

**Manchester City Council
Report for Information**

Report to: Environment, Climate Change and Neighbourhoods Scrutiny Committee – 5 December 2024

Subject: Local Area Energy Plan – Progress Update

Report of: Strategic Director, Growth & Development

Summary

This report is focused on Manchester City Council’s activity in relation to the city’s use of energy and how the city can move from using fossil fuels to greener, renewable energy supply, and ultimately supporting Manchester’s journey to zero carbon by 2038.

Manchester has a plan – called a Local Area Energy Plans (LAEP) - which provides a roadmap for achieving Manchester’s zero carbon target from an energy perspective and this report provides an update to Scrutiny on activities that have taken place over the last year to support meeting this target.

Recommendations

The Committee is recommended to consider and comment on the report.

Wards Affected: All

<p>Environmental Impact Assessment -the impact of the issues addressed in this report on achieving the zero-carbon target for the city</p>	<p>This programme aims to accelerate the deployment of low carbon measures across the city. The issues set out in this report, and the development of workstreams to address them are key to driving a reduction in emissions and becoming a zero-carbon city.</p>
<p>Equality, Diversity and Inclusion - the impact of the issues addressed in this report in meeting our Public Sector Equality Duty and broader equality commitments</p>	<p>The issues regarding retrofit and decarbonisation of energy as set out in this report, could lead to multiple benefits, including but not limited to:</p> <ul style="list-style-type: none">• lower energy bills and greater energy efficiency, and therefore reduced fuel poverty• improved health and wellbeing due to better thermal comfort during very cold and very hot periods of the year and better indoor air quality• Improved air quality which reduces social inequality. As, often, those living in the most deprived areas are exposed to more pollution.

Manchester Strategy outcomes	Summary of how this report aligns to the Our Manchester Strategy/Contribution to the Strategy
A thriving and sustainable city: supporting a diverse and distinctive economy that creates jobs and opportunities	The delivery of the retrofit and decarbonisation of energy ambitions (along with our EV and wider travel elements) as set out in the LAEP will provide long term employment opportunities to Manchester businesses and residents.
A highly skilled city: world class and home-grown talent sustaining the city's economic success	Demand for highly skilled retrofit labour will provide opportunities for training and upskilling both new and existing operators.
A progressive and equitable city: making a positive contribution by unlocking the potential of our communities	The delivery of the retrofit and decarbonisation of energy ambitions to the city's housing stock will ensure healthier, more comfortable homes for Manchester residents and result in improved health and wellbeing for the city's residents.
A liveable and low carbon city: a destination of choice to live, visit, work	The delivery of the retrofit and decarbonisation of energy ambitions will address the transition of Manchester's existing housing stock to zero carbon, and ensure the available housing meets the needs of the city's residents and visitors.
A connected city: world class infrastructure and connectivity to drive growth	Investing in the provision of more opportunities to charge electric vehicles (EVs) will contribute to creating a greener and more attractive city utilising modern technologies.

Full details are in the body of the report, along with any implications for:

- Equal Opportunities Policy
- Risk Management
- Legal Considerations

Contact Officers:

Name: Hayley Fails
Position: Assistant Director, Infrastructure & Environment
E-mail: Hayley.Fails@Manchester.gov.uk

Name: Sarah Henshall
Position: Net Zero Programme Lead
E-mail: Sarah.Henshall@Manchester.gov.uk

Background documents (available for public inspection):

Greater Manchester Local Area Energy Planning: Overview and Insight
Local Area Energy Plan – Manchester
Manchester Climate Change Framework 2020-25

Manchester Climate Change Action Plan 2020-2025
Manchester Electric Vehicle Charging Strategy

