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MANCHESTER CITY COUNCIL

# Overview and Scrutiny Climate Change Subgroup

Date: Wednesday, 18 March 2020
Time: 2.00 pm
Venue: Council Chamber, Level 2, Town Hall Extension

Everyone is welcome to attend this Subgroup meeting.

There will be a private meeting for members of the Committee at 1:30 pm in Committee Room 6, Room 2006, Level 2 of the Town Hall Extension.

**Access to the Council Chamber**

Public access to the Council Chamber is on Level 2 of the Town Hall Extension, using the lift or stairs in the lobby of the Mount Street entrance to the Extension. That lobby can also be reached from the St. Peter's Square entrance and from Library Walk. **There is no public access from the Lloyd Street entrances of the Extension.**

## Membership

**Councillors** - Wright (Chair), Flanagan, Hassan, Jeavons, Kilpatrick, Lynch, Lyons, Shilton Godwin and Whiston

# Agenda



# Further Information

For help, advice and information about this meeting please contact the Committee Officer:


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This agenda was issued on **Wednesday 11 March 2020** by the Governance and Scrutiny Support Unit, Manchester City Council, Level 3, Town Hall Extension, Manchester M60 2LA

# Neighbourhoods and Environment Scrutiny Committee – Climate Change Subgroup

**Minutes of the meeting held on 23 January 2020**

**Present:**
Councillor Wright (In the Chair)
Councillors Flanagan, Jeavons, Kilpatrick, Lyons and Shilton Godwin

**Also present:**
Councillor Stogia, Executive Member for Environment, Planning and Transport
Dr John Broderick, The Tyndall Centre for Climate Change Research
Dr Chris Jones, The Tyndall Centre for Climate Change
Jonny Sadler, Programme Director, Manchester Climate Change Agency
Julie Ryan, Friends of Ryebank Fields
Adam Pierce, Resident of Manchester
Claire Stocks, Resident of Manchester
Louise Sheridan, Resident of Manchester

**Apologies:** Councillors Lynch and Whiston

## NESC/CCSG/20/01 Minutes

The minutes of the meeting of the 22 October 2019 were submitted for approval. The Chair requested that Cllr Flanagan's apologies be recorded. The Chair recommended that the letter sent by Cllr Paul Andrews to the Greater Manchester Pension Fund regarding the divestment in fossil fuels be appended to the published minutes.

**Decisions**

The Subgroup;

1. Approve the minutes of the meeting held on 22 October 2019 as a correct record, subject to the above amendment.

2. Recommend that the letter sent by Cllr Paul Andrews to the Greater Manchester Pension Fund regarding the divestment in fossil fuels be appended to the minutes.

## NESC/CCSG/20/02 Climate Emergency and Community Engagement

The Subgroup considered the report of the Strategic Director (Neighbourhoods) and the Strategic Lead, Neighbourhoods that described that in November 2018 the Council's Executive agreed to the establishment of science-based carbon reduction targets for Manchester, which required the city to become net zero carbon by 2038. In July 2019, the Council declared a Climate Emergency, noting that the declaration was explicit about the Council working with residents and other partners at a

neighbourhood level, to ensure they were proactively involved in achieving this target.

The report submitted provided a summary on progress to date against this activity, and building on this momentum, outlined further actions that communities, Officers, Members and other partners, wanted to work on together to help reduce carbon. Building capacity to accelerate action at a neighbourhood level was key, as well as embedding priority actions in neighbourhood based ward plans.

The Subgroup considered the key points within the report, which included: -

- Providing a context and background to this activity;
- Progress to date, describing a range of initiatives and activities;
- Describing the ambitions and plans to build on this momentum to ramp up delivery and have an even greater impact to reduce carbon;
- Next steps;
- The approach to communications;
- The approach to the sharing of skills and experience to support and embed this activity; and
- Information on tools and capacity available.

Some of the key points that arose from the Subgroup's discussions were: -

- Welcoming the report and noting the activities delivered in wards;
- Recognising the ambition and challenge to scale up this activity to address climate change, suggesting that car free days and road closures should be expanded;
- The Council should use all of its influence through policy levers, across a range of activities, including planning and housing to address climate change and lead by example;
- Communications issued by the Council should be explicit in regard to climate change to reinforce the message;
- Recognising the importance of personal responsibility and behaviours to address climate change;
- Neighbourhood investment funds should be awarded to support and deliver activities and schemes designed to tackle climate change; and
- An update was sought on carbon literacy training for staff in the Neighbourhood Teams and was climate change being incorporated into respective wards plans.

The Members heard from Julie Ryan, Friends of Ryebank Fields. She spoke to the Subgroup and stated that the Ryebank Fields area of land did not appear on the published Brownfield Register and therefore it was their assertion that any plans to build housing on Ryebank Fields was contrary to local and national planning policy. She stated that this land was green belt land with similar status to other protected locations within the area, and as such should not be used for development.

The Strategic Lead, Neighbourhoods informed the Members that the community initiatives and projects were the result of engaging with, and listening to local residents and supporting them to deliver various projects. He stated that the

Neighbourhoods Directorate were leading on the issue of climate change at a neighbourhood level for the Council, and all Neighbourhood Team Officers would have received their carbon literacy training by the end of March. He further commented that the Directorate was continually seeking to influence the many partners of the Council, including Greater Manchester Police, housing providers, the NHS and businesses, and regularly engaged in positive conversations with them regarding climate change and actions to mitigate this. He added that these conversations were then fed back and used to inform strategies and actions.

The Strategic Lead, Neighbourhoods confirmed that climate change was included in all ward coordination meetings and was explicit in ward planning. He further commented that behaviour change was being influenced by communities and residents positively and constructively engaging with each other.

The Neighbourhood Manager, Central Neighbourhood Team responded to the comment from a Member regarding car free days. She said that they were seeking to build on the positive events and were working with partners to expand this, adding that they had bold ambitions to extend car free days and deliver regular road closures to promote and encourage walking and cycling.

The Deputy Chief Executive informed the Members that council policies, including the City Centre Transport Strategy were being reviewed to ensure that climate change would be embedded throughout these. She stated that it was important to use all available levers to influence change, commenting that the Highways Department procurement process was used to challenge suppliers to mitigate their direct and indirect carbon emissions. She further commented on the issue raised regarding communications by stating that this would be reviewed to ensure all communications were strengthened and messages aligned to climate change activity.

**Decision**

To recommend that the issue regarding the status of Ryebank Fields, raised by the resident be referred to the Executive Member for Environment, Planning and Transport for a response.

**NESC/CCSG/20/03 Review of Manchester's Climate Change Targets**

Jonny Sadler, Programme Director, Manchester Climate Change Agency introduced the item. The Agency had commissioned the Tyndall Centre for Climate Change Research to undertake four pieces of work and make recommendations, as required, in relation to: the city's direct $CO_2$ emissions; the city's indirect / consumption-based $CO_2$ emissions; aviation emissions, and; methodology for organisations and sectors to set science-based targets.

The Subgroup heard from Dr John Broderick and Dr Chris Jones, from the Tyndall Centre for Climate Change Research who had been invited to present their work to date on the review of the city direct and aviation $CO_2$ targets. Noting that the review would take into account the latest science and international best practice for cities

and would include further analysis and recommendations on aviation and consumption based emissions.

The Subgroup considered the key points in the presentations, which included: -

Direct $CO_2$ emissions

- Based on currently scientific analysis the draft recommendations and key points in regard to direct emissions were -
  - Retain the existing 15 $MtCO_2$ carbon budget, recognising that the latest science would allow Manchester to increase its budget to 18m tonnes;
  - Revisit carbon budgets in five years or in response to a new scientific synthesis report;
  - Focus on above 13% per annum reduction rate and meeting interim budgets;
  - Note that delays in achieving the 13% per annum reductions would require higher reduction rates in subsequent years;
  - Note that in relation to a date to become zero carbon, this is determined by historic emissions and the reduction rate then required in future years to stay within the 15m tonne budget i.e. the zero carbon date will change if the 13% annual reduction target is not met; and
  - Note that in relation to the potential 2030 zero carbon date, insufficient detail has been provided to enable Tyndall to analyse whether or not this is in line with the latest science. The main criteria to consider are: maximum carbon budget of 15m tonnes 2018-2100; 13% per annum reduction, as a minimum.

Aviation

- UK aviation emissions should stay within a carbon budget of 1,262m tonnes $CO_2$ 2018-2100, to be in line with the Paris Agreement, versus 1,705m tonnes of estimated forecast emissions based on Government's current plans for UK aviation;
- MCC and Manchester Airport should work with UK Government and other UK airports to establish a plan for staying within this budget;
- Data was available to monitor and report estimated figures for $CO_2$ emissions from flights by Manchester residents;
- Data was not currently available to monitor and report estimated figures for $CO_2$ emissions from flights by Manchester businesses but could be developed; and
- Manchester Airport could become a 'pioneer organisation' with other members of the Manchester Climate Change Partnership, in relation to its ground operations.

The Committee heard from Adam Pierce, resident of Manchester, who said that it was his opinion that Manchester needed to be bold and imaginative to effectively respond to climate change, utilising the creativity and skills of the many residents across the city who were engaged in this subject. He called for increased action and visible leadership from the Council to support residents to proactively respond to this issue. He suggested that consideration should be given to introducing a free travel scheme as an incentive for those residents who wished to scrap their vehicles.

The Subgroup heard from Louise Sheridan, resident of Manchester, who stated that it was her opinion that the Council had failed to deliver on its previous promise to

deliver a citywide 41% reduction in carbon emissions by 2020 from a 2005 baseline. She further said that it was her opinion that the Leader of the Council should be summonsed to a meeting of the Subgroup to explain this.

