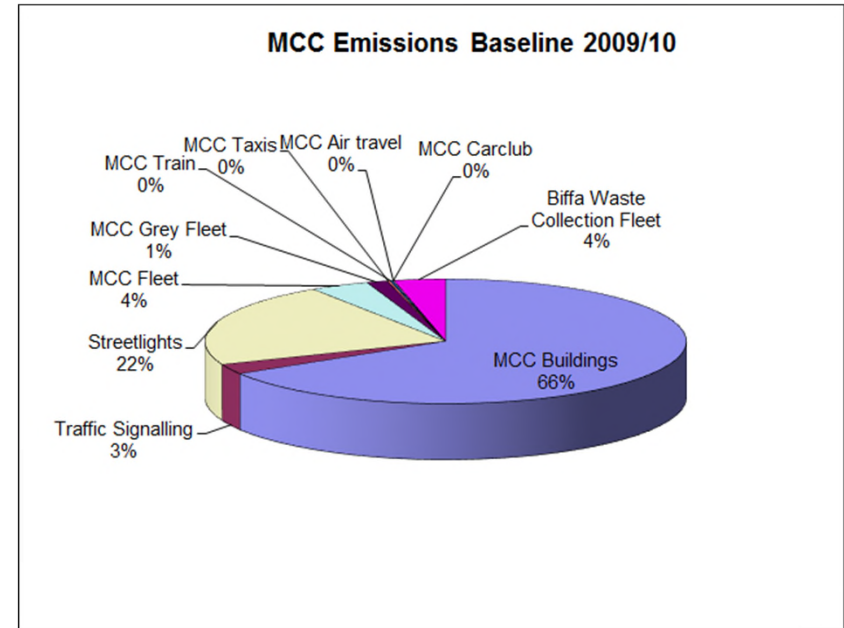


**Manchester City Council
Climate Change Action Plan
Annual Metrics Report
2018/19**

Background

- The Council aims to reduce its direct carbon emissions by 41% by 2020 from a 2009/10 baseline.
- The scope of the Climate Change Action Plan 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.
- Raw data (miles, kilowatt hours of electricity and gas etc) are multiplied by an emission factor provided by government. These are updated annually.
- In 2009/10 the majority of our emissions came from our buildings estate (300 buildings).

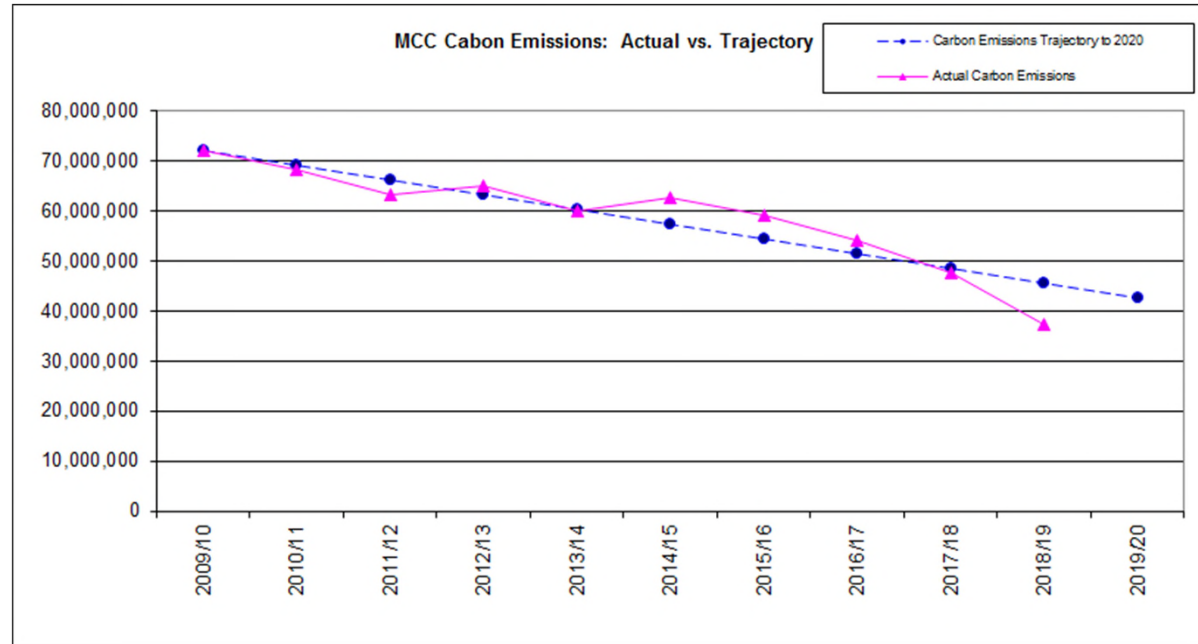
Figure 1: MCC Baseline Emissions 2009/10