1. Background

- 1.1 Manchester has a target to be a zero-carbon city by 2038, twelve years ahead of UK Government's 2050 target. In 2020, the Manchester Climate Change Partnership developed a high-level strategy for the city to focus action that would help deliver on its climate change ambitions. After being originally published in 2020, The Manchester Climate Change Framework 2020-20251 was updated in 2022 and was the subject of a well-received report to the September 2022 meeting of this Scrutiny Committee.
- 1.2 The Framework used a science-based targets approach to set a zero-carbon date of 2038 and a carbon budget of 15m tCO₂ for the period 2018-2100 for the city.
- 1.3 The Climate Change Framework 2020-25 sets out that buildings are responsible for 76% of the city's direct emissions and ground transport responsible for a further 24%. The framework sets out the scale of action needed to reduce direct emissions from buildings and transport by 50%, and the scale of increase in renewable energy generation needed to support this.
- 1.4 At a similar time, Government recognised the need for taking a whole systems approach to planning and designing local energy systems. In response, Greater Manchester Combined Authority helped support the 10 GM districts by providing a Local Area Energy Plan for each district to assist with meeting the city-region' zero carbon targets.
- 1.5 Local Area Energy Plans (LAEP) are recognised as the leading method for translating national Net Zero targets into local energy system action with plans that are collaborative, data-driven and cost-effective.
- 1.6 Greater Manchester Combined Authority (GMCA) was the first city region in the country to compile and complete Local Area Energy Plans (LAEP) from street to network level. LAEPs have been produced at both the regional level and for each of the 10 districts.
- 1.7 The GM and Manchester LAEP were adopted in September 2022 and this report provides Members with an update of work carried out to date and an overview of the DESNZ funded Net Zero Accelerator Project, which aims to be a catalyst for the delivery of net-zero technology and infrastructure.
- 1.8 The Manchester Local Area Energy Plan (LAEP), adopted in September 2022, sets out the current position and lays out an energy roadmap towards a decarbonised future and identifies a range of near-term, low regret (those that have a high chance of succeeding), priority zones and opportunity areas for different technologies ('asset classes'), to address challenges presented by current energy type and usage.
- 1.9 The Manchester LAEP serves as an important tool for identifying and prioritising actions to help the city remain within its carbon budget. The last

progress update to Scrutiny Committee was in July 2023, where funding, finance and investment were identified as the key risks to successful delivery.

- 1.10 Cognisant of the financial challenges faced by Local Authorities across the Country, the Department for Energy Security and Net Zero (DESNZ) to meet national Net Zero targets, it identified funding to enable three regions with capacity and capability to identify possible financial solutions and unlock access to private investment, speed up their efforts to tackle climate change and help the UK reach its net zero target – this programme is the Local Net Zero Accelerator (NZA).
- 1.11 GMCA (supported by the Manchester Climate Change Agency (MCCA), Manchester City and Oldham Councils) was successful in securing this funding for a pilot programme alongside the West Midlands, York and North Yorkshire. The programme began in April 2024 and runs until April 2026 and is providing the vital support for supporting delivery of Manchester’s Local Area Energy Plan and ultimately, in meeting its 2038 zero carbon targets. This report details how MCC plans to use the NZA as a vehicle to successfully deliver the LAEP.

2. Progress During 2023/24

- 2.1 Significant progress has been made since the July 2023 update including:
- 2.2 Commissioned a LAEP action plan of which work is now underway.
- 2.3 Commissioning of a feasibility study into heat generation opportunities across the city. This has been a vital piece of work in informing the NZA development and highlighting future priorities (section 4.4).
- 2.4 In partnership with Strategic Housing colleagues, supported the development of an evidence base to inform development of the MCC Housing Retrofit strategy, as referenced September’s [committee report](#).
- 2.5 Refreshed the existing [Electric Vehicle Charging Strategy](#) which was approved by scrutiny committee in September 2024 and received executive approval in October 2024. Further work on Electric Vehicle Charging Infrastructure (EVCI), including grant funding opportunities that will be further discussed in section 4.5.
- 2.6 Successfully bid for funding through the Government’s Heat Network Delivery Unit (HNDU) Round 14 grant (with support from GMCA and MCCA), which will provide support to commission consultants to carry out feasibility work in relation to the development of a potential heat network in Wythenshawe. This work is due to be completed at the end of March 2025.
- 2.7 The principles of the Manchester LAEP have also been used to develop the Energy Policy chapter of the emerging Local Plan, in collaboration with the Local Plan team.

2.8 Taken on the programme management of the Manchester aspect of the GM Net Zero Accelerator programme, recruiting new members of staff and establishing the governance structure. Further details on this are in section 3.

