

Manchester City Council Report for Information

Report to: Neighbourhoods and Environment Scrutiny Committee – 17 July 2019

Subject: Manchester Climate Change Annual Progress Report

Report of: Strategic Lead Policy and Partnerships
Head of Local Planning and Infrastructure
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Summary

In November 2018, the Council's Executive agreed to the establishment of science-based carbon reduction targets for Manchester which required the city to become net zero carbon by 2038. As such, the Manchester Climate Change Board (MCCB), with the support of Anthesis, developed a guide to support organisations in Manchester to play their full part in achieving this commitment alongside a draft zero carbon framework. They also worked with partner organisations, including the Council, to develop a draft zero carbon action plan which was approved by the Council in March 2019 and committed to producing a full plan by March 2020. This report provides a brief update on this work alongside an update on the progress being made towards the delivery of the city's existing ambitions to reduce carbon emissions.

The report includes details of the citywide progress towards the interim target of a 41% reduction in carbon emissions by 2020 from a 2005 baseline. It also details the Council's contribution towards this target via the reduction in direct carbon emissions attributed to the Council's activities since 2009/10. The latest data shows that citywide emissions have reduced by 40% since 2005 and the Council's direct emissions have reduced by 48.1% from a 2009/10 baseline.

Recommendations

It is recommended that the Committee consider the progress that has been made towards the delivery of the existing 2020 targets for the City of Manchester as a whole and Manchester City Council.

Wards Affected: All

Alignment to the Our Manchester Strategy Outcomes

Manchester Strategy outcomes	Summary of how this report aligns to the OMS
A thriving and sustainable city: supporting a diverse and	The transition to a zero carbon city will help the city's economy become more sustainable and will generate

distinctive economy that creates jobs and opportunities	jobs within the low carbon energy and goods sector. This will support the implementation of Manchester's emerging Local Industrial Strategy.
A highly skilled city: world class and home grown talent sustaining the city's economic success	Manchester is one a small number of UK cities that have agreed a science based target and is leading the way in transitioning to a zero carbon city. It is envisaged that this may give the city opportunities in the green technology and services sector.
A progressive and equitable city: making a positive contribution by unlocking the potential of our communities	Transitioning to a zero carbon city can help to tackle fuel poverty by reducing energy bills. Health outcomes will also be improved through the promotion of more sustainable modes of transport and improved air quality.
A liveable and low carbon city: a destination of choice to live, visit, work	Becoming a zero carbon city can help to make the city a more attractive place for people to live, work, visit and study.
A connected city: world class infrastructure and connectivity to drive growth	A zero carbon transport system would create a world class business environment to drive sustainable economic growth.

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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.

Playing Our Full Part: How Manchester's Residents and Businesses can benefit from Ambitious Action on Climate Change 2018
Manchester Climate Change Strategy 2017-50
Manchester Climate Change Strategy Implementation Plan 2017-22

Manchester: A Certain Future Annual Report 2018

Manchester City Council Climate Change Action Plan 2016-20

Manchester Zero Carbon 2038, Manchester City Council's Commitment, March 2019

1.0 Background

- 1.1 This report provides the Committee with a quantitative and qualitative update on progress towards delivering the city's ambitious climate change agenda. It includes a brief update on the activity which is underway to develop new plans to ensure progress towards the new zero carbon 2038 targets, alongside a more detailed update on the latest citywide emissions and direct emissions from the Council's activity. At the time of writing, a motion requesting the Council to formally declare a 'climate emergency' was due to be considered at the Wednesday 10th July's Council meeting.

2.0 Zero Carbon 2038

- 2.1 In November 2018, following analysis by the world renowned Tyndall Centre for Climate Change Research, the MCCB made a proposal to update the city's carbon reduction commitment in line with the Paris Agreement, in the context of achieving the "Our Manchester" objectives and asked the Council to endorse these ambitious new targets. The Council adopted a science-based carbon budget and committed the city to becoming zero carbon by 2038.
- 2.2 In March 2019, the Council endorsed the draft Manchester Zero Carbon Framework as the city's overarching approach to meeting its science-based climate change targets over the period 2020-38, as part of the wider Our Manchester policy framework. This report also included draft action plans from a range of organisations who are members of the Manchester Climate Change Board and are collectively responsible for 20% of the city's emissions. These organisations, including the Council, have committed to become zero carbon by 2038 and will be producing final action plans which will be considered by the Committee ahead of Executive in March 2020.

3.0 Manchester Climate Change Agency

- 3.1 The Manchester Climate Change Agency (MCCA) was established in 2015 to support, encourage and enable organisations and individuals in Manchester to contribute towards delivering on the city's commitments on climate change. The Agency is an enabling organisation and its priorities are focused on adding value to existing climate change activities in the city, for example through promotion of partners' activities, and filling gaps that exist in the delivery of Manchester's Climate Change Strategy, in particular through the development of new projects and funding bids.
- 3.2 The Agency works in partnership with local, national and international organisations on initiatives that support and celebrate action on climate change. The Agency was established by the Manchester: A Certain Future Steering Group, Manchester City Council and Manchester-based architectural and engineering company BDP. It is a not-for-profit Community Interest Company.
- 3.3 The Agency recently established a Manchester Climate Change Youth Board to ensure that younger people are able to engage and contribute to climate change action in Manchester. To enable this to happen on a full-time basis, the Youth

Board recently launched a Crowd Funder campaign in partnership with MCCA. The campaign, for the UK's first full-time Youth Climate Action Champion, ran for a month, surpassing the £5k target to raise £6,111. The Youth Board are continuing their fundraising campaign to secure additional funds to ensure the Youth Climate Champion will be a reality. This is a priority for the Youth Board in 2019/2020.

- 3.4 For further detailed information on the activity of the Manchester Climate Change Board and citywide climate change activity please see Appendix 1.

4.0 Citywide Progress – 2018/19 Update

- 4.1 Analysis of the latest Government figures show that the city's overall carbon emissions fell from 2.07 MtCO₂ in 2017 to 1.97 MtCO₂ in 2018. As such, to date the city has achieved a 5% reduction since 2017. In 2018 the city achieved a 40% reduction in emissions since 2005 and is now projected to achieve the 41% reduction in carbon emissions by 2020.
- 4.2 In 2018 Manchester's scope 1 and 2¹ carbon emissions are made up of 40% from the business sector (industrial and commercial), with 31% from transportation and 29% from domestic energy use. Between 2017 and 2018, domestic emissions are projected to have fallen by 8%, transport emissions by 5% and business emissions by 3%.
- 4.3 A huge part of the challenge to transitioning to a zero carbon city by 2038 will be for all residents, businesses and organisations in the city to be engaged in this agenda and for them to be encouraged and supported to play their full part in reducing emissions. This will require significant changes to how houses are built and heated, how energy is generated and how people move around the city. There will also need to be significant domestic and commercial retrofit schemes with funding and investment from multiple sources. It will also require big changes to governance arrangements and investment/resources for delivery. The Our Manchester approach to engaging and listening to residents and stakeholders will be utilised to make the issue real for people that are living and working in the city.

5.0 Manchester City Council's Emissions – 2018/19 Update

- 5.1 In 2009/10, the Council published its commitment to contribute to the citywide reduction in carbon emissions and set this out in the Manchester City Council Climate Change Delivery Plan. The Council committed to reducing its direct carbon emissions by 41% by 2019/2020 from a 2009/10 baseline. Following this, the Council produced a series of actions plans which detailed the activities that would be undertaken in order to ensure that our commitments were met.
- 5.2 This report monitors the progress against the planned actions set out in the most recent Climate Change Action Plan (CCAP) 2016-20. The scope of the CCAP includes only carbon emissions that the Council is directly responsible for such as our operational buildings estate, street lighting and some transport activities

¹ Scope 1 emissions = direct emissions from owned or controlled sources. Scope 2 emissions = indirect emissions from the generation of purchased electricity, steam, heating and cooling consumed.

including business travel and the waste and recycling fleet. A more detailed quantitative analysis of consumption and emissions is provided in Appendix 2 alongside an update on the activities included within the plan within Appendix 3.

- 5.3 The latest data for the 2018/19 financial year shows that the Council's direct emissions have reduced by 48.1% since the 2009/10 baseline meaning that the 41% target has been achieved and surpassed a year ahead of schedule. There has been a significant reduction in emissions when compared with 2017/18 which is predominantly the result of changes to the UK Emissions Factor for electricity, a reduction in energy consumption in the Council's operational buildings and a reduction in electricity consumption from street lighting. Emissions from the Biffa Waste Collection Fleet have fallen slightly in the last year but have increased since the 2009/10 baseline. The reasons for these changes are explored in more detail below.
- 5.4 **UK Emissions Factor:** In order to produce the annual reports detailing the CO₂ emissions associated with the Council's direct activities, activity data e.g. miles travelled, kilowatt hours of electricity and gas used etc. are converted into carbon emissions using a nationally agreed set of emission conversion factors which are published annually by the government. The emission factor for electricity represents the average CO₂ emission from the UK National Grid per kWh of electricity generated. The electricity emission factor fluctuates each year as the fuel mix consumed in UK power stations and the proportion of net imported electricity changes. These annual changes can be large as the factor depends very heavily on the relative prices of coal and natural gas as well as fluctuations in peak demand and renewables. Between 2017 and 2018, the emission factor for electricity reduced by 20.1%, effectively reducing emissions from electricity by 20.1%. It is anticipated that the electricity emission factor will continue to decrease as the National Grid becomes greener overtime. The Council already procures green electricity which is contributing to the greening of the National Grid. However, it is important to note that we are unable to make any further emissions saving from this procurement decision beyond using the nationally agreed emission factor for electricity.
- 5.5 **Buildings emissions and kWh:** Carbon emissions from our buildings estate have reduced by 46.0% from the 2009/10 baseline. In this same period, the total energy used in our buildings (kilowatt hours of gas, electricity and oil) has reduced by 26.9%. This demonstrates that while emission factor reductions have undoubtedly had a positive influence on our total emissions, the amount of energy that we have consumed has also decreased. Energy consumption in building also fluctuates by season and is affected by warm and cold weather spells. As such, the emissions will have been impacted by the warmer than average temperatures experienced across the UK during 2018 and particularly during the main heating season.
- 5.6 **LED Street Lighting Replacement Programme:** In September 2017, the Council embarked on a programme to replace street lights in Manchester with LEDs bulbs. The programme was planned to take three years and result in the replacement of 56,000 lamps. It is anticipated that the programme will save the Council over £2million per year and will reduce carbon emissions by 8,400

tonnes per year. By the end of 2018/19, over 37,000 LEDs had been installed and emissions from street lighting had fallen by 57.9% since the 2009/10 baseline.

- 5.7 **Waste Collection:** In summer 2015, Biffa took over the running of the Council's household refuse collection service from Enterprise and also began running the Council's Street Cleansing services. This resulted in 28 sweepers and 40 tippers, transferring from the Council to Biffa. This contributed to an increase in emissions from the Biffa waste fleet and a decrease in the Council fleet vehicle emissions as shown in the 2015/16 data within Appendix 2. In 2019, Biffa started to trial the first fully electric 27 tonne waste collection vehicle in Manchester. The trial is the first step in the effort to ultimately end the CO₂ emissions released from diesel fuels during waste collections and to help improve the city's air quality. During 2019, the vehicle will be deployed in various different applications to fully test the battery capacity, loading and storage capability, recharging time, the impact of different weather conditions and many other factors. A complete data set will enable a much more informed view of the benefits and potential challenges that may lay ahead with this technology. The Council will continue to work closely with Biffa to build on this trial and implement robust and ambitious activities to reduce emission from the waste fleet. These will be outlined in the Council's March 2020 action plan referenced above.
- 5.8 **Staff Travel and Fleet:** Other transport emissions are associated with staff travel including travelling by train, taxi, air or claiming business mileage. These are a very small percentage of overall emissions but there are still opportunities to reduce them further and these will be explored within the new action plan which will be completed in March 2020. The Council also operates a small number of fleet vehicles and opportunities to replace these with lower emission vehicles will also be considered within the new action plan.
- 5.9 **Carbon Literacy:** The Council's Carbon Literacy Training programme was relaunched as '*Our Climate, Our City*' in March 2018 and was initially delivered by Manchester Metropolitan University (MMU). In total, 177 members of staff and elected members have been trained since the relaunch, taking the total number of Carbon Literate people in the Council to 674. In order to create a more sustainable training offer for the medium term, six Council officers have been trained to become accredited Carbon Literacy trainers. Two further training sessions are being organised before September 2019 and a full programme of training will be launched from October 2019 onwards. The Council's Strategic Management are also undertaking the training and their final face-to-face element will be delivered on 25th July 2019.

6.0 Conclusion and recommendations

- 6.1 The span of the current MCC Climate Change Action Plan and our existing commitments will come to an end in March 2020 and will be reported on in July 2020. Our current target to reduce our direct emissions by 41% by 2020 (based on a 2009/10 baseline) will be superseded by new more ambitious short term targets. The overarching ambition will be for the Council's emissions to be zero by 2038, in line with the cities targets. This commitment and our trajectory to

meeting these will be outlined in a new plan published in March 2020. Actions within the plan will focus those activities which produce the majority of our emissions, such as our buildings but there will also be a focus on energy generation and the waste & recycling fleet. It has also been recognised that the Council will need to play a critical role in supporting the city as a whole to reach its zero carbon ambitions through a variety of roles and responsibilities including planning, decision making, capital projects, leadership and our influence.

6.2 The Council's zero carbon action plan also recognises that residents will need to be engaged in a meaningful way in order to ensure they are able to contribute to the ambitious targets. Potential actions could include:

- Developing a communications programme to make the issue real for residents
- Switching to a renewable energy tariff
- Considering scope for local energy generation
- Encouraging lower energy use
- Adopting different travel choices
- Switching to electric vehicles
- Producing less waste
- Making different food choices

6.3 The span of the current city wide plan also ends in March 2020 and will be superseded by a detailed plan developed by the Manchester Climate Change Agency, MCCB and its partners. This plan will outline the scope for all residents and organisations in the city to work together to play their full part in assisting Manchester to reach its science based targets.

6.4 Recommendations can be found at the beginning of this report.