

## Manchester City Council Report for Information

**Report to:** Environment and Climate Change Scrutiny Committee –  
8 September 2022

**Subject:** Manchester Retrofit Plan – Emerging Proposals

**Report of:** Head of Housing Services

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### Summary

The Manchester Housing Strategy (launched in June 2022) outlined our commitment to developing a Retrofit Plan for all the housing in the city. This report is the first step towards developing the plan and provides an opportunity for the Scrutiny Committee and Members to consider the emerging proposals and influence the policy in its early stages.

This report explains why a Retrofit Plan is needed, the key issues for developing and delivering a large-scale decarbonisation programme in Manchester, stakeholders who will need to be involved in the development and delivery of the plan, and the programme for delivering the plan.

### Recommendations

The Committee is recommended to consider and comment on the emerging retrofit plan.

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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

According to the Climate Change Framework 2022 Update [1], Manchester homes make up 22% of the city's total carbon emissions. The Retrofit Plan (of which this is an early draft) will outline how the pathway to zero carbon will be achieved for Manchester's existing housing stock. The issues discussed in this report are a key aspect of lowering the emissions and becoming a zero-carbon city.

**Equality, Diversity and Inclusion** - the impact of the issues addressed in this report in meeting our Public Sector Equality Duty and broader equality commitments

Key to the success of decarbonising Manchester's housing stock is the accessibility of funding, advice and services to all Manchester residents. In particular we will need to ensure that just transition to low carbon is achieved through consideration of vulnerable households in the design of the Retrofit Plan. Well insulated homes can lead to multiple benefits, including but not limited to

- lower energy bills, and therefore reduced fuel poverty and

- improved health and wellbeing due to better thermal comfort during very cold and very hot periods of the year and better indoor air quality.

<b>Manchester Strategy outcomes</b>	<b>Summary of how this report aligns to the OMS/Contribution to the Strategy</b>
A thriving and sustainable city: supporting a diverse and distinctive economy that creates jobs and opportunities	Retrofit provides long term employment opportunities to Manchester businesses and residents (see also the Green Skills and Housing Retrofit report submitted to the Economy Scrutiny in September 2022).
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 (see also the Green Skills and Housing Retrofit report submitted to the Economy Scrutiny in September 2022).
A progressive and equitable city: making a positive contribution by unlocking the potential of our communities	Retrofitting 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 Retrofit Plan 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	N/A

### **Financial Consequences – Revenue**

None at this stage, but the Retrofit Plan will identify financial consequences for revenue.

### **Financial Consequences – Capital**

None at this stage, but the Retrofit Plan will identify financial consequences for capital. Retrofit work for the council-owned properties will be funded from the Housing Revenue Account Business Plan. The work will be considered alongside other priority work, including Decent Homes and building/fire safety. A review of the Business Plan has been started.

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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 Housing Strategy (June 2022)
- Housing Operations Asset Management Strategy 2022-2025
- Manchester Climate Change Framework 2020-25
- Manchester City Council Climate Change Action Plan 2020-25

## **1.0 Introduction**

- 1.1 Manchester has committed to becoming a zero carbon city by 2038. With over a fifth of the city's carbon emissions generated by residential properties [1] (largely due to space heating and hot water), we must make urgent progress towards improving the energy efficiency of the housing stock and moving away from fossil fuel-based heating.
- 1.2 The Council's new Housing Strategy committed us to developing a Retrofit Plan for the city. The Retrofit Plan will outline the delivery of the large scale retrofit programme to ensure progress towards the 2038 target, working in collaboration with social housing providers and private homeowners and landlords in the city.
- 1.3 This report is the first step towards developing the Retrofit Plan. It describes the current targets for emission reduction, the urgency of scaling up action, and some of the key challenges that will need to be addressed within the Retrofit Plan. The report will allow the Scrutiny Committee to comment on the proposed way forward.

## **2.0 Background**

- 2.1 This section explains the need for the Manchester Retrofit Plan. The Plan
  - outlines the decarbonisation targets for Manchester's residential properties,
  - summarises the numbers of properties, their ownership distribution and general condition,
  - defines what we mean by retrofit and the measures that can be taken to decarbonise a home.