3. Introduction: Net Zero Accelerator programme

3.1.1 The Net Zero Accelerator is a complex research project that will explore how a pipeline of the energy related infrastructure (outlined within previous recommendations such as the Local Area Energy Plan), can be creatively adapted to be presented to the private sector market in a range of business models and commercial structures. Therefore, the programme is split into two main workstreams – developing a pipeline of feasible projects and developing the financial models that will be used to privately finance them.

3.1.2 In contrast to previous case studies and various past research, the NZA is to be conducted at 3 levels of geography – regionally, with Greater Manchester Combined Authority (GMCA) and Transport for Greater Manchester (TfGM) exploring a GM-wide level (paragraph 3.1.3-5), Oldham Council are leading a district trailblazer (paragraph 3.1.5) and Manchester City Council (MCC) will look city-wide with a further focus on a neighbourhood approach within the area of Wythenshawe (chapter 4).

3.1.3 As well as being responsible for their own regional investment and delivery vehicle, GMCA are also responsible for overall programme management of the NZA. This includes the coordination between partners and shared learning between the Greater Manchester districts.

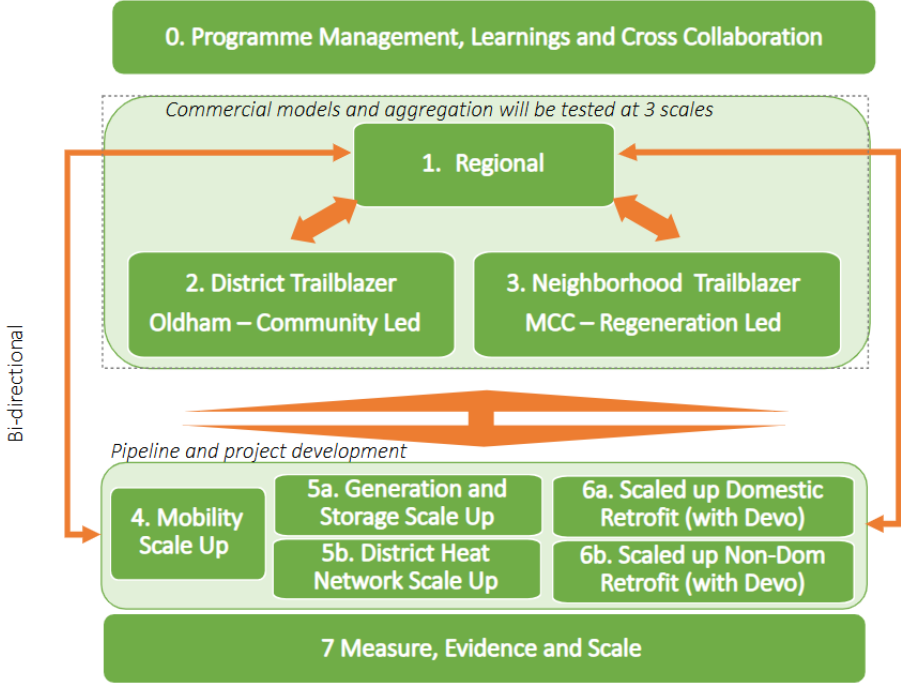


Figure 1: Net Zero Accelerator Project Management and Work Package Visualisation

- 3.1.4 The delivery vehicles being explored by GMCA have been categorised into 5 separate work packages of which the feasibility of each will be explored across all 10 of the districts within Greater Manchester. They will explore interventions such as Mobility and Scale up as led by TfGM, and GMCA will look at Energy Generation and Storage, Heat Networks, and the Retrofit of Domestic and Non-Domestic buildings. Figure 1 below shows GMCA's programme governance structure and different work packages.
- 3.1.5 Oldham council are responsible for delivering a district level pilot on their local authority which will use a community-based approach to accelerate decarbonisation. The district trailblazer will incorporate the same interventions that GMCA are exploring for the surrounding districts whilst also complimenting their [Oldham Green New Deal](#).

3.2 Introduction: Manchester's Local Net Zero Accelerator

- 3.2.1 MCC has two roles in delivering the Net Zero Accelerator. Like Oldham, MCC will contribute to and incorporate GMCA research regarding each asset class (as listed in section 3.1.4). MCC will also apply a place-based holistic approach to accelerate decarbonisation within the neighbourhood of Wythenshawe to demonstrate how a net-zero neighbourhood can be a catalyst for reaching wider climate targets and serve as an exemplar blueprint for comparative localities. The Wythenshawe neighbourhood has been selected as the NZA pilot location due to a myriad of reasons, listed below in section 3.3.

