Manchester City Council Climate Change Action Plan 2020-2025

1. What is the purpose of this plan?

This document sets out Manchester City Council's commitments to tackling climate change over the next 5 years and builds on previous action plans over the last decade. The Council, alongside a number of other strategic partners in the city, have produced this plan to support the delivery of the citywide Manchester Climate Change Framework 2020-25 which has been produced by the Manchester Climate Change Partnership and Agency (http://www.manchesterclimate.com/plan). It summarises the specific actions which are required to ensure that the Council reduces its direct emissions by at least 50% by 2025 whilst also playing our full part in supporting and influencing the city to do the same. It also covers the Council's plans for adapting to the expected impacts of climate change and supporting and influencing through the implementation of the Manchester Green and Blue Infrastructure Strategy 2015-25.

Climate change is something which effects everyone in Manchester and should not be viewed as an issue which is defined by geography, class or age. Our ambition is to ensure that all of Manchester's residents are protected from the impact of climate change, but that equality impact assessments are undertaken on specific projects to ensure that any changes that are made do not have a negative impact on the city's most vulnerable people. The transition to zero carbon must also be a just one which ensures that the social impacts of changes to heating and energy are considered alongside the environmental impact.

Although there are many challenges to delivering these ambitions, we recognise the enormous opportunities of transitioning to a zero carbon, climate resilient city and the importance of Manchester being recognised as a national and global leader in this area.

2. How big is the challenge?

The challenge and crisis of climate change is unprecedented and is the single biggest challenge faced by the world today. We recognise that this challenge can only be overcome by taking urgent, radical action. This crisis is something that will effect us all, and for some the impact of climate change is already being felt. The UK is committed to playing its full part in meeting the international target to limit the global average temperature rise to well below 2°C above pre-industrial levels by the year 2100, and aiming for 1.5°C, known as the Paris Agreement within the United Nations Framework on Climate Change.

The October 2018 Special Report by the Intergovernmental Panel on Climate Change (IPCC) found that although meeting a 1.5°C target is still achievable, success is dependent on a much more ambitious international effort and a major upscaling of investment. Exceeding this limit would affect weather patterns, cause sea levels to rise further, create food and water shortages, and affect human security and economic growth. The special report *Global Warming of 1.5°C* (IPCC, 2018. Summary for Policymakers) IPCC shows that 420 million additional people will be exposed to extreme heat and 184–270 million additional people to water scarcity if

global temperatures rise by 2°C, compared with a 1.5°C scenario (Page 4 and page 213: Hoegh-Guldberg et al., 2018. Impacts of 1.5°C global warming on natural and human systems). The world is now clearly in the midst of a climate and ecological emergency and there is now a unanimous consensus from the scientific community on the need for rapid action.

At a more local level residents and businesses are seeing more frequent flash flooding, travel disruption, health impacts from poor air quality and extreme heat episodes in the summer. Councils are well placed to play a key role at local level in responding to the growing public concerns about the environment and issues such as climate change. Councils can help to convene partners and stakeholders to deliver leadership and direction on the specific environmental issues in their localities. We must harness the power of Manchester's communities and ensure that all of our residents and stakeholder are able to take individual and collective action.

But we also recognise that the Council cannot provide all of the solutions, as combating climate change needs system-wide change that involves communities, businesses, individuals and stakeholders across all sectors of the economy, across the country and the wider world. The scale and pace of change needed will require major investments, changes to the way in which we use and interact with energy and changes to how we live our lives and define success. It will also redefine how we manage and interact with our environment. Above all, it will involve a collective leadership and shared ambition to deal with this challenge head on.

The Council takes this challenge seriously and has been acting to tackle climate change for over a decade. In 2009, we played an integral role when residents, businesses and other organisations came together to produce the first ever climate change strategy for the city; Manchester: A Certain Future. In 2010 we produced the first Manchester City Council Climate Change Delivery Plan which set out how the Council would provide citywide leadership on climate change whilst embedding low-carbon thinking and behaviour in our culture, processes and the operation of all our services.

In June 2018, Manchester Climate Change Partnership and Agency commissioned the Tyndall Centre for Climate Change Research at the University of Manchester to advise on targets for the city. The resulting 'Playing Our Full Part' proposal by the Partnership and Agency led to Manchester City Council adopting science-based carbon reduction targets for and on behalf of the city. This made Manchester one of the first cities in the world to adopt targets in line with the Paris Agreement. The targets related to 'direct' CO₂ emissions, from the energy used in buildings and transport. It was also recognised that Manchester would also need to act in relation to its 'indirect' CO₂ emissions, from the products and services consumed in Manchester but originating outside of the city. And that emissions from flights from Manchester Airport would also need to be addressed, as part of a UK and international strategy.

In July 2019, Manchester City Council declared a climate emergency (Manchester City Council Climate Emergency Declaration Text). This declaration recognises the need for the Council and the city as a whole to do more to reduce its carbon emissions and mitigate the negative impacts of climate change and demonstrated the

Council's commitment to be at the forefront of the global response to climate change and to lead by example.

Discussions with the Tyndall Centre for Climate Change Research began in August 2019 and in November 2019 the Agency formally commissioned them to review the city's commitments across four areas of activity:

- Direct / energy-only CO2 emissions
- Indirect / consumption-based CO2 emissions
- CO2 emissions from flights from Manchester Airport
- Target-setting and reporting methodology for organisations and sectors

The recommended targets and objectives are set out in the Manchester Climate Change Framework 2020-25 but the headline recommendations are referenced below:

- To ensure that Manchester plays its full part in helping to meet the Paris Agreement objectives by keeping our direct CO₂ emissions within a limited carbon budget, taking commensurate action on aviation CO₂ emissions and addressing our indirect / consumption-based carbon emissions.
- 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.
- To improve the health and wellbeing of everyone in Manchester through actions that also contribute to our objectives for CO₂ reduction and adaptation and resilience, with particular focus on those most in need.
- 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.

Now we need to ensure that our public commitments are backed up with ambitious and real action. This action plan builds on a decade of experience in environmental action and aims to make a vital local contribution to meeting the challenges faced by the climate emergency. It sits alongside action plans from other members of the Manchester Climate Change Board who are collectively responsible for over 20% of the city's emissions and have also committed to become zero carbon by 2038 at the latest.

We recognise that limiting CO₂ emissions is not enough. Depending on how successful the world is at reducing emissions, global temperatures by 2100 are likely to rise by between 1.5°C and 4°C above pre-industrial levels. As such, we need to accept that some level of change is inevitable. Climate change is happening now and we need to assess the risks to our communities in order to reduce their vulnerability to these changes. Adopting appropriate mitigation measures will be essential if we are to create resilient communities of the future in Manchester.

The UK Climate Change Risk Assessment (CCRA) is a five-yearly assessment of the major risks and opportunities from climate change to the UK. The most recent evidence report was published by the CCC in 2016. It outlined risks to the UK in six key areas:

- Flooding and coastal change risks to communities, businesses and infrastructure;
- Risks to health, well-being and productivity from higher temperatures;
- Risks of water deficits in public water supply, and for agriculture, energy generation and industry, with impacts on freshwater ecology;
- Risks to natural capital, including soils, coastal, marine and freshwater ecosystems, and biodiversity;
- Risks from climate-related impacts on domestic and international food production and trade;
- New and emerging pests and diseases, and non-native species, affecting people, plants and animals.

3. How large are the Council's emissions and what have we already achieved?

3.1 What is included?

The Council is able to influence behaviour and action across the city through a range of different policy levers and funding powers. This influence is far greater than the Council's actual direct emissions from its operation as an organisation, however, it is critically important to measure and report on our direct emissions and to set ambitious reduction targets.

Direct emissions are those which we can directly control or have financial responsibility for. We have been measuring our direct carbon emissions since 2009/10 and include a range of activities within the scope of our calculations. These activities are:

- Approximately 350 operational buildings, including leisure facilities but excluding schools and Council housing;
- Street lighting;
- Biffa waste collection fleet;
- Our fleet vehicles; and
- Staff travel including staff using their personal cars to carry out council business (grey fleet), rail travel, air travel, taxis and travel by car club.

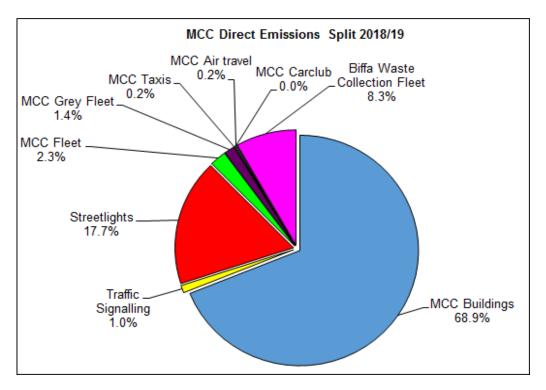


Figure 1: MCC Direct Carbon Emissions by Activity 2018/19

(N.B. Between 2009/10 and 2019/20 traffic signalling fell within our direct emissions. In 2018/19 traffic signalling accounted for 1% of our total direct emissions. Traffic signalling across Greater Manchester is managed by Transport for Greater Manchester and included in their emissions accounting. As such Manchester City Council will no longer include traffic signalling on our direct emissions from 2020 onwards.)

3.2. What reductions have we already achieved?

Since 2009/10 we have achieved a 48.1% (34,657 tonnes CO₂) reduction in our carbon emissions and exceeded our original target to reduce our emissions by 41% by 2020 as demonstrated in table 1 below.