In response to this comment the Programme Director, Manchester Climate Change Agency reminded the Members that a report submitted to the July 2019 meeting of the Neighbourhoods and Environment Scrutiny Committee had described that the latest data showed that citywide emissions had reduced by 40% since 2005 and the Council's direct emissions had reduced by 48.1% from a 2009/10 baseline. He stated that since then the Council had adopted a more challenging science-based carbon budget for the city. A Member also commented that it was everyone's responsibility to act on climate change.

The Subgroup heard from Claire Stocks, resident of Manchester, who stated that it was her opinion that the claim that the Council accounted for approximately 2% of the city's overall carbon emissions was used as an excuse, and that the Council needed to be bolder in its response to the climate emergency. The Deputy Chief Executive responded that the 2.5% figure related to direct emissions, however the Manchester City Council Climate Change Action Plan 2020-25 was much wider in its aims and ambitions and would demonstrate leadership on this issue. She informed Members that that the draft action plan would be submitted to the February meeting of the Neighbourhoods and Environment Scrutiny Committee for comment.

Some of the key points that arose from the Subgroup's discussions were: -

- Consideration needed to be given to the impact of activities, such as developments on carbon budgets for other cities;
- Whilst supporting the increased use of electric vehicles, consideration needed to be given to the unintended impact of this, such as increased emissions from power stations required to produce electricity;
- Did the carbon budget include carbon emissions from all sources;
- Noting that contributors to emissions, such as the motorway network were not directly controlled locally and this could negatively impact on achieving any carbon reduction targets. Adding that central government and responsible agencies needed to take immediate action on those areas of infrastructure that they had responsibility for;
- Requesting that the research and information that had informed the presentation be circulated to all members of the Subgroup;
- Emissions from aviation needed to be taken into consideration;
- The impact on climate change as a result of growth at the airport needed to be understood and taken into consideration and decisions taken should not undermine the ambitions to address climate change;
- The Council should use its stake as an owner in the airport as a mechanism to influence positive change; and
- Consideration should be given to the introduction of a frequent flyer levy to deter people from flying and reduce emissions from aviation.

The Programme Director, Manchester Climate Change Agency informed the Members that the Tyndall Centre had made their draft independent recommendations and findings based upon the latest scientific analysis and work to

date. The Manchester Climate Change Framework 2020-25 would set out in high-level terms what the city needed to do to meet its targets. He stated that an update on the development Framework would be presented to the February meeting of the Neighbourhoods and Environment Scrutiny Committee for comment and this would be an opportunity for an honest discussion as to how the city needed to responded to the carbon budget and also identify any gaps.

The Programme Director, Manchester Climate Change Agency clarified that the city's current carbon budget related to energy related emissions from buildings and transport emissions. He further commented that consideration would need to be given to understanding and measuring indirect emissions, created as a result of consumption and the impact this had on other cities, both nationally and internationally. In response to the comments regarding electric vehicles he stated that the national grid would need to continue to decarbonise, combined with increases in the amount of renewable energy generated within the city.

In regard to the airport, the Programme Director, Manchester Climate Change Agency commented that it was important to understand where the emissions were generated from, noting the difference between aviation and the actual airport site. The Deputy Chief Executive added to this by stating that the actual airport ground operation was carbon neutral. A Member recommended that the Subgroup should undertake a visit to the airport.

**Decision**

The Subgroup;

1. Recommend that aviation emissions should be included in the setting of carbon budgets and work is required with Government and other UK airports to establish a plan for meeting this budget;

2. Recommend that officers explore the options for measures that can be introduced locally to help the UK stay within the required UK aviation carbon budget, for example the introduction of a frequent flyer levy; and

3. Recommend that a visit to the airport site be arranged for members of the Subgroup.

**NESC/CCSG/20/04 Terms of Reference and Work Programme**

The Subgroup were invited to consider and agree the terms of reference and work programme. The Chair informed all those present that the date of the next meeting was 18 March 2020 at 2pm.

**Decision**

The Subgroup agreed the terms of reference and work programme.

**Manchester City Council**
**Report for Information**

**Report to:** Climate Change Subgroup – 18 March 2020

**Subject:** Reducing Carbon Emissions from the MCC Operational Estate

**Report of:** Head of Estate and Facilities

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**Summary**

This paper and the attached presentation set out an update on the actions being taken to reduce $CO_2$ emissions from the Council's operational estate.


**Recommendations**

The Subgroup are asked to comment on the approach outlined in this report and the accompanying presentation.

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**Wards Affected:** All

| **Environmental Impact Assessment** - the impact of the issues addressed in this report on achieving the zero-carbon target for the city |
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| The Council's property and land assets are a significant area of focus in efforts to achieve the zero-carbon target for the city. In terms of the Council's direct carbon emissions, in 2018/19 the Council's buildings accounted for around 69% of the total emissions. This report includes an update on the Carbon Reduction Programme, a specific investment programme focussing on building retrofit and energy generation to increase the scale and pace of carbon reduction activity on the estate. |

| **Manchester Strategy outcomes** | **Summary of how this report aligns to the OMS** |
|---|---|
| A thriving and sustainable city: supporting a diverse and distinctive economy that creates jobs and opportunities | The transition to a zero carbon city will help the city's economy become more sustainable and will generate jobs within the low carbon energy and goods sector. This will support the implementation of the Our Manchester Industrial Strategy. |
| A highly skilled city: world class and home grown talent sustaining the city's economic success | Manchester is one of a small number of UK cities that have agreed a science based target and is leading the way in transitioning to a zero carbon city. It is envisaged that this may give the city opportunities in the green technology and services sector. |
| A progressive and equitable city: making a positive contribution by unlocking the potential of our | Transitioning to a zero carbon city can help to tackle fuel poverty by reducing energy bills. Health outcomes will also be improved through the |

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| communities | promotion of more sustainable modes of transport and improved air quality. |
| A liveable and low carbon city: a destination of choice to live, visit, work | Becoming a zero carbon city can help to make the city a more attractive place for people to live, work, visit and study. |
| A connected city: world class infrastructure and connectivity to drive growth | A zero carbon transport system would create a world class business environment to drive sustainable economic growth. |

**Contact Officers:**

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**Background documents (available for public inspection):**

The following documents disclose important facts on which the report is based and have been relied upon in preparing the report. Copies of the background documents are available up to 4 years after the date of the meeting. If you would like a copy please contact one of the contact officers above.

Manchester City Council Climate Change Action Plan 2020-25, Neighbourhoods and Environment Scrutiny Committee, 4 March 2020.

## 1.0 Introduction

1.1 This paper and the attached presentation set out an update on the actions being taken to reduce $CO_2$ emissions from the Council's operational estate. The Operational Estate includes c350 buildings that are used to provide Council services. It excludes the investment estate, schools and housing stock. In 2018/19 the Council's buildings accounted for around 69% of the organisation's total emissions, at around 25,789 $tCO_2$.

## 2.0 Approach to Reducing Carbon Emissions

2.1 Slide 4 and 5 on the attached presentation introduce the approach to reducing emissions for the operational estate. Broadly the approach is three-fold, aiming to 'reduce, produce and connect' by: reducing the energy demand of buildings by investing in active or passive design measures that make them more energy efficient, including retrofit of existing properties; generating cleaner energy on or in buildings primarily through use of solar panels and decarbonising heat; and making better use of data to drive down energy use and maximise the benefit of locally produced energy.

2.2 Slide 4 summarises the specific activities that are currently part of the Carbon Reduction Programme, and further detail on these is set out in Table 1 in Appendix 1.

2.3 In addition to the projects described above, the programme includes a Decision Making, Policies and Standards Workstream. Work has begun to review and update the decision making processes, policies and standards associated with the design, construction and maintenance of the Authorities buildings to ensure we are well placed to respond to the climate emergency.

2.4 Practical steps have already been taken to prioritise carbon reduction within decision making processes. In recognition of the role capital expenditure will need to play in achieving the Council's carbon strategy the template used for compiling capital business cases has been amended. When seeking to get approval for a capital project, officers must now detail how the proposed project will contribute to the Council's objective to be zero carbon by 2038, and further must detail the carbon reducing benefits for the project in both the construction phase and the operational phase of the building.

2.5 The larger figure on slide 5 shows the various decision points involved in a typical building lifecycle, along with the stakeholders involved in making those decisions. Sustainability must be considered at each step to maximise the efficiency of a building, and this diagram highlights the different groups that need to be engaged. As part of the Carbon Reduction Programme, a Buildings and Energy Group has been set up to further develop our approach to decision making, policies and standards for the built environment.

2.6 The group work plan includes activities across '4 steps' - the smaller diagram on slide 5. Further detail on these areas of work are shown in Table 2 in Appendix 1.

2.7 Slides 6 and 7 list out some specific examples where operational estate projects are ongoing, and highlight measures that are being included to reduce carbon emissions. Slides 8 to 11 provide further detail on Phase 1 of the Carbon Reduction Programme, including the buildings in scope, the works being delivered, how the programme was developed and some of the key areas of learning. Slides 12 - 14 summarise priority next steps, while slides 15 and 16 summarise the key areas from the Manchester City Council Climate Change Action Plan 2020-25 that directly link to the operational estate.

2.8 A high level project plan is also attached to this report (Appendix 2) showing the key milestones of the Carbon Reduction Programme.