3.3 Introduction: Wythenshawe

- 3.3.1 The regeneration of the Wythenshawe civic centre is a strategic priority for MCC, aiming to provide comprehensive amenities, high-quality residential accommodation, and employment opportunities within the town centre. The area offers vacant and under-utilised sites that present opportunities for development. The Council owns significant land and property interests, providing an opportunity to drive net zero investment as part of the regeneration plan.
- 3.3.2 The regeneration will get a significant boost following confirmation of £20m funding from the Government's Levelling Up Fund. To drive this levelling up a new Joint Venture Partnership has been established with Muse. Muse will be leading the regeneration of the civic centre and will embrace the net zero ambitions whilst engaging with the NZA programme.
- 3.3.3 Wythenshawe's situation as a local town centre can serve as a replicable model for other similar towns and local centres to embed and use net zero as a key driver of regeneration, and a means to deliver health and economic outcomes for residents.
- 3.3.4 Wythenshawe comprises a mix of the private and social rented sector. Wythenshawe Community Housing Group (WCHG) own a significant portion of social housing units, though there are at least 10 registered providers (RPs)

with stock in the region. Simplified decision-making and communication can be achieved since WCHG is the largest asset owner and is an informal partner organisation in the delivery of the accelerator.

- 3.3.5 Collaborating with WCHG allows for exploring opportunities to bridge the gap in projected expenditure and meet sustainability targets at an organisational level, with learning able to be applied to those other RPs who own stock in multiple areas of the city and beyond into GM. Additionally, the presence of privately owned and rented stock provides a chance to test neighbourhood-level net zero interventions across different tenure types.
- 3.3.6 Fuel poverty and just transition: two of the five Wythenshawe wards; Sharston and Woodhouse Park have a slightly higher than average proportion of households experiencing fuel poverty compared to the England average¹. Addressing fuel poverty and supporting a just transition aligns with the project's objectives and presents opportunities to access funds while benefiting the local community.
- 3.3.7 Transportation: Enhancing the transport infrastructure in Wythenshawe, particularly beyond the Civic Centre, can contribute to reducing car usage and promoting sustainable travel options. Census data shows that around 70% of residents' workplaces are located within 10km of home, yet 45% still use their cars to travel to work².
- 3.3.8 Flood risk areas identified by United Utilities and the Environment Agency can be addressed through localised investments in sustainable urban drainage systems and permeable surfaces.
- 3.3.9 Manchester Airport and Wythenshawe Hospital: The presence of two anchor institutions as significant carbon emitters, employers, and investors in the area provides an opportunity for collaboration and delivery of net zero initiatives.

4. Net Zero Accelerator: MCC Progress and Opportunities

- 4.1.1 NZA work in Quarter 1 of 2024/25 focused on recruiting the programme lead and team. Quarter 2 focused on establishing the roles and responsibilities of colleagues contributing to the project. We have since defined a work programme and structured a governance system that enables cross-collaboration to be successfully implemented and effective delivery to be monitored.
- 4.1.2 The team established to manage the NZA is both cross-departmental within MCC and supported by technical advice given by the Manchester Climate Change Agency. The internal teams contributing to the project include members of the strategic housing, estates, finance, sustainable transport and energy teams. In addition to this, we are liaising with MCC's zero carbon team, who are contributing findings from Innovate UK's Net Zero Living programme).

¹ GOV.UK © Crown Copyright and Department for Business, Energy & Industrial Strategy (BEIS) 2021

² Office for National Statistics (ONS) Census 2021

- 4.1.3 To successfully embed the work conducted by GMCA and to avoid replicating efforts, regular collaboration with the work package leads of each asset class has been established. Monthly workstream and knowledge sharing sessions have been scheduled to ensure both financial and staffing resource can be maximised between organisations, and this has already resulted in GM-wide feasibility scopes being amended to better suit both organisations.
- 4.1.4 The following sections will break down each of the named asset classes and provide further detail on the opportunities being explored within them.