Activity	Baseline 2009/10 tCO ₂	2018/19 tCO ₂	% change from baseline
MCC Buildings	47,764	25,789	-46.0
Traffic Signalling	1,894	392	-79.3
Streetlights	15,726	6,616	-57.9
MCC Fleet	2,863	844	-70.5
MCC Grey Fleet	1,001	540	-46.1

Table 1: Manchester City Council CO₂ Emissions in Tonnes by Activity 2009/10 to 2018/19

Total	72,075	37,418	-48.1
Waste Collection Fleet	2,496	3,089	23.7
MCC Carclub	5	8	40.4
MCC Air travel	79	67	-14.5
MCC Train	110	17	-84.7
MCC Taxis	136	56	-58.5

A range of activities and programmes have enabled us to do this and these are:

- Delivering a street lighting replacement programme to replace all of our 57,000 street lights with energy efficient LEDs. The project (£32.8m) involves procurement and installation of state-of-the-art, low energy, light emitting diode (LED) street lighting technology and complete in 2020. The Council has worked with Salix Finance to fund this scheme, who provide loans to the public sector to improve energy efficiency, reduce carbon emissions and lower energy bills. When completed, this will reduce carbon emissions by around 8,400 tonnes per year and save the Council £2 million.
- The buildings in the Council's operational estate represented 68.9% of the Council's direct carbon dioxide emissions in 2018/19. The Carbon Reduction Programme (£10.2m) will invest in schemes such as combined heat and power, solar photovoltaic panels, and the use of LED lighting within the Council's estate. The first phase of delivery is due to complete by the end of Quarter 2 2020/21. This will involve around £2.6 million invested in energy conservation measures and around £4.3 million invested in energy generation technology at 13 buildings in the Council's operational estate. The investment will generate financial savings of around £716,000 per annum and reduce carbon emissions by circa 1,600 tonnes per annum. The remaining funding has been earmarked to support energy conservation or production measures at buildings where wider refurbishments are being designed. Further stages of investments and improvements are planned.
- Committing to the installation of a Civic Quarter Heat Network which will connect the Town Hall, Town Hall Extension, Art Gallery and Central Library, Manchester Central Convention Centre, The Bridgewater Hall and Heron House. The project is expected to reduce the Council's direct carbon emissions by approximately 1,600 tonnes of CO2 from 2020/21. The network has been designed to enable future expansion, with efficiency and carbon savings increasing as more buildings join.
- Capital projects delivered by the Council are expected to include measures which contribute towards carbon reduction. During 2019/20 examples of spend on areas that will impact energy and carbon performance (typically mechanical and electrical upgrades inc heating, ventilation and lighting, plus insulation, window and roof works, as well as PV) include £7.5m across Hulme District Office, Moss Side Leisure Centre, Alexandra House and within the

Council's Asset Management Programme. There are a number of schemes in development for next financial year that will contribute to carbon reduction activity including: Abraham Moss Leisure Centre and Library rebuild (to be EPC Grade A); Gorton Hub (BREEAM Excellent) and Hammerstone Road (Large PV array and fabric improvements).

- The Council's fleet currently includes one electric car and 14 small electric vans. Plans are being considered to support the roll out of electric vehicles and charging infrastructure across the estate where viable and as required. Other activities to reduce emissions from the fleet include information for drivers on fuel efficient driving techniques, reducing fuel consumption and reducing the impact on the environment. A number of electric and hybrid vehicles have been introduced to the fleet, as well as initiating a programme to exchange all vehicles Euro 5 or below, with Euro 6 engined ones.
- As part of the waste and street cleaning contract, a loan will continue to be available to the contractor to upgrade vehicles (£3.8), including to make them clean air compliant, on a spend to save basis. Investment is also being made to reduce the level of waste going into landfill with £1.2m planned spend on waste reduction measures in 2020/21, initially seeking to increase recycling rates in apartment blocks across the City.
- A pipeline of £75.9 million of active travel projects have been identified for consideration via the Greater Manchester Mayor's Challenge Fund which meet the funding criteria. In 2020/21 £2.8m is already committed to providing a high-quality network of dedicated cycle routes across Manchester, encouraging people to make short journeys in a healthy and inexpensive way and reduce the environmental impact of private car use.
- Neighbourhood Teams are engaging with residents to develop climate change action in ward plans, deliver events, build capacity and listen to residents. At a neighbourhood level, the Neighbourhood Investment Fund (NIF) is available to support local priorities including environmental projects in wards and also improvements to green and blue infrastructure.

Over 1,000 Council staff have now received Carbon Literacy training which aims to increase their awareness of the carbon dioxide costs and impacts of everyday activities, and the ability and motivation to reduce emissions, on an individual, community and organisational basis. Large scale training sessions are now underway for the top 300 managers in the organisation along with targeted sessions focusing on specific services such as Neighbourhoods and Compliance, and Revenues and Benefits.

We have also played a key role in supporting others in the city to tackle climate change and improve the city's environment. Key actions include:

• Securing investment in the city for environmental projects including tree and hedge planting and community orchards with the planting of an estimated 100,000 trees on known schemes across the city, including 8.75 km of

hedgerow and 108 community orchards over the last 10 years (Source: internal MCC Monitoring).

- Supporting the establishment of the Manchester Climate Change Agency and supporting the Agency through the secondment of two members of staff
- Working with Transport for Greater Manchester on the expansion of the Metrolink tram network
- Improving the city's cycling infrastructure including the Oxford Road and Wilmslow Road 'Dutch Style' cycling lanes

3.3 What have we done since declaring a climate emergency?

Since the Council declared a climate emergency on 10 July 2019, additional resources have been put in place alongside a number of changes to the way in which the Council operates. These include:

- Strengthened capacity within the Council to carry out this work and working with the Climate Change Agency to do the same.
- Through the work of the Zero Carbon Coordination Group, this agenda has been embedded into decision making, policies and practice across the Council, for example the updated Capital Strategy, evaluation within procurement decisions and new staff travel policy.
- Leadership across the city through the work of the Manchester Climate Change Agency and the action plans being developed by partners across the city. External engagement includes with Greater Manchester Combined Authority, Transport for Greater Manchester, development of the Our Manchester Industrial Strategy, consultation on the Manchester Local Plan, and with partners on specific projects such as Triangulum, with the University of Manchester, Manchester Metropolitan University and Siemens UK.
- Clearly embedding Climate Change into the next Capital Strategy for the city so that investment decisions are additionally considered in terms of their contribution to reducing carbon reductions. The Council has already committed significant investments totalling £69 million including the Carbon Reduction Plan for the Council's operational estate, the Civic Quarter Heat Network, and the Street Lighting replacement programme.
- Engagement and awareness raising, including carbon literacy training for Council staff and key partners, sessions at the Council's Leadership Summit which 400 senior officers attended, and the rolling programme of Listening in Action events for staff.
- Commissioned insight among Manchester residents to understand the views of residents from across the city in relation to climate change (see summary in Appendix 2).
- Youth Climate Summit in January 2020 as a follow up to the event in July 2019 (see summary in Appendix 3).
- Written to the Greater Manchester Pension Fund to request that they divest from investing in fossil fuels.
- Provided a formal response to the Government's Future Homes Standards consultation and supplemented this with a letter to the Ministry of Housing

Communities and Local Government from the Executive Member for Environment, Planning and Transport calling for the ability to set higher local standards on Part L of Building Regulations

- Called for Transport for Greater Manchester to develop a decarbonisation plan for transport which was discussed at the Greater Manchester Transport Committee in January 2020.
- Events in wards have identified ways to engage communities and have identified Climate Change priorities to be considered for refreshed Ward Plans from April / May 2020.

4. What are we committing to?

4.1 Direct emissions

The Council is committed to playing its full part in helping the city transition to zero carbon and by helping to deliver the Manchester Climate Change Framework 2020-25 (http://www.manchesterclimate.com/plan). This document contains a summary of the actions the city needs to take to stay within our carbon budget and is informed by analysis from the Tyndall Centre for Climate Change Research, including a definition of carbon neutral.

Although our plan includes investment in green and blue infrastructure to increase carbon storage and sequestration, reaching zero carbon will not include offsetting our emissions. Our ambition has been informed by the SCATTER project (Setting City and Area Targets and Trajectories for Emissions Reductions) which is a model that helps cities set zero carbon targets from our buildings, energy and transport which are consistent with delivering the Paris Agreement.

The specific commitments we are making as a Council are:

- Deliver at least a 50% reduction in carbon emissions from our buildings, energy and transport by 2025 (from circa 30-32,000 tonnes in 2019/20 to circa 15-16,000 tonnes in 2024/25) via a 13% year on year reduction.
- Report quarterly on progress against the actions in the plan and provide quantitative reports on data in tonnes of CO₂
- Become zero carbon by 2038 at the latest (based on the Tyndall Centre for Climate Research definition of zero which is at least a 95% reduction i.e. a reduction of 35,547 tonnes CO₂ from the 2018/19 total which would mean that the Council's direct emissions in 2037/38 would be less than 1,871 tonnes CO₂)

The draft analysis below sets out how this pathway might be achieved but will need to be updated once the final 2019/20 annual data is available.

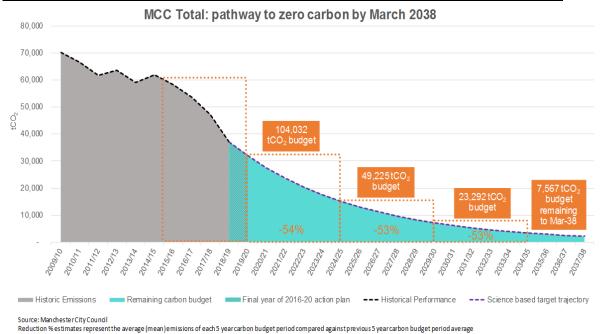


Figure 3: Manchester City Council pathway to zero carbon (draft analysis)

Nb: This chart is a draft and will be updated following the publication of the final Manchester Climate Change Framework 2020-25 and the Council's 2019/20 annual emissions data.

Appendix 1 details the actions that we will undertake to reduce our direct emissions, however, a summary of the actions that will deliver the required 50% reduction in tonnes CO_2 can be found below:

Direct Emissions Action 2020-25	Annual Carbon Saving (tonnes CO ₂)
Completion of Phase 1 Buildings Carbon Reduction Programme	1,400
Completion of Phase 1 (a) Buildings Carbon Reduction Programme - ERDF Supported	400
Phase 2 of Carbon Reduction Programme	3,000
Large scale energy generation scheme	7,000
Completion of the final year of the street lighting LED replacement programme	220
Estimated carbon emissions saving benefit from the decarbonisation of the National Grid	800
Completion of the Civic Quarter Heat Network and	1,600

Table 2: Direct Emissions	Actions and Associated	Carbon Savings (estimate of
15-16,000 tCO2 required)		

Total Estimated Savings	15,820
Reduction in staff travel via car, taxi, air, train	100
Reductions to the Council's Fleet through increase in number of Electric Vehicles	400
Replacement of half of waste fleet vehicles with Electric Vehicles	900
connection to the Town Hall, Town Hall Extension, Art Gallery and Central Library	

4.2 Indirect or consumption based emissions

The Council also recognises that the products and services that we purchase directly or that our supply chain procure have a major impact on the environment. The action plan commits us to reducing the impact of carbon emissions from our indirect activity. The Council has developed formal evaluation questions for suppliers that will be used in future procurements. An additional 10% climate change weighting will be applied to the scoring framework in addition to the 20% already used for scoring contributions to social value. These questions will ask suppliers how far they will reduce their carbon emissions, and how this will be monitored and reported. Alongside this will be new guidance for suppliers across the city – including other procuring organisations on the Partnership – that signposts them to sources of advice, guidance and support for reducing their carbon emissions.

4.3 Adaptation to climate change

Despite the increased international efforts to tackle climate change, we recognise that the world's climate is already changing and that adaptation is required to protect the city's people. We are committed to ensuring that climate change adaptation, including green and blue infrastructure, is included in new developments and across Council owned buildings and land.

Further work needs to be done at a local level through ward plans and neighbourhoods to adapt to make communities more resilient to climate change. This will form part of the Council's work through Neighbourhoods Teams, Highways and also through the development of improved communication information and guidance.

4.4 Citywide emissions

The Council also recognises the importance of supporting and influencing our residents and organisations to take action to reduce their direct and indirect CO₂ emissions and to adapt to the changing climate. We are committed to developing the right communications and key information to them, supporting them via funding and projects where appropriate and to ensure that as an organisation we lead by example.

5. What roles does the Council have?

As outlined in section 1, the Council has a variety of different roles to fulfil to ensure that we play our full part in reducing both our direct emissions and supporting and influencing the required reduction in citywide emissions.

5.1 Enabling and Influencing Actions

The Council has a wide range of policy-making and regulatory functions. Many of these already help to incentivise and encourage low carbon behaviours and activities. In order for the Council and the city to meet the targets that have been set we will need to ensure that all key decisions the Council makes and policies and procedures we implement support this ambition. This will include grant, funding and investment decisions, procurement and commissioning, our capital and revenue gateway process, new build and refurbishment standards, design standards, leases or developments on Council owned land, the Manchester Local Plan and staff and member travel policy. These also provide the opportunity to influence how other large and small organisations in the city and beyond operate and to encourage them to work towards the zero carbon target.

Manchester City Council only has direct control over a small percentage of emissions in the city (our direct emissions). It is therefore important that the Council works with and influence others to also play their full part in responding to the climate emergency. This will be vital in the wider city achieving its zero carbon ambitions. We will work with and exert our influence on as many organisations and individuals as possible in the way services are designed, delivered and communicated and create opportunities to encourage and support partners and residents to play a key role in achieving the city's climate change objectives. Different measures can support and influence different groups of stakeholders – residents and customers, visitors to the city, businesses in the supply chain, partner organisations in whose operations the Council has an interest, neighbouring authorities in Greater Manchester and beyond, the Government and international interests.

5.2 Direct Emissions (Scope 1 and 2)

The Council's direct emissions make up approximately 2% of the citywide emissions. Despite this, the Council is one of the largest emitters in the city. Reducing our direct emissions to zero will entail undertaking major programmes of work to our buildings and changing energy supply. Our waste fleets and other ways in which we travel whilst delivering services across the city also needs to change. We will need to focus our limited resources on those activities which produce the greatest CO₂ emissions. In addition to the investment and activity required in-house, we also recognise that we will be able to benefit from national policy via the continued decarbonisation of the National Grid and the continued reduction in the electricity emission factor, alongside other new developments including changes to the way in which domestic and commercial buildings are heated.

5.3 Indirect Emissions (Scope 3)

Indirect emissions are those which we do not have direct control over and are a consequence of our activities. This can include waste, water, food, procurement of goods and services and staff commuting, amongst other activities.

6. What is included in the 2020-25 Action Plan?

We recognise that in order to achieve our ambitions, rapid and unprecedented changes to Council services and operations will need to take place. This action plan details the activity that we will undertake over the next five years but also includes activities that will need to be developed and investigated further in order to ensure that we are on the right path to being zero carbon by 2038. The actions include activities to deliver a reduction in emissions from energy, transport and consumption (mitigation) but also adaptation and promoting investment in nature based solutions and green infrastructure

This action plan will evolve over time and be flexible enough to adapt to opportunities and challenges outside of our control such as national government policy and funding, world energy markets and technological innovations. This will provide us with the option to incorporate new actions to the plan as opportunities become available. Conversely, we may also determine that current actions will no longer deliver us the required saving and as such can be removed. Where changes in the Greater Manchester Combined Authority or government policy are needed to help us meet our objectives and targets we will proactively ask for them, seeking to work as a key partner with the government in helping to meet the UK's zero carbon commitments (see summary in appendix 4).

The plan is a key part of the *Our Manchester Strategy* 10 year vision for the city and should therefore be viewed alongside the city's collective ambitions for a thriving and sustainable city, a highly skilled city, a more progressive and equitable city, a more connected city and a more liveable city. The focus therefore, will be ensuring that the transition to zero carbon is one that is as just and fair as possible for the city's residents, businesses and workers and that the costs do not fall unevenly on those that are least able to afford them.

The action plan is appended below but is divided up into the following sections:

- Buildings and energy;
- Transport and travel;
- Reducing consumption based emissions and influencing suppliers;
- Climate adaptation, carbon storage and carbon sequestration;
- Influencing behaviour and being a catalyst for change.

Not all actions will generate quantifiable CO₂ savings but where data is available for the Council's direct emissions it has been included.

7. How will we measure and report on progress?

The implementation of this action plan will be overseen by a number of different groups:

- Quarterly Monitoring and Update report to Neighbourhoods and Environment Scrutiny Committee including progress against the actions and the latest available Council direct carbon emissions data (This is an elected member led Committee which is open to the public).
- Climate Change Sub-Group (This is an elected member led sub-group of Neighbourhoods and Environment Scrutiny Committee which is open to the public).
- Zero Carbon Coordination Group (This is a group of senior Council officers, chaired by the Deputy Chief Executive and City Treasurer which was established in September 2019).

We will use the Council's website, other communications and Committee reports to provide updates on the implementation of this action plan. The Council's web pages (www.manchester.gov.uk/zerocarbon) will be expanded to include:

- Information on the action plan and progress against delivery
- Overall number of Council staff and members who are carbon literate (no names)
- Information about the Zero Carbon Coordination Group and workstreams including relevant information which can be publicly shared
- Links to relevant Committee reports where climate change is a key focus
- Case studies on projects including street lighting LED upgrade, Civic Quarter Heat Network, specific buildings improvements.
- Quantitative data on the Council's direct emissions.

8. How will we fund the delivery of the plan?

The Council already spends a significant amount of money on improving the environment of the city through physical projects and also in terms of staff time across a range of services. Climate Change considerations will be embedded into decisions about how all resources are used across the Council as well as additional direct resource requirements.

We recognise that transitioning to zero carbon by 2038 and halving the Council's carbon emissions over the next 5 years will require significant additional capital and revenue funding but that delivering this ambition is essential and the cost of not doing so would be far greater. There are also significant opportunities to benefit from becoming a zero carbon city and these are set out in the *Delivering a More Inclusive Economy, Our Manchester Industrial Strategy* and the Mission Based Approach within the *Greater Manchester Local Industrial Strategy*.

Further detailed analysis of the cost of delivering the action plan will be undertaken by the Zero Carbon Coordination Group workstreams. Funding sources will include internal revenue and capital funding, new sources of investment and external funding. A high level summary of some of the key elements are listed below:

Revenue

During 2019/20 funding has already been identified to fund:

- Two additional posts within City Policy
- A full time post to deliver carbon literacy training
- Funding

A further £300k is including in the 2020/21 Revenue Budget which includes:

- Funding for the Climate Change Agency and new Chief Executive position
- Additional programme management resources in City Policy
- Additional external expertise as required
- Tree Opportunity Mapping
- Development of a supplier toolkit for the city to inform procurement and commissioning activity

In order to deliver the commitments within the Carbon Reduction Action Plan further funding will be required. It is recommended that further revenue funding of £1m is made available via the Capital Fund. The use of the funding will be subject to the development of detailed proposals to be agreed with the Executive Members for Environment, Planning and Transport and for Finance and Human Resources and reported back to Executive. This will be to:

- Establish a dedicated team and meet the associated costs to deliver the below:
 - Identify and deliver large scale remote Renewable Energy eg Solar PV generation projects. A small number of large generation projects are essential to remain within our carbon budget whilst the organisation mobilises to deliver the wider change required.
 - Procure a Solar PV partner to deliver a rolling programme of behind the meter generation feasibility studies, business case development and installation, focussing on the Authorities to 50 carbon emitting buildings.
 - Deliver a Zero Carbon whole building retrofit pilot.
 - Develop the next/ongoing pipeline of investments through a series of building audits focussing on the deployment of proven energy efficiency measures.
 - Develop an accelerated boiler replacement programme and commission expert consultancy to validate existing views about the pathway to zero carbon heat, inform business case development and procurement specifications.
 - Agree the Manchester Build Standard / Standards to be used going forward and embed within decision making processes which include consideration of Net Present Value and Asset Management Plan; Whole Life Costing, Internal Carbon Costing, and Energy Intensity Measures.
- Support awareness raising and behaviour change across residents, partners and council staff.

• Provide additional capacity within the Strategic Housing Team to support the work outlined in the Action Plan including to develop the segmentation approach to considering carbon reduction across the domestic house estate which is outlined in the appended action plan.

Additional capacity will also be provided to support the development and funding of neighbourhood schemes and priorities as the schemes are developed.

Capital

Reducing carbon emissions is included within the Capital Strategy as one of the key priorities for future capital spend. The development of all capital schemes and associated investment must consider the effect on carbon and work is taking place to understand how investment can be classified in terms of carbon impact as well as financial.

The costs of new build programmes to higher environmental standards and meeting the needs of the Local Plan and planning requirements will also be considered, running alongside investment in green spaces and places including trees and green walls which will require revenue resources for ongoing maintenance. As schemes are developed the higher cost to meet environmental standards will be included.

As the majority of the Council's carbon emissions are from its existing corporate estate and the Council has a responsibility to reduce emissions across the Northwards and partner managed housing stock, significant investment will be required to bring these buildings up to carbon efficient standards. This represents a major opportunity to both establish Manchester as a centre for green technology and services, and to work with local skills providers to ensure that the city's residents are given the best possible opportunities to access these new careers.

- Retrofit of the Council's operational estate. Energy generation and charging infrastructure including Solar PVs on suitable buildings and sites, Batteries, EV Charging Infrastructure and Heat Pumps. Phase 2 of the Carbon Reduction Plan will require an additional £15m investment. The fund will be further developed through the capture of the associated revenue savings and work to identify external funding. The March 2020 Capital Update report will include a request to establish the budget with its use subject to the approval of the business case.
- Funding for a large scale energy generation scheme dependent on the outcome of the feasibility study. Funding for the feasibility study is included within the revenue funding requirements above.
- Northwards managed Council housing stock retrofit and energy generation. Specific schemes will be developed with Northwards through the capital funding available in the Housing Revenue Account capital programme. Funds are required to maintain the Decent Homes Standard within Manchester's housing stock and, in addition, will support innovative climate change investment; essential health and safety works including the installation of sprinklers in multi storey blocks; and public realm

environmental works. There is limited funding within the HRA to cover all of these priorities and further work will be carried out to identify options to deliver more extensive carbon reduction measures given the constraints in place.

- Purchase of electric vehicles for the Waste and Recycling Fleet, and Council Fleet. A business case for the further electrification of the waste fleet will be included in the March 2020 Capital Update report. Further proposals for the Council's fleet will be considered for funding in future Capital Update reports.
- Investment in planting of beacon trees, mature trees, street trees and hedgerows informed by the Tree Opportunity Mapping exercise. No specific funding has been earmarked for this yet and it is proposed to establish the budget for an initial investment fund of £1m for trees and carbon capture with its use subject to the production of the detailed business case.

Work will also continue to deliver the carbon reduction priorities within:

- Delivery of Northern and Eastern Gateway projects
- Changes to the way Highways projects are designed and delivered
- Investment in public transport and active travel infrastructure such as cycling and walking. This will include progressing the pipeline of schemes for funding via the Greater Manchester Mayor's Challenge Fund.
- Work with the Department for Education on how carbon efficient schools can be delivered given the constraints with the current levels of Department for Education funding and unit cost.

9. How will the whole organisation play its full part?

The Council's Corporate Plan has been amended to include Climate Change as one of the eight priorities. We recognise that delivering the Council and citywide ambition to reduce emissions by at least 50% over the next 5 years will require collective action by all Council departments.

We will ensure that all staff are provided with training and are empowered to 'own' this agenda and embed changes into the delivery of their service. A key objective of the plan is to engage residents and neighbourhoods in a process of cultural change that embeds zero carbon thinking into the lifestyles and operations of the city. Manchester is made up of a diverse range of neighbourhoods, with a wide variety of cultures and interests. The residents and communities that make up the city are critical to our success. Much of the change required will come from residents themselves, but the Council has a key role to play, particularly in those parts of the city where there are significant numbers of people dependent upon our support.

To find out more and view the Council's progress please go to: www.manchester.gov.uk/zerocarbon

Appendix 1: Manchester City Council Actions 2020-25

1. Buildings and energy

Introc	luction			
citywio the gr supply Counc	nergy used within buildings made up 69% of the Council's direct CO ₂ emission de CO ₂ emissions. The use of fossil fuels (particularly coal) within the National id has become decarbonised. Renewable energy such as wind, solar and hyd in 1990 but now contributes 26.5%. Further decarbonisation of the National cil's and the city's carbon emissions but local action is needed to reduce the u ishment of buildings, and generating energy through a variety of renewable se	al Grid has fallen sign dro only represented Grid will deliver sign use of energy via the	nificantly in recent 2.3% of the UK po ificant reductions t	years as ower
Comr	nitment			
for a f	ce the CO ₂ emissions from the Council's operational estate and streetlighting urther 50% reduction between 2025 and 2030. Support building retrofit and e e all future development across the city is as close to zero carbon as possible	nergy generation ac		
Coun	cil			
Ref	Action	Owner	Project Cost or funding in place	Annual Carbon Saving (tCO ₂)
1.1	Deliver Complete Phase 1 and Phase 1 (a) of the Carbon Reduction Plan and secure funding and delivery mechanism for future phases which will run from 2020-25. The 'reduce, produce, connect' approach will be utilised including the following activities: Phase 3 retrofit programme; a Zero-Carbon Building retrofit (pilot project); a Building Management System programme; Solar PV generation programme on buildings; Boiler replacement programme / gas phase out (heat pumps)	Corporate Estate and Facilities		

	 To achieve Completion of Phase 1 Buildings Carbon Reduction Programme Completion of Phase 1 (a) Buildings Carbon Reduction Programme (ERDF Supported) Establish Phase 2 of Carbon Reduction Programme 2020-25 ByThere will be a sequenced approach to delivery across the operational estate, completed in line with the agreed carbon budget. March 2020-2025 and March 2025-2030. 		£7.6m (in place) £2.6m (in place) £15m (priority in Capital Strategy pending final approvals)	1,400 400 3,000
1.2	 DeliverA Manchester Build Standard / Standards to be used going forward for new buildings, extensions and refurbishments and embed within decision making processes. To achieveLower carbon construction and more energy efficient end use in buildings. ByEnd of 2020 	Capital Programmes	Funding from additional Capital Fund budget.	TBC
1.3	 DeliverA Buildings and Energy Strategy for the Council. To achieveAn agreed strategy setting out the response to the climate emergency across the Council's operational estate including continued procurement of green energy, infrastructure to support the roll out of electric vehicles, generation and storage. 	Corporate Estate and Facilities; and Energy Management Unit	Funding place via existing staff resource.	No

	ByApril 2020			
1.4	 DeliverA feasibility and business case for a large scale energy generation scheme from large scale Solar PV and Onshore and Offshore Wind on Council land and buildings, or sites in third party ownership. This will include an assessment of the different business models available in terms of capital cost, commercial risk and speed of deliverability. To achieveAn understanding of the benefits, viability, costs and risks of investing in large scale energy generation to generate zero carbon energy. ByDecember 2020 	Corporate Estates and Neighbourhoods	Funding from additional Capital Fund budget	7,000
1.5	 DeliverComplete roll out of Street lighting LED replacement and investigate ways to further reduce consumption and improve efficiency. To achieve8,400 tonnes of CO₂ per annum when completed, 220 tonnes for 2020/21. ByEnd of 2020 	Neighbourhoods	£32.8 million funding in place	220
1.6	 DeliverComplete the Civic Quarter Heat Network (CQHN) and connect to all buildings including the Town Hall in 2023/24. To achieve1,600 tonnes CO₂ per annum from 2020/21 and at least 6,400 tonnes CO₂ between 2020-25. ByFirst year of operation will be 2021. Town Hall to connect in 2023/24. 	CQHN Board	£26 million funding in place	1,600
City				

Ref	Action	Owner		
1.7	Deliver Undertake a stock condition survey across the Private Rented Sector and develop a segmentation approach to domestic properties including social housing, owner occupier and private rented sector. Work with Manchester Housing Providers Partnership and their Zero Carbon Working Group to ensure all social housing properties are on a path to zero carbon.	Housing and Residential Growth	Funding from additional Capital Fund budget	No
	To achieve A better understanding of the energy efficiency requirements and interventions required across the city's housing stock. To provide intelligence to develop funding proposals for retrofit, energy generation and future heating solutions.			
	ByStock condition survey completed 2021.			
1.8	Deliver A comprehensive investment programme to deliver energy efficiency, retrofit and energy generation from solar panels and heat pumps across all of the Council owned properties managed by Northwards Housing and other contractors.	Housing and Residential Growth	Housing Revenue Account account plus additional funding sources	TBC
	To achieveA reduction in emissions and energy bills for residents.		to be identified	
	ByTBC			
1.9	Deliver Funding programmes in partnership with the Greater Manchester Combined Authority and Government to support retrofit and energy generation across commercial and non-residential buildings.	Housing and Residential Growth, Finance	Not yet identified	ТВС
	To achieve A reduction in emissions and energy bills for businesses and organisations.			

	ByOngoing			
1.10	 DeliverA Local Energy Plan for Manchester via the Greater Manchester Local Energy Market project. To achieveThe Plan will identify areas suitable for Solar PV deployment (domestic and non-domestic), battery storage, low carbon heating solutions, electric vehicle deployment. ByProject starts April 2020 	Corporate Estates and Facilities	In place via UK Research & Innovation	No
1.11	 DeliverZero carbon commitments are taken into account when any Council owned buildings or land is disposed of or leased to a third party. To achieveBetter support for third parties to improve the energy efficiency and condition of the building or the end use of the land. ByApril 2020 onwards 	Strategic Development	Additional funding may be required.	No
1.12	 DeliverA new Manchester Local Plan which will set out how the city should meet the needs of a growing, diverse population over the next 15 years, outlining where new development should happen, how green spaces and other environmental facilities should be protected or enhanced, and how transport and other infrastructure will be improved. Utilisation of existing Planning levers and Strategic Regeneration Frameworks to support the city's zero carbon commitments. To achieveUse the Council's policy levers and influence to ensure that future development reflects the city's zero carbon commitments and promotes a reduction in carbon emissions, improved green and blue infrastructure, and other associated issues such as the management of grey water. 	Strategic Development; Planning and City Policy	Funding to develop the plan in place.	No

	By Manchester Local Plan completed by 2023. Existing Planning levers and Strategic Regeneration Frameworks immediately.			
1.13	 DeliverPartnership work with local and national experts including the UK Green Building Council and property developers. To achieveLearning from best practice in building design to ensure that we are able to achieve the best possible standards in new design with respect to carbon performance. ByOngoing 	Capital Programmes	No	No

2. Transport and travel

Introduction

Transport is a major contributor to the city's CO₂ emissions with just under 30% of total emissions and also impacts on the cleanliness of the city's air. It is also the sector which has seen the least progress in achieving reductions in carbon emissions over recent years. The Council's direct emissions include the waste and recycling fleet (8.3%) and Manchester City Council fleet (2.3%) and staff travel (1.8%). There is an urgent need to shift to sustainable and active travel for Council staff and the city's residents, workers and visitors to reduce CO₂ emissions, improve air quality and improve the city's liveability.

Commitment

Reduce the emissions from the Council's fleet including waste and recycling by approximately 35-45% between 2020 and 2025 by rolling out electric vehicles and charging infrastructure. Support shift to sustainable and active travel through the Council's role in transport planning and work with Transport for Greater Manchester, Greater Manchester Combined Authority and national government to deliver strategic transport infrastructure projects.

Cound	Council				
Ref	Action	Owner	Project Cost or funding in place	Annual Carbon Saving (tCO ₂)	
2.1	 DeliverDevelop business case and funding to replace half the Biffa waste and recycling fleet with Electric Vehicles alongside associated charging infrastructure. To achieveSignificant reduction in emissions from the diesel waste and recycling refuse vehicles and improved air quality. Ethical procurement of Electric Vehicle batteries to include consideration of environmental and social impact of lithium batteries. ByBusiness case for waste fleet early 2020 and funding in 2020/21. 	Neighbourhoods	Business case submitted and funding to be identified	900	
2.2	 DeliverRolling replacement of the Council's Operational Fleet with Electric Vehicle alternatives. To achieveSignificant reduction in emissions from diesel and petrol internal combustion engine fleet vehicles and improved air quality. Ethical procurement of Electric Vehicle batteries to include consideration of environmental and social impact of lithium batteries. ByOngoing rolling replacement of lease vehicles. 	Neighbourhoods	Business case for replacement	400	
2.3	Deliver A new Business Travel Policy for Council officers and elected members.	Human Resources Organisational	N/A	100	

	To achieveInfluence over travel choices and promoting sustainable and active travel where possible. Clear communication of Council policy and approval process for travel by taxi and air travel. Domestic air travel and flights to Paris or Brussels to only be approved in exceptional circumstances. ByApril 2020	Development (HROD)		
City				
Ref	Action	Owner	Project Cost or funding in place	Annual Carbon Saving (tCO ₂)
2.4	 DeliverAdditional investment which prioritises improvements to the network for cycling and walking, with the development of a number of schemes approved through the GM Mayor's Challenge Fund. To achieveThese works will supplement other proposals which seek to promote sustainable forms of transport across the city and will support the decarbonisation of transport across the city. ByRolling programme of investment. 	Highways, Capital Programmes	Funding to be identified through the Capital Strategy and GM Mayor's Challenge Fund with £2.8m already committed.	No
2.5	Deliver Work with Greater Manchester Combined Authority, Transport for Greater Manchester and Government to implement the Greater Manchester Transport Strategy 2040 and deliver improvements to the city's Strategic Transport Infrastructure.	City Policy; Highways	Funding for schemes will be identified at the appropriate	TBC

	 To achieveStrategic projects include: preparations for High Speed 2; delivery mechanism and funding for High Speed North; Metrolink expansion including Tram-Train options; Bus Reform including developing a business case to shift to an entirely electric fleet; and implemented an effective Clean Air Zone. ByOngoing 		stage.	
2.6	 DeliverA revised City Centre Transport Strategy with Transport for Greater Manchester and Salford City Council. To achieve Improvements to sustainable and active travel and prioritisation of pedestrians and cyclists. 	City Policy; City Centre Regeneration	Funding in place	No
	By 2020			
2.7	Deliver Review and act on the findings of the Tyndall Centre for Climate Research to assess how emissions from Manchester Airport can be managed in line with the Paris Agreement. Work with Manchester Airport Group and other local authorities with airports within their boundaries to lobby government to accelerate the decarbonisation of air travel.	City Policy; Manchester Climate Change Agency	N/A	TBC
	To achieve A reduction in aviation emissions from Manchester Airport which is in line with the Paris Agreement and the findings of the Tyndall Centre for Climate Research.			
	ByOngoing			
2.8	Deliver Incentives and support for Council staff to commute to work more sustainably including salary sacrifice schemes for bus, rail and tram; cycle to work scheme; provision of cycling facilities.	Human Resources Organisational	Funding in place.	No

To achieve Increase in the number of Council officers travelling to work by sustainable modes of transport.	Development (HROD)	
ByOngoing		

3. Reducing consumption based emissions and influencing suppliers

Introd	Introduction					
	The Council and the city need to reduce consumption of goods and products which have the highest carbon footprint. This requires behaviour change and a shift in what we buy or procure and where it comes from.					
Comm	Commitment					
Reduce the consumption on Council premises of single use plastics and other goods which are unsustainable. Influence the city through procurement and commissioning and other levers including licensing.						
Cound	cil					
Ref	Action	Owner	Project Cost or funding in place	Annual Carbon Saving (tCO ₂)		
3.1	 DeliverRoll out the additional 10% social value weighting for the environment to take the total social value to 30%. Suppliers will be scored based on: The steps that they are already taking to reduce their carbon emissions and their future plans; 	Integrated Commissioning and Procurement	N/A	No		

Ref	Action	Owner	Project Cost or funding in place	Annual Carbon Saving
City				
	 alongside other packaging. To achieveA reduction in the use of Single Use Plastics. BySingle Use Plastic Free by 2024 in line with the Plastic Free Greater Manchester Pledge 	Facilities and Neighbourhoods		
3.3	Deliver Ensure the Council's operational estate and markets are Single Use Plastic Free and that procurement and commissioning reduce their use	Corporate Estates,	N/A	No
	 Research into the city's consumption emissions and use this intelligence to inform the specification of tenders for goods and services. To achieve A reduction in indirect emissions from the Council's procurement and commissioning activity including consideration of food; water, construction materials; furniture; and ICT equipment. By December 2020 	Commissioning and Procurement		
3.2	 2. How they monitor their carbon emissions and how they plan to monitor them in the future including during the contract period. To achieveInfluencing supplier behaviour and reducing carbon emissions from the Council's procurement and commissioning. ByApril 2020 DeliverAct on the findings of the Tyndall Centre for Climate Change 	Integrated	N/A	ТВС

				(tCO ₂)
3.4	Deliver Fund the development of a citywide supplier toolkit focussed on tackling climate change. Also work with Greater Manchester partners to develop a city region approach where possible.	Policy, Performance and Reform	£15k of finding in place.	No
	To achieve A shared approach to procurement and commissioning which can be used by stakeholders in the city and the city region to provide guidance and support for suppliers.			
	ByDecember 2020			
3.5	 DeliverUse other levers available to the Council to reduce the use of Single Use Plastics through licensing and events on Council owned land. Continue to roll out the use of sustainable events guides. To achieveA reduction in consumption based emissions across the city and promotion of more sustainable events. 	Neighbourhoods (Parks, Leisure and Events).	N/A	No
	ByOngoing			
3.6	Deliver Work with Manchester Health and Care Commissioning and FoodSync to deliver the priorities of the Manchester Food Board.	Manchester Health and Care Commissioning	Funding in place to support the	ТВС
	To achieve The establishment of a more economically, socially and environmentally sustainable food system for Manchester.		Food Board.	
	ByOngoing			

4. Climate adaptation, carbon storage and carbon sequestration

Introd	uction				
such a the hig trees a Treecc every y quality	ation to climate change requires changes to the way in which the s flooding and extreme heat. Manchester has approximately 1.2 hest in Greater Manchester. In the last three years alone over 10 and 13 community orchards (bringing the total up to 48). The Man phomics found that Manchester's existing tree coverage stores 12 year and removes 84 tonnes of pollution. The financial benefits of and quantity of trees and hedgerows will increase the volume of approving the environment and helping to reduce flooding.	million trees and a tree coverage of 0,500 trees have been planted as we ichester i-trees eco assessment unc 24,330 tonnes of carbon, sequesters f trees are worth over £3million ever	over 20% whice all as nearly 3,0 dertaken in 201 s 4,980 tonnes by year. Improv	ch is one of 000 hedge 8 by of carbon ing the	
Comm	Commitment				
floodin the del and ac identify benefit	e that the city's infrastructure is resilient to climate change and that g. Develop an intelligence led approach to tree and hedge plantir ivery of the Green and Blue Infrastructure Strategy. The quality a ross the city will be informed by a Tree Opportunity Mapping ass v appropriate locations for additional tree planting to take place. It from increased climate change resilience. The assessment will s te the delivery of both tree planting and ongoing maintenance.	ng, and nature based solutions will b and quantity of trees and hedges bo essment which will use the i-Trees t will link tree planting opportunities	be developed to th on Council o Eco Assessme with locations t	o support wned land nt work to hat would	
Counc	il				
Ref	Action	Owner	Project Cost or funding in place	Annual Carbon Saving (tCO ₂)	
4.1	DeliverThe Manchester Tree Action Plan	City Policy; Neighbourhoods	Funding via Council and partners	No but storage, sequestrati	

	 To achieveA target of net 1,000 new trees, 1,000 new hedge trees and 4 community orchards a year on known schemes on public or partner land. Investigate opportunities for planting in parks, Council owned open spaces, highways and the grounds of buildings. ByOngoing 			on & air quality benefits
4.2	 DeliverComplete the Horizon 2020 Grow Green Project and the new 'sponge' park in West Gorton to and use the learning to inform green and blue infrastructure across the city. To achieveEncourage nature based solutions to be embedded in open spaces, highways schemes and new residential and commercial developments to improve resilience to flood risk. ByOngoing 	City Policy	Yes via Horizon 2020	No but adaptation benefits
City				
Ref	Action	Owner	Project Cost or funding in place	Annual Carbon Saving (tCO ₂)
4.3	 DeliverFund and commission a Tree Opportunity Mapping assessment of tree planting opportunities within existing woodland (and particularly those affected by Ash Dieback), within parks, along streets and within gardens. To achieveThis evidence will underpin work at a neighbourhood level by identifying local opportunities for planting and supporting funding bids. The mapping will include an assessment of which are the most appropriate species for carbon storage and sequestration. 	City Policy	Council funding identified	No

	ByDecember 2020			
4.4	 DeliverAdditional Council funding to support planting of more beacon trees, mature trees, street trees and hedgerows across the city to support delivery of 4.3. To achieveMaximising the Council's contribution to the City of Trees (https://www.cityoftrees.org.uk/) 3 million trees target as part of the Northern Forest. Exact number to be agreed. 	City Policy	Funding from additional Capital Fund budget	No but storage, sequestrati on & air quality benefits
	ByFunding put in place during 2020/21			

5. Influencing behaviour and being a catalyst for change

Introduction

Although the Council's direct CO₂ emissions make up approximately 2% of the city's total emissions, the Council has a unique role within the city to lead by example and also influence the behaviour of a range of different cohorts. Influencing positive behaviour change in Manchester's residents, workers and visitors and also influencing behaviours, policies and investments at a city region and national level will support the climate change agenda.

Commitment

To use every opportunity to engage, empower and equip Council staff and elected members with the knowledge and skills to make a positive difference. Influence behaviour change across the city's residents, businesses, public sector organisations, voluntary and community sector and visitors. Develop clear positions to influence, lobby and work in partnership with Greater Manchester and UK Government to take more action to tackle the climate emergency.

Council

Ref	Action	Owner	Project Cost or funding in place	Annual Carbon Saving (tCO ₂)
5.1	 DeliverRoll out carbon literacy training across the Council using a pyramid approach with universal introductory e-learning module (or equivalent for staff with ICT access), 1 day equivalent Our Climate, Our City on a targeted basis working with specific services, elected members and the most senior 300 managers in the Council. Utilise internal communications and the Intranet to share information and promote behaviour change and action. To achieveA fully informed workforce who are able to support embedding climate change action within the organisation and across the city. ByTraining programme rolled out throughout 2020. Become a Sliver Carbon Literate Organisation in 2020 and Gold by 2025. E-learning module rolled out universally during 2020 with 1 day training on a targeted basis. 	Human Resources and Organisational Development	Funding for a 12 month full time trainer post agreed February 2020.	No
5.2	 DeliverRoll out the additional 10% social value weighting for the environment to take the total social value to 30%. Launch this and update the suppliers and commissioners toolkits. To achieveInfluence the behaviours and activities of new and existing suppliers via the Council's procurement and commissioning activity. ByApril 2020 	Integrated Commissioning and Procurement	N/A	TBC
5.3	Deliver Embedding zero carbon ambitions into all decision making including revenue and capital gateway decisions. Build addressing climate change into the grants to Voluntary and Community Sector organisations and cultural organisations.	Finance, Governance and Scrutiny	N/A	No

	To achieve Use the Council's decision making and financial instruments to influence change within the Council and across the city. By Ongoing			
City, (Ref	Greater Manchester and National Action	Owner	Project Cost or funding in place	Annual Carbon Saving (tCO ₂)
5.4	 DeliverWork with Manchester Climate Change Agency and other partners to establish a citywide programme of community engagement activities. Include development of climate change actions in all 32 Ward Plans and use Neighbourhood Investment Funding and the Our Manchester Challenge Fund to support projects which will affect positive change. Continue to work with the Youth Council and schools to deliver follow up activity from the Youth Climate Summit events in 2019 and 2020. Work with the Age-Friendly Manchester Board to develop specific communications and case studies for over 50's. To achieveSupport community groups and residents to engage in the climate change agenda and build their capacity to take positive local action. Ensure that this includes residents of all ages and ethnicity. ByWard Plans by April 2020. Other activities are ongoing. 	Neighbourhoods	Funding and capacity in place	No
5.5	Deliver A citywide communications strategy and campaign to raise awareness, promote positive behaviour change and share examples of projects.	Communications	Funding in place	No

	 To achievePromote positive action and behaviour change across the city's residents, workers, businesses and visitors. ByApril 2020 and then a rolling programme. 			
5.6	 Deliver Continue to provide existing funding to the Manchester Climate Change Agency, underwrite the funding for a new Chief Executive and working with partners to secure additional funding. To achieveA Manchester Climate Change Agency which is fit for purpose to effectively champion and drive forward citywide climate change action. ByDecember 2020 	City Policy	Funding in place	No
5.7	Deliver A plan for engaging, supporting and influencing key Manchester stakeholders (including businesses) to reduce their carbon footprint and sign up to the zero carbon ambition. This will include anchor institutions such as health partners and universities, and strategic development partners. Use the Council's membership of the Oxford Road Corridor Partnership to fully implement and embed the learning from the Horizon 2020 Triangulum project and work up plans for a zero carbon corridor.	City Policy	N/A	TBC
	To achieveSupport the work of the Manchester Climate Change Partnership as the city's principal mechanism for engaging, mobilising and supporting organisations across the city. Influencing and supporting key stakeholders to reduce their carbon emissions and identifying Council actions that will unblock barriers to enable them to accelerate action. ByDecember 2020			
5.8	Deliver A large scale event with the city's schools to support them to take action on climate change.	Education, City Policy	Funding and	ТВС

	To achieveAdditional knowledge and capacity across the city's schools to develop and implement their own bespoke climate change action plans and improvements to their buildings. ByFirst event delivered by June 2020		capacity in place	
5.9	 DeliverUse the Council's representatives and senior officers and elected members to influence the Greater Manchester Pension Fund; Greater Manchester Combined Authority; Greater Manchester Chamber of Commerce; Transport for Greater Manchester and the GM Transport Committee; Health and Social Care Partnership. To achieveInfluence key Greater Manchester organisations to decarbonise and promote sustainable behaviour, investments and decision making to support delivery of the city's climate change ambitions. ByOngoing 	City Policy	N/A	TBC
5.10	 Deliver Develop a proposition to UK Government in relation to COP26 being held in Glasgow in November 2020. This will include working through partnerships with other authorities via the Council's membership of Core Cities UK, with other local authority areas with airports and through the Convention of the North. To achieveInfluence and work in partnership with government to ensure that Manchester (and other UK cities) can meet local climate change objectives and contribute to the UK's zero carbon commitment. ByNovember 2020 	City Policy	N/A	No
5.11	DeliverWork with Manchester Climate Change Agency to actively	City Policy	Funding in	No

	 participate in international networks and projects to identify and develop best practice that can be used to accelerate action in Manchester. Including but not limited to: Covenant of Mayors Eurocities URBACT Zero Carbon Cities (2020-22) C-Change To achieveLearning from other cities who are delivering ambitious climate change programmes and use funding to build capacity within the Council and city. Share Manchester's learning to support other cities through programmes such as Zero Carbon Cities. ByOngoing 		place	
5.12	 DeliverA Green Skills Plan for the city to support the delivery of the Manchester Work and Skills Strategy and Our Manchester Industrial Strategy. To achieve A skills system which supports the city's ambition to be zero carbon by 2038 and maximises opportunities for residents and businesses. BySub group of the Work and Skills Board will be established in April 2020 and plan drafted by September 2020 	Work and Skills with Work and Skills Board	N/A	No

Appendix 2: Summary of Climate Change Research and Insight

1. Overview

Manchester City Council's Communications Service commissioned insight among Manchester residents to understand the views of residents from across the city in relation to climate change. The research was delivered in two phases:

• Phase 1

A face-to-face on-street survey with over 1,000 Manchester residents to gauge their perceptions, awareness and understanding of climate change and explore their behaviours relating to climate change and establishing what Manchester City Council should prioritise in order to combat climate change and become a zero carbon city by 2038.

• Phase 2

A series of focus groups with Manchester residents recruited from the onstreet survey to gain a greater depth of insight into topics covered in the survey, particularly around behaviours, as well as exploring ideas for the Council's campaign.

Strict quotas on age, gender, ethnicity and geographical area were implemented to match the population of the city as a whole. Through the research we have gathered a broad range of views to understand:

- 1. What residents know about climate change
- 2. What residents are currently doing to counteract climate change
- 3. What is stopping residents to do more or behave differently
- 4. How the Council and / or partners could encourage residents to do more
- 5. What activities/actions residents think the Council should prioritise in order to achieve the aim of being a carbon zero city by 2038.

2. Research results

A summary of key results from the climate research can be found below.

2.1 Effects of climate change

A question was asked, unprompted, on what people thought the effects of climate change are. Responses included:

- Extreme hot weather/global warming
- Extreme weather (eg storms)
- Rising sea levels, flooding
- Extreme cold weather
- Increased pollution
- Changes in plants/wildlife, increased wildfires

Subgroups aged between 55-64 and 65+ were more likely to say they do not believe in climate change (4% overall).

Across the board people felt that climate change would affect the UK more than

Manchester (City) or their local area.

Of those who believe in climate change, 75% said that the issue is very important to them (34%) or somewhat important (41%). 10% said it is unimportant to them.

2.2 Behaviours to reduce climate change

A list of behaviours and activities were shown to respondents who were asked to indicate whether they currently did these specifically to reduce the impact of climate change.

For any activities they were not currently doing, respondents were subsequently asked to state whether they would be willing to do this, or not, to reduce the impact of climate change.

- 73% avoiding use or using fewer carrier bags
- 34% avoiding or eating less red meat
- Manchester (city) residents least likely to grow own food or drive an electric/hybrid car
- 73% would use renewable or green energy at home (sustainable supplier)
- 72% would retrofit boiler/insulation/windows

Focus groups pointed out that this is as much about money/poverty as climate change. There was a discrepancy between homeowners and those who rent and what people are prepared to do and what they are able to do.

2.3 People were not prepared to do the following:

- Almost half were unwilling to grow food at home
- Minimise travel by air (38%)
- Campaign against climate change
- Avoid or eat less dairy/animal products

2.4 Barriers to behavioural change

In order to understand potential barriers to behaviour changes, respondents were asked what stopped them from doing more to reduce the impact of climate change. This question was unprompted and respondents could provide more than one response.

The most common response, provided by 37%, was that respondents did not know enough about what they can do or that they need more information. This was followed by three in ten (30%) respondents who felt as though they already do enough to reduce the impact of climate change.

Clear barriers were identified by some respondents, including changes being:

- Too expensive (24%)
- Too time consuming (20%)
- Too inconvenient (17%)
- 6% said poor public transport stopped them doing more

- 7% believed that they would not make a difference
- 2% that it is too late to reduce the impact of climate change
- 2% said they were not interested or did not want to make any changes

2.5 What should the Council prioritise?

People were asked which areas the Council should prioritise or focus on. They were asked to pick three options from a list.

- Improve public transport
 6% said public transport is poor, 27% say if it was cheaper they could use it and 47% said supporting better public transport should be a Council priority. Focus group attendees also linked this to safety and suggested that they would walk/cycle/use the tram more if public safety was improved.
- Clean air initiatives, increase green spaces
- Increase awareness/provide information/advice and influence

2.6 What would incentivise behavioural change?

Given that a common barrier to doing more to combat climate change was the expense, it is perhaps unsurprising that financial incentives were popular when considering how to combat climate change.

A quarter (26%) said that financial incentives or money off their Council Tax would encourage them to do more, which was also a common topic of conversation amongst focus group participants.

A suggestion from the focus groups was to introduce a discount scheme for residents, whereby those who recycle correctly are rewarded with discounted Council Tax and those who do not recycle are conversely penalised.

Others suggested targeting businesses to be carbon neutral, reduce food waste (work with caterers) etc...

2.7 There is no one-size fits all answer

The research confirmed that there is now one size fits all answer. There was no consistency across age, gender, diversity or locality.

There were however some consistent trends:

- Young people aged between 16-34 were more willing to change behaviours
- There was also a female bias with regard to the willingness to change behaviours
- Older people are aware, but less willing to change behaviours
- Less awareness in North Manchester (9%), compared to South (17%) and Central (17%)
- Data shows broadly stronger awareness among white respondents as opposed to Black, Asian and minority ethnic (BAME) respondents

3. Next steps

The research and insight is being used to inform a citywide communications campaign which will be launched in spring 2020.

Appendix 3: Summary of Youth Climate Action Summit no 2

1.0 Event Summary

Nearly 350 pupils and teachers from schools across Manchester gathered for a special summit on 17th January 2020, to have their concerns heard, their voice listened to and develop new ideas for action on the issue of climate change. The Youth Climate Change Action Summit, held at the Manchester Central Convention Complex, was the second event of its kind to be held in the city. It gave pupils aged from 9 - 14 the chance to explore what they can do to help the city to meet its ambitious, science-based target to become zero-carbon by 2038 at the latest.

At the event three Manchester schools delivered presentations detailing their approach to tackling climate change. Young people expressed their views on how climate change should be tackled, explored its causes and challenged a panel of local civic leaders on the actions they are taking to ensure that the city meets its ambitious zero-carbon target. Pupils attended workshops hosted by experts in their field, exploring what steps they can take at home and in school to reduce the carbon impact of energy consumption, transport choices and food and goods consumption, and explored what steps they can take at home and in school to reduce their carbon emissions. All schools in the city were invited to send a group of pupils to represent them at the event.

The event was recorded by young people from Groundwork as part of the 'Young Reporters Project', enabling young people to gain new skills in journalism to help get their voices heard and showcase their filming from the day.

2.0 Background

The first Manchester Young People's Climate Change Action summit was held in July 2019, during the same week that Manchester City Council formally declared a 'climate emergency'.

The motion declared that climate change is a serious risk to Manchester's future and committed the council to embedding the issue as an integral part of its decision-making process - ensuring that all key decisions are taken with the city's target of becoming zero-carbon by 2038 at the latest in mind.

3.0 Introduction

Objectives for the event:

- 1. Outline what the city's commitments are on climate change and share progress to date.
- 2. Share good practice between Manchester schools.
- 3. Provide an opportunity for young people to meet organisations, policy makers and decision makers, in order to understand what is happening and give young people a platform to challenge and debate.
- 4. To listen to young people!

- 5. To provide information through themed workshops to help young people develop skills and take practical action in their homes, communities and schools.
- 6. To provide teachers and school staff an opportunity to network, learn from other schools and be inspired to take away ideas.

Young people's outcomes of the event:

- 1. What can I do in my school, in my community and at a city level.
- 2. What do I need help with to enact change
- 3. Help young people to articulate what they feel is missing. Capture this, consider and respond - including through actions that need to be taken forward by other organisations, as part of the Manchester Climate Change Framework for 2020-38 and Action Plan for 2020-22.

Format of the event:

The aim was to make the event an interactive experience - to encourage active participation from delegates. The event was designed to inspire and enable our young people to get their voices heard and get ideas to take forward action at home, school and in their communities. The event was hosted by young people, with presentations from Manchester schools showcasing good practice and workshops delivered by experts in their field.

3.1 Attendee metrics and survey

Area	Total Schools from Area	Primary	Secondary	Total Area % of Attending Schools
North	11	7	4	22%
Central	14	8	6	29%
South	24	17	7	49%
Totals	49	32 (65%)	17 (35%)	

Table 1: Attending schools by geography

Feedback on the day: A graffiti wall was created in the foyer for young people to write down their feedback following the workshops.

Post event survey: Following the event a survey was sent to all schools to collect feedback to understand what worked well and what could be improved. The survey included 10 questions about the venue, the content of the event and open questions to capture likes / dislikes. The survey included a mixture of quantitative and qualitative questions.

3.2 Program and speakers

The Summit was organised by Manchester City Council - by a cross directorate group of staff from Youth Strategy, Education, Directorate Support and the Waste & Recycling Team with support from the Manchester Climate Change Agency.

	ZERO CARBON MANCHESTER Skills Por Life Manchester Central 17 January 2020 Merchester Central 17 January 2020	Worksh All young people will atter		
Manchester Youth Council. 10.45am Sign-in/Security		Food Real Food, Wythenshawe	Join the revolution - why you should grow your own food A workshop about respect for food. Food miles with a focus on an apple's Journey - Impact of globalisation, power of supermarkets, food map. Solutions: crow your own - Intro to skills, consider alternative methods	
11-11.20am	Welcome and Energiser activity		of growing – aquaponics, eat seasonal, demand local food. Practical – planting, leek cloning, natural science.	
11.20-11.30am	Welcome from Councillor Rahman A snapshot of the council's achievements so far (animation)	Energy and Mobile Phones Manchester Museum	Find our more about the raw materials inside your phone, where they com from, how they are extracted, and their true costs. Use this insight to write your own short label for a museum specimen that will make the reader think twice before replacing their phone with the next model.	
11.30am-12noon	A school's approach to climate change Sharing good practice Three Schools:	Climate Change Manchester Environmental Education Network	Manchester Environmental Education Network is working with eco teams in Manchester to take social action on climate change. The aim of this session is for young people to learn about the issues, share their knowledge with others, then take action in their community.	
	 Dean Trust, Ardwick Loreto, Choriton Unity Community Primary, Cheetham 	The Ignition Project Royal Horticultural Society, City of Trees and Groundwork	Plants and trees for health and wellbeing. A design workshop exploring the use of plants and trees to improve human health and wellbeing.	
12noon-12.30pm	Lunch (In auditorium)	Reduce, Reuse, Recycle Bura	Why recycling is important in terms of saving energy, conserving raw materials, and protecting the environment.	
12.30–1.05pm	Workshop 1 Workshop 2	Nature Lancashire Wildlife Trust and Action For Conservation	Nature and how to protect the environment. This workshop will get the students on their feet, defining conservation in relation to the environme and nature. It will challenge them to think about what they can do to protect the environment.	
1.50-2pm	Young leaders feedback (auditorium)	Compoigns Keep MCR Tidy	We will be looking at the key ingredients for a great campaign and thinki about the use of visual images in campaign material. We will also try ou hand at designing campaign material to promote the upcoming Great British Spring Clean.	
2-2.25pm	Ask the Leaders			
	 One minute to answer each question Nominated responders 	Food & Food Waste In the UK Fareshare	This workshop is about how much food is wasted in the UK. We'll discuss what that means for the planet, and explain how FareShare turns food waste into a social solution.	
2.25pm	Next steps	Carbon Literacy Project	How to reduce the youth carbon footprint. Carbon footprints across the world and what you can do to reduce them,	
2.30pm	Close	Transport Living Streets	Why changing the way we travel is important in tackling climate change. We will start with an activity looking at facts around emissions and transport. We will focus on everyday local journeys and consider the wide benefits of walking and cycling. We will ask young people to think about how they could travel more sustainably and how they could encourage more students to walk and cycle at their school.	

Figure 1: Event programme

Three schools (Dean Trust, Ardwick, Unity Community Primary School, Cheetham and Loreto High School, Chorlton) presented their schools approach to tackling climate change. This was the most popular segment of the event and received overwhelming positive feedback.

All delegates attended two workshops after lunch which were delivered by partners including Action for Conservation, Biffa, City of Trees, Fareshare, Groundwork, The Ignition Project, the Journalism Club, Keep Manchester Tidy, Living Streets, Lancashire Wildlife Trust, Manchester Environmental Education Network, Manchester Metropolitan University, Manchester Museum, Real Food Wythenshawe and the Royal Horticultural Society (RHS).

This was followed by a Question and Answer session which included a panel of experts: Cllr Luthfur Rahman (Exec Member for Skills, Culture & Leisure), Cllr Angeliki Stogia (Exec Member for Environment, Highways and Planning), Cllr Garry Bridges (Exec Member for Children's Services), Amanda Corcoran (Director for Education), Matthew Roberts (Transport for Greater Manchester), Jonny Saddler (Manchester Climate Change Agency).

3.3 Location and venue

The event was held in the Exchange Hall at Manchester Central Complex, which is located in the city centre. The venue was easily accessible by public transport and had a car park on-site for those who travelled by car. Positive feedback was received from young people, school staff, workshop providers and MCC staff about the venue. The venue is purpose designed for conferences and suited the format of the event. The event began and ended in the auditorium. Workshops were delivered in the atrium spaces and small meeting rooms - which worked well.

Registration for the event took place in the entrance, the space became quite congested during the registration period and led to delays starting the event. This could have been eased by having two registration desks and providing a longer period of time for schools to register prior to the event starting. A disney style queuing system could have made the process more ordered.

3.4 Marketing, media and promotion

The event was promoted via the Schools Circular (to all of Manchester's 168 schools and education establishments) in December 2019 and again in January 2020. Schools were invited to request upto 5 tickets for young people aged 9-14. Tickets for the event were managed via Eventbrite. The aim was to allocate 300 tickets to schools - in total 356 were allocated. On the day 348 young people and school staff attended - a drop out rate of 2.25%.

Social Media engagement:

#McrClimateChange - 40 tweets were sent out during the event from a variety of groups, including schools, some of the organisations in attendance for workshops, and Manchester Youth Council

@mcrclimateyb - The Manchester Climate Change Youth Board Twitter account (twitter.com/mcrclimateyb) was active during the event, seeing the following response to messages:

Posts: 19 Impressions: 20,500 Retweets: 32 Likes: 139 Replies: 22 Link Clicks: 12

The engagement rate was 1%. Essentially, there was some sort of engagement for every hundredth time someone saw a tweet about this event, which is in line with the Council's main Twitter account.

Media: A media alert was issued on Wednesday 15th January 2020. There was a good response from media outlets and radio / tv interviews were conducted on the day of the event.

BBC Radio Manchester (preview piece, including interview with Cllr Luthfur Rahman, plus on-the-day vox pop with pupils)

Hits Radio / Global Radio (attended on the day, to record interviews with Cllr Rahman and pupils)

BBC North West TV (a short piece ran on Saturday 18th January 2020 bulletins, including vox pop interviews with pupils from Dean Trust Ardwick) Manchester Evening News - News article on 27th January 2020.

Sponsorship: The organisations delivering the workshops waived any fees they may normally charge for the event.

3.5 Staffing

The venue provided a number of staff as part of the event package. This included security staff to undertake bag checks (venue requirement) and staff to guide young people to the event space. This support was valuable on the day. MCC staff (15) from across Neighbourhoods and Education provided support on the day to support stage management, marshalling, delivery of workshops and registration. 10 staff worked as 'Marshalls' during the event - providing support during ingress and egress. During registration the marshalls encouraged young people to capture their thoughts and feelings about the day ahead using tablets which created a word cloud on the screen in the auditorium. Staff then chaperoned the groups of children to their workshops and then back to the auditorium for the final session.

The registration staff remained at the venue entrance until the final delegates left. A 'quiet space' was made available in a room near the front foyer - teachers were made aware of this space in advance. The room was used by a couple of young people during the event. First Aiders were available from the venue staff and MCC staff present - nobody required first aid during the event.

4.0 Conclusion and recommendations

Feedback from the event has provided some useful learning to take forward and inform future events with young people.

Event Programme:

The majority of delegates thought that the event programme worked well and there was a good balance between listening and active engagement. Overwhelmingly, the most popular part of the event were the presentations from the three schools with over 80% of respondents rating this section as excellent. Young people also really enjoyed the opportunity to question leaders and many would have welcomed more time for this section. Over 87% of respondents thought the length of the event was about right.

Workshops:

The majority of feedback about the workshops was positive and this was an enjoyable section for young people. Young people described the workshops as '*inspiring', 'fun'* and *'really good'*. Workshop providers fed back that some students

may have benefited from receiving some pre event learning to ensure key concepts were understood - particularly for those at key stage 2.Comments from both schools and workshop providers suggest that whilst there were benefits to bringing primary and secondary school children together, the workshops may have been more effective if split by age: Stage 2 (9-11) and Key Stage 3 (11-14).

Next Steps:

- Pilot the 'skills to save the planet' resource 7 schools have indicated they are interested.
- Finalise the co-produced 'Environmental Wheel' resource with the Youth Council and pilot with young people.
- Establish a 'Youth Climate Action Network' to keep progressing efforts to support young people to get their voices heard and enable climate change action. This network will create opportunities for MCC Officers with youth / environmental objectives to network, share ideas and collaborate. A link will be made to a wider network of external organisations working in this sphere.
- Education to develop a system to capture schools environmental pledges and track progress.
- Create an award category for 'Young people tackling Climate Change' in the annual young people's Buzz Awards.
- Explore how schools can be better supported to reduce energy consumption from school buildings this was a key theme which emerged from discussion at the event and from survey feedback.
- Overwhelmingly, feedback from young people and teaching staff showed that the element they enjoyed the most was the opportunity to network and learn from each other. Schools need to be empowered and encouraged to network more.
- Develop an action plan to take forward the recommendations from this report and for this to feed into the Zero Carbon Coordination Group.

Appendix 4: Summary of Policy and Funding Asks

The successful delivery of the Council's Climate Change Action Plan 2020-25 requires partnership working with Greater Manchester agencies and with UK Government. The Council also needs to influence the development of new policies and secure additional funding for infrastructure to support the city's zero carbon ambition.

A brief summary of these asks is provided below but the detailed proposals will be developed through Workstream 4 of the Zero Carbon Coordination Group.

1. Greater Manchester

Work with the Greater Manchester Combined Authority on the following areas:

- Decarbonisation of the public estate
- Decarbonisation of domestic and commercial buildings
- Develop a Local Energy Plan for Manchester via the Greater Manchester Local Energy Market project which is funded by UK Research and Innovation
- Developing joint funding bids to UK Government and other funding bodies
- Work together to lobby UK Government to provide a devolved fund for commercial and domestic retrofit programme
- Seek further devolution of powers from Whitehall to Greater Manchester to enable the city region to address the climate emergency
- Support the Greater Manchester submission to the Comprehensive Spending Review and ensure that zero carbon is central to the submission
- Continue to focus on brownfield development at the core of the conurbation
- Consistent approach to considering climate change in procurements

Work with Transport for Greater Manchester on the following areas:

- Further expansion of Electric Vehicle Charging Infrastructure
- Delivery of Bus Reform including a fully Electric or Hydrogen Bus Fleet
- Implementation of a Clean Air Zone
- Implementation of the new City Centre Transport Strategy
- Further expansion of Metrolink and 'tram-trains'
- Promotion of active travel through implementation of Beelines walking and cycling network

Work with the Greater Manchester Pension Fund to ensure that they:

- Fully divest from investments in fossil fuels
- Increase investment in local zero carbon schemes which benefit Manchester and the city region
- Adopt the Manchester and Greater Manchester zero carbon 2038 target

2. UK Government

As the host country for COP26 in November 2020, the UK now needs to become a global leader in tackling climate change and transitioning to a green economy. Government needs to set a much clearer national policy direction to deliver this level of change. This means Government driving changes to the energy we use to shift much more quickly away from fossil fuels and towards renewable energy sources, in particular rapidly increase the pace and scale of solar, onshore wind, offshore wind, electric and other non-gas boilers, electric vehicles, national planning and building standards, and a credible aviation reductions plan nationally and internationally.

The pace of change in Manchester could be significantly accelerated if we could work with Government to jointly develop and jointly invest in a green investment fund of significant scale, covering investments in energy, retrofit of domestic and commercial buildings, green infrastructure and biodiversity. Greater Manchester and Manchester have the expertise of successfully running housing and infrastructure investment pots to generate an ongoing return on investment for reinvestment, and the same principles could be applied here

In relation to the important role for Local Government on climate change improved national cooperation and leadership and planning is required on issues such as clean air and clean air zones. The right economic incentives are not in place to enable Combined Authorities and Local Authorities to effectively rapidly drive this agenda.

Government need to focus on developing national policies to accelerate progress towards zero carbon which support businesses and protect more vulnerable households. This should include removing subsidies for fossil fuels and shifting policy to favour renewable energy sources and de-risking the transition to zero carbon heating and energy.

Some examples of the support we will be requesting from UK Government include:

a) Funding and infrastructure

- A UK Shared Prosperity Fund which can support delivery of Manchester's zero carbon ambition
- Continued access to European Funding such as Horizon Europe after the end of the UK's transition period on 31 December 2020
- A new national infrastructure approach and programme for domestic and commercial retrofit which also delivers on green jobs
- Significant Government funding to kick-start a Greater Manchester / Manchester infrastructure investment fund in the actions identified in climate change action plans
- A significantly funded scrappage or vehicle retrofit funding scheme to support the implementation of the Greater Manchester Clean Air Zone
- Increased investment and support for research to accelerate the decarbonisation of the aviation industry
- An enhanced Clean Air Fund of £1.5 billion to support 60 local authorities including Manchester

• Lobby for further investment in new transport and cycling infrastructure.

b) Policies and standards

- A national plan with targets which will ensure that the UK meets its obligations under COP21
- A significantly funded incentivisation scheme to promote Solar PV investment across public, commercial and domestic buildings
- Consistency of government policy across all departments e.g. Department for Education funding and school building standards and tensions with Section 106 agreements and Community Infrastructure Levy
- To ask that the planned fundamental review of Business Rates addresses the current disincentives to investing in solar PVs and other carbon reducing measures which then increase the Rateable Value and hence Business Rates liability of the asset
- National planning policy to actively encourage onshore wind electricity generation rather than seek to restrict it
- A coherent policy which promotes renewable energy with financial incentives for domestic and commercial premises such as grants alongside free insulation and other energy efficiency measures
- National legislation on Single Use Plastics and other waste packaging
- New legislation to reduce consumption based emissions and embedded carbon
- Continue to lobby for local planning authorities such as Manchester to be able to set more ambitious energy efficiency standards for new buildings. This is in response to the Future Homes Standard consultation on Part L of the Building Regulations which proposes to "restrict local planning authorities from setting higher energy efficiency standards for dwellings". Government should actively encourage cities and others to set their own more ambitious standards rather than seek to restrict this power.
- More powers for local government on selective licencing to include energy efficiency alongside funding to effectively enforce
- A national focus on Nature Based Solutions as a way of supporting climate adaptation and improving biodiversity, including significant funding to invest in natural infrastructure