## **2.2 Retrofit Targets**

- 2.3 In 2019, Manchester set a target to become a zero-carbon city by 2038, with a challenging reduction of at least 50% of our direct CO<sub>2</sub> emissions by 2025. According to the Climate Change Framework 2022 Update [1], Manchester homes make up 22% of the city's total carbon emissions. In order to reduce emissions from the domestic building stock by 50%, we will need to retrofit 84,000 properties across the city. With the average cost of home retrofit estimated at £25,000–£30,000 [2], the total cost of achieving just 50% reduction in the CO<sub>2</sub> emissions is likely to be a minimum of £2.1bn.
- 2.4 In addition to the targets set out in the Climate Change Framework, the Council's recently published Housing Strategy sets a target of retrofitting at least a third of the city's 67,300 social rented properties by 2032. There is a consensus within the Registered Providers (RPs) that this is a stretch target. The Council is expected to lead the way in retrofitting its properties, with approximately 60% of the Council's own stock needing to be retrofitted by 2032 in order to meet the Housing Strategy target.

- 2.5 A significant scale of action is required to meet these targets, both internally for the Council's own housing stock and creating demand and favourable conditions across the city for private homeowners and landlords to address their properties. The time to act is now; with the recent and expected energy price increases, we must reduce the energy demand of the properties through improvements in energy efficiency in order to lower the occupiers' energy bills. As well as the energy price crisis, the recent hot weather across the nation is improving everyone's understanding about the long-term effects of climate change and creating an urgency for climate adaptation, of which housing retrofit and creating better insulated, cooler homes is a substantial part.
- 2.6 The following sections discuss the progress that has already been made and the plans to scale and speed up action.

### 3.0 Manchester Housing Stock

- 3.1 The number of properties owned by Manchester City Council, other RPs, owner occupiers and private landlords are shown in Table 1.

Table 1 Number of properties across different tenures.

	Number of properties	Percentage
<b>Social rented properties</b>		
Manchester City Council owned	15,700	6.5%
Registered provider owned	51,600	21.5%
<b>Sub-total</b>	<b>67,300</b>	<b>28.0%</b>
<b>Privately owned properties</b>		
Owner occupied	79,300	33.0%
Private rented	93,400	38.9%
<b>Sub-total</b>	<b>172,700</b>	<b>72.0%</b>
<b>Total</b>	<b>240,100</b>	<b>100.0%</b>

- 3.2 According to a modelling exercise carried out by the Greater Manchester Combined Authority (GMCA) in 2021 [3], Manchester housing across the different tenures has the following characteristics:
- The housing stock is dominated by pre-WWII and mid-century terraced and semi-detached properties.
  - Cavity walled and solid brick properties are common. There are a significant number of uninsulated cavity walls, and many properties may not be suitable for cavity wall insulation. Levels of roof insulation are low across the city.
  - The majority of the houses have double glazing, but single-glazed windows still exist (e.g. in less frequently-occupied rooms).
  - Most properties (approximately 80%) are heated by gas, and have gas boilers with radiator heating systems. Electric storage heaters and room

heaters are also common. Heat pumps are still uncommon, covering only approximately 2% of the heating systems in the city.

- Each home emits approximately 3.0 tonnes of CO<sub>2</sub> per year. EPC band D rated properties are the most common.

### **3.3 Retrofit Measures**

3.4 The majority of all Manchester homes will need to be retrofitted in order for us to decarbonise our housing stock. The retrofitting measures we refer to in this report are likely to include

- energy efficiency improvements, such as insulation of walls, roof and floors
- moving away from fossil fuel-based heating technologies such as gas boilers to using low carbon systems such as heat pumps or connecting to heat networks.

3.5 The retrofit technologies and terminology are elaborated further in Appendix 1.

## **4.0 Progress and Emerging Plans for Decarbonising Council-owned Properties**

4.1 The council owns approximately 15,700 homes. The majority of these (12,800) are managed by the Housing Operations team (previously Northwards Housing Limited, the arm's length management organisation, ALMO, which was brought back into the council management in July 2021). The Council also has 2,700 properties managed by contractors and funded by the private finance initiative (PFI). In addition to the properties managed by Housing Operations and PFI contractors, the Council also owns a small number of properties (approx. 200 in total) which are managed by housing associations in West Gorton and Alderley Edge.

4.2 The following sections outline the progress made towards decarbonising the Council-owned properties, and the ongoing and future work to take them towards zero carbon.

### **4.3 Housing Operations**

4.4 The recently refreshed Housing Operations Asset Management Strategy 2022-25 specifies how the Council's housing stock will be maintained and improved. It outlines how the homes are managed in line with the Decent Homes Standard and other property related legislation (such as asbestos and fire risk) and sets an objective of improving the energy efficiency of homes to help reduce fuel poverty and meet the council's zero carbon targets. The strategy states that a review of the current approach is needed if we are to meet the 2038 ambition. The strategy is undergoing a refresh; engagement with residents and the Scrutiny Committee Members is planned for later in 2022. The Housing Operations Asset Management Strategy will act as our decision-making framework for all work related to the Council's Housing

- 4.5 Operations stock. It will guide us on, for example, how retrofit works are prioritised alongside fire safety improvements and Decent Homes Standard related works.
- 4.6 The Council's Housing Operations team has already made significant progress towards retrofitting its properties. As shown in Table 2, £83m has been spent on energy efficiency improvements and low carbon heating systems since 2005, resulting in a 49% reduction of CO<sub>2</sub> emissions.

Table 2 Council housing stock – achievements to date.

£83m	Spent on energy efficiency improvements since 2005, including: <ul style="list-style-type: none"> <li>• 1,600 solid wall properties – external render and insulation (inc. 50 private properties)</li> <li>• 14 high rise blocks of flats – external render and insulation</li> <li>• 580 homes with heat pumps – high and low rise</li> <li>• 2,350 roofs with solar photovoltaic (PV) systems</li> <li>• 8 retirement blocks with solar thermal panels</li> <li>• 300 blocks of flats with low energy lighting – high and low rise</li> <li>• 11,000 homes with high efficiency condensing boilers</li> <li>• 11,900 homes with double glazing</li> <li>• 5,100 homes with cavity wall insulation</li> <li>• 7,000 homes with loft top-up insulation</li> </ul>
£12m	Secured in external grants to help fund energy improvements since 2010
£10m	Income expected over a 20-year period since 2010 from renewable energy generated
49%	Reduction in CO <sub>2</sub> emissions in homes since 2005 (from 55,000 to 28,000 tonnes)
2,100	Residents received energy advice since 2013, saving them an estimated £370k and 500 tonnes of CO <sub>2</sub>
Band C	Average RDSAP (2009) rating

- 4.7 The Housing Operations team has an agreed capital delivery plan which contains some zero-carbon works; however, and as noted in the Housing Operations Asset Management Strategy 2022-2025, increased scale and pace of action is required to meet the 2038 target. In particular, additional funding sources will need to be identified to deliver this, and affordability within the Housing Revenue Account Business Plan will be key to ensuring delivery.
- 4.8 The Council is currently preparing for a bid submission as part of a GMCA consortium for Social Housing Decarbonisation Fund (SHDF) wave 2.1. The Government funding available would help us undertake a significant amount of energy efficiency work in the properties which are due Decent Homes works in the next two financial years. This would kick-start the large-scale action for the Council's own properties, building internal resources and skills and delivering more zero carbon works over the coming years.
- 4.9 As part of the development of the Retrofit Plan we will consider our internal zero carbon targets and commitments, such as
- targets for moving away from using fossil fuels

- trajectory of the number of homes retrofitted per year
- the impact of zero carbon works on homelessness (for example, the impact of extending work on our void properties to include zero carbon measures on the property relet times)

4.10 These targets will be included in the Housing Operations Asset Management Strategy.

#### **4.11 PFI contracts**

4.12 All the homes under the Council's three PFI schemes have undergone energy efficiency and carbon reduction works, with the average EPC rating rising from band E to band C.

4.13 Plymouth Grove PFI scheme in Ardwick covers approximately 500 Council-owned properties and is managed by Grove Village Limited between years 2003 and 2033. The scheme does not have a zero-carbon strategy or plan in place; however, engagement with the consortium on this is planned for September 2022. An existing heat network supplies heat and hot water to approximately 400 properties in the area. Heat is currently generated by gas boilers. There are opportunities to upgrade the existing network and move it to a lower carbon supply. Alternatively, there is a possibility to explore connection opportunities to other nearby heat networks. The remaining properties are currently heated by individual gas boilers.

4.14 As part of the Miles Platting PFI scheme, 1,400 homes are managed by Renaissance Miles Platting Ltd with the contract running from 2007 to 2037. The estate has a sustainability strategy which specifies targets of 50% emission reduction by 2031 and net-zero by 2037. This equates to reaching EPC A for all the council owned properties on the estate by the end of the contract. A desk-top based feasibility/design study for ground source heat pumps is being considered to explore opportunities to replace gas boilers in seven tower block communal heating systems.

4.15 A further 800 homes in Brunswick are managed by S4B between years 2013 and 2038. The 30-year-old gas boilers that feed the communal systems in four tower blocks in the area are currently being replaced by more modern gas boilers whilst the best future net-zero solutions for the blocks are being investigated, including potential connection to nearby heat networks. This does mean that we are locked into using gas for the foreseeable future but alternative options were considered and none were deliverable within the time available and the agreed contract terms. The remaining properties are heated by individual gas boilers, apart from a 60-bed extra care and day care centre which operates a brand new, energy efficient, gas-fired Combined Heat and Power unit.

4.16 It is expected that zero carbon plans will be in place for each PFI scheme by the end of Financial Year (FY) 2023/24 (as discussed above, currently only Miles Platting has one). Zero carbon works were not identified as part of the original PFI contracts, and therefore the funding streams for low carbon



measures for these homes will need to be identified. Operational savings (i.e. omitting some work already in the contract and replacing it with low carbon alternatives) present an opportunity, however these will not fund the whole transition to zero carbon.

#### **4.17 Other Council owned properties**

- 4.18 In West Gorton, approximately 70% (124 out of 171) properties are heated by air source heat pumps (ASHPs), with the remaining 30% being heated by gas boilers. All the properties are rated EPC C or above. We are currently considering the future management of the properties. The current management agreement (with The Guinness Partnership) is due to end soon and a new agreement will include a pathway to zero carbon.
- 4.19 The current condition of the very small number of Bungalows (11) in Alderley Edge is unknown. We will engage with Peaks and Plains housing association who manage the properties on the Council's behalf to determine what work is possible within the resources available.

#### **5.0 Progress and Emerging Plans for Decarbonising Non-Council Owned Social Rented Properties**

- 5.1 In addition to the Council-owned homes, Registered Providers (Housing Associations) own a further 51,600 social homes in Manchester. The majority of RPs are members of the Manchester Housing Providers Partnership (MHPP) and its zero carbon workstream. The workstream currently meets as part of the wider Greater Manchester Housing Provider Partnership meetings, as well as through MHPP communication channels, to update members on funding opportunities and progress of delivery of schemes such as ECO, Green Homes Grant and the Social Housing Decarbonisation Fund where bids have been submitted to the relevant funding bodies as a GMCA consortium (as opposed to the individual local authorities or RPs).
- 5.2 The majority (approximately 70%) of the social housing stock in Manchester is owned by four RPs:
- Manchester City Council (15,700 properties)
  - Wythenshawe Community Housing Group (13,500 properties)
  - One Manchester (11,800 properties) and
  - Southway (5,700 properties).
- 5.3 The housing stock of these four providers has many similarities due to the properties having been transferred from Manchester City Council to the RPs through stock transfer. The MHPP has recently agreed to work collaboratively to baseline their housing emissions, with the four lead RPs developing costed investment plans to zero carbon and sharing learning.
- 5.4 Several zero carbon demonstration projects have already been undertaken or are underway and the organisations have ambitious zero carbon targets. The

RPs all face similar challenges in terms of decarbonisation, including (but by no means being limited to):

- A large proportion of the housing stock requiring complete retrofit including installation of heat pumps/other renewable energy technologies, with costs estimated to be around £25k per property but rising rapidly due to recent material/labour cost increases.
- Little Government funding being available towards retrofit, but Government imposed caps for social rent meaning the funding cannot be recovered through operations.
- Even where funding exists, access to the properties to carry out work is difficult, and tenant engagement and buy-in is key to success.
- There is a need to ensure that works do not cause unintended consequences forcing more people into fuel poverty.

5.5 It is hoped that the collaboration will help the RPs overcome some of the challenges, but with recognition that the targets are unlikely to be met without more support from the central Government.

## **6.0 Progress and Emerging Plans for Decarbonising Owner-occupied properties**

6.1 The 79,300 privately owned owner-occupied properties are discussed below. The 'willing to pay' and 'vulnerable and low-income' households are covered separately, as schemes and help available for these groups differ. It is recognised that there are many other ways of segmenting the owner-occupied households and this is just one of them. Leasehold properties within the Council estates are discussed as a separate topic due to the unique challenges related to their decarbonisation.

6.2 In general there is a lack of accurate data on the condition of the Manchester's privately-owned housing which makes it difficult to measure the city's progress towards net zero.

## **6.3 Willing to pay households**

6.4 The GMCA has recently procured a managing agent to provide impartial advice to homeowners on what they need to do to retrofit their homes, the likely costs and recommended steps to take in the process. The scheme, branded Your Home Better, helps alleviate the uncertainty that many homeowners currently have around how to retrofit their homes. The scheme was launched in June 2022, and is gathering momentum; however, it is currently benefitting exclusively the willing to pay market. There is intent to bring in financial solutions for homeowners to access green finance products, which would likely make retrofitting more appealing to many owner occupiers. The scheme has ambitious plans to expand to become the retrofit agency of choice for the region and be able to meet the demand from Greater Manchester residents. We will continue to work with the GMCA to ensure a strong take up and maximise the benefits of the scheme to Manchester residents.

- 6.5 Additional help for the willing to pay households is available through the UK Government's Boiler Upgrade Scheme (see Section 7 for more information about Government funding schemes).

## **6.6 Vulnerable/low-income households**

- 6.7 Financial assistance towards retrofitting properties of vulnerable and low-income households is currently modest. This section outlines the Manchester-based Home Energy Loan Plan (HELP) and the Warm Homes Manchester schemes. Further information about Government funded schemes such as ECO and Home Upgrade Grant (HUG) is given in Section 7.
- 6.8 HELP is the Council's scheme for assisting homeowners and some private sector landlords to get access to low interest finance. Interest free loans for up to £10,000 can be made for energy efficiency works and heating system upgrades (administration charges apply). Loans are typically paid back within a maximum of seven years, or on sale of the property/death of the assisted person. Care and Repair Manchester administer the scheme on the Council's behalf and the majority of residents who take advantage of this scheme are elderly and often in crisis.
- 6.9 The Warm Homes Manchester programme is delivered by AgilityECO and receives funding from the Warm Homes Fund, a national £150m fund administered by Affordable Warmth Solutions. The scheme is currently being set up and will install first time low carbon central heating (air source heat pumps), and where possible loft and cavity wall insulation, to approximately 50 properties in Manchester, but with the intention to seek additional funding opportunities if the programme is successful.
- 6.10 As the two schemes outlined above are only able to cover the retrofit costs of a few hundred properties, there is an evident gap in the amount of help (both financial and advice/support) available to vulnerable/low-income households. Further work is required to identify and establish suitable financial products and advisory services. The GMCA Your Home Better service may be a vehicle for this and we will continue working with the GMCA to extend the offer to as many Manchester homeowners as possible.

## **6.11 Leasehold properties within Council-owned estates**

- 6.12 A very specific issue for owner-occupied properties is presented by the leasehold flats and maisonettes which have been bought under the Right to Buy scheme within estates managed by the Council (and registered providers). Within the Council-owned estates there are currently just under 500 leasehold properties, the majority of which are low rise flats and likely to still have individual gas boilers similar to other council properties in these buildings. A small number of leasehold properties are also connected to the Council's communal heating systems in high-rise and low-rise blocks.
- 6.13 As part of the delivery of the Retrofit Plan we will clarify our approach to working with leaseholders to deliver and finance zero carbon works.

## **7.0 Progress and Emerging Plans for Decarbonising Private Rented Properties**

- 7.1 The biggest group of properties, 93,400 in total, are owned by private landlords. We do not currently hold information about the landlords, although estimates state that there are likely to be around 10,000 of them across Manchester. This makes it difficult to target the private rented sector for improvements (or enforcements if minimum standards were put in place). There are also currently no services available specifically for landlords, although some local and Government grants, and help specified in other parts of this report, do apply. We note that influencing and supporting this sector remains challenging within the current policy constraints.

## **8.0 Funding**

- 8.1 The Council has established a Zero Carbon Finance and Investment Subgroup to investigate funding opportunities for zero carbon work and to engage with others externally on this agenda. We are also supporting the work of the GMCA in identifying and developing new funding mechanisms for homeowners. As part of the Retrofit Plan, we will specify how we will work with others to identify suitable funding mechanisms and make these available for Manchester residents.
- 8.2 The Government offers some, modest, support towards the decarbonisation of both social and privately-owned homes; these are outlined in the sections below. There is a need to lobby the Government for more funding for all homes and for longer more sustainable policies.

## **8.3 Social Housing Decarbonisation Fund (SHDF)**

- 8.4 The 2019 Conservative Manifesto committed £3.8bn to improve the energy performance of social rented homes over a 10-year period. The SHDF is currently starting its second wave.
- The demonstrator stage of the fund saw the Council bid for £3.12m of funding to retrofit around 164 homes, creating a decarbonised neighbourhood on the Grey Mare Lane estate in Beswick. The project is due to finish in 2023 and has been delivered in collaboration with BEIS, One Manchester and Creative Thinking Studio to showcase the delivery of whole house retrofits on a neighbourhood level. So far, full retrofit works have been carried out on around 90 properties with a 70% take up for heat pumps. This project has, however, highlighted the challenge of including privately-owned homes within a neighbourhood-wide scheme.
  - As part of Wave 1 of the SHDF, bids were submitted as part of a consortia with 10 north-west based landlords and the GMCA. Wythenshawe Community Housing Group secured £800,000 to retrofit 105 solid wall and mansard roof properties with external wall insulation as well as other fabric and ventilation improvements to improve the properties to an EPC band C rating. Funding was also received by Your Housing Group, For Housing, Jigsaw, Moss Care St Vincent and Salix Homes.

- Wave 2 is expected to open in August/September 2022 and will look to allocate £800m of funding to support the installation of energy performance measures in social homes in England. The bid for Greater Manchester will be led by the GMCA, and Manchester City Council, together with several RPs, is expected to put forward a significant funding bid to address Manchester properties. The work will be delivered over a two-year period starting in March 2023. It should be noted that the SHDF is aimed at properties with EPC ratings of D or below, which limits the number of eligible properties we are able to put forward for the scheme.

## **8.5 Energy Company Obligation (ECO)**

- 8.6 The Government has set requirements for the biggest energy providers to send some of their profits back to UK households; this is known as the ECO. The funding is directed to those homeowners who are deemed to need it the most, such as those on low annual income, the disabled and the elderly living in low EPC rated properties. The ECO 4 is a £4bn four-year scheme, running from August/September 2022 until March 2026. The funding is directed at the worst performing homes (EPC bands D to G for privately owned homes) and allows energy efficiency measures to be installed in eligible households, taking a whole house retrofit approach (as opposed to the installation of single measures as in the previous rounds of the ECO funding). This scheme is available to those homeowners who are in receipt of means tested benefits; however, the Council can also refer private tenure households that are considered to be living in fuel poverty or are on a low income and vulnerable.

## **8.7 Homes Upgrade Grant (HUG)**

- 8.8 BEIS is currently designing the Phase 2 of the Home Upgrade Grant (HUG) scheme. HUG provides grants to install energy efficiency measures and low carbon heating in low-income households living in the worst performing, off gas grid homes across England to tackle fuel poverty and make progress towards net zero 2050. The GMCA (and Manchester City Council as part of the consortium) previously bid for Phase 1 of the HUG but was unsuccessful.
- 8.9 The Government has allocated £1.1 billion to the Home Upgrade Grant over the next three years, which is being delivered from early 2022 to March 2025, with the Phase 2 applications expected to open in Autumn this year.

## **8.10 Boiler Upgrade Scheme**

- 8.11 Since March 2022, the UK Government has been operating a scheme to provide grants for boiler upgrades. This has been designed to allow property owners to upgrade their current heating systems with low carbon alternatives, such as heat pumps. The grant will lessen the upfront costs of the low carbon heating technologies and is available to both domestic and small non-domestic properties from 2022 to 2025. The grants offered vary between £5,000 and £6,000, depending on the type of heating system installed. The installer will apply for the grant on the homeowner's behalf.

## **9.0 Considerations for Large Scale Retrofit**

- 9.1 The Retrofit Plan will need to acknowledge and identify ways to address some of the key challenges related to the delivery of large scale retrofit. These include those discussed in the sections below.

## **9.2 Generating Demand through Resident Engagement and Communications**

- 9.3 We know from our Housing Operations experience that resident engagement will be key to generating demand for retrofit. Even in situations where our social housing tenants are offered free improvements to their homes we often struggle to get access to the properties. Early engagement and the development of a Resident Engagement Plan will be needed to ensure the success of the retrofit programme. This will draw on the experiences and lessons learnt by the Council's Housing Operations and Neighbourhoods teams, as well as national best practice.

## **9.4 Neighbourhood-based Approaches to Retrofit**

- 9.5 It is now recognised that area-based retrofit schemes (also called neighbourhood based retrofit schemes) provide opportunities to regenerate neighbourhoods beyond the zero-carbon agenda, take advantage of economies of scale and develop local skills. The challenge around area-based schemes is typically around funding and enticing the residents to spend significant sums of money to upgrade their homes at time scales which may not fit their other plans, even when these costs may be lower than if they were to undertake the work entirely on their own.

### **CASE STUDY – Neighbourhood-based retrofit scheme**

In partnership with the Carbon Co-op and B4Box, we are piloting the delivery of an area-based retrofit scheme in Levenshulme to demonstrate how the delivery of whole house retrofits can be scaled up to area level. The scheme involves retrofitting up to 20 pre-1919 terraced homes and is aiming to be on site in March 2023. The scheme will influence the Council's plan of retrofitting the city's privately owned homes especially, with learning expected around resident engagement, recruitment of local workers, skills development through on-the-job learning, exploration of financial support mechanisms and procurement approaches for neighbourhood-based schemes.

## **9.6 Conservation Areas and Listed Buildings**

- 9.7 Engagement with the Council Planning team will be carried out to understand the challenges such as acceptable retrofit solutions in conservation areas and for listed buildings (e.g. external wall insulation and use of heat pumps). It is likely we will be able to learn from others on this, as many Local Authorities will face the same issues relating to the visual and aesthetic impacts of housing retrofit.

## **9.8 Grid Capacity**

- 9.9 We will also need to work with the electricity Distribution Network Operator (DNO) Electricity North West, to ensure the electricity infrastructure in the city is able to support the large-scale electrification of heating. Engagement with Electricity North West is already ongoing at the GMCA level and we will need to feed our plans and programmes into these discussions.

## **9.10 Skills**

- 9.11 Large scale retrofit will require thousands of new operatives to be trained and upskilled to undertake retrofit work. This is covered in a separate paper to the September 2022 Economy Scrutiny Committee titled 'Green Skills and Housing Retrofit'. We will continue working collaboratively between the Council's Housing Strategy, Housing Operations and Work and Skills teams to ensure the availability of an appropriately skilled workforce to deliver the retrofit programme.

## **9.12 Availability of Materials and Technologies**

- 9.13 We know from our pilot projects of delivering deep retrofit that the availability of materials and technologies (especially ASHPs) is an issue which delays the delivery and completion of retrofit projects. We will need to consider appropriate solutions to this, including, for example, group procurement.

## **10.0 Delivery Team**

- 10.1 The Strategic Housing service will oversee the development and delivery of the Retrofit Plan and has created a small team to do this. One post has been filled since May 2022 with two more officers due to start in September and October 2022.
- 10.2 Input and commitment will be required from teams across the Council to implement the plan. The teams include (but are not limited to) the Council's Housing Operations, Neighbourhoods, Work and Skills and Communications teams. It is expected that a delivery structure consisting of workstreams will be established in order to address some of the barriers around retrofit, such as resident engagement and financing.
- 10.3 The Council team will collaborate with stakeholders across the city, including, for example, the MHPP, Manchester Climate Change Agency, GMCA, and others.

## **11.0 Programme**

- 11.1 We will develop a draft Retrofit Plan by the end of FY 2022/23. As discussed in the earlier sections of this report, ongoing engagement with various stakeholders will be required both internally within the Council and externally. The Retrofit Plan is therefore expected to evolve over time as we learn from experience and develop new approaches for delivery.

## **12.0 Conclusion**

12.1 This report has explained:

- Why a Retrofit Plan is needed
- What progress has already been made and some of the key issues are for developing and delivering a large scale decarbonisation programme in Manchester
- Who will need to be involved in the development of the plan
- When the plan is expected to be completed

12.2 The Retrofit Plan will address the 'How' – how we will work with different stakeholders across the city to carry out the huge task of retrofitting the city's housing stock. The plan will outline the Council's role in supporting Manchester residents in the transition to zero carbon.

12.3 The plan is likely to evolve over time as we learn from experience and new approaches, funding opportunities and best practice emerge from other areas of the UK faced with the same task. However, our target of reaching the 2038 milestone for zero carbon housing will guide the continuous improvement of the plan and its delivery.

12.4 The sub-sections below summarise the key policies and considerations for the development of the Retrofit Plan.

## **12.5 Equal opportunities**

12.6 Retrofitting 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. The consideration of vulnerable and low-income households in the development of the plan will be key to ensuring just transition to zero carbon housing.

## **12.7 Risk Management**

12.8 Key risks for the development and delivery of the Retrofit Plan include, but are not limited to, the following:

- Availability of funding for the Council, RPs, private homeowners and landlords
- Low demand for zero carbon works by Manchester residents, particularly due to the current energy price crisis
- Lack of skilled, PAS2035 qualified retrofit assessors, coordinators and installers in the local area
- Short supply of required technologies such as air source heat pumps
- Difficulties of engaging with certain stakeholders, such as private landlords

## **12.9 Legal Considerations**



- 12.10 Legal aspects to note include the consideration of lease terms and conditions when planning zero carbon works and the support offered to private homeowners within Council and RP -owned estates.

### **13.0 Recommendations**

- 13.1 It is recommended that the Committee considers and comments on the emerging retrofit plan (the content of this report).

### **14.0 References**

(1) Manchester Climate Change Agency. Manchester Climate Change Framework (2020-25) – 2022 Update. Key Findings for Review.

(2) Manchester Climate Change Agency. Manchester Climate Change Framework (2020-25) – 2022 Update. Key Findings for Review.

(3) Manchester Climate Change Agency. Manchester Climate Change Framework (2020-25) – 2022 Update. Key Findings for Review.

### **15.0 Acronyms**

AC	Alternating current
ALMO	Arms length management organisation
ASHP	Air source heat pump
BESS	Battery energy storage system
COP	Coefficient of performance
DC	Direct current
DNO	Distribution network operator
EAHP	Exhaust air heat pump
ECO	Energy Company Obligation
EWI	External wall insulation
FY	Financial Year
GMCA	Greater Manchester Combined Authority
GSHP	Ground source heat pump
HELP	Home Energy Loan Plan
HUG	Home Upgrade Grant
IWI	Internal wall insulation
MHPP	Manchester Housing Providers Partnership
MVHR	Mechanical ventilation heat recovery system
PFI	Private finance initiative
PV	Photovoltaic
RP	Registered provider
SHDF	Social Housing Decarbonisation Fund