4.2 Asset Class 1: Energy Generation & Storage

- 4.2.1 NZA research into energy generation and storage will explore existing approaches to reducing current barriers in technology deployment. The programme will also support investment and implementation of energy generation and storage technology in buildings and on land (grid connected assets).
- 4.2.2 There are various feasibility studies being progressed by GMCA, which will also have Manchester wide or Wythenshawe specific considerations. This includes GM-wide screening, constraint mapping and prospecting for larger scale wind and solar regions for development featuring feasibility assessments of sample sites to derive costs. These studies will develop methodologies to rank opportunities and identify possible recipients of the electricity, Findings from this will be used to inform Manchester's own activity.

4.3 Asset Class 2: Domestic Retrofit

- 4.3.1 As a quarter of all emissions within the city are from residential properties³, we must make urgent improvements to the performance of all our properties by increasing energy efficiency and moving away from fossil fuel heating. The levels of fuel poverty, exacerbated by the ongoing cost of living crisis, add another imperative reason to act.
- 4.3.2 As part of the MCC Housing Strategy there is an internal commitment to create a cross tenure retrofit plan to tackle the scale of the challenge. However, collecting reliable data from the private sector is challenging, which is why initial priority has been placed on working with Manchester Housing Providers Partnership (MHPP) and GMCA to gather data in the social housing sector where data is more available, reliable, and collaboration is well established. The NZA will be used to accelerate and support this work, with Strategic Housing then taking learning from this to move the cross-tenure plan forward.
- 4.3.3 Although individual RPs hold stock condition data for their assets, these are unlikely to be developed into strategic approaches to delivering net-zero, and certainly not at a city or neighbourhood level. The first piece of work being undertaken to support housing retrofit will be gathering more data about the

³ Manchester Climate Framework (2020-25). 2022 Update.

condition of social housing stock within the Wythenshawe area and enable colleagues to have a better understanding of the overall investment picture and pipeline for reaching our net-zero targets.

- 4.3.4 It is intended that utilising Wythenshawe as a pilot for cross organisational data collection will allow conversations to be held with all RP partners about ways to provide this same data across all stock within the city, with the aim of providing a picture of the work required to retrofit all the social housing in Manchester, including our own held and managed stock and those managed through PFI contracts, to net zero.

4.4 Asset Class 3: Heat Networks & Zoning

- 4.4.1 Through work of the NZA, MCC has successfully secured funding from the Heat Network Delivery Unit: Round 14. This will be to conduct a techno-economic feasibility study that explores the potential for a district energy network. Not only does this opportunity align with the place-based approach of the NZA, but also aligns with modelling by DESNZ as part of their Heat Zoning Pilot Programme.
- 4.4.2 In delivering the Heat Network asset class of the NZA, MCC will conduct additional work alongside the HNDU project to create a pipeline of heat opportunities both city-wide and at neighbourhood levels. MCC has previously commissioned work to explore renewable energy and low-carbon energy sources, which highlighted the potential for renewable heat to be captured from different sources and these opportunities will be compiled and reviewed to be added to relevant pipelines of potential projects where appropriate.

4.5 Asset Class 4: Transport & Mobility

- 4.5.1 The Manchester Active Travel Strategy and Investment Plan (MATSIP) recognises that Wythenshawe would significantly benefit from investment in walking, wheeling, and cycling infrastructure. Providing direct, convenient, and safe active travel options in Wythenshawe would increase access to opportunities and enable active lifestyles in communities with some of the highest levels of health deprivation and lowest levels car ownership in Greater Manchester whilst simultaneously impacting carbon emissions.
- 4.5.2 The recently completed Wythenshawe Active Travel Study has identified an evidence-based active travel route network. The study has identified necessary interventions and provided a pipeline of scheme packages that could be utilised as either quick wins or more expensive medium-to-long-term projects. A key facet of the NZA in relation to transport and mobility will be to integrate this pipeline and prioritise the delivery in a way that maximises decarbonisation.
- 4.5.3 In addition to integrating the Wythenshawe Active Travel Study, MCC will work with TfGM on delivering transport and mobility aspects of the NZA city-wide. This will include developing a pipeline of projects such as Demand Responsive Travel schemes and further infrastructure planning.