Progress in 2018/19

- In 2018/19 carbon emissions were 48.1% lower than in 2009/10 and 21.5% lower than in 2017/18.
- This means that the Council has exceeded our carbon emission reduction target a year ahead of schedule

Figure 2: MCC Carbon Emissions - Actual Vs. Trajectory



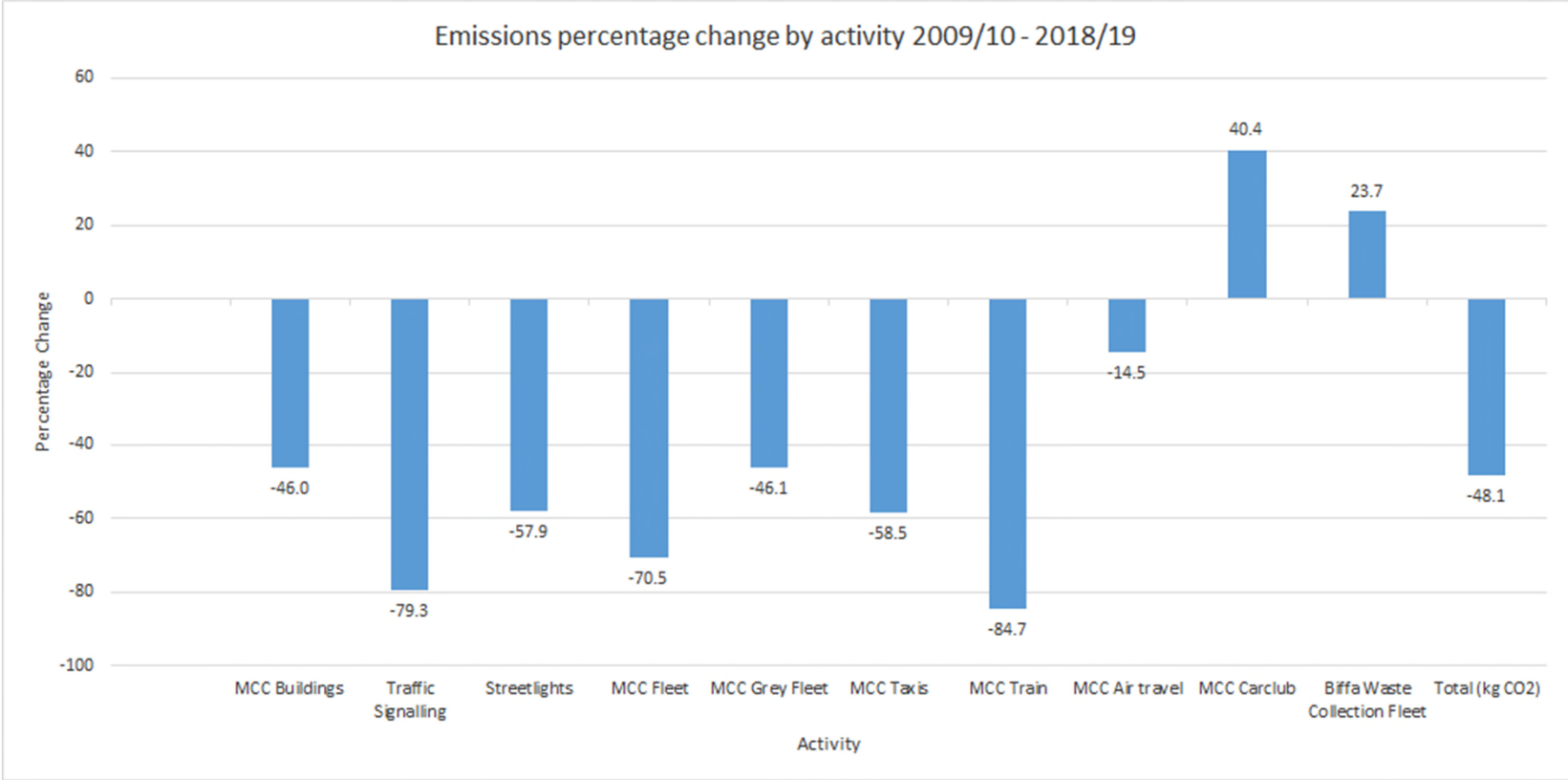
The below table shows a detail breakdown of emissions (in kilograms of CO₂) across the different functions of the Council which are included the direct emissions scope.

Table 1: MCC Direct Emissions by Activity

Activity	Baseline 2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	% change from baseline	% change btw 2017/18 and 2018/19
MCC Buildings	47,764,131	43,892,166	41,407,195	43,063,463	39,649,699	41,192,707	38,746,420	35,374,712	31,173,935	25,788,816	- 46.01	-17.3%
Traffic Signalling	1,894,023	1,661,973	1,474,507	1,310,166	890,934	733,420	644,842	585,275	489,509	392,107	- 79.30	-19.9%
Streetlights	15,725,949	15,601,708	14,716,620	15,052,168	14,898,208	16,291,891	15,111,934	13,386,215	11,309,985	6,616,129	- 57.93	-41.5%
MCC Fleet	2,863,487	2,986,009	2,589,826	2,415,510	1,682,948	1,701,589	1,142,646	1,013,703	836,047	843,852	- 70.53	0.9%
MCC Grey Fleet	1,001,324	918,211	624,799	774,219	565,709	587,975	532,287	577,454	565,751	540,132	- 46.06	-4.5%
MCC Taxis	135,731	138,575	113,512	76,459	48,558	51,075	37,758	54,736	53,817	56,263	- 58.55	4.5%
MCC Train	109,729	57,605	39,920	43,797	27,120	47,454	46,685	30,284	27,832	16,834	- 84.66	-39.5%
MCC Air travel	78,502	52,131	60,603	89,605	141,490	89,921	166,165	83,592	79,369	67,115	- 14.50	-15.4%
MCC Carclub	5,437	8,803	9,191	8,983	9,517	8,302	7,529	6,469	6,130	7,633	40.39	24.5%
Biffa Waste Collection Fleet	2,496,300	2,986,009	2,087,485	2,054,124	1,963,586	1,978,892	2,579,476	3,051,320	3,145,349	3,088,929	23.74	-1.8%
Total (kg CO₂)	72,074,613	68,303,189	63,123,658	64,888,494	59,877,769	62,683,225	59,015,742	54,163,760	47,687,723	37,417,810	- 48.08	
Annual shift (%)		5.2	7.6	-2.8	7.7	-4.7	5.9	8.2	12.0	21.5		
Change from Baseline (%)		5.2	12.4	10.0	16.9	13.0	18.1	24.9	33.8	48.1		

Changes in activity emissions since 2009/10

Figure 3: Emissions Percentage Change by Activity between 2009/10 and 2018/19



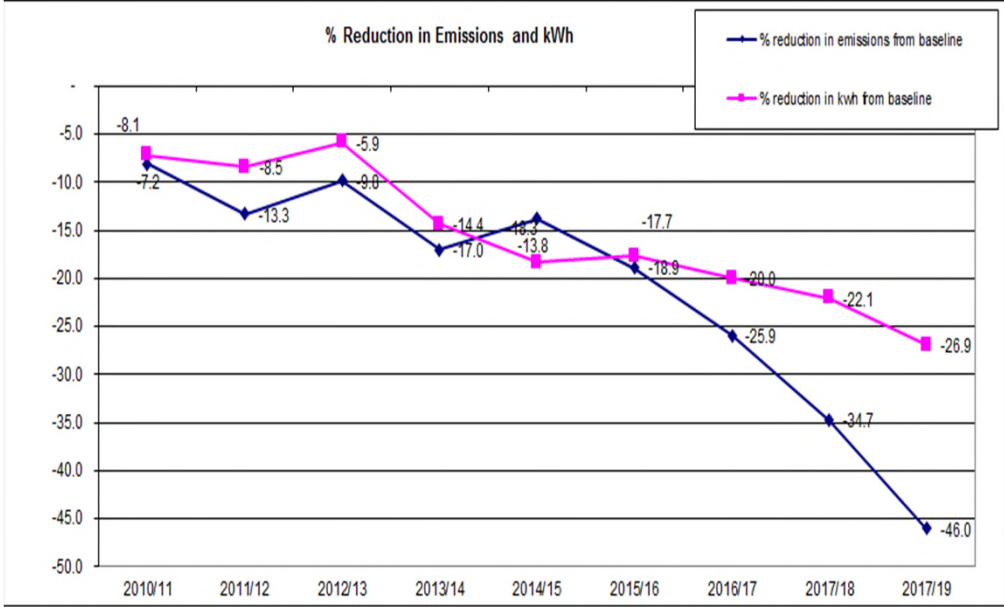
Buildings

- 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%.
- Between 2017/18 and 2018/19 the emission factor for electricity reduced by 20.1%.
- Emissions from the Town Hall have reduced by 34.6% between 2017/18 and 2018/19 due to the transformation programme taking place. However, this only accounts for approx 400 tonnes of CO₂ equivalent to 1.6% of the total buildings emissions.
- Energy consumption in buildings was also affected by the warmer than average temperatures across the UK during 2018 and particularly during the main heating season.

Buildings Reduction in Kilowatt Hours vs. Emissions

- Some of the emission savings from buildings can be attributed to the reduction in the electricity emission factor.
- Between 2017/18 and 2018/19 the electricity emission factor fell 20.1%
- The changes in this emission factor occurs annually and is due to the makeup of generating capacity that feeds the national grid e.g. coal, renewables and the amount of imported electricity.

Figure 4: Percentage Reduction in Buildings Emissions and Kilowatt Hours of Energy Used



Buildings Continued

- Much of the reduction in building emissions made during recent years is due to the implementation of an Estates Transformation Programme led by the Estates Board.
- This work will continue in to the next year with the delivery of a buildings Carbon Reduction Programme (CRP) which will deliver an 'invest to save' programme of works across several of the Council's highest emitting buildings.
- A wide range of energy conservation measures will be implemented and will deliver:
 - A capital investment of approx. £10m
 - A CO₂ saving of approx. 2,000 tonnes per year
 - 8.4 years payback period on investments*
- N.B The Council purchases electricity from a Green Tariff but cannot claim carbon savings from this as these savings are already accounted for in the UK emission factor.

* These figures are preliminary and subject to change

Street Lighting

- Street lighting was responsible for approx. 22% of the Council's direct CO₂ emissions in 2009/10 but this has fallen to approx. 18%.
- In 2015, the Council embarked on its LED street lighting replacement programme which was anticipated to save 8,400 tonnes of CO₂ or 11.7% of the total 2009/10 baseline.
- Since 2009/10, emissions from street lighting have fallen 57.9% and by 41.5% in the last year demonstrating the progress made with installations.
- By March 2019, approximately 37,000 units had been installed.
- The project is due to be complete by the end of 2020.

Transport

- Emissions from transport related activity accounted for 9.3% of the 2009/10 baseline but this has now risen to over 12% as other emissions have fallen.
- Since 2009/10, the majority of transport related emissions have fallen with the exception of staff travel by car club and the Biffa waste collection fleet.
- Emissions from staff air travel have fallen 14.5% since 2009/10. Some of this can be attributed to changes in the Government emission factors for air travel.
- However, between 2017/18 and 2018/19 the miles travelled by air have also fallen by 11.5%.