



STOCKPORT HOMES CLIMATE CHANGE STRATEGY 2021-2026

16 March 2021

1 EXECUTIVE SUMMARY

FOREWORD

In 2010, Stockport Homes launched its first Climate Change Strategy which provided a solid platform of commitment and saw the organisation deliver some of the UK's most innovative use of renewable technology, create a frontline energy advice service and become recognised at a national level through awards and accreditations. This second strategy, which runs from 2021 – 26, comes at a suitable time with the advancements in low carbon technologies and the introduction of new climate change laws and legislations. The overreaching target for this second strategy is achieving carbon neutrality as an organisation by 2038.

Climate change is one of the biggest challenges to the planet today due to its detrimental effects, it is crucial that a leadership role is taken and new innovative ways to reduce carbon emissions are deliberated in order to continue to be a corporately responsible housing provider whilst still delivering a great service to support customers.

Stockport Homes' CEO, Helen McHale, feels as a housing provider, the organisation must play a vital role towards the mitigation of climate change:

"I believe Housing providers have an important role in shaping our low carbon future; not only in the services we deliver but in our influence across our supply chains and our partnerships working within other sectors. I am pleased to launch this new Stockport Homes Climate Change Strategy which sets out our plans towards climate protection as well as our commitments to working closely with our neighbouring authorities and businesses in a unified approach."

- Helen McHale, CEO,
Stockport Homes Group

2 INTRODUCTION

The 2016 Paris Agreement is the first partially legally binding document on climate change which commits to holding the increase in global average temperature to well below 2°C above pre-industrial times and then attempt to completely limit the temperature increase to 1.5°C. This will allow an ongoing future of sustainable living, green investment, carbon education programmes and energy efficient developments which will all help to achieve Stockport Homes' own targets.

Greater Manchester is under a transitional phase to becoming a low carbon and low emission economy after commitments that the city region has made to cut emissions by 48% by 2020 (from 1990 levels). Additionally, Stockport Council is part of the UK100 Clean Energy network which commits to being 100% clean energy by 2050. All in all, these commitments in Greater Manchester contribute as a whole towards the United Nation's Paris Agreement.

Since Andy Burnham became Mayor of Greater Manchester in 2017, he has proposed a vision to make Greater Manchester a leading carbon neutral, climate resilient city-region with a thriving natural environment and circular, zero-waste economy. Consequently, Andy Burnham called for a momentous Green Summit in March 2018 which announced plans for Greater Manchester to become carbon neutral by 2038.

"Greater Manchester was at the heart of the industrial revolution, a leading contributor of greenhouse gases. The city led the computer revolution which changed our lives. Now we are leading the low carbon revolution which will form the next chapter of how we live, work and travel. The science is clear on the steps we need to take to become carbon neutral, and some of these are very challenging. But our ambitions are high and we need communities and businesses to work with us to make this happen."

- Andy Burnham,
Mayor of Greater Manchester

3 CARBON NEUTRALITY

In response, international and national policy goals call for climate action, to eliminate the harmful greenhouse gas emissions associated with the effects of climate change. A primary focus has been placed on achieving carbon neutrality. Carbon neutrality describes having achieved a state in which the net amount of carbon dioxide or other carbon compounds emitted into the atmosphere is reduced to zero because it is

balanced by actions to reduce, through installing energy saving measures and behavioural change, removal, through creating carbon sinks such as planting trees or offsetting emissions through installing renewable technology or funding projects that reduce the emission of greenhouse gases.

In June 2019 The UK became the first major economy in the world to pass laws to end its contribution to global warming by 2050. The target will require the UK to bring all greenhouse gas emissions to net-zero by 2050, compared with the previous target of at least 80% reduction from 1990 levels.

Greater Manchester Combined Authority (GMCA) has set an even more ambitious target for the city region to be carbon neutral by 2038.

To date 67% of local authorities have also declared 'climate emergencies.' Stockport Council declared a climate emergency in March 2019 showing that special measures must be taken to halt environmental damage caused by climate change.

In 2020, Stockport Homes signed up to the Greater Manchester Landlords Climate Change Strategy. The strategy sets out an overall target of being carbon neutral by 2038 across all operations, with an intermediate target of 48% reduction by 2025. Along with this overall target, the strategy sets individual targets for both the operations and the housing areas of the organisation. Most of the targets are measured against baseline emissions figures.

Stockport Homes has always been a pioneer in housing when tackling environmental issues. Numerous projects and initiatives have already been implemented that have contributed positively to the environment as well as reducing carbon emissions.

This new Climate Change Strategy sets out Stockport Homes' five-year plan to cut carbon emissions through increased energy efficiency and low carbon technologies in order to achieve the overall aim of carbon neutrality as an organisation by 2038. This strategy aims to compliment the wider Greater Manchester and Stockport Council targets as well as other Stockport Homes strategies.

4 OBJECTIVES

Stockport Homes overall aim is to be carbon neutral by 2038. In order to achieve this, the following objectives have been set to minimise organisational environmental impacts over the next 5 years: The Objectives have been assigned to each of the three sections of the organisation, Homes, Customers & Operations.

Homes and Operations-

- **Reduce SHG carbon emissions by 48% by 2025 (against baseline figures)**
Work to achieve Greater Manchester's 2025 48% carbon reduction target and contribute towards overall carbon neutrality by 2038 through reporting and monitoring emissions as well as the implementation of measures designed to reduce emissions across all service sectors of the organisation.

Customers-

- **Increase customers awareness of environmental issues and encourage behavioural change to maximise the benefits of new renewable technologies and help reduce individual carbon footprints.**

Widen customer engagement around environmental issues by offering Carbon Literacy training to 100% of customers by 2025 and offer energy advice and other customer engagement initiatives which will provide information to help customers save money and reduce their carbon footprint.

Operations & Customers-

- **Contribute positively to local greenspace and biodiversity**

Ensure consideration is made to creating greener spaces to live and work within our services and development plans and look to increase local biodiversity where possible.

5 ACTIONS

In order to achieve the above objectives and overall aim of carbon neutrality by 2038, new and innovative ways to reduce consumption have been proposed. The actions are split into three sections; SHG Homes (**section 6**), SHG Customers (**section 7**) and SHG Operations (**section 8**) in order to provide a holistic and organisational wide approach to tackling climate change.

6 SHG HOMES

Being a housing provider not only means providing affordable housing, but also providing energy efficient homes for customers in order to reduce their energy bills and address fuel poverty. Measures have already been taken to ensure this however; plans will be devised to continue improvement.

6.1 ENERGY PERFORMANCE RATINGS

In 2020 Stockport Homes commissioned consultancy work to be completed on developing a zero-carbon strategy. This involved a thorough assessment of the existing housing stock and their associated energy/carbon usages, future years stock modelling and an action plan to decarbonise Stockport Homes housing stock ahead of the 2038 target.

Based on the current approved EPC methodology, 93% of the housing stock already sits at Band C or above with the average SAP rating being 75.6. The national average rating is band D with the national average SAP rating being 63 across all domestic tenure and 68 specific to social housing.

The high baseline value is the direct result of previous successful investments to retrofit the housing portfolio, including implementation of renewable technologies and enhanced insulation to the building fabric.

Switching gas fuelled properties to electric heat pumps would ensure that almost 100% of properties will achieve a minimum of EPC Band C. Current plans to stop new gas installs in 2023 will lead to an estimated 200 properties per year automatically being switched to electric heat pumps.

Other current and planned future projects such as the European Regional Development Fund (ERDF) programme which incorporates the implementation of a number of different retrofit and renewable technologies will contribute towards achieving EPC band targets and minimising emissions. The ERDF project is discussed in more details in subsequent sections of the strategy.

The total capital expenditure to achieve a minimum of EPC Band C across all homes is approximately £3.0m and the total capital expenditure to reach the lowest conceivable emission levels for the portfolio is approximately £97.4m.

Approximately £60m of the above figures will already be covered in current and planned future assets management work. This figure covers the entire portfolio including SHG and HRA properties. Additional costs to achieve carbon neutrality will be considered in the Asset Management Strategy and grants and funding opportunities will be explored.

Other housing association in Greater Manchester and nationally are facing typical costs of between £150m to £200m to ensure their housing portfolio is carbon neutral.

The proposed increase in SAP ratings after full retrofit procedures are undertaken are shown in the below graph.

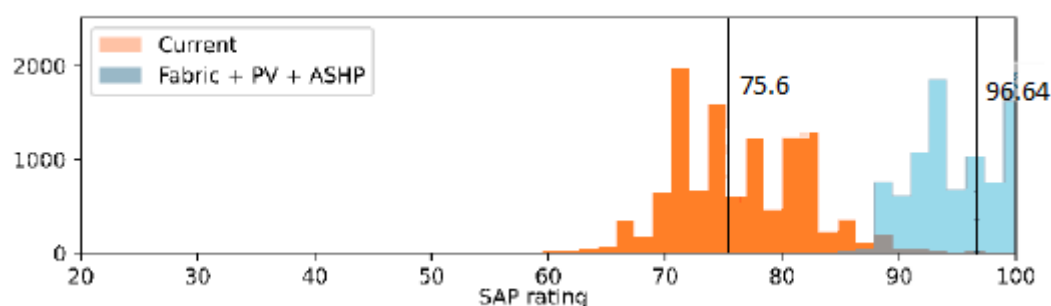


Figure 1 – SAP Ratings after cumulatively applying measures

Even with a full retrofit programme, after 2035 carbon emissions begin to flatline, leaving a predicted residual carbon emissions, therefore, offsetting options should be considered to bridge the gap between projected emissions and net zero.

Other measures discussed in the below sections will also help achieve the Greater Manchester Landlords' Climate Change Strategy target of all properties being EPC band C or above by 2025.

6.2 RETROFITTING

Retrofitting is the process of adding modifications to an existing building in order to improve the energy efficiency. Plans are in place to undertake a deep retrofit on 1 void property as part of the European Regional Development Fund (ERDF) project, in

order to significantly enhance their energy efficiency. These properties will act as a pilot to see if the measures can be rolled out to more properties in the future.

It is widely recognised that a “fabric first” approach is the most effective. This simply means ensuring a building has high-levels of insulation before other low carbon measures are considered. The recently introduced PAS:2035 government standard framework on how to conduct effective energy retrofits of existing buildings drives the 'whole house approach' including the 'fabric first' methodology.

From 2021 Stockport Homes will be required to adhere to these regulations on future retrofit projects and are in the process of training operatives around PAS:2035. Stockport Homes will ensure all contractors used on relevant projects are compliant under PAS: 2035.

Other Approaches that should be considered when looking at retrofitting projects are listed below:

- **Whole house approach:**
This approach considers the house as an energy system with interdependent parts, each of which affects the performance of the entire system. It also takes the occupants, the site, and local climate into consideration. (Specific properties- i.e. sheltered / adapted for disabilities)
- **Passivhaus House:**
Passivhaus is a voluntary standard for energy efficiency in a building, which reduces the building's ecological footprint. It results in ultra-low energy buildings that require little energy for space heating or cooling.
- **Insulate then Generate:**
This approach is very similar to the “Fabric First Approach”, first aiming to reduce energy demands from passive design strategies, and then look to meet the remaining demand with microgeneration technologies

6.3 INSULATION

Insulating properties is one of the most imperative measures to ensuring better energy efficiency as it reduces heat loss within homes, therefore keeping them warmer so less energy is required to heat the property. As a result, energy bills are reduced and there is a lesser chance of customers to struggle from fuel poverty.

Stockport Homes housing stock already has a relatively high number of advanced insulation measures applied. This reflects Stockport Homes ‘fabric first’ approach towards creating more energy efficient homes. So far, 8518 properties have been installed with loft insulation, 6102 properties with cavity wall insulation and 1940 properties with external wall insulation, which includes thermal over-cladding. Funding of £3.5 million was obtained for these measures.

All of the high-rise tower blocks have had thermal upgrades to their facades. Stockport Homes secured funding for 20 of the blocks (the 2 towers at Lancashire Hill had thermal upgrades fitted in the mid 90’s and are due to be upgraded in the coming years) from a combination of Community Energy Saving Programme (CESP) funding

and Energy Company's Obligation (ECO) funding. This not only insulates the entire property but also improves aesthetics.

Double glazing also contributes towards better insulation in homes. As of 2008, all of Stockport Homes' housing stock became fully double glazed.

6.4 EXTERNAL WALL INSULATION (EWI) & INTERNAL WALL INSULATION (IWI)

Plans have been made to improve insulation within Stockport Homes' housing stock by installing 643 properties with EWI. Of these properties, 60 will be delivered as part of the European Regional Development Fund (ERDF) project and 330 as part of capital programme. Along with this, 253 properties in Offerton will see EWI fitted as part of the Offerton Masterplan. The Offerton Masterplan is a capital investment programme involving 600 properties seeing a mixture of window replacements, roofing works, canopies and other measures in order to improve inefficient poorly performing stock around the Offerton estate.

Stockport Homes are currently working on plans to replace the cladding at the two tower blocks and low-rise blocks at Lancashire Hill. This will improve the thermal efficiency and the aesthetics of nearly 500 properties.

Other properties where EWI and IWI can be installed will be considered on a case by case basis. Specifically, IWI should be considered where properties become void due to the disruptive nature of the install.

6.5 PARTY WALL INSULATION

In recent years, techniques have been developed to insulate the cavities, which separate properties. This is achieved by drilling pattern of holes to the front and rear of the property for injection of insulation materials as well as injection access in the loft space.

The benefits and costs of this process will be considered.

6.6 GLAZING

Energy efficient glazing contributes towards better insulation in homes. As of 2008, all of Stockport Homes' housing stock became fully double glazed. Triple glazing is the latest version of insulated glazing and is around twice as efficient as double glazing, but capital costs can be twice as much.

There are aspirations for all future glazing replacements to be triple glazed. Capital costs of triple glazing are currently significantly higher than double glazing so cost benefit analysis will be undertaken by operatives.

6.7 RENEWABLE TECHNOLOGY

Stockport Homes has successfully identified and implemented a range of alternative renewable energy sources over the past decade. By becoming an organisation which invests in clean energy, dependence on non-renewable energy and unsustainable sources such as fossil fuels are reduced as well as the amount of greenhouse gas (GHG) emissions produced.

Currently, 38% of Stockport Homes' housing stock is run on renewable energy, this includes biomass systems and solar photovoltaic (PV) panels. this figure will rise to 40% by 2021. (through networking officers determined this figure to be significantly higher than other regional housing providers)

Greater Manchester Landlords' Climate Change Strategy target of 40% of properties being fed by at least one form of renewable technology by 2024 will be reached by 2021 once future plans mentioned below have been completed.

The phasing out gas by 2038 will lead to 100% of properties with at least one form of renewable technology.

6.8 SOLAR PV

Since 2011, Stockport Homes have installed 1924 of its properties with PV panels as well as 28 commercial properties, including schools. These are owned and managed by Stockport Homes however additionally, a further 300 properties were fitted through the Rent a Roof scheme by an external company. As a result, these panels on average reduce energy bills for residential customers by an estimated £160 per year.

All of the 1924 PV panels owned by Stockport Homes are part of the Government Feed-in Tariff (FiT) scheme which enables an income to be generated. The FiT is a government scheme designed to encourage the implementation of renewable technology. The government pay back money for the electricity generated whilst energy suppliers pay a further rate for money exported back to the grid. So far Stockport Homes have made over £10.5 million through this scheme. This money produced is then put back into improving the energy efficiency of housing stock. These PV panels also make a saving of 12,000 tonnes of CO2 per year.

A programme of updating communication meters on all the domestic Solar PV systems is due to be completed in early 2021. The installation of the most up to date communication meters, S2M's, allows for more comprehensive monitoring of the systems, allowing for faults to be identified quicker and more accurately. This programme reduces the number of system 'down days' across the portfolio, ensuring that the highest electricity yield is achieved which reduces CO2 emissions and increases customers savings and FIT payments.

Future plans for solar PV panels involve investing in battery storage. Battery storage, also known as an energy-storage system, enables the storage of electricity produced by the panels so it can be used at another time. Battery storage wasn't previously installed as the technology wasn't available however since new this innovation, Stockport Homes are now able to consider and implement this technology. Such systems will be installed on 39 properties as part of the ERDF project, of which, 38 properties will be installed with new PV panels along with the batteries. The ERDF project allows the ability to monitor the benefits and drawbacks of the battery systems so that if seen beneficial, they can be rolled out in the future across the portfolio.

Plans to install solar PV on properties in conjunction with the re-roofing programme is being discussed with Stockport Council to potentially access additional resources to fund the installation. This would see around a further 200 properties per year fitted

with solar PV. The addition of this programme of PV install over a 5-year period would increase the number of properties on at least one form of renewable technology to close to 50% by 2026.

6.9 BIOMASS

Stockport Homes is one of the limited housing providers in the UK to provide biomass heating to its customers. Biomass is an effective renewable source which involves burning wood chip in order to produce heat energy.

From 2013 - 2015, Stockport Homes managed to install and operate 7 biomass boilers. This was 75% financed by Energy Company Obligation (ECO) funding which is an is a government incentive that helps people lower their home heating costs through energy efficiency measures and is funded by energy suppliers.

A total of £13 million of funding helped upgrade old heating systems to new efficient biomass district heating system that feed 2174 properties. These boilers produce 90% less CO2 per year compared to the previously existing gas boilers making them much more eco-friendly

The biomass district heating system has already contributed to the efficient decarbonisation of 2,174 Stockport Homes properties and are also eligible for the Renewable Heat Incentive (RHI) which has generated to £1.4 million to date which has helped fund further energy efficiency projects via the capital programme. The RHI will continued over the next five years to be used on capital works related to insulation, renewable technology and general energy efficiency.

6.10 HEAT PUMPS

Regulations implemented in 2019 state that all new developments should not be connected to the gas grid by 2025. Implementing this ahead of this key date is a demonstration of leadership and action and the 'go early' date of 1st April 2023 has been recommended.

Only ad hoc gas boiler replacements are continuing up to 1st April 2023 at which point it is recommended a full ban across all programmes of work be adopted. As gas boilers have a lifecycle at around 15 years the adoption of no further gas installation from 2023 will ensure the last of the gas systems are likely to be removed in 2038 in line with GM targets as well as Stockport Homes Carbon Neutral Strategy.

Ground source heat pumps (GSHPs) and air source heat pumps (ASHPs) are alternative forms of renewable technology which can help reduce heating bills. GSHPs use pipes buried in the ground to extract heat to deliver it to heat radiators, warm air heating systems and water in the home. ASHPs work similarly however the difference is that they absorb heat from the outside air, from temperatures as low as minus15°C, instead of the ground.

Decarbonising gas properties with highly efficient air-source heat pumps is already underway. Currently, ASHP's installed in 2014 are in operation in 2 domestic properties which are also producing an income via the RHI. As part of the ERDF project Stockport Homes have recently installed 117 properties with GSHPs. A further

127 properties are planned to be fitted with ASHPs. These will deliver many benefits such as lower carbon emissions, reduced fuel bills and a potential income through the RHI.

Electrification of gas properties using ASHP/GSHP may be sufficient to shift almost all Stockport Homes properties above EPC Band C. Furthermore, powering the ASHP/GSHP with photovoltaics (PV), has the potential to bring the majority of the portfolio above EPC Band A.

6.11 VOLTAGE POWER OPTIMISATION

Voltage Power Optimisation (VPO) technology is designed to reduce electricity voltage levels locally within a building with the aim to reduce energy consumption, costs and therefore carbon emissions. The use of this technology is only optimal in larger buildings with higher energy demands and does not present any valuable benefits to lower energy consuming properties.

Stockport Homes have implemented this system in to landlord electricity supplies of all 22 of the tower blocks plus some other medium rise properties equating to 25 sites in total. This saves 87 tonnes of CO2 per year and reduces energy bills by around 11% per year on the landlord electricity expenditure.

Officers will consider VPO's for future developments and premises as part of a viability assessments.

6.12 LIGHTING UPGRADES

LED lights are up to 80% more efficient in terms of electricity consumption than traditional lighting such as fluorescent and incandescent lights as well as having a much longer life expectancy.

Intelligent lighting controls such as motion sensors and timers ensure that only the right level of light appears at the right place only when required.

Across Stockport Homes domestic portfolio, there are a number of communal areas with lighting installed. To date 41 blocks have been upgraded to full LED lighting and intelligent lighting controls. By replacing fluorescent luminaires across the blocks with the latest LED product and intelligent lighting controls Stockport Homes has minimised its environmental impact and lowered its energy costs while also significantly reducing maintenance and associated costs.

All lighting upgrades and new lighting installs will be fitted with LED lights as well as intelligent lighting controls.

6.13 NEW DEVELOPMENTS

Stockport Homes continuously develop and build new properties with the current projection of 200 properties on average being built per year over the next 5-year period. All new properties will be planned and built to meet the carbon neutral agenda and targets.

6.14 ENERGY PERFORMANCE RATINGS

In accordance with recent building regulation, new domestic properties must be built to at least an EPC B rating. Stockport Homes are currently building new properties to an EPC rating B by primarily taking a fabric first approach ensuring they are highly insulated.

6.15 MODULAR CONSTRUCTION

To further fit the sustainability agenda, modular construction is a building technique which Stockport Homes can utilise. This technique is greener than the traditional method of building as everything is produced off-site under factory-controlled conditions which produces less waste and less air pollution. Carbon emissions from transport is also reduced as the need for continuous travel to and from site by various contractors is taken away. So far, a small estate has been constructed using this method, Stockport Homes continue to look for more opportunities where this building technique can be used in future and are part funding with other Greater Manchester Housing provides a study which will investigate opportunities to expand modular build across the city region. It is therefore anticipated that this method of construction will grow over the next five years with SHG taking an active part in developing more modular housing schemes.

6.16 PASSIVHAUS

Passivhaus buildings provide a high level of occupant comfort while using very little energy for heating and cooling. They are built with meticulous attention to detail and rigorous design and construction according to specific principles. The standards far exceed those of the current Building Regulation.

With so little energy required, the application of the standard can not only reduce greenhouse gas emissions, but also offer resiliency to the occupier as energy prices increase. Stockport Homes are already investigating the use of the Passivehaus methodology on a new build scheme in central Stockport which is scheduled to start in 2021.

6.17 GAS CONNECTIONS

Regulations implemented in 2019 state that all new developments should not be connected to the gas grid by 2025. Implementing this ahead of this key date is a demonstration of leadership and action and the 'go early' date of 2023 has been recommended, therefore, all new build developments in the planning stage will be built 'off' gas from 2023.

6.18 ELECTRIC VEHICLE CHARGING POINTS

Stockport Homes will look to install electric vehicle chargers within developments, taking advantage of any available transport initiative grants.

7 SHG CUSTOMERS

The impact on customers lives is a primary focus of objectives and targets at Stockport Homes. This is embedded within the culture of the organisation and captured in the overall company aim to “Transforming Lives”. Studies show that people who are more socially vulnerable tend to be more susceptible to the harsh effects of climate change. It is therefore crucial that this part of society are given support and are made aware of such issues.

7.1 ENERGY ADVICE SERVICE

Stockport Homes have two dedicated members of staff who deliver a free energy solutions advice service to customers. This involves undertaking home visits and attending community events all to contribute towards combatting fuel poverty. Since their introduction, the energy advisors have completed nearly 6,000 visits with the figure persistently growing. These visits have involved assisting customers with switching suppliers by finding them the cheapest and best deal for them; clearing debts through the CHARIS grant, saving them money through government schemes; giving them key tips on how to reduce their consumption and also general help with utility supplies and bills.

Reducing consumption through changes to behaviour is an important step towards achieving carbon neutrality. The Energy Advice Team works closely with customers who are transitioning from traditional space heating to low or zero carbon heating systems such as GSHP/ASHP or district heating. Low or zero heating systems require specialist design, commissioning and control to achieve and maintain efficiency. Savings in CO₂ as well as financial ones can only be achieved through the correct operation of the systems, it is therefore imperative that part of any installation project incorporates a robust handover procedure to ensure households are educated on the behavioural changes required to operate the new systems effectively.

The Energy Advice Team also provide advice to customers on how to use traditional space heating systems and household appliances efficiently, as well as how to get the most out of the free electricity generated by the Solar PV panels.

Each year, the government runs the Warm Homes Discount Scheme which allows the opportunity for customers who have a low income to claim £140 off their energy bill. Since their introduction, over 1,800 customers have benefitted from this particular scheme due to the Energy Advisors influence, which as a result has saved customers nearly £260,000 off their energy bills. Stockport Homes will continually work towards increasing the number of successful applicants each year in order to help as many people as possible and diminish fuel poverty.

Since their introduction, Stockport Homes’ energy solution advisors have helped save customers a total of over £400,000 through clearing debt, switching suppliers, the warm home discount, CHARIS grants and assisting with refunds. This figure continually grows week by week as more customers receive guidance and helpful advice from the team.

In line with Greater Manchester Landlords' Climate Change Strategy targets The Energy Advice service has plans to engage with 100% of Stockport Homes customers each year to offer energy advice service helping to reduce fuel poverty rates, debts and to save customers energy and money.

7.2 RAISING CUSTOMER AWARENESS

Customers are a major part of Stockport Homes, they play a huge role towards climate change targets. As an organisation who already offer many services to its customers, Stockport Homes have the ability to have a positive influence upon them.

Stockport Homes Energy Advice Team are working alongside the Customer Engagement team to develop a range of opportunities to collaborate with customers on the climate change agenda such as roundtable discussions, developing a customer Green Champions role and youth projects.

In 2021, Stockport Council developed the One Stockport Borough Plan, based on consultation with over 3,800 people who either lived or worked in Stockport, this also included engaging with 1,000 children and young people. Caring for the environment and proactively addressing the causes and impacts of climate change emerged as a top priority for people in the borough with young people showing a particular passion for wanting to take action. 7,662 young people from Stockport took part in the Make Your Mark ballot in 2019 with over half naming climate change as the biggest priority. Stockport Homes have an established youth engagement offer which will be utilised to explore opportunities to engage young people in climate change issues.

The Placeshapers and TPAS Residents' Voices in the UK's Net Carbon Zero Journey report in March 2021 identified key findings that were repeatedly highlighted by both stakeholders and residents. These key findings alongside the recommendations of the report will help shape Stockport Homes own resident engagement.

Stockport Homes' Energy Advice Service (see section 7.1) plays a huge part in raising customer awareness. By undertaking over 650 energy advice visits annually, they can recommend ways in which customers can reduce their consumption and influence wiser choices within their home through behavioural change as well as gaining valuable customer feedback on these issues. This service has seen many success stories and received positive feedback with customers making valuable amounts in savings

Each year's capital programme budget looks to improve the quality of housing and the local environment for the people of the Borough. Engaging with customers is vital for Stockport Homes to obtain an understanding of customers' needs and aspirations, and to ensure that Stockport Homes plan ahead and enhance services and delivery in order to meet the community's future requirements. Customer involvement can have wider benefits, such as improving the health and wellbeing of neighbourhoods and creating sustainable places for people to live. Therefore, it is essential that customers are afforded every opportunity to influence the decision on future investment plans.

During November and December 2020, the Assets Team undertook a wide-range of consultation as part of the programme development with both staff and customers.

Customer feedback was gathered using a tailored online survey, that was either completed online by customers able to access the survey, or over the phone with the help of staff. During the survey, customers were asked to rank desired maintenance works in the order of importance.

The capital programme responded to this consultation and officers included works to meet the general requests following customer and staff consultation with just under half of the overall budget being directly related to the top five priority workstreams requested by customers and staff via the consultation process. The remaining budget is largely allocated to safety and compliance workstreams which featured in the top five priorities for staff.

Stockport Homes repair service undertake above 40,000 repairs per year, and this also gives an opportunity for customers to provide feedback which can have a direct impact on the future works and direction of investment. Additionally, information is readily available online on the Stockport Homes website with advice and tips on how customers can save money, reduce their consumption and their carbon footprint, as well as how to get the most out of energy efficient technologies.

7.3 TRANSPORT

The use of sustainable modes of transport such as public transport, cycling and walking upon Stockport Homes' customers is encouraged where possible. The locations of new developments take into consideration the level of accessibility and transport links. All new build schemes also contain cycle lock areas to encourage cycling and electric vehicle chargers will look to be installed where applicable.

7.4 GREENSPACES

More responsibility has been placed on local authorities to improve public health cost effectively and reduce deprivations, and there is growing evidence to suggest that physical and mental health can be improved with greater access to green space. The Natural Environment White Paper addresses the importance of accessible green space and links to human health. Informed by the national ecosystem assessment, advises that green space be incorporated into urban developments

Greenspaces not only encourage an active healthy lifestyle but are also vital to the planet as they help minimise people's impact on the environment and encourage biodiversity. Research shows that an increase in the current area of green infrastructure in Greater Manchester of just 10 percent in areas with little or no green cover could result in a cooling of up to 2.5°C. Greenspaces also help with the alleviation of flooding by increasing sustainable drainage systems and allowing increased soil infiltration, water uptake and rainfall interception. By reducing pollution levels and improving overall air quality, they also assist with reducing risks of mortality, asthma and allergic responses which can reduce the impact on local health services.

Stockport Homes currently manage over 75 hectares of greenspace across the borough, so it is therefore important that the use and protection of them is encouraged and the value of them is promoted to customers. Stockport Homes also manages a

tree stock of over 10,000 which spreads across all public greenspaces as well as within private gardens in Stockport. A selection of customers known as 'Green Inspectors' help review and monitor policies and processes related to greenspace as well as help with the management of the maintenance of these greenspaces.

Across Stockport Homes re-roofing programme 50 new bird boxes will be installed as part of the roofing work.

Stockport Homes will continue to empower community participation and empower communities to improve greenspaces by supporting and motivating individuals and groups to engage and lead in future provision and investment in greenspaces. The Neighbourhood Investment Budget as well as external funding will be used to deliver projects to the community to improve the greenspaces and increase engagement of customers with their local neighbourhood through events and activities.

7.5 FLOODING

Climate change is likely to mean more frequent and intense flooding. In Northern parts of the UK, the threat of flooding is becoming increasingly more significant. In particular, following the flooding in Stockport in the summer of 2019, there has been a heightened awareness of flood risk across the organisation's operations.

As a result of the flooding in 2019, SHG initiated a "Flood Risk Steering Group" (FRSG) which is made up from key officers within the group who have a direct influence over flood resilience and key officers from Stockport Council. The FRSG implemented more stringent weather monitoring practices and commissioned flooding specialists to develop an in-depth report to understand the flood risk and riparian ownership (open water courses and culverts) of the housing portfolio in reference to geographical areas. Riparian Ownership places a legal responsibility on the landowner to manage and maintain a watercourse or culverts (structure allowing flow of water) which pass through or under the land.

The analysis in the specialist's technical note covered over 11,750 SHG managed properties across the borough of Stockport to determine which flood zone properties fell in to, this has been the basis for the SHG Flood Risk Strategy. The strategy outlines how officer resources have been identified and are now responding to the flooding data with an established Action Plan, this demonstrates how SHG are proactively committed to increasing properties resilience to future flooding incidents. The Action Plan details how high-risk properties are being considered for flood mitigation measures, inspection programmes (visual and CCTV) and processes in place when identifying sites for develop with flood risk consideration.

8 SHG OPERATIONS

Stockport Homes consider sustainable practice within all sectors of the business in order to remain corporately responsible. Stockport Homes' environmental commitments are implemented and executed by a dedicated in-house resource who work on a daily basis to find innovative ways in which the organisation can reduce its carbon emissions and impact on the environment.

8.1 COMMERCIAL PREMISES

Over recent years, Stockport Homes has made various changes to its offices in order to rationalise the operational building portfolio. The downsizing of the stores from Bredbury to Lingard Lane enables increased energy efficiency and a lower consumption, the performance of this will be reviewed over time to identify the benefits in moving. In addition to this, the development of the new Cornerstone head office in 2017, enabled several Stockport Homes offices, previously spread across the Borough, to work collectively under one roof. This decision has provided many benefits including various environmental ones.

Having several teams work under one roof takes away the need for staff members to travel between offices for meetings, subsequently, reducing the need to travel by car and in turn reducing potential carbon emissions. Furthermore, the centralised location is conveniently close to many public transport links making it easily accessible by public transport, therefore making the decision to travel by this mode easier for both customers and staff. These factors together have led to a 22-tonne saving in CO₂ as a result of the reduced car miles claimed by staff since being at Cornerstone. The move to one building also makes the energy management of the buildings easier and overall cheaper.

Constructing a brand-new building allowed the ability to design to set specifications in order to contain energy efficient and consumption reduction measures which is now reflected within the building:

- The building is built to an EPC A meaning it's very efficient. This is as a result of highly effective insulation throughout the building and thermal over-cladding on the exterior.
- A heating and cooling system which regulates the internal temperature and reduces higher consumption associated with radiators and air