- 4.5.4 Ongoing internal work relating to Electric Vehicle Charging Infrastructure (EVCI) will also be captured in the reporting. As well as receiving the MCC Revised EVC Strategy (September 2024) members have recently been briefed on developments regarding two grant funding opportunities that are currently being progressed on a range of technologies (such as but not limited to: cable channels, lamppost chargers, Trojan Flat & Flush).
- 4.5.5 Further opportunities that the NZA hopes to encapsulate in both the city-wide and Wythenshawe pipelines is the development of mobility hubs. The hubs will encourage the use of shared mobility and active travel modes, thereby reducing the need for car ownership and minimising carbon emissions from private vehicles.

4.6 Asset Class 5: Non-Domestic Retrofit

- 4.6.1 This area of work focuses on accelerating decarbonisation of Manchester's public estate and commercial building sector. This workstream aims to understand the scale of retrofit challenges across all non-domestic buildings in the city. It will highlight retrofit opportunities and the overall financial gap for achieving net zero.
- 4.6.2 The Manchester Climate Change Framework (2022 revision) states that 12% of Manchester's total carbon emissions come from commercial buildings. Manchester Climate Change Partnership, in collaboration with GMCA and MCC, ran two task & finish groups in 2023 and 2024 exploring barriers to reducing the carbon footprint of our built environment. The work identified that just 9% of commercial buildings in Manchester (170 buildings over 5,000m²) are responsible for over 60% of emissions from this sector, and that the absence of a requirement to publish performance data is hindering net zero projects.
- 4.6.3 As such, members of the NZA team (led by our technical advisors at MCCA) will undertake work to identify and engage key commercial asset owners in Manchester, collate information on the planned retrofit of these buildings (project pipeline, scale of investment, timeline, gap analysis to net zero), and understand in detail the financial and economic viability barriers limiting action.
- 4.6.4 The project will also deliver a programme of best practice exchange for the built environment sector to drive up performance in operational and embodied carbon and increase transparency of performance data to help drive action. This will result in a database of the commercial assets that can be fed into each of the NZA project pipelines.
- 4.6.5 In addition to the above work, the NZA will incorporate and support the ongoing work being undertaken by the MCC estates team to progress their decarbonisation aims in line with mutual targets. For example, the NZA will support ongoing work that utilises the Salix Grant to develop individual feasibility reports for understanding how Manchester's schools can progress to being decarbonised.

5. Net Zero Accelerator: Finance workstream

- 5.1.1 Analysis of the financial implications of these pipelines is expected to highlight a funding gap that will need to be resolved to successfully deliver each project. The MCC finance team will work to develop a range of coordinated and fit for purpose commercial models for delivery. Given the scale and range of asset classes involved, a single all-encompassing commercial model is unlikely to be desirable or achievable, so through combining schemes the NZA aims to open opportunity to leverage private finance to support the delivery of meeting Manchester's zero carbon target.
- 5.1.2 In creating these novel models for investment, the MCC finance team will review previously delivered regeneration and carbon schemes across the city, to evaluate the lessons learned from the schemes and to better understand financial viability of these projects. The results of this research will be used to inform the funding approaches for the NZA, with a view to applying them to both city-wide and neighbourhood level projects. A further consideration of the MCC finance team will be to explore how different funds and investments could be blended to provide additional value to projects.

6. Next Steps

- 6.1 The Energy and Environment team will use NZA as a vehicle to continue and expand on the above work (chapter 4), to deliver the LAEP. In addition to this, MCC will progress with the outlined governance structure as defined by the NZA. This will involve maintenance of the reporting mechanisms, external reporting of progress to GMCA and DESNZ and to colleagues internally at regular intervals.
- 6.2 In addition to the next tangible steps referenced in chapter 4, there will be ongoing work to finalise the Energy Chapter of the Local plan which will be a further key deliverable in this programme.
- 6.3 Following the approval of the MCC EV Charging Strategy, further work will be undertaken to develop an associated Action Plan and EVCI installation programme going forward.
- 6.4 The NZA programme (as well as funding from transport sources) has allowed for additional resources within the Energy & Environment team to further support the delivery of the Local Area Energy Plan, Net Zero Accelerator and EV programmes of work. Recruitment is now complete, and colleagues will be in post from December, and this will further advance the work of this agenda.

7. Recommendations

- 7.1 The Environment, Climate Change and Neighbourhoods Scrutiny Committee is recommended to consider and comment on the information in the report.