## 3.0 Recommendations

3.1 The Subgroup are asked to comment on the approach outlined in this report and the accompanying presentation.

**Appendix 1**

Table 1 - Investment and Delivery Activity

| Project | High Level Description |
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| Retrofit of Individual Energy Conservation Measures | Develop an ongoing pipeline of investments through a series of building audits focussing on retrofitting proven energy efficiency measures, on a Return on Investment basis. This is an expansion and continuation of the existing Carbon Reduction Programme, generally referred to as “Phase 2”. |
| Zero Carbon whole building retrofit pilot | This is intended to be an exemplar from which learning can be applied to all future design and investment decisions. This will set the bar for what good looks like for non-domestic retrofit in Manchester and be the catalyst for the transformation of our approach to the built environment internally. |
| Building analysis | Complete an analysis of the operational estate to identify and rank buildings based on size / kWh consumption per m2 and DEC rating. The buildings with the worst kWh per m2 and DEC ratings may be more suitable candidates for a whole building approach, whereas the better performing buildings (likely to be newer or recently refurbished) would be more suitable for targeted Energy Conservation Measures (ECMs). |
| Building Management System (BMS) Roadmap | The existing BMS used by the Energy Management Team will need replacing before 2022, when support for the system is expected to be removed by the supplier. This presents a timely opportunity for the Authority to establish a clear roadmap for the future development of BMS including:<br>• A full audit of all existing functionality (both connected and remote BMS)<br>• Establishing a standard BMS specification and building suitability criteria<br>• Ensuring all BMS provide the Energy Management Bureaux with either direct management of the BMS or an oversight of energy consumption (where we have 3rd party providers responsible for Facilities Management) |
| Building Management System Expansion & Optimisation | Once the roadmap is in place we will have a clearer view of the overall strategy and opportunities for investment, a full business case for investment will be developed in line with the requirement to upgrade the main Energy Bureau BMS. Implementation plans will also be developed in line with the overall Roadmap. |
| Data driven performance management | This work stream will look to build on existing energy reporting, establishing an MI Dashboard to highlight variations in expected and actual performance based on previous trends or energy models (for new build / major refurbishments). Focussing on key assets initially, the aim being to support contract management with FM providers and as a result drive additional efficiencies. |
| Small to medium scale behind the | By the end of 2020/21 we will complete Solar PV feasibility studies including structural assessment & condition survey of 25 buildings. We will then develop business cases for investment (on |

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| meter Solar PV | a rolling basis) and secure a route to market either through existing options (i.e. the Refit Framework), a new MCC procurement or a joint procurement with the GMCA (Go Neutral 2). |
| Large scale remote generation Solar PV | There are a number of approaches to consider when developing large scale Solar PV, the approach chosen will depend on the level of local opportunity and the commercial options. The initial output of this work stream will be a full options appraisal, followed by the development of a full business case for investment. |
| Working with GM | Ensuring we have the capacity to work with GM will mean we are well placed to make best use of and learn from the expertise now available. Opportunities exist to work with GM to develop standard tools and templates as well as common approaches to challenges such as 'building the case for investment in schools', access to resources and analysis, and the potential for joint procurement (benefits of scale). |
| Boiler replacement programme | It is proposed to complete a fresh review of the stock condition surveys to establish a priority pipeline of work focussed on low carbon heat, identifying buildings with boilers approaching end of life. |
| Gas phase out | Plan that all new or replacement heating systems deliver low or zero carbon heating solutions, be this new build schemes, major refurbishments or end of life replacement via the Asset Management Programme. Gas should only be approved by exception based on a full technical and financial options appraisal. This approach would be in line with (although more ambitious) other national strategies e.g. the policy to ban gas from all new residential developments from 2025. This approach should be adopted once learning from the 'Accelerated boiler replacement project' is available and formalised in standard building specifications and via checkpoint approval routes. |
| Time Shift | To be explored during each Solar PV deployment, as the cost of storage comes down the opportunity to deliver larger arrays supported by battery storage will increase. The programme should look to make use of second hand battery packs wherever possible, re-using batteries that no longer have the performance needed for electric vehicles but perfectly fine for buildings. This approach will help reduce the impact of producing the batteries, both the embodied carbon associated with their manufacture and the environmental impact associated with lithium mining. |
| Demand Side Response | Work with GM & ENW to identify MCC building and land assets in areas where storage capacity could support the grid, explore opportunities for revenue generation to support wider carbon reduction measures within the Authority. This opportunity is expected to increase as more renewables are brought into the energy mix over the next ten years. |

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| GM Local Energy Market | Supporting GM to develop the proposals above will initially require the Authority to generate and share a significant amount of information about our assets and energy consumption. This will need to be co-ordinated centrally. The output of this initial work will be an Energy Plan for Manchester produced in conjunction with Electricity Northwest and Cadent, this will become a key document to identify opportunities and inform energy investments going forward. Once this is in place work will begin on development of the local energy market, requiring technical (BMS and FM), Commercial and Legal support to be provided by MCC. |

Table 2 - Decision Making, Policy and Standards Activity

| Step | Description |
|---|---|
| Step 1 - Become more informed | Identify examples of best practice design and retrofit (active / passive / green infrastructure), identify learning to be shared and incorporated into a communications plan. |
| | Complete staff consultations & skills audit |
| | Support the development of the NWCH Sustainability Special Interest Group |
| | Develop targeted communications & training plan based on the output of research & benchmarking activities. To include: Programme of site visits to best practice ; Programme of tool box talks, bringing in area specialists to promote the benefits and business case for areas such as Green Infrastructure, Renewable Heat etc. |
| | Produce a building accreditation assessment report outlining the options and limitations of each |
| Step 2 - Change the way we assess success | Agree the Manchester Build Standard / Standards to be used going forward and embed this within decision making processes. |
| | Working with colleagues involved in the management of the Capital Strategy Board identify proposals for additional assessment criterion to enable the Authority to develop a more rounded view of the environmental impact of its investments and assets. |
| | Embed further new assessment criterion into the standard Checkpoint Process. |
| Step 3 - Change the way we buy | Ensure all standard specifications and employers requirements are updated to reflect new build standards and assessment criteria. |
| | Greening the supply chain – update standard procurement questions to identify and assess the green credentials of the organisations themselves. Agree what weighting this should have. |
| Step 4 - Change the way we track benefits | Produce ‘Zero Carbon 2038’ Project Closure Template to be completed at the end of a major project or refurbishment and signed off by the Project Manager and SRO. This will enable more effective benefit tracking and ensure accountability for ‘value engineering’ decisions. This should also include a question about the energy management plan for the building, |

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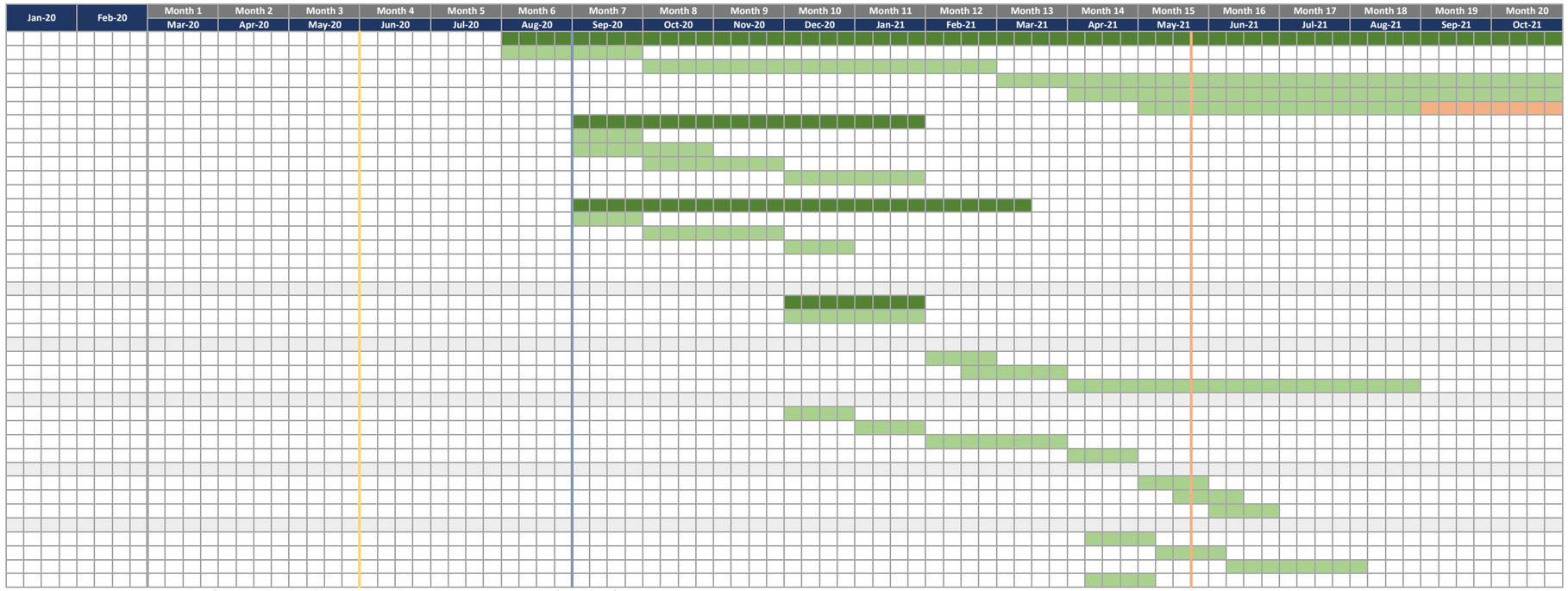
| | who is responsible for producing and reviewing the performance data, what will be reported and how frequently. |
| | Soft Landings, focussing on the 'performance gap' complete analysis of our experience to date and the challenges experienced and areas of good practice. Identify 3rd party research and good practice. Link in with the BMS Expansion & Optimisation work described above. |

New Programme Approved | Existing Programme Savings Begin | Recruitment Complete | New Programme Savings Begin

| No. | Activity | Jan-20 | Feb-20 | Month 1 Mar-20 | Month 2 Apr-20 | Month 3 May-20 | Month 4 Jun-20 | Month 5 Jul-20 | Month 6 Aug-20 | Month 7 Sep-20 | Month 8 Oct-20 | Month 9 Nov-20 | Month 10 Dec-20 | Month 11 Jan-21 | Month 12 Feb-21 | Month 13 Mar-21 | Month 14 Apr-21 | Month 15 May-21 | Month 16 Jun-21 | Month 17 Jul-21 | Month 18 Aug-21 | Month 19 Sep-21 | Month 20 Oct-21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | **Existing Programme** | | | | | | | | | | | | | | | | | | | | | | |
| 2 | **ROI Retrofit of Individual Energy Conservation Measures - Ph1** | | | | | | | | | | | | | | | | | | | | | | |
| 3 | **Wythenshawe Forum** | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Works Contract | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Preliminaries | | | | | | | | | | | | | | | | | | | | | | |
| 6 | Procurement | | | | | | | | | | | | | | | | | | | | | | |
| 7 | Installation | | | | | | | | | | | | | | | | | | | | | | |
| 8 | **THX/Central Library** | | | | | | | | | | | | | | | | | | | | | | |
| 9 | Works Contract | | | | | | | | | | | | | | | | | | | | | | |
| 10 | Preliminaries | | | | | | | | | | | | | | | | | | | | | | |
| 11 | Procurement | | | | | | | | | | | | | | | | | | | | | | |
| 12 | Installation | | | | | | | | | | | | | | | | | | | | | | |
| 13 | **East Manchester Leisure Centre** | | | | | | | | | | | | | | | | | | | | | | |
| 14 | Works Contract | | | | | | | | | | | | | | | | | | | | | | |
| 15 | Preliminaries | | | | | | | | | | | | | | | | | | | | | | |
| 16 | Procurement | | | | | | | | | | | | | | | | | | | | | | |
| 17 | Installation | | | | | | | | | | | | | | | | | | | | | | |
| 18 | **Space Project** | | | | | | | | | | | | | | | | | | | | | | |
| 19 | Works Contract | | | | | | | | | | | | | | | | | | | | | | |
| 20 | Preliminaries | | | | | | | | | | | | | | | | | | | | | | |
| 21 | Procurement | | | | | | | | | | | | | | | | | | | | | | |
| 22 | Installation | | | | | | | | | | | | | | | | | | | | | | |
| 23 | **Hough End Leisure Centre** | | | | | | | | | | | | | | | | | | | | | | |
| 24 | Works Contract | | | | | | | | | | | | | | | | | | | | | | |
| 25 | Preliminaries | | | | | | | | | | | | | | | | | | | | | | |
| 26 | Procurement | | | | | | | | | | | | | | | | | | | | | | |
| 27 | Installation | | | | | | | | | | | | | | | | | | | | | | |
| 28 | **Arcadia Sports Centre** | | | | | | | | | | | | | | | | | | | | | | |
| 29 | Works Contract | | | | | | | | | | | | | | | | | | | | | | |
| 30 | Preliminaries | | | | | | | | | | | | | | | | | | | | | | |
| 31 | Procurement | | | | | | | | | | | | | | | | | | | | | | |
| 32 | Installation | | | | | | | | | | | | | | | | | | | | | | |
| 33 | **Moss Side Leisure Centre** | | | | | | | | | | | | | | | | | | | | | | |
| 34 | Works Contract | | | | | | | | | | | | | | | | | | | | | | |
| 35 | Preliminaries | | | | | | | | | | | | | | | | | | | | | | |
| 36 | Procurement | | | | | | | | | | | | | | | | | | | | | | |
| 37 | Installation | | | | | | | | | | | | | | | | | | | | | | |
| 38 | **Belle Vue Sport Centre** | | | | | | | | | | | | | | | | | | | | | | |
| 39 | Works Contract | | | | | | | | | | | | | | | | | | | | | | |
| 40 | Preliminaries | | | | | | | | | | | | | | | | | | | | | | |
| 41 | Procurement | | | | | | | | | | | | | | | | | | | | | | |
| 42 | Installation | | | | | | | | | | | | | | | | | | | | | | |
| 43 | **The Sharp Project** | | | | | | | | | | | | | | | | | | | | | | |
| 44 | Works Contract | | | | | | | | | | | | | | | | | | | | | | |
| 45 | Preliminaries | | | | | | | | | | | | | | | | | | | | | | |
| 46 | Procurement | | | | | | | | | | | | | | | | | | | | | | |
| 47 | Installation | | | | | | | | | | | | | | | | | | | | | | |
| 48 | **Manchester Tennis and Football Centre** | | | | | | | | | | | | | | | | | | | | | | |
| 49 | Works Contract | | | | | | | | | | | | | | | | | | | | | | |
| 50 | Preliminaries | | | | | | | | | | | | | | | | | | | | | | |
| 51 | Procurement | | | | | | | | | | | | | | | | | | | | | | |
| 52 | Installation | | | | | | | | | | | | | | | | | | | | | | |
| 55 | **Enabling Workstream** | | | | | | | | | | | | | | | | | | | | | | |
| 56 | **Recruitment** | | | | | | | | | | | | | | | | | | | | | | |
| 57 | Organisational approvals | | | | | | | | | | | | | | | | | | | | | | |
| 58 | Role Advertised | | | | | | | | | | | | | | | | | | | | | | |
| 59 | Interviews | | | | | | | | | | | | | | | | | | | | | | |
| 60 | Notice period worked | | | | | | | | | | | | | | | | | | | | | | |
| 61 | Mobilisation | | | | | | | | | | | | | | | | | | | | | | |
| 62 | **Reduce** | | | | | | | | | | | | | | | | | | | | | | |
| 66 | **Building Analyis - Operational & Leisure Estate** | | | | | | | | | | | | | | | | | | | | | | |
| 67 | Data Gathering & Analysis | | | | | | | | | | | | | | | | | | | | | | |
| 68 | Pipeline Workshop (CPD/AMP/EMT/EST) | | | | | | | | | | | | | | | | | | | | | | |
| 69 | **ROI Retrofit of Individual Energy Conservation Measures - Ph2** | | | | | | | | | | | | | | | | | | | | | | |
| 70 | Checkpoint 2 Approval | | | | | | | | | | | | | | | | | | | | | | |
| 71 | Building Due Dilligence | | | | | | | | | | | | | | | | | | | | | | |
| 72 | High Level Assessments | | | | | | | | | | | | | | | | | | | | | | |
| 73 | Investment Grade Proposal | | | | | | | | | | | | | | | | | | | | | | |
| 74 | Checkpoint 4 Approval | | | | | | | | | | | | | | | | | | | | | | |
| 75 | **Building Tranche 1** | | | | | | | | | | | | | | | | | | | | | | |
| 76 | Works - Legals | | | | | | | | | | | | | | | | | | | | | | |
| 77 | Works - Preliminaries | | | | | | | | | | | | | | | | | | | | | | |
| 78 | Works - Procurment | | | | | | | | | | | | | | | | | | | | | | |
| 79 | Works - Installation | | | | | | | | | | | | | | | | | | | | | | |
| 80 | **Building Tranche 2** | | | | | | | | | | | | | | | | | | | | | | |
| 81 | Works - Legals | | | | | | | | | | | | | | | | | | | | | | |
| 82 | Works - Preliminaries | | | | | | | | | | | | | | | | | | | | | | |
| 83 | Works - Procurment | | | | | | | | | | | | | | | | | | | | | | |
| 84 | Works - Installation | | | | | | | | | | | | | | | | | | | | | | |
| 85 | **Building Tranche 3** | | | | | | | | | | | | | | | | | | | | | | |
| 86 | Works - Legals | | | | | | | | | | | | | | | | | | | | | | |
| 87 | Works - Preliminaries | | | | | | | | | | | | | | | | | | | | | | |
| 88 | Works - Procurment | | | | | | | | | | | | | | | | | | | | | | |
| 89 | Works - Installation | | | | | | | | | | | | | | | | | | | | | | |
| 90 | **Whole Building Retrofit Pilot** | | | | | | | | | | | | | | | | | | | | | | |
| 91 | Analysis | | | | | | | | | | | | | | | | | | | | | | |
| 92 | Business Case Development | | | | | | | | | | | | | | | | | | | | | | |
| 93 | Procurement & Legals | | | | | | | | | | | | | | | | | | | | | | |
| 94 | Works Design & Delivery | | | | | | | | | | | | | | | | | | | | | | |
| 95 | **BMS Roadmap** | | | | | | | | | | | | | | | | | | | | | | |
| 96 | Analysis | | | | | | | | | | | | | | | | | | | | | | |
| 97 | Business Case Development | | | | | | | | | | | | | | | | | | | | | | |
| 98 | Procurement & Legals | | | | | | | | | | | | | | | | | | | | | | |
| 99 | Phased Expansion & Optimisation Deployment Plan | | | | | | | | | | | | | | | | | | | | | | |
| 100 | **Produce** | | | | | | | | | | | | | | | | | | | | | | |

| No. | Activity |
|---|---|
| 101 | **Small to medium scale behind the meter Solar PV** |
| 102 | Analysis (inc Surveys) |
| 103 | Procurement |
| 104 | Business case development (rolling programme) |
| 105 | Works - Legals (rolling programme) |
| 106 | Works Design & Delivery (rolling programme) |
| 107 | **Large Scale Remote Generation - Solar PV** |
| 108 | High level land asset review |
| 109 | Market engagement |
| 110 | Agree preferred business model & business owner |
| 111 | Business case development & commercial assessment |
| 112 | Delivery timescales dependent upon chosen business model |
| 113 | **Accelerated boiler replacement programme** |
| 114 | Review building condition surveys to ID pilot buildings |
| 115 | Complete feasibility assessments |
| 116 | Complete financial assessment (capital & revenue) |
| 117 | Legals - TBC |
| 118 | Installation - TBC |
| 119 | **Connect** |
| 120 | **GM Local Energy Market** |
| 121 | Significant Building, M&E. Land & Consumption Data Gathering Exercise |
| 122 | Development of Manchester Local Energy Plan - TBC |
| 123 | **Step 1 \| Become more informed** |
| 124 | Building Accreditation Assessment Report |
| 125 | Skills Audit (survey design, issue, analyse) |
| 126 | Targeted Communications Plan - Staff Involved with Buildings |
| 127 | **Step 2 \| Change the way we assess success** |
| 128 | Agree Manchester build standard/s |
| 129 | Produce new Assessment Criterion Report (NPV / Intensity Measures / Carbon Costing) |
| 130 | Pilot new assessment criterion with pipeline projects |
| 131 | Embed new assessment criterion within the formal checkpoint process |
| 132 | **Step 3 \| Change the way we buy** |
| 133 | Update standard specifications and emplyer requirements |
| 134 | Review and update standard procurement questions |
| 135 | Review and update standard KPI monitoring requirements |
| 136 | **Step 4 \| Change the way we track benefits** |
| 137 | Develop Zero Carbon Project Close Report |
| 138 | Pilot Zero Carbon Project Close Report |
| 139 | Embed Zero Carbon Project Close Report |
| 140 | Performance Gap - Soft Landings Evaluation Report |



# Climate Change Sub-Group - 18 March 2020
# Corporate Estate & Carbon Reduction

# What is the Operational Estate

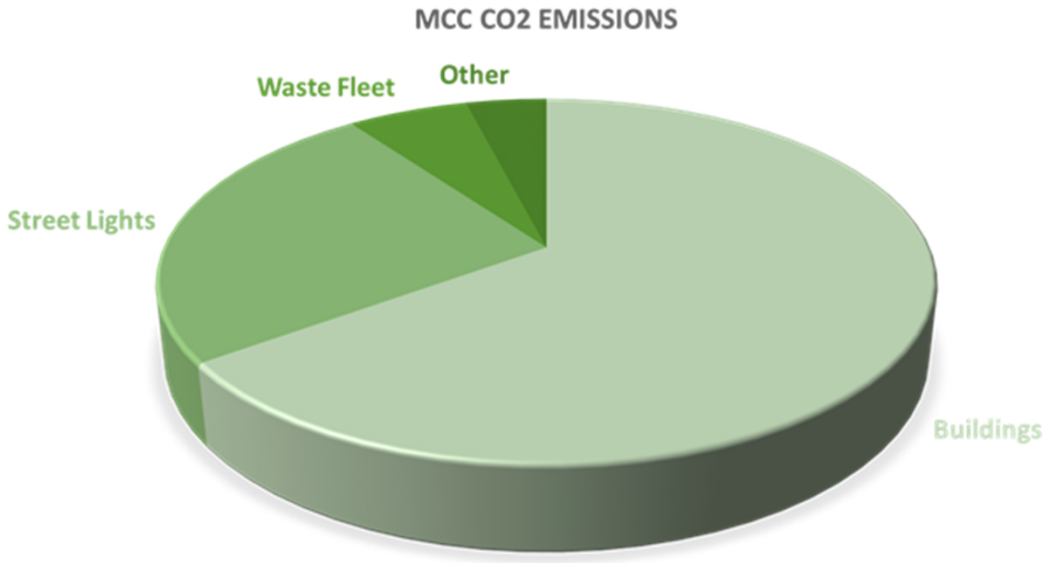
The operational Estate includes properties used or held to provide Council Services including unlet land (it excludes the investment estate, schools and housing stock).

It includes c350 buildings totalling c3.68M ft2, ranging from:

- The Town Hall Complex and other offices across the city
- High profile buildings such as Manchester Art Gallery, The National Football Museum, Bridgewater Hall, Manchester Aquatics Centre, The Velodrome
- Neighbourhood facilities including leisure centres, libraries, community centres, parks buildings, markets, cemeteries, children's centres, supported accommodation and hostels
- Heritage buildings such as Heaton Hall, Wythenshawe Hall, Clayton Hall, and Platt Hall

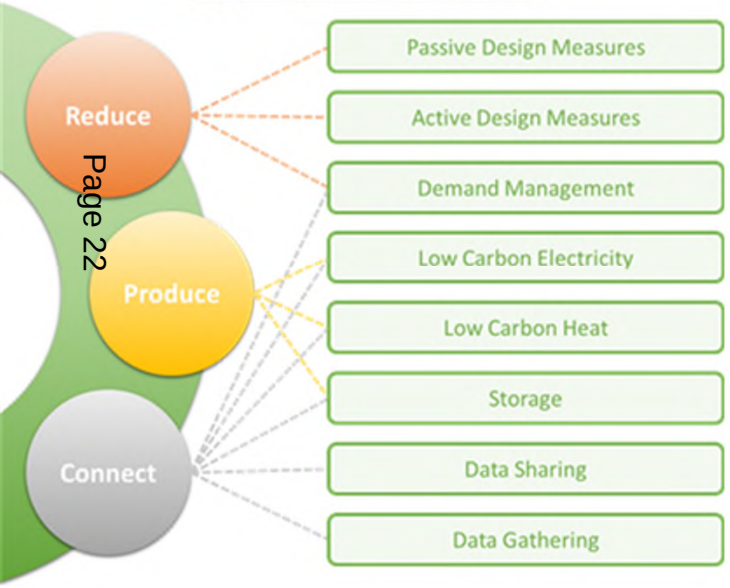
# Carbon Emissions from the Operational Estate

Heating & powering MCC's buildings in 2018/19 produced 25,789 tCO2, 68.9% of the Authorities direct emissions.



# Our Approach to Reducing Carbon Emissions

## Approach & Rationale

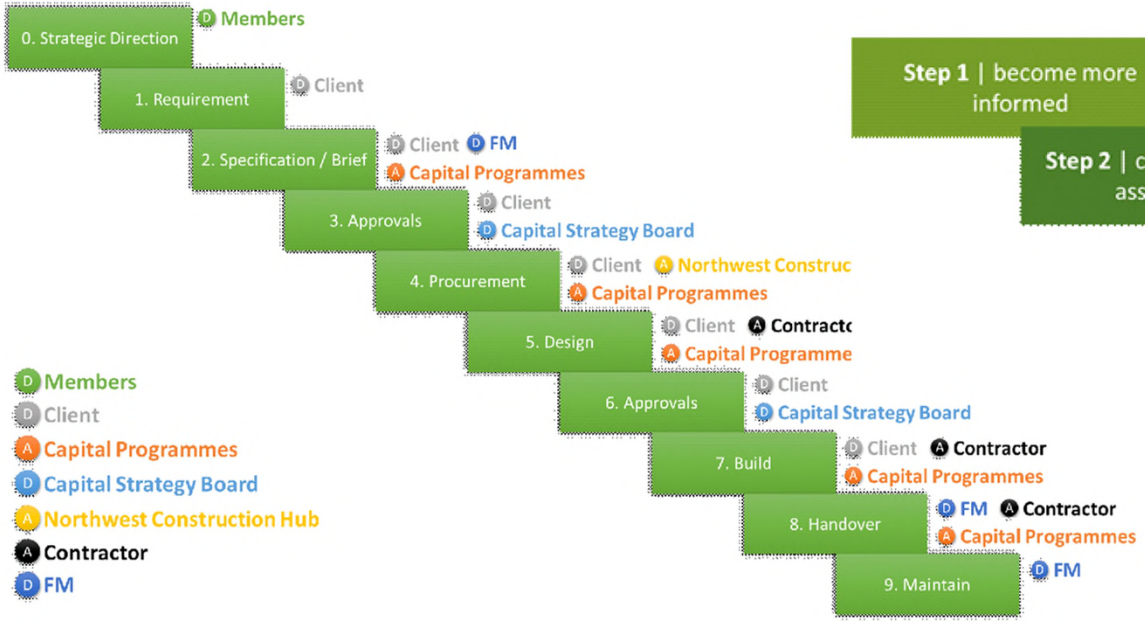



## Projects & Activity

| Theme | Programme Workstream | Project |
|---|---|---|
| Reduce | Active Design Measures | **ROI Retrofit of Individual Energy Conservation Measures** |
| Reduce | Passive Design Measures | **Zero Carbon whole building retrofit pilot** |
| Reduce | Controls | **BMS Roadmap** |
| Reduce | Controls | **Building Management System Expansion & Optimisation** |
| Reduce | Controls | **Data driven performance management** |
| Produce | Low Carbon Electricty | **Small to medium scale behind the meter Solar PV** |
| Produce | Low Carbon Electricty | **Large scale remote generation Solar PV** |
| Produce | Low Carbon Electricty | **Working with GM** |
| Produce | Low Carbon Heat | **Accelerated boiler replacement programme (electrify)** |
| Produce | Low Carbon Heat | **Gas phase out** |
| Produce | Energy Storage | **Time Shift** |
| Produce | Energy Storage | **Demand Side Response** |
| Connect | Data Gathering & Sharing | **GM Local Energy Market** |

# Our approach continued…

## Building lifecycle




## Decision making, policies and standards approach

# What is already being done?

- **Carbon Reduction Programme (Phase 1)** - detail on the following slides

- **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.

- **Refurbishment of Hulme District Office** – opened in May 2019 following a full refurbishment, the building benefits from new efficient mechanical and electrical equipment such as LED lighting, lighting controls, a new building management system (that enables more intelligent control of the installed equipment) and Solar Photovoltaic Panels on the roof. Improvements to the buildings fabric were also made to improve the overall thermal efficiency of the building, this included new windows and doors throughout and new roof coverings. No gas is used to heat the building.

- **Alexandra House -** Refurbishment underway, the building currently emits 42kg/CO2/m2/annum. Based on modelling completed by the appointed environmental consultants, this is estimated to be reduced to 12kg/CO2/m2/annum upon completion. This is an overall carbon saving for the building of 70% year-on-year.

# What is already being done cont...

- **Gorton Hub** - in design phase, being designed to achieve BREEAM Excellent.
- **Hammerstone Road** (in RIBA 3 technical design) - will include a significant solar array, battery storage, electric vehicle charging points, new mechanical and electrical plant and fabric improvements.
- **Abraham Moss Leisure Centre** – At the end of RIBA 4, being designed to have an EPC A + 4 BREEAM Credits
- **Manchester Aquatics Centre** - In RIBA 2 – Concept / Feasibility (will include Carbon options appraisal at the end of this stage)
- **Velodrome** - In RIBA 2 – Concept / Feasibility (will include Carbon options appraisal at the end of this stage, including looking at the feasibility of a ground source heat pump)

# What is the Estates Carbon Reduction Programme?

- The Carbon Reduction Programme was established to identify and deliver a wide range of energy efficiency and generation opportunities across the operational estate
- The programme has been funded on an invest to save basis, the capital being repaid by savings in utilities over time
- The 1st Phase of delivery includes an investment of circa £8.5m, this will see the Authority's carbon emissions reduce by in excess of 1,400 tCO2e per annum, this is forecast to complete by Q4 2020/21
- The 1st energy conservation measures are expected to start delivering carbon savings from Jun20 onwards, with full year savings being achieved from the start of the next financial year.
- Phase 1 (a) is a further £2.9m (£1.7m MCC Match Funding, £1.2m ERDF – Decision Due May20)
  - £700k - x 717 kWp Solar Array & battery storage at the refurbished Hammerstone Rd Depot, leading to 169 tCO2 savings per annum
  - £2.1m- x 915 kWp Solar Car Port Array at the National Cycling Centre, leading to 246 tCO2 savings per annum

# Phase 1 Summary

| Building | Route | Annual Savings tCO2 | Solar PV | LED Lighting | Lighting Controls | Building Mgmt System Upgrade | Variable Speed Drives | Pipework Insulation | Boiler Upgrade | Transformer Tap Down | Combined Heat & Power Engine | Heating Controls | Pool cover |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Wythenshawe Forum | Re:fit | 295 | x | x | x | x | x | | | | x | | x |
| Town Hall Extension | Re:fit | 169 | | x | x | | x | | | | | | |
| East Manchester Leisure Centre | Re:fit | 101 | x | x | | x | x | | | x | | | |
| The Sharp Project | Re:fit | 295 | x | x | x | x | | | | | | | |
| Space Project | Re:fit | 112 | x | | | | | | | | | | |
| Hough End Leisure Centre | Re:fit | 74 | x | x | | | x | | | x | | x | |
| Arcadia Sports Centre | Re:fit | 59 | x | x | | x | x | | | | | | |
| Moss Side Leisure Centre | Re:fit | 23 | x | | | | | | | | | | |
| North City Family and Fitness Centre | Re:fit | 78 | x | x | x | x | x | x | | | | | |
| Belle Vue Sport Centre | Re:fit | 169 | x | x | | | x | | x | | | x | |
| Manchester Tennis and Football Centre | Re:fit | 61 | x | x | | x | | | | | | | |
| **Sub total** | | **1,436** | | | | | | | | | | | |

**Phase 1 (a)**

| Building | Route | Annual Savings tCO2 |
|---|---|---|
| Hammerstone Rd (Insulation) | Refurbishment | TBC |

**Phase 1 (b) ERDF Bid**

| Building | Route | Annual Savings tCO2 |
|---|---|---|
| National Cycling Centre Solar Car Ports | ERDF | 246 |
| Hammerstone Road, Solar PV & Storage | ERDF | 169 |
| **Sub total** | | **415** |

| | |
|---|---|
| **Total Annual Savings (tCO2)** | **1,851** |

# How did we develop the programme?

- The programme was developed by looking at the Authorities highest energy consuming buildings first, the result is a mixed bag in terms of location, function, age and condition. There are office buildings, community leisure facilities, elite leisure facilities and markets.
- We then undertook a competitive procurement process to appoint an Energy Services Company (Ameresco) to work with us to develop investment grade proposals and designs for conservation work. The following audit process was followed:
  - In-depth interviews with facility occupants, staff and operators
  - Operating hours analysis
  - Inventory of all major energy consuming equipment
  - Energy rates and cost figures for all utilities
  - Analysis of at least one year of historical utility billing data
  - Identification of the major energy consuming equipment and processes in the building
  - Analysis of opportunities for energy efficiency measures and their potential savings and payback periods
  - Identification of suitable retrofits and technology for these measures
- Nb. the proposals put forward by Ameresco are subject to an energy savings guarantee, so the kWh savings they say will be achieved are subject to a detailed annual measurement & verification process. Should a particular measure not perform as expected Ameresco would be required to complete remediation work or compensate MCC financially.

# Key learning shaping our approach

- **Large scale remote electricity generation crucial** – it won't be possible to achieve the level of carbon savings as quickly as required over the next 5 years by delivering energy efficiency works and on site 'behind the meter' Solar PV alone. Large scale remote generation is considered essential, in the region of 25MW of capacity.

- **A flexible approach to delivery** - working across multiple existing buildings of varied function, age and condition inevitably results in unexpected issued being uncovered. Maintaining an agile approach to delivery and investment is key to enabling carbon savings to be achieved sooner.

- **Multi-occupancy buildings** - the buildings within the Authority's estate include multiple occupancy arrangements, with tenants in place on various terms, licenses and leases. This can present some challenges around completing the required works and agreeing a mechanism by which savings from utility bills can be recouped to repay the initial investment.

- **Methodical approach to savings takes time** – the programme has adopted a detailed and methodical approach to the measurement & verification of savings associated with the various energy conservation measures, this approach was adopted to ensure the Authority's capital investment was fully protected.

- **Mobilisation takes time** – the carbon savings from additional investment in future phases are forecast to begin to be achieved from Q1 2021/22. This is due to the time it takes to it takes to audit buildings, complete and agree design proposals and investment cases, develop works information and progress the legal agreements required for multiple buildings.

# Priority next steps

- **Priority 1:** establish a dedicated team of passionate, knowledgeable and committed people to manage delivery of the actions identified in this strategy.
- **Priority 2:** develop the business case for large scale remote Solar PV generation projects.
- **Priority 3:** develop an ongoing pipeline of ROI investments through a series of building audits focussing on the deployment of proven energy efficiency measures across the 112 buildings shortlisted. This is an expansion and continuation of the existing Carbon Reduction Programme (i.e. Phase 2).
- **Priority 4:** procure a Solar PV partner to deliver a rolling programme of behind the meter generation feasibility studies, business case development and installation.
- **Priority 5:** develop proposals for a Zero Carbon whole building retrofit pilot. This will be an exemplar from which learning can be applied to all future design and investment decisions.

# Priority next steps

- **Priority 6:** develop a Building Management System (BMS) Roadmap. Ensuring we are making the best use of BMS technology across the estate will drive efficiencies from our existing assets, it will also support us to move toward a more data driven approach to performance improvement.

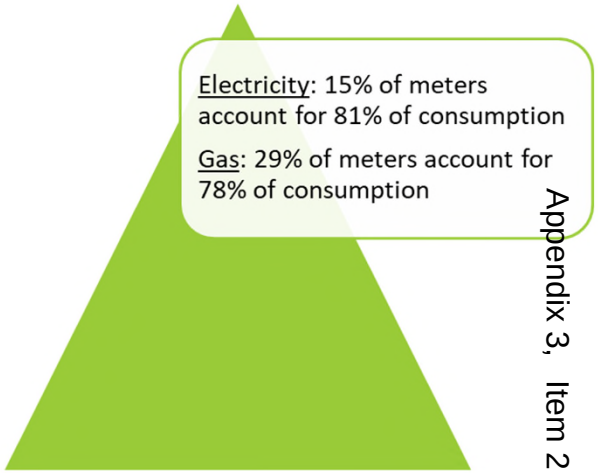
- **Priority 7:** develop an accelerated boiler replacement programme, complete a fresh review of the stock condition surveys to establish a priority pipeline of work focussed on low carbon heat.

- **Priority 8:** Agree the Manchester Build Standard / Standards to be used going forward and embed thus within decision making processes. Support colleagues involved in the management of the Capital Strategy Board identify proposals for additional assessment criterion to enable the Authority to develop a more rounded view of the environmental impact of its investments and assets. Including (but not limited to) the following: Net Present Value & Whole Life Costing, Internal Carbon Costing, and Energy Intensity Measures.

# Priority next steps - developing Phase 2 CRP

Develop a pipeline of energy efficiency measures and energy production based on a Return on Investment approach across the operational estate . This is an expansion and continuation of the existing Carbon Reduction Programme.

- **Building Analysis -** shows that the majority of the emissions produced come from a small % of buildings
- **Priority Buildings** - although the operational estates consists of in excess of 300 buildings, 112 buildings account for the bulk of the emissions - buildings maybe revisited several times during different phases as we continue to challenge and learn.
- **Supplier Workshop** - an initial workshop has been held with our Energy Services Partner to agree buildings to focus on for Phase 2, a shortlist of buildings will be developed from March 20 and agreed in May 20 following initial site visits.
- **High Level Assessments -** of the buildings are expected to take place between Jun20 and Sep20, this will give us initial designs and budget costs.
- **Investment Grade Proposals -** are expected to take place between Oct20 and Nov20
- **Works & Savings** – the 1st new works are forecast to begin in Q4 2020/21 with the 1st carbon savings kicking in from Q1 2021/22.




Nb. This is based on all buildings fro which MCC procure utilities, not all of which are within MCC's direct control.

# 2020-2025 Plan and Targets (Operational Estate)

- **Complete Phase 1 and Phase 1 (a)** of the Carbon Reduction Plan (£10.2m, 1,800 tCO2)
- **Establish Phase 2** of the Carbon Reduction Programme which will run from 2020-25 (£15m, 3,000 tCO2)
- **Establish a Manchester Build Standard / Standards** to be used going forward for new MCC buildings, extensions and refurbishments and embed within decision making processes. To achieve lower carbon construction and more energy efficient end use in buildings.
- **Produce a Buildings and Energy Strategy** for the Council by April 2020. An 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.
- In conjunction with Commercial Leads, **deliver a feasibility study and business case for a large scale energy generation scheme** by December 2020. This will include an assessment of the different business models available in terms of capital cost, commercial risk and speed of deliverability.

# 2020-2025 Plan and Targets (Operational Estate)

| Direct Emissions Action 2020-25 | Annual Carbon Saving (tonnes CO2) |
|---|---|
| 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 |

**Manchester City Council**
**Report for Resolution**

**Report to:** Climate Change Subgroup – 18 March 2020

**Subject:** Planning and Climate Change

**Report of:** The Strategic Director (Development)

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**Summary**

The report provides a context to how planning is supporting the Councils ambitions on climate change. It sets out how as a longstanding objective associated with delivering quality and an environmental uplift in the City, we require developers and applicants to address associated issues through the application process and through the introduction of the various Regeneration Frameworks.

Whilst it also highlights some of the challenges faced, including existing and potential future limitations on the planning system, the report sets out measures that would assist in addressing this key objective.


**Recommendations**

The Subgroup are asked to note and comment upon this report.

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**Wards Affected:** All

| **Environmental Impact Assessment** - the impact of the issues addressed in this report on achieving the zero-carbon target for the city |
|---|
| The Planning System is one of the ways which can help to move the city to a zero carbon future, mitigate climate change and assist in influencing and supporting those involved in place-making and shaping the use of land and buildings to play their full part in delivering on the city's targets. |

| **Manchester Strategy outcomes** | **Summary of how this report aligns to the OMS** |
|---|---|
| A thriving and sustainable city: supporting a diverse and distinctive economy that creates jobs and opportunities | Planning supports sustainable economic growth in its wider context through enabling new development, creating jobs across all sectors. On specific proposals local labour benefit agreements are sought which also includes opportunities for training. |
| A highly skilled city: world class and home grown talent sustaining the city's economic success | See above |

| | |
|---|---|
| A progressive and equitable city: making a positive contribution by unlocking the potential of our communities | See above |
| A liveable and low carbon city: a destination of choice to live, visit, work | A major planning consideration is how a development contribute to the quality agenda, to a sense of place and the neighbourhoods, this includes how it addresses sustainability and climate change. |
| A connected city: world class infrastructure and connectivity to drive growth | See above |

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**Background documents (available for public inspection):**

The following documents disclose important facts on which the report is based and have been relied upon in preparing the report. Copies of the background documents are available up to 4 years after the date of the meeting. If you would like a copy please contact one of the contact officers above.

## 1.0 Introduction

Manchester's commitment to climate change is well documented. In November 2018, following analysis by the Tyndall Centre for Climate Change Research, the Council adopted a science-based carbon budget of 15 million tonnes of CO2 between 2018 and 2100, and committed the city to becoming zero carbon by 2038 at the latest.

In March 2019, the Council further endorsed the draft Manchester Zero Carbon Framework as the city's overarching approach to meeting science-based targets on tackling climate change, as part of the wider Our Manchester Strategy. This included draft action plans from a range of organisations who are members of the Manchester Climate Change Partnership and are collectively responsible for 20% of the city's emissions.

In July 2019, Manchester City Council declared a climate emergency. 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. It also demonstrated the Council's commitment to be at the forefront of the global response to climate change and to lead by example.

This leadership role includes making the best use of the policy and regulatory tools available to encourage low carbon activities and to lobby and influence others to support this essential objective. The key message is that we all have a role to play in tackling climate change and that action must be taken now.

The planning system is one of the ways which can help mitigate climate change and assist in influencing and supporting those involved in place-making and shaping the use of land and buildings.

In Manchester we have always focused on delivering key outcomes for the city, new homes and jobs and for development to meet the Councils quality agenda. This agenda includes clear environmental objectives; from tackling contaminated land, improving air quality, reducing pollution, reducing emissions from buildings, promoting less waste, encouraging sustainable travel, minimising flood risk to construction management.

## 2.0 National Planning Policy

The planning system is about trying to get the right development in the right place at the right time, benefitting communities, the economy and the environment. It specifies the quantity and quality of development, and what needs to be protected or enhanced in order to ensure that development is sustainable.

With regard to climate change there is a statutory duty on local planning authorities to include policies in their local plans that are designed to tackle climate change and its impacts. In brief the legal framework seeks to secure development and the use of land that contributes to the mitigation of and adaptation to climate change, that plans have climate change targets and policies and require some low-carbon energy generation from new development.

Revised in 2019, the National Planning Policy Framework (NPPF) includes a stronger emphasis on future development, previously lacking in the older version. It now states that plans must "pro-actively shape places in a way that contributes to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience". It further notes that local planning authorities need to take account of the Climate Change Act 2008, which involves setting carbon dioxide emissions reduction targets, measuring progress on carbon dioxide emissions reduction and requiring on-site renewable energy generation.

As the Framework which sets out the governments planning policies for England, the NPPF also contains policies on a wide range of other topics such as significantly boosting the supply of housing, the use of land and the importance of development being viable to willing developers. The balance between these factors is left to local planning authorities to strike through its Local Plan preparation.

Providing a high degree of certainty for communities, businesses and investors, and a framework for guiding decisions on individual planning applications, the local plan has to address needs and opportunities in relation to housing, the local economy, community facilities, infrastructure and the environment. It translates the Councils wider vision and ambitions into policy, including that on climate change.

Manchester's current local plan, the Core Strategy was adopted in 2012 and is about to undergo a refresh. This is a formal process which will have to be supported by a robust evidence base to inform any change in policy. The Councils declaration on climate change will be at the heart of this review which will seek to align policy and processes to tackle this key issue.

However, despite the message in the NPPF it has its weaknesses. Whilst seeking *"a proactive approach to mitigating and adapting to climate change"* the importance placed on this above all other matters and how it should be balanced is less clear. The Green Belt, heritage assets and meeting housing needs which are all important still appear to take precedent. There has and remains a national planning focus, through a "presumption in favour of sustainable development"; which has meant that where there are issues over housing land supply for example, the delivery of new homes has taken priority.

Guidance on the viability of schemes has, as Members will be aware, been a key factor of development decision taking since the economic recession in 2008. Whilst this has been rebalanced to some extent through revisions to the NPPF it nevertheless remains a factor on ambition which will have to be tested through our development plan review.

It is also important to note that whilst the NPPF may contain policies on climate change there is a distinct lack of practical advice and support to local authorities on how to secure a radical reduction in carbon emissions.

For a local planning authority, the test will therefore be how to address its vision for future development in the local plan process in the context of the NPPF. On the one hand is the question of ambition and to what degree this could be robustly supported

through the development plan but also, in setting targets and standards in relation to the energy efficiency of buildings how can deliverability be achieved and evidenced.

It is also recognised that there are other potential challenges at a national level which are likely to impact on the Council's climate change ambitions. We have, for example, seen the systematic deregulation of planning through the expansion of permitted development rights. Of significance is the focus on delivering more homes which has led to the conversion of commercial and other properties for housing, without the need for planning permission. Recent announcements suggest there are further legislative changes under consideration to relax the planning laws.

Last year the Ministry for Housing, Communities and Local Government (MHCLG) launched a Future Homes Standard consultation. This set out potential changes to the Building Regulations, setting minimum levels of energy efficiency in buildings. The consultation set out two options to uplift energy efficiency standards:

> Option 1: 20% reduction in carbon emissions compared to the current standard.
> Option 2: 31% reduction in carbon emissions compared to the current standard.

Government anticipate this could be delivered based on the installation of carbon-saving technology such as photovoltaic (solar) panels and better fabric standards.

By setting what it sees as an ambitious minimum standard the Government believes that the current approach to expecting individual authorities to set their own ambitious standards is inconsistent, confusing, and creates inefficiencies in supply chains, labour and outcomes.

The Government is therefore proposing that once set as a minimum, local authorities would be restricted from imposing any further uplift. The inability of local authorities to respond to the climate emergency in this particular regard through its local plan process is a significant concern; not least as it is the review of our Core Strategy that we will look to introduce new planning policy to reflect and align with the Councils ambitions as set out in its Climate Change Declaration. This has been set out in our response to Government.

**Existing Local Planning Policy**

Notwithstanding the above, Manchester has an existing framework that seeks to tackle climate change through our local planning policies. Prior to the adoption of our development plan - the Core Strategy, the city's quality agenda was supported by the Guide to Development Supplementary Planning Document (SPD). This was endorsed and adopted in 2007 and provided the step change to a more comprehensive set of environmental policies in the Core Strategy which was subsequently adopted in 2012.

With regard to climate change the SPD set out a requirement, which still exists today, for planning proposals to be supported by an Environmental Standards Statement to cover:

- energy efficiency and renewable energy,
- environmental design,
- water management,
- construction management,
- biodiversity; and,
- climate change adaptation.

Manchester subsequently became the first local planning authority in England to require a BREEAM (Building Research Establishment Assessment Method) accreditation for development proposals. As an assessment of environmental, social and economic sustainable performance it has been the principle tool for measuring the sustainable ratings of a development from construction through to its operational phase.

The Core Strategy, which was also supported by the Council's wider Sustainable Community Strategy, its Strategic Frameworks and the Climate Change Action Plan (Manchester: A Certain Future) embedded the principles of the Guide and introduced a number of policies that seek to enhance the built and natural environment and incorporates local and global environmental protection in planning activity.

These existing policies include promoting the delivery of new homes and employment development in the city centre and in areas that are sustainable; that are aimed at increasing local decentralised energy and reducing carbon emissions and tackling the impacts of climate change through managing flood risk, enabling development to deal with differing temperatures and providing protection where required to ensure that a high standard of environment is created and maintained. Waste management, ecology and biodiversity, air quality and the treatment of contaminated land are all covered by the policy framework.

With a clear focus on outcomes we strive to negotiate wherever possible above and beyond the requirements of the policy framework. This can be a challenge but we have continually explored how measures can be incorporated and introduced into our processes to help deliver these outcomes.

On a broader level, this is possible through the Strategic Regeneration Frameworks. The expectation for addressing the Council's objectives are at the heart of each framework and guidance on how environmental, social, design and economic requirements should be achieved.

Detailed development proposals are then required to be supported by a significant and wide ranging amount of information at the planning stage. This is a requirement for all proposals and not simply those covered by a Framework. As an example and relevant to climate change this includes:

- An Air Quality Assessment to evaluate the impacts of the development and proposed mitigation
- In terms of ecology any identified ecological features or wildlife habitats on the site need to be set out together with how a proposal intends to deal with them with regards to biodiversity.

- As noted above, an Environmental Standards Statement which addresses sustainability ratings and the provision of renewable energy within the development. This should include a Building Research Establishment Environmental Assessment Method - BREEAM - pre-assessment rating through the submission of a pre-estimator report which should demonstrate that a rating level of at least Very Good would be achieved.
- A Blue and Green Infrastructure Statement which explores opportunities for such improvements as part of a proposal and how it seeks to the respond to the Vision and Objectives of the Councils Blue and Green Infrastructure Plan.
- A Flood Risk Assessment if the application site is either located within a designated Flood Zone or is over 1 hectare in size. In Critical Drainage Areas, Flood Risk Assessment need to be provided for sites over 0.5 hectare in size.
- A SUDs Strategy – as we encourage the use of green types of sustainable drainage systems as part of the green infrastructure on site, both types of SuDS (infiltration or attenuation) should be considered and reasons for not utilising them needs to be provided if alternative solutions are proposed.
- A Transport Statement to assess the potential transport impacts of developments and if relevant propose mitigation measures to promote sustainable development. This includes the provision of electric charging points now or to ensure developments are future proved in this regard.
- Where that mitigation relates to matters that can be addressed by management measures, the mitigation may inform the preparation of Travel Plans.
- A transport statement regarding the available public transport and details of a parking management strategy for the use being proposed
- A Travel Plan which includes long-term management strategies for integrating proposals for sustainable travel into the planning process based on evidence of the anticipated transport needs.
- Where trees are impacted, a tree age and condition survey is required together with a tree replacement scheme.

These are all considered during the planning application process to enable an informed and balanced decision to be made. This balance has to have regard to all key objectives including delivering a sufficient supply of homes and building a strong, competitive economy.

We also encourage through the planning process the submission of a Construction Management Plan. Broadly speaking construction impacts are not material considerations for the local planning authority as these are controlled through other legislation. The purpose of requesting a CMP at the planning stage is therefore to seek early consideration of associated issues by relevant parties as it is recognised that these can cause concern in areas particularly of significant growth. It allows for potential amenity and environmental issues and mitigation measures to be identified.

By pursuing all of the above and with the support of the policy framework we are helping to deliver the growth agenda and one that also addresses other key objectives such as climate change. Through our decision making process we are supporting investment in new job opportunities (including training) and across a range of sectors and supporting the delivery of new homes. At the same time, we require land that is contaminated to be treated to a high specification with

environmental considerations being central to this, built developments to be highly sustainable both in terms of location and physical fabric; and, on site external space that provides an environmental uplift (or a contribution to improving green space/public space off site).

We have also tried to redress the implications of the changes to planning regulations and the increase in permitted development rights. Concerns about the loss of employment space but also importantly the quality of new homes led to the decision to introduce an Article 4 Direction for parts of the city. This has removed the right to change use from office and light industrial to residential without a planning consent bringing back such development into our control.

**Proposed Next Steps**

In advance of the refresh of the Core Strategy, and to help steer developers and applicants and those who need more encouragement, officers have been considering how we can strengthen our position to address climate change.

One way to provide a greater focus on the issue is through the information required at application stage. The validation checklist noted above is used to specify the documents that have to be submitted before an application can proceed. This was updated in 2018 to allow for greater transparency with regards to viability assessments. It would seem timely to amend the list further particularly regarding our requirements for and contents of an environmental standard and a sustainability statement

This would include a review of the use of BREEAM. Whilst the BREEAM accreditation scheme still exists a lack of assessors nationally could undermine the Councils position as applicants are no longer able to submit for example post construction accreditation reports. With the cancellation of the Code for Sustainable Homes in 2015 we should also look at information that could be provided on the energy efficiency of buildings and on-site generation.

With the ongoing issues that are being raised in the city about construction management it is proposed the review include what more could reasonably be included in supporting documents to help address environmental impacts at the planning stage.

The process for amending the validation checklist is relatively straight forward and will require a period for consultation (a minimum of 6 weeks). This could be in place by early summer.

The above, however, only addresses new development and where development requires planning permission. Regardless of when permission is needed, providing practical advice on sustainable construction and retrofitting existing homes would be a positive step. This would help residential occupiers to approach retrofitting more sustainably and support measures for such works.

Once scoped it will be necessary to identify the resource, with the appropriate level of knowledge to help draft such guidance. There is an opportunity though for this to be

developed with our housing team and possibly registered providers to capture all housing sectors.

## 3.0 Recommendations

Being outcome focussed and through the existing policy framework and our processes much is already negotiated and delivered through the planning system.

As we work towards the Council's 2038 ambition through the local plan review, an updated evidence base, including that on low carbon and renewable energy generation, flood risk assessments which understand climate change scenarios and consideration of the viability of development will be prepared. The focus will be on the ability of our local policies to ensure that new buildings play a key role in delivering carbon reduction.

From discussions with the industry it is clear that many responsible developers already recognise that it is incumbent on them to address climate change issues. Many contractors, developers and occupiers understand their corporate social responsibility and how important this issue is to decision makers. In many ways we are pushing at an open door. Engaging with the industry is already assisting in understanding what is achievable and deliverable.

There are others out there who will need more encouragement and the planning process is a key part of providing this encouragement.

Updating and opening up the validation checklist has the potential to help in this regard, as will be providing practical advice and guidance to those who may need more of a steer in addressing climate change.

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| Title | Climate Change Subgroup |
| Membership | Councillors Flanagan, Hassan, Jeavons, Kilpatrick, Lynch, Lyons, Shilton Godwin, Whiston and Wright (Chair) |
| Lead Executive Members | Councillor Stogia, Executive Member for Environment, Planning and Transport |
| Strategic Directors | Fiona Worrall, Strategic Director (Neighbourhoods) |
| Lead Officers | Richard Elliott, Head of Planning and Critical Infrastructure |
| Contact officer | Lee Walker, Scrutiny Support Officer |
| Objectives | 1. Monitor progress of each point of the Climate Emergency motion carried by Manchester City Council on 10 July 2019.<br><br>2. Ensure the Manchester Climate Change Action Plan includes specific, measurable targets and review progress towards achieving them, on a quarterly basis.<br><br>3. Identify additional measures which could be put into place by MCC or partners to help reach the zero carbon target.<br><br>4. Update the Neighbourhoods and Environment Scrutiny Committee 4 times a year. |
| Key Lines of Enquiry | 1. Obtain reports from all relevant Departments in relation to progress of the points in the climate emergency motion, ensuring that deadlines are met.<br><br>2. Obtain updates on progress of the production of the Climate Action Plan and regular updates once it is implemented.<br><br>3. Investigate initiatives which could be considered to help achieve zero carbon targets.<br><br>4. Obtain updates from each scrutiny committee to assess incorporation and progress of zero carbon actions in relation to each area of work.<br><br>5. Invite and obtain reports from relevant experts, including from Greater Manchester Combined Authority to assess existing actions and suggest new ones. |
| Operation | This Subgroup will report its findings to the Neighbourhoods and Environment Scrutiny Committee by submitting minutes to the Committee. The Committee will be asked to endorse any recommendations from the Subgroup. |
| Access to Information | Meetings of the Subgroup will be open to members of the media and public except where information that is confidential or exempt from publication is being considered.<br><br>Papers for the Subgroup will be made available to members of the media and public on the Council's website and the main entrance to the Town Hall except where information which is confidential or exempt from publication is being considered. |

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| Schedule of Meetings | To be determined. |
| Commissioned | September 2019 |

**Neighbourhoods and Environment Scrutiny Committee – Climate Change Subgroup**
**Work Programme – 2020**

| **Meeting 3: 18 March 2020 at 2pm in the Council Chamber**<br>**Deadline for reports: 9 March 2020** | | | | |
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| Item | Purpose | Lead Executive Member | Lead Officer | Comments |
| Operational Estate | To receive a report on the actions to reduce emissions from the MCC operational Estate. | Cllr Stogia | David Houliston | |
| Planning | To receive a report on the role that Planning Policies, both local and national can have in reducing $CO^2$ emissions. | Cllr Stogia | Julie Roscoe | |
| Terms of Reference and Work Programme | To review and agree the Subgroup's terms of reference and work programme, and consider any changes or additions that are necessary. | | Lee Walker | |

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