Manchester City Council Report for Information

Report to: Neighbourhoods and Environment Scrutiny Committee - 19 July

2017

Subject: Manchester City Council Climate Change Action Plan Update

Report of: The Deputy Chief Executive (Growth and Neighbourhoods)

Summary

The Manchester City Council Climate Change Action Plan 2016-20 was considered by the Neighbourhoods and Environment Scrutiny Committee in July 2016. Progress is monitored by an annual report and quarterly updates which provide emissions data and progress updates on the detailed actions within the plan. This report provides an update on progress towards the target of a 41% reduction on the Council's direct CO₂ emissions by 2020 from a 2009/10 baseline and complements the Manchester Climate Change Agency report on citywide activity which is also being considered by the Committee.

As previously requested by this Committee the report also provides some comparisons with the UK Core Cities, an update on the use of cargo bikes in the city and examples of best practice from Europe. A copy of the Climate Change and Air Quality Communications and Engagement Plan is also attached for reference.

Recommendation

It is recommended that the Committee note the content of this report.

Wards Affected: All

Contact Officers:

Name: Richard Elliott

Position: Head of Policy, Partnerships and Procurement

Telephone: 0161 219 6494

Email: r.elliott@manchester.gov.uk

Name: David Houliston

Position: Policy and Partnerships Manager

Telephone: 0161 234 1541

Email: d.houliston@manchester.gov.uk

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.

MCC Climate Change Action Plan 2016-20

MCC Climate Change Action Plan Update Report: Quarter 4

MCC Carbon Emissions Report: Quarter 4

MCC Climate Change Action Plan Update January 2017

Manchester: A Certain Future Annual Report 2016.

Manchester Climate Change Strategy 2017-50.

1.0 Introduction

1.1 This report provides the Committee with an annual update on the Council's Climate Change Action Plan (CCAP) which seeks to achieve a 41% reduction in CO₂ emissions by 2020 from a 2009/10 baseline. Comparisons with the other UK Core Cities are also provided for reference. Although good progress has been made in reducing the Council's direct CO₂ emissions, a step change will be required to ensure that the Council can progress towards becoming zero carbon by 2050. This report contains some high level suggestions about how this could be achieved along with some examples of activity in other European Cities.

2.0 Climate Change Action Plan 2016-20 Update

2.1 The Council aims to reduce its direct carbon emissions by 41% by 2020 from a 2009/10 baseline. The latest emissions data for 2016/17 shows that the Council's direct emissions reduced by 8.2% from 2015/16 and by 24.9% since 2009/10. Figure 1 (below) shows the change in total CO₂ emissions between 2009/10 and 2016/17. 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 including business travel and the waste fleet.

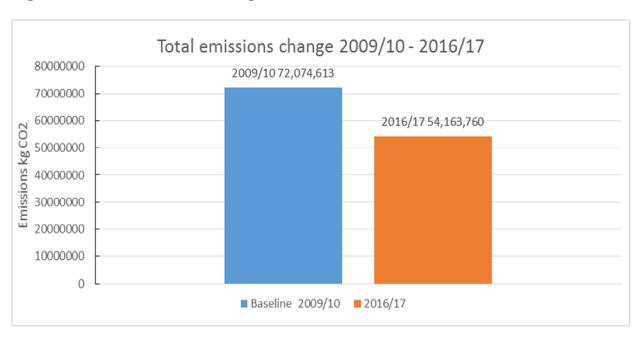
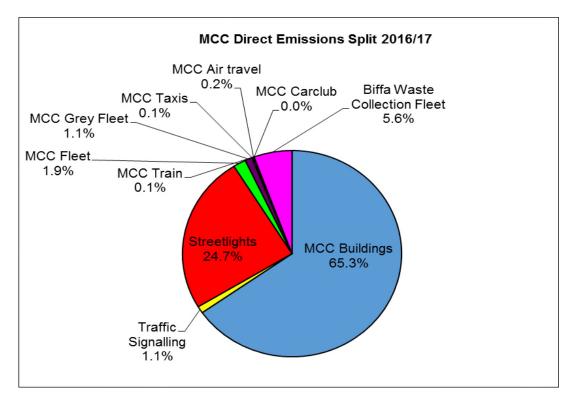


Figure 1: Total emissions change between 2009/10 and 2016/17

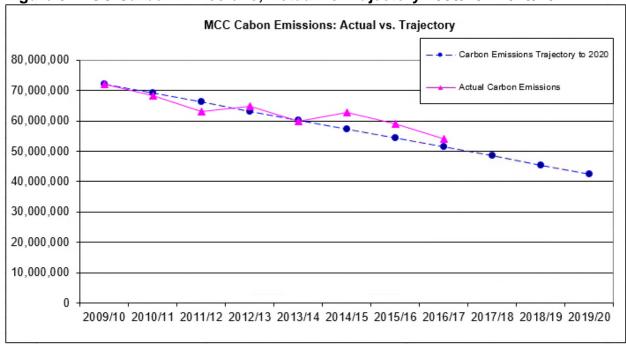
- 2.2 In 2009/10, the majority of the Council's direct emissions came from our built estate (66%) followed by street lighting (22%). A smaller proportion was attributed to transport (9%) and traffic signalling (3%).
- 2.3 In 2016/17, the split has shifted slightly with an increase in street lighting and waste fleet but a reduction in fleet and traffic signalling. The buildings share of emissions has remained approximately the same (see figure 2 below).

Figure 2: MCC Direct Emissions Split 2016/17



2.4 Figure 3 (below) plots the Council's actual CO₂ emissions against the trajectory required to meet the 41% target in 2020 and demonstrates that reductions are currently on target.

Figure 3: MCC Carbon Emissions; Actual vs Trajectory 2009/10 - 2019/20



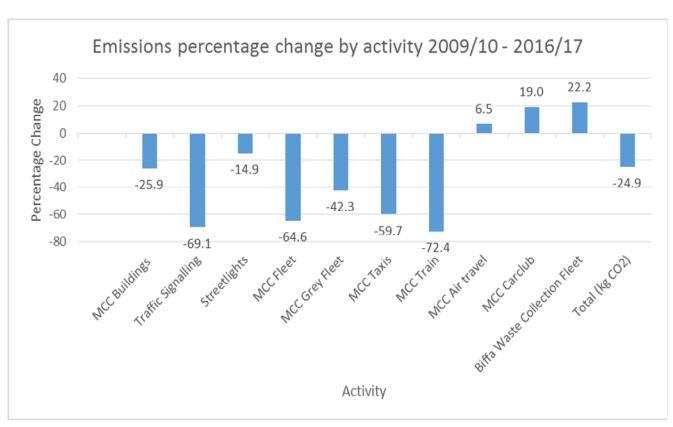
2.5 Table 1 (below) shows the detailed emissions breakdown in kg² of CO₂ across the different functions of the Council which are in scope. Most activities have seen a significant reduction since 2009/10, with only air travel, carclub and waste

collection having increased. Figure 4 (below) shows the percentage change between 2009/10 and 2016/17 in a simpler bar graph format.

Table 1: Detailed breakdown of emissions by Council activity

	Emissions KG CO2				
Activity	Baseline 2009/10	2015/16	2016/17	% change from baseline	% change btw 2015/16 and 2016/17
MCC Buildings	47,764,131	38,746,420	35,374,712	- 25.94	-8.7%
Traffic Signalling	1,894,023	644,842	585,275	- 69.10	-9.2%
Streetlights	15,725,949	15,111,934	13,386,215	- 14.88	-11.4%
MCC Fleet	2,863,487	1,142,646	1,013,703	- 64.60	-11.3%
MCC Grey Fleet	1,001,324	532,287	577,454	- 42.33	8.5%
MCC Taxis	135,731	37,758	54,736	- 59.67	45.0%
MCC Train	109,729	46,685	30,284	- 72.40	-35.1%
MCC Air travel	78,502	166,165	83,592	6.48	-49.7%
MCC Carclub	5,437	7,529	6,469	18.98	-14.1%
Biffa Waste Collection	2,496,300	2,579,476	3,051,320	22.23	18.3%
Total (kg CO2)	72,074,613	59,015,742	54,163,760		
Annual shift (%)		5.9	8.2		
Change from Baseline (%)		18.1	24.9		

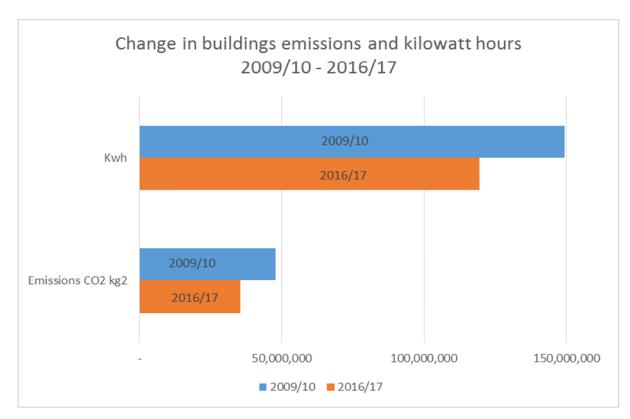
Figure 4: Emissions change by activity 2009/10 – 2016/17



Buildings

- 2.6 As shown by figure 2 above, buildings account for two thirds of all the Council's direct emissions and are therefore a major priority within the CCAP. The CCAP 2016-2020 targeted a reduction of 5,900 tonnes of CO₂ across the Council's operational estate (excluding schools) which is 8.1% of the 2009/10 baseline. A number of actions were identified including:
 - The implementation of an Estates Transformation Programme;
 - Embed carbon savings within the Estate Asset Management Programme;
 - · Rationalisation of identified buildings;
 - Implementing 'quick win' actions identified in energy audits carried at five buildings;
 - Investigation of the use of a variety of funding opportunities.
- 2.7 Significant progress has already been made in reducing consumption across the Council's operational estate as shown in figure 5 (below).

Figure 5: Change in buildings emissions and kilowatt hours 2009/10 – 2016/17



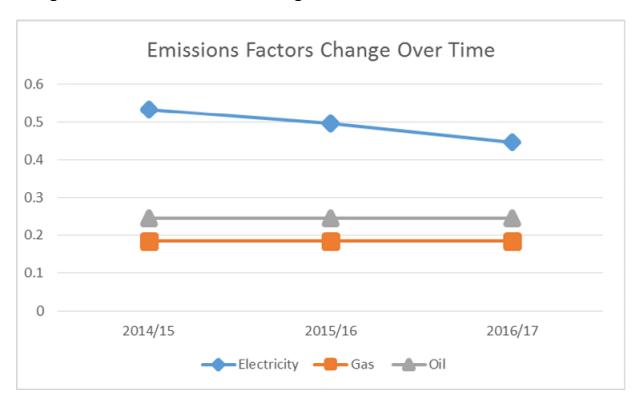
2.8 Table 2 (below) shows the change in total CO₂ emissions and kilowatt hours across the Council's estate since 2009/10. The kilowatt hours figure is made up of electricity, oil and gas which each have their own emissions factor. Figure 6 (below) shows the recent changes in UK emissions factors with electricity reducing over the last 3 years as the national grid is decarbonised. It should also be noted that although the Council procures 'Green Electricity', we still have to use the standard emissions factor for calculating CO₂ emissions. This underplays the Council's true reduction in CO₂ emissions. The only way the Council could claim a lower emissions factor would be to generate and use our own electricity

and this is one of the advantages of developing the Civic Quarter Heat Network which is covered in more detail below.

Table 2: Buildings consumption and emissions 2009/10 - 2016/17

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Emissions	47 704 404	42 000 400	44 407 405	12.002.402	20 040 000	44 400 707	20.740.400	25 274 740
CO2 kg ² Kwh	47,764,131 149,325,127	43,892,166 138,643,513	41,407,195 136,682,388	43,063,463 140,535,003	39,649,699 127,874,566	41,192,707 121,954,418	38,746,420 122,928,034	35,374,712 119,456,372
% reduction in emissions from baseline		- 8.1	- 13.3	- 9.8	- 17.0	- 13.8	- 18.9	- 25.9
% reduction in kwh from baseline		- 7.2	- 8.5	- 5.9	- 14.4	- 18.3	- 17.7	- 20.0
% change in emissions between 2015/16 and 2016/17								- 8.70
% change in kwh between 2015/16 and 2016/17								- 2.82

Figure 6: Emissions Factors Change 2014/15 – 2016/17



2.9 The Council's Estates Board have overseen the development of a Carbon Reduction Programme (CRP) which identifies savings of over 4.7 millon kg² of CO₂. The CRP has been developed around 15 primary buildings with a focus on

5 different measures as part of a holistic approach to energy reduction alongside proposed refurbishment programmes. The 5 measures are: Combined Heat and Power (CHP); heating non CHP; LED lighting; Controls; and Solar PV. The 15 buildings are all within the 20 buildings with the highest emissions and therefore include many of the Council's leisure facilities. The other 5 buildings in the top 20 which have been excluded from the CRP either already have significant refurbishment programmes underway which include energy efficiency measures such as the Town Hall, or are buildings which Council staff have now vacated. Funding of approximately £2million per annum has now been identified and approved and a project manager has been recruited and will be in post from July 2017 to begin procurement activities. All of the remaining outputs from the Energy Audits have also been incorporated into the CRP.

- 2.10 The Council has an Estates Asset Management programme which is a rolling capital programme of repairs and maintenance to the operational estates based on risk and priority (which reflect service demands/requirements). The programme is based on up-to-date stock condition information and includes consideration of the most appropriate sustainable technologies as part of the consideration of each project/design.
- 2.11 Phase 2 of the Estates Transformation Plan is now in progress with the refurbishment/transformation of the former Hulme Library into Hulme District Office and the refurbishment of the Hammerstone Road depot. Sustainable technologies will be delivered as part of both refurbishment schemes.
- 2.12 An LED lighting pilot has started on one level of the Town Hall Extension on the Library Walk elevation. The pilot will assess the benefits of introducing LEDs both from a health and welfare perspective and the associated carbon savings.

Civic Quarter Heat Networks

- 2.13 A heat network is being installed for the Civic Quarter which will connect to a number of buildings including; the Town Hall, the Town Hall Extension, Central Library, Heron House, Manchester Central, the Bridgewater Hall and Manchester Art Gallery. The ability for the Town Hall to be connected to the Civic Quarter Heat Network and the provision for greater optimisation and controls provides significant reductions. Once installed, the heat network will reduce the Council's total emissions by 32,238 tonnes which is 3.1% of the total 2009/10 baseline.
- 2.14 The proposed new generation plant comprises natural gas fuelled, high efficiency and low emission CHP unit so power will be generated as well as heat from a single fuel source. The new CHP plant will be located in an energy centre based within the Manchester Central complex and will generate 2.7MW (3600HP). Manchester Central itself will receive heat and power from the network which will also supply low carbon heat to seven other properties, a number of which are owned by the Council. The private wire system will also supply low carbon electricity to three of the buildings (in addition to Manchester Central).
- 2.15 The Preferred Bidder for the project was appointed by the Council's Executive in March 2017 and is called Vital Energi who are based in Blackburn. Construction

is due to start in September 2017 with the heat network being operational by 2019/20. The project was one of nine national projects to be awarded capital funding via the government's Heat Networks Investment Project and received a grant of £2.87m.

Street lighting

2.16 Street lighting currently contributes a quarter of all the Council's direct CO₂ emissions. All Manchester street lights are due to be replaced with LEDs which will save 8,400 tonnes of CO₂ which is 11.7% of the total 2009/10 baseline and we are currently coming to the end of a lengthy and complicated contract negotiation. The Council and Amey are both fully committed to ensuring that the replacement programme can be rolled out as quickly as possible once the PFI street lighting contract has been signed.

Transport

2.17 Emissions from transport related activities have generally fallen since 2009/10 which is partially the result of the reduction in the number of staff working for the Council. Emissions from fleet, grey fleet, taxi's and trains have all seen significant reductions, however, emissions from air travel and the carclub have slightly increased. A shift to electric or hybrid vehicles in the future will result in further reductions to fleet and grey fleet emissions.

3.0 Benchmarking

3.1 Each of the other UK Core Cities has their own version of the CCAP which sets out how they will reduce the direct emissions which are related to their operations. They also have a target to reduce emissions by a set date from a historic baseline, however, these targets vary in their ambition. Although it is difficult to make exact comparisons, Manchester's target to reduce emissions by 41% in 2020 from a 2009/10 baseline is one of the most ambitious. In terms of direct comparison, Leeds City Council's targets and progress are most similar to the Manchester's.

Table 3: UK Core Cities Climate Change Targets

Local Authority Area	Baseline Year	Target	Progress
Birmingham City Council	1990	• Citywide: 60% by 2027	33% by end of 2014 calendar year
Bristol City Council	2005	 Local Authority: 38% by 2020 and 60% by 2050 Citywide: Carbon Neutral by 2050 (as outlined in 	Not currently available

		new Climate and Energy Security Framework)	
Cardiff Council	2005/6	 Local Authority: 60% reduction by 2018. Citywide: 26% by 2020 (per capita emissions) 	 Not currently available Citywide: 35% (per capita emissions) and 27% (absolute emissions) reduction achieved by 2014 (BEIS data from 2016 with a 2 year time lag)
Glasgow City Council	2005/6	 Citywide: 30% by 2020, 80% by 2050. 	27% achieved by end of 2014 calendar year
Leeds City Council	Local Authority: 2008/09 Citywide: 2005	 Local Authority: 40% by 2020 Citywide: 40% by 2020, 60% by 2030, 80% by 2050 	 20% achieved by 2014/15 27.7% achieved by 2014/15
Liverpool City Council	Local Authority: 2005 Citywide: 2009	 Local Authority: 20% by 2020 Citywide: 40% carbon emissions reduction by 2030 	External report suggests on target
Manchester City Council	2009/10	 Local Authority: 41% by 2020, zero carbon by 2050. Citywide: 41% by 2020, zero carbon by 2050. 	 Local Authority: 24.9% achieved by 2016/17 Citywide: 32% reduction projected by 2020
Newcastle City Council	2005	 Citywide and Local Authority: 20% + by 2020, 100% clean energy by 2050 	• 30.4% achieved by 2014
Nottingham City Council	Local Authority: 2007	 Local Authority: 31% by 2016/17 Updated LA target 45% by 	LA: 30% reduction achieved in 2015/16

	City wide: 2005	2020 • City wide: 26% by 2020	Citywide: 33% reduction achieved in 2014 (2016 release date)
Sheffield City Council	2005	• 30% by 2020 and 60% by 2050	Sheffield City Council are undertaking a review of targets and current progress/ position and will be reported in due course

4.0 Other local initiatives

Climate Change and Air Quality Communications and Engagement Plan

- 4.1 Despite the good progress which has been made in meeting the Council's carbon reduction target, there is still more to do to embed this objective within the Council's workforce and wider strategies. In recognition of this, a communications and engagement plan has been developed which seeks to encourage and support the Council and partners to do all that that they can to reduce their emissions and work with others including the Manchester Climate Change Agency to promote existing activity and to influence behaviours within the city.
- 4.2 A copy of the Plan is attached for information in Appendix 1.

Carbon Literacy Training

- 4.3 The equivalent of a full day's training is required in order to become officially Carbon Literate and accreditation is overseen locally by The Carbon Literacy Project (http://www.carbonliteracy.com/) which is part of Cooler Projects CIC.
- 4.4 Training is currently being rolled out to elected members and the Council's Strategic Management Team (SMT) in the form of a half day e-learning module and a half day face-to-face training session. Since March 2017, 18 elected members have seen a partial change in their carbon literacy status with 11 of these now fully carbon literate including the Leader of the Council. This is in addition to the 22 existing elected members who had already completed their training prior to March 2017.
- 4.5 Options for a wider roll out to staff are currently being explored following discussions with Cooler CIC and partners such as Northwards and Great Places Housing. The training will be closely aligned with the ambitions for a 'Liveable and Low Carbon City' set out in the Our Manchester Strategy. Approximately 1,000 staff are already carbon literate following the last round of training which was rolled out in 2013/14.
- 4.6 The Council achieved bronze award standard in the Carbon Literate Organisation awards in November 2016 and were the first local authority to do so.

Cargo bikes

- 4.7 The challenges of city centre congestion and the rise in the next day delivery culture have led to a number of cycle led responses from the public and private sector.
- 4.8 The bus priority lane and cycle lanes on Oxford Road are making it more cycle and pedestrian friendly so it is important to capitalise on this and make the possibility for bike deliveries easily accessible to the companies and institutions in the area. The CityVerve project is offering a free hire scheme for electric assist cargo bikes, the post room at Manchester Metropolitan University is now distributing internal mail by eBike and the Council are working with local businesses so they can try out a bike. This project is also being supported by a local cargo logistics enterprise called Last Mile Deliveries who offer a managed service and advice on making the switch. One company already benefiting is the Old Abbey Inn which is located off Oxford Road and delivers artisan pizzas in the local area. Previously using a motorised vehicle, they are trialling delivery by bike and are proving to be enthusiastic users. They have already made savings on fuel and time, as well as expanding their business. They believe that the ethos of a cargo bike fits perfectly with their business ethics. New users are also still being actively sought.
- 4.9 Another company which is operating in this space is Cycle Wagl who are based near Piccadilly Station. They offer same day cargo services for items up to 180kg for 'last mile' deliveries and can collect post and deliver parcels within the city centre and central Manchester area.
- 4.10 The private sector has also responded and companies such as TNT, Deliveroo and UberEATS are now delivering mail and food from restaurants and takeaways by bicycle.
- 4.11 Although not specifically linked to cargo bikes, June 2017 also saw the launch of a 6 month trial of the Mobike cycle hire scheme in Manchester which further cements Manchester's reputation for cycling and innovation.

Social Value Toolkit

- 4.12 The Council's Social Value Toolkit for suppliers was launched at an event in February 2017 alongside the publication of a new report by the Centre for Local Economic Strategies (CLES) called 'The Power of Procurement II: The policy and practice of Manchester City Council'. The report found the following:
 - The new Corporate Procurement Department has led to over £65million of efficiency savings;
 - Manchester is now seen as an example of best practice when it comes to progressive procurement in the UK;
 - Manchester City Council and indeed the wider Greater Manchester Combined Authority are at the forefront of practice around social value;

- The proportion of total procurement spend with organisations based in, or with a branch in Manchester has increased from 51.5% in 2008/09 to 73.6% in 2015/16:
- Spend with organisations based in, or with a branch in Greater Manchester has increased from 86.5% to 90.7%;
- 53.3% of Manchester City Council's procurement spend is with SMEs;
- Re-spend by suppliers back into the Manchester economy has increased from 25p in the £1 in 2008/09 to 43p in the £1 in 2015/16.
- 4.13 The Social Value Toolkit for suppliers sets out what the Council is seeking to achieve for Manchester's residents and neighbourhoods. The document provides guidance, information and contact details as a support to suppliers when considering their offer for social value when tendering for contracts.
- 4.14 The document aligns to the Our Manchester Strategy themes and contains a section on promoting environmental sustainability. Suppliers are encouraged to think about providing specific examples of different ways in which they can reduce carbon emissions, reduce energy and water consumption, and increase the use of renewable energy.

5.0 Planning for a zero carbon city

- 5.1 The Our Manchester Strategy vision states that Manchester's ambition is 'to be in the top flight of international cities'. Learning from international cities who have achieved significant CO₂ reductions is an important part of the journey towards becoming a zero carbon city by 2050. The Council recently hosted a visit of the Berlin Energy Agency and Senate Department for Urban Development and Environment as part of sharing ideas and good practice.
- 5.2 A look at best practice in other European cities is also useful in planning for the next CCAP from 2020. Each of the three cities below have taken different approaches to reducing CO₂ emissions and are interesting to consider.

Copenhagen – reducing consumption

- 5.3 Copenhagen's carbon reduction plans centre on buildings, fleet, street lighting and solar cell panels. A summary of their main objectives to 2025 is provided below:
 - Energy consumption in city administration buildings reduced by 40% compared to 2010;
 - All city administration vehicles run on electricity, hydrogen or biofuels;
 - Energy consumption for street lighting halved compared to 2010;
 - A total of 60,000 square meters of solar cell panels on existing municipal buildings and new build installed.

The Hague – promoting sustainability

5.4 The Hague's carbon reduction plans centre on the sustainability of their procurement of goods and services, improving standards for sustainable building

construction and rolling out training to public sector staff. A summary of their main objectives is provided below:

- Purchasing sustainable products and services according to the Dutch Sustainable Purchase Guidelines which prescribes that for municipalities, 75% of all purchases should be 'Sustainable' as of 2010 and 100% as of 2015.
- Stimulating sustainable building construction by explicitly asking for Sustainable Solutions in all 'Request for Proposals'. Natural ventilation and warmth storage solutions are also being used to reduce electricity consumption.
- Continuing the roll out of the 'The Green civil servant ('De Groene Ambtenaar') programme to staff. The programme started in 2011 and aims to reduce the municipality's CO₂ emissions by training employees on energy consumption reduction and encourage bicycle usage.

Berlin – decentralised energy

- 5.5 Germany has embarked on a journey to fundamentally transform its energy supply system which is called the energy turnaround, or "Energiewende". This transformation has seen a large increase in the proportion of electricity generated from renewable sources and a major decentralisation of the power system.
- 5.6 The Berlin Energy Agency is one example of a local government backed localised energy service provider which is now one of the largest providers in Berlin. They undertake the financing, planning, construction and operation of plants and facilities at their own economic risk. Their main objective is to ensure efficient power generation and utilisation through decentralized power and heat supply provided by cogeneration plants on the basis of combined heat and power (CHP). They also deploy renewable energies like photovoltaic or solarthermic systems as a form of eco-friendly power generation.

Manchester post 2020

- 5.7 The Our Manchester Strategy 2016-25 was launched in March 2016 and contains the commitment that Manchester will play its full part in limiting its impact on climate change including a commitment that by 2025 the city will be on a path to be zero carbon by 2050. In July 2016, the Council's commitment to be zero carbon by 2050 was outlined in the CCAP 2016-20. Significant planning will be required to determine a medium and long term path to 2050 and a new CCAP will be produced in 2020.
- 5.8 Some key considerations post 2020 will include:
 - Buildings Rationalisation of the estate will continue and existing buildings
 will continue to be retrofitted. Consideration will need to be given to
 maximising the opportunities of heat networks and local energy generation via
 renewable sources where viable such as photovoltaic systems.
 - Waste Fleet Emissions from the waste and recycling fleet have increased since Biffa took over the waste contract from Enterprise in 2015. This is partially down to changes to the service being delivered, but is also because

the Biffa vehicles are designed to burn more fuel but to release less emissions. Unfortunately only the standard diesel emissions factor can be used in calculating emissions from these vehicles which gives a skewed picture of emissions from the waste fleet. Consideration will need to be given to addressing this in the future by finding a more accurate emissions factor. Further work will also be required in the future to maintain the correct level of service whilst reducing emissions through taking advantage of technological advances.

• Energy generation – As mentioned above, the use of locally generated clean energy would allow the Council to use a different emissions factor which would significantly reduce CO2 emissions.

6.0 Conclusion and recommendations

- 6.1 This report has set out the progress that is being made in achieving the Council's ambition of reducing emissions by 41% by 2020 from a 2009/10 baseline. Significant progress has been made, especially in relation to the Council's operational estate, but there is still work to be done to successfully meet the 2020 target and to plan for the transition to being a zero carbon Council. This report should also be read in conjunction with the report by the Manchester Climate Change Agency on wider activity in the city which is also being considered by the Committee at this meeting.
- 6.2 It is recommended that the Committee note the content of this report.

Appendix 1: Climate Change and Air Quality Communications and Engagement Plan

Communication Approach: Creating a Conversation on Climate Change

Background

Working with Councillor Battle, and subsequently Councillor Stogia, a communications strategy around Climate Change was developed in order to increase the volume of noise and discussion around the subject in the city. The aim of the first phase is to create a conversation with Manchester residents around Climate Change, to understand the basic views and issues that we can challenge in subsequent phases.

Communications Approach: July - September

In order for the conversation to create engagement, a provocative approach is needed to draw out both positive and negative responses online. This will be reflected in the messaging and we'll be asking straightforward, broad, open questions to encourage response.

To support engagement, filming and photography will be used to show people's responses and thoughts on Climate Change from a range of backgrounds and views. Initially, the questioning will take the form of asking people what the first word is when they think of Climate Change, writing this down, with a further discussion around why they chose that word. We're appropriate, we'd ask mre detailed question to support the conversation. Once we have a number of different clips, they can be collated in a montage, and further shared to prompt response and drive engagement.

1. To set the scene, the following messages are proposed to introduce the conversation:

"Climate change: melting icecaps and rising sea levels - should we be concerned or is this all too far in the future to worry about now?

We want to know what you think of Climate Change - is it something that worries you, something you think you should care about but don't know where to start, or not something you've ever thought about? We want to hear everybody's views: whether you're a passionate campaigner or ardent dissenter, carefully "doing-my-bit" or not really bothered. Whatever your opinion, we'd like to know.

Excess levels of Carbon Dioxide (CO₂) linked to atmospheric warming is thought to be one of the main contributors to Climate Change. The Our Manchester Strategy (link) includes a target to almost halve CO₂ emissions in Manchester by 2020, and an ambition to be a zero carbon city by 2050.

To get there, we need to know what YOU think about it, whether your views are positive or negative - as these opinions will help influence our approach. Later this year we'll be using these responses to start working out the main challenges, and how we can work together to resolve them.

Now over to you..."

2. To create the conversation, the following themes with be used with questions to prompt response and used as a basis for the filming:

Week 1-2: General understanding of Climate Change -

- What does Climate Change mean to you?
- Are you concerned or worried about it?
- If yes: Why do you think some people aren't bothered about Climate Change?
- If no: Is there anything that would concern you? Eg: Flooding? Drought? Extreme weather?
- Does Climate Change influence anything that you do, or choices that you make eg buying recycled or eco-friendly products and/or travel options?

Weeks 3-4: Effects of Climate Change -

- How do you think your life will be affected by Climate Change?
- How do you think Manchester will be affected by Climate Change?
- And what about the wider world; are you concerned about the impact on the planet?

Week 5-6: The City's Response -

- [In relation to the targets] Are we doing the right thing in setting reduction targets for Manchester's CO₂ output? Do these targets go far enough or are they meaningless?
- [The main points of the Climate Change Action Plan] In your opinion, what is the single most important thing that we should focus on? And are there any other key areas that the city should consider?

Week 7-8: The Role of Business -

- What role do you think Manchester businesses should play in fighting Climate Change?
- What would help them reduce their emissions?

Week 9-10: Working Together

- What can we do together to reduce emissions?
 - What would it take for you to use your car less and cycle/walk/use public transport more?
 - o Is there anything that would make you recycle more?
 - Could you reduce how much gas, electricity and water you use?

Following Phases:

The responses we get to the questions above will help us plan the next phase of our work, including answering any common misconceptions and issues, describing the likely impacts to Manchester in the future, and getting a clearer picture of how residents and business are already making big changes - and how this will benefit us all.

Filming and Photography:

To support the above on social media, all questions will be accompanied by relevant photography and filming expressing the views from different audiences and viewpoints. The groups that we will engage in filming and photography will include:

- Younger people Manchester Youth Council, CSC/Employer Suite, Powerhouse and Factory Youth Zone, University SUs.
- Older people Age-Friendly Manchester, community groups and day centre's e.g. Heathfield's Day Centre
- BME BME Network, community groups in specific geographies of the city
- General Residents Visitors to CSC, Central Library, Central Library work club, Visitors to MIF on Albert Square, St. Peter's and St. Ann's Square.
- Businesses Business network across the city, BIPC @ Central Library

The filming and photography will be a mix of formal filming, informal voxpops and photography for those people that don't want to be filmed.

Channels:

- Social media (Twitter, Facebook, Instagram and LinkedIn for business).
 Budget will also be used to promote the comms to selected audiences depending on response.
- Joining the conversation will also be promoted through other council channels such as the Council's ebulletin, newsletter and through internal communications.

Hashtag:

The hashtag #ClimateTalkMCR will be used as the call to action and how people can join in the conversation. All responses will be captured and used for further campaign planning.