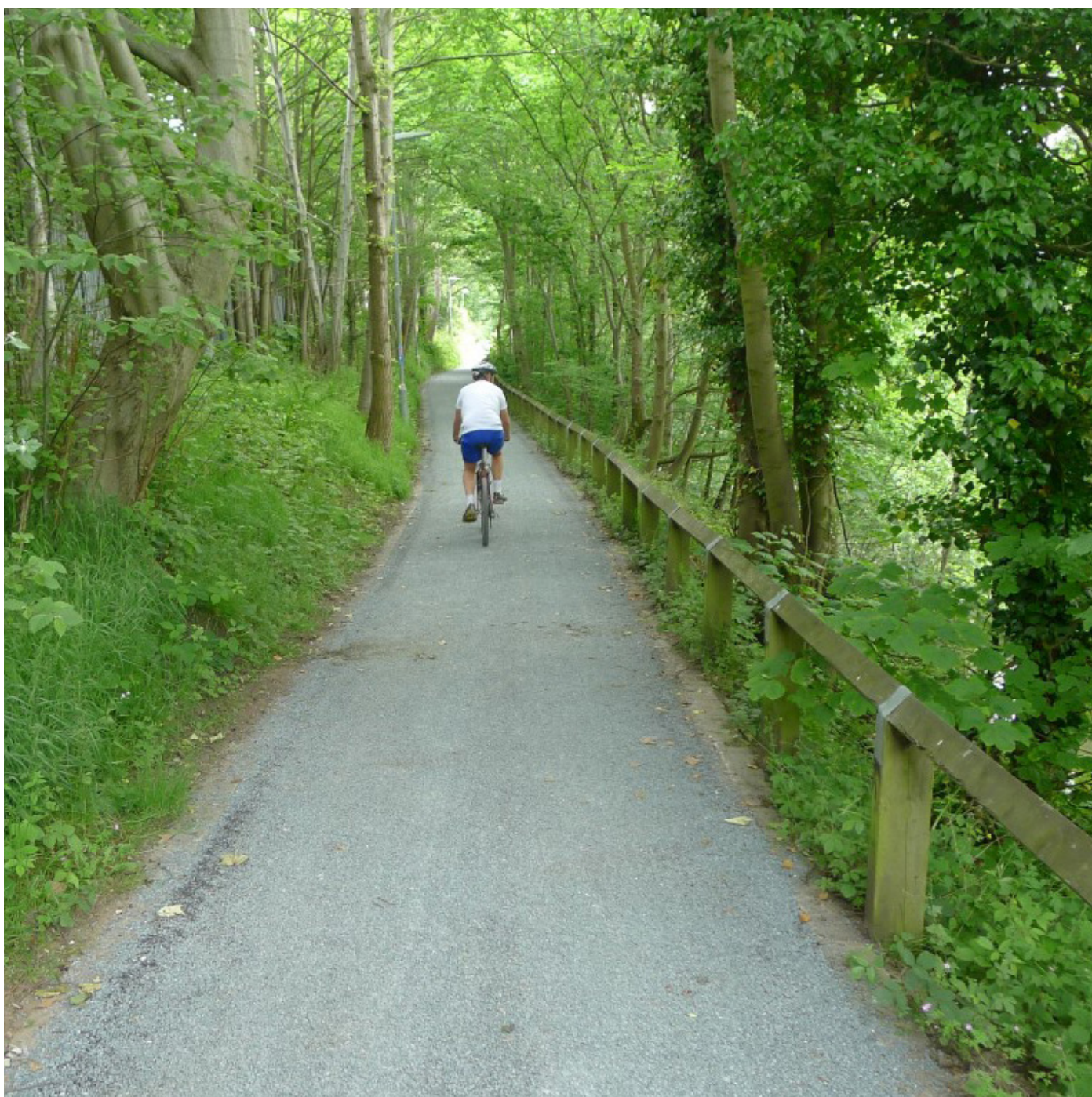


Produced by the Manchester  
Adaptation and Resilience Advisory  
Group<sup>27</sup>:

*Dr Jeremy Carter,*  
University of Manchester

*Dr Paul O'Hare,*  
Manchester Metropolitan University

<sup>27</sup> <http://www.manchesterclimate.com/adaptation-resilience-advisory-group>



### 3. Health and Wellbeing Percentage of households in fuel poverty

#### **Our objective 2020-25:**

*To improve the health and wellbeing of everyone in Manchester through actions that also contribute to our objectives for CO<sub>2</sub> reduction and adaptation and resilience, with particular focus on those most in need.*

The Manchester Health, Wellbeing and Climate Change Advisory Group has not been established at the time of writing, due to relevant partners' focus on COVID-19 during 2020. This section has therefore been produced by Manchester Climate Change Agency, based on data available publicly and from Manchester organisations.

The Manchester Health, Wellbeing and Climate Change Advisory Group will be established during 2020 and 2021. One of the group's tasks will be to establish a set of indicators to enable reporting against this objective, for inclusion in the Annual Report from 2021.

In 2018, 15.5% of Manchester households were in fuel poverty, according to the most recent data provided by BEIS. This equates to 33,216 households who cannot afford to heat their homes sufficiently. This is a decrease of 5,019 households from the previous year. Further analysis is required to understand this performance. However, it should be noted that the numbers of homes in fuel poverty have fluctuated over the last ten years so there is no evidence at this point to suggest the city is now on a downward trajectory. Fuel poverty remains a key issue for Manchester residents. This issue may be further compounded due to increased numbers of people staying at home due to COVID-19.

Indicator	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>% of Manchester households in fuel poverty<sup>28</sup></b>	22.48	13.3	15.9	14.9	14.5	15.3	16.2	17.9	15.5

Table 1: Percentage of Manchester households in fuel poverty

<sup>28</sup> <https://www.gov.uk/government/statistics/sub-regional-fuel-poverty-data-2020>



## Transport: morning peak

The below figure and table show the usage of different modes of transport into Manchester city centre, during the morning peak 7.30-9.30am. From a health perspective it is encouraging to see that walking and cycling levels are increasing, whilst private car journeys (and the associated pollution) are reducing. However, there is still a long way to go for the city to establish a healthy and sustainable transport system and travel behaviours. Investment in cycling infrastructure underway during 2020 is a positive indication of Manchester's trajectory, however, this investment will need to be sustained and increased over the long-term to realise the commitments in the Greater Manchester Transport Strategy 2040.

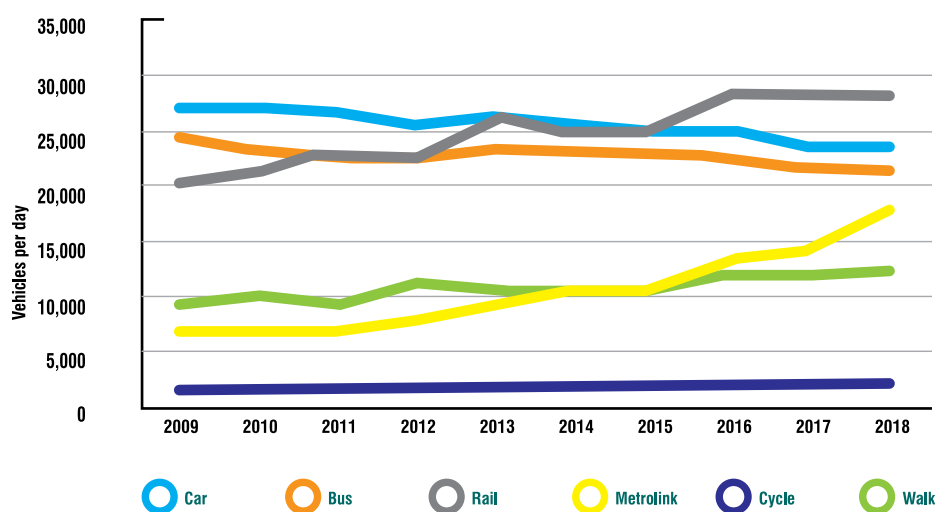


Figure 17: Trips into Manchester city centre (7.30–9.30am) by various modes of transport.  
Source: Manchester city centre cordon count, TfGM © Crown Copyright 2018<sup>29</sup>

## Local food and growing initiatives

Sustainable food production is not only key to the reduction of the city's carbon emissions and increasing our resilience to climate related hazards, it also has the ability to increase our residents health and wellbeing. The Growing Manchester programme is a local community food growing programme that supports residents to grow and live sustainably. Supported by Manchester Health and Care Commissioning and delivered by Sow the City CIC, since 2011, the programme has grown to include 115 growing groups across the city and delivered workshops to over 2,000 attendees<sup>30</sup>.

To date the programme has increased access to sustainable, locally grown food; improved the physical and mental health of residents involved in the projects, and; increased awareness of the contribution that food makes to climate change.

Year	Car	Bus	Rail	Metrolink	Cycle	Walk
2009	27,021	24,615	20,386	6,716	1,102	8,877
2010	27,402	23,418	21,291	6,448	1,143	9,599
2011	26,801	22,438	22,899	6,832	1,190	9,207
2012	25,734	22,286	22,414	7,787	1,476	11,009
2013	26,815	23,300	25,949	9,086	1,542	10,348
2014	25,835	23,038	24,914	10,731	1,638	10,277
2015	24,988	23,092	25,435	10,942	1,648	10,506
2016	25,085	22,640	28,533	13,183	1,781	11,773
2017	23,779	21,727	28,669	14,437	1,892	11,821
2018	23,377	21,210	28,527	18,100	2,129	12,536

Table 2: Trips into Manchester city centre (7.30–9.30am) by various modes of transport.  
Source: Manchester city centre cordon count, TfGM © Crown Copyright 2018

<sup>29</sup> [https://www.manchester.gov.uk/downloads/download/7121/state\\_of\\_the\\_city\\_report\\_2019/whole\\_document](https://www.manchester.gov.uk/downloads/download/7121/state_of_the_city_report_2019/whole_document)

<sup>30</sup> <http://www.sowthecity.org/growing%20manchester%20programme.htm>

## 4. Inclusive, Zero Carbon and Climate Resilient Economy

### Our objective 2020-25:

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.

The Manchester Inclusive, Zero Carbon and Climate Resilient Economy Advisory Group has not been established at the time of writing, due to relevant partners' focus on COVID-19. This section has therefore been produced by Manchester Climate Change Agency, based on data available publicly and from Manchester organisations.

The Manchester Inclusive, Zero Carbon and Climate Resilient Economy Advisory Group will be established during 2020 and 2021. One of the group's tasks will be to establish a set of indicators to enable reporting against this objective, for inclusion in the Annual Report from 2021.

### Manchester's CO<sub>2</sub> emissions per £m GVA

Carbon Intensity is the amount of carbon that is emitted per unit of economic activity. Manchester's economy is projected to grow around 2% a year<sup>31</sup>. In 2019, Manchester's economy produced 104 tonnes of CO<sub>2</sub> per £1m GVA (Gross Value Added) which is a reduction of 55% on 2005 levels. As the city's economy continues to grow it is expected that by 2020 the city's carbon intensity will need to fall to around 99 tonnes of CO<sub>2</sub> per £1m GVA; this is a 57% reduction on 2005 levels.

### Business Growth Hub Support to Manchester SMEs

The Manchester Climate Change Framework sets out the significant potential that our zero carbon transformation presents in terms of jobs, the growth of local businesses, and helping businesses to save money on energy and materials.

The Greater Manchester Business Growth Hub offers custom advice to support small and medium size enterprises (SMEs) in their progression towards a zero carbon future; cutting carbon emissions, improving products and processes, increasing energy efficiency and boosting profitability. The Growth Hub's approach is to empower businesses to make their Green Growth Pledge to celebrate their green commitments and implement their bespoke zero carbon action plans.

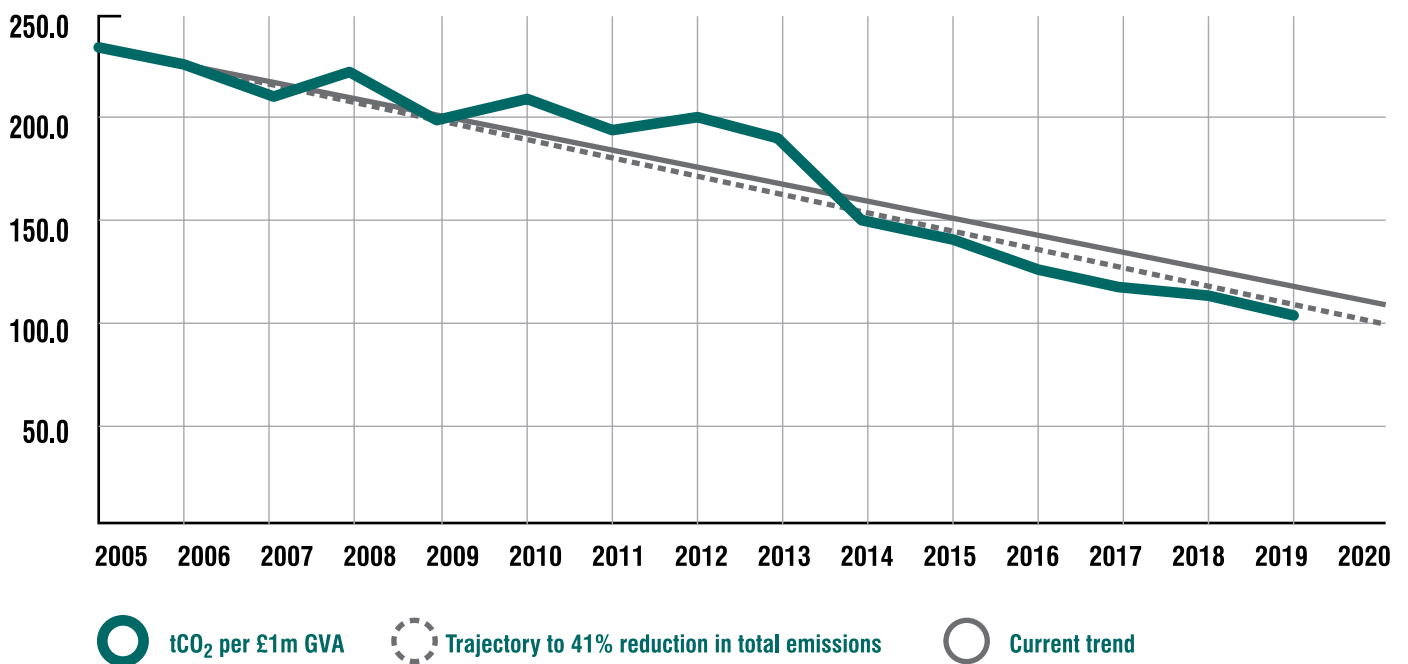


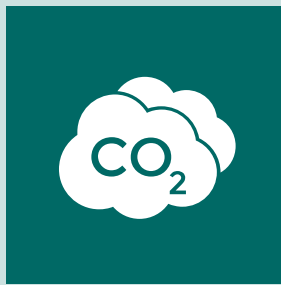
Figure 18: Carbon emissions per £1 million Gross Value Added (GVA)\*  
 Source: 2005–2018 figures available from BEIS. 2019 figure estimated based on national trend in CO<sub>2</sub> figures in BEIS data. GVA figure from Greater Manchester Forecasting Model 2018

31 [https://www.greatermanchester-ca.gov.uk/media/1730/final\\_gmfm2018\\_baseline\\_web.xlsx](https://www.greatermanchester-ca.gov.uk/media/1730/final_gmfm2018_baseline_web.xlsx)



**£38,290,365**

Cost savings achieved in businesses, by improving environmental performance



**175,826**

Tonnes of carbon dioxide equivalent (CO2e) saved



**13,483**

Tonnes of solid, liquid and gaseous materials saved



**1,426,878**

Cubic metres of water saved



**68.11**

Jobs Created

**19**  
Jobs Safeguarded



**£7,996,336**

Sales Increased (Count)

**14**  
Sales Increased (Value)



**165,295**

Tonnes of waste diverted from landfill



**143**

Businesses Assisted (minimum of 12 hours)

**106**  
Intensive support (12+ hours)

Figure 19: Impact of the Business Growth Hub in Manchester from 2012/13 to present

# Part Three

## Priorities for 2020-21

### **Manchester Climate Change Partnership and Agency Priorities**

The Manchester Climate Change Framework 2020-25 sets out four headline objectives for the Partnership and Agency to deliver during 2020-25. It had been envisaged that the Partnership and Agency would publish their action plan for this period alongside this annual report. This work is currently on-hold, pending the appointment of a new Chair for the Partnership and a new Director for the Agency. This section therefore sets out commitments for the period 2020-21 only.

### **Objective 1:**

***Helping our city to set the right objectives and targets, in line with the Paris Agreement and the latest science***

1. Establish Advisory Groups for:
  - a) Health, wellbeing and climate change
  - b) Inclusive, zero carbon and climate resilient economy
2. Further develop two of the Framework's objectives:
  - c) Consumption-based emissions: develop a more detailed understanding of our consumption-based emissions to enable us to target action and monitor progress.
  - d) Adaptation and resilience: better understand the level of risk and vulnerability faced by our residents and businesses so that we can more effectively focus our efforts on the key risks and locations most in need.
3. Establish performance indicators and data for all four Framework objectives, for inclusion in the Annual Report 2021.

### **Objective 2:**

***Helping our city to establish the strategy, governance and partnerships needed to meet the targets***

4. Appoint a new Chair for the Partnership (carried over from 2019).
5. Develop the Agency's capacity, including the appointment of a new Director.
6. Embed the priorities from the Framework in the Our Manchester Strategy reset and the city's recovery, in line with the letter to Manchester City Council in June 2020<sup>32</sup>.
7. Develop a plan for refreshing the current Framework 1.0, including the production of a new 'Recovery Annex' (working title) by end-2020. Followed by the production of a draft Framework 2.0 by September 2021 and a final Framework 2.0 by June 2022, at the latest, as part of the EU-funded Zero Carbon Cities project<sup>33</sup>.

<sup>32</sup> <http://www.manchesterclimate.com/news/2020/06/manchester-climate-change-partnerships-green-recovery-proposal>

<sup>33</sup> <https://urbact.eu/zero-carbon-cities>

8. Start to further develop the membership of the Partnership, including through Manchester's participation in the 'City-Business Climate Alliance' project with seven other global cities, the C40, CDP and World Business Council for Sustainable Development<sup>34</sup>.
9. Diversity and inclusion: complete work to establish terms of reference and a work programme for the group. To include ensuring the full inclusion and participation of BAME people in the Partnership and all its activities and ensure that the Agency's staffing also reflects the racial diversity of our city region.

### Objective 3:

#### *Helping our city to take action*

10. Engaging and empowering businesses and organisations: work with partners to establish new/refreshed climate change action plans for all Partnership members (existing and new), to ensure they can all reset, recover and thrive, and play key roles in the city's green recovery.
11. Engaging and empowering residents and communities: work with partners to establish a new programme to engage and support Manchester's residents and communities to play an active role in and benefit from the city's green recovery.
12. Engaging and empowering young people: Manchester Climate Change Youth Board to develop and oversee the delivery of a new programme of youth-led climate action, supported by the Manchester Climate Partnership, Agency, Young Manchester, Groundwork, and other partners.
13. Participate in the EU-funded GrowGreen project<sup>35</sup> to support the roll-out of nature-based solutions citywide, building on the demonstration project in West Gorton.

### Objective 4:

#### *Helping our city to understand its progress*

14. Annual reports: produce the Manchester report to CDP / Global Covenant of Mayors 2020 (August 2020); produce the Manchester Climate Change Annual Report 2021 (July 2021).

<sup>34</sup> <https://www.city-businessclimatealliance.org/>

<sup>35</sup> <http://growgreenproject.eu/>

## Citywide Priorities 2020-21

What we need to do as a city is set out in the Manchester Climate Change Framework 2020-25, across our six priority areas:

- Buildings: retrofitting existing and building zero carbon new buildings,
- Renewable energy: working towards 100% as quickly as possible,
- Transport: walking and cycling more; using more public transport; switching to zero emission vehicles,
- Food: shifting to diets better for our health and the planet's,
- The things we buy and throw away: buying less; only buying products and services with high environmental and social credentials; reusing and recycling more,
- Green infrastructure and nature-based solutions: to adapt to the changing climate and absorb CO<sub>2</sub> as well as increasing biodiversity, improving health and achieving other benefits.

Urgent and sustained action in all these areas is needed to ensure we meet our existing climate change commitments. And also realise the opportunity to create jobs, support the growth of socially responsible businesses, improve Manchester residents' health, and address the inequalities that still exist throughout our city. This integrated approach needs to be at the heart of Manchester's recovery. To support this Manchester Climate Change Partnership and Agency will be working with Manchester City Council during 2020 to embed climate change at the heart of the Our Manchester Strategy reset and associated recovery work. The Strategy is expected to be published in early-2021.

## 15 Actions for Every Resident and Organisation

There are 15 actions we need every resident and organisation to take. To get started on your journey or take your next step, select your actions from this list at:

<http://www.manchesterclimate.com/15-actions>

You can also get inspiration from the many actions already being delivered right across the city. Check out the case studies and news on our website at:

Case studies: <http://www.manchesterclimate.com/case-studies>

News: <http://www.manchesterclimate.com/news>

## Thank You

Manchester Climate Change Partnership and Agency wishes to thank all those involved in the production of this report:

*Members of the Zero Carbon Advisory Group*

*Members of the Adaptation and Resilience Advisory Group*

*The Greater Manchester Growth Company*

*Sow the City*

*Our designers at BDP*

And finally, thank you for reading. If you have any feedback or questions please contact Manchester Climate Change Agency at [info@manchesterclimate.com](mailto:info@manchesterclimate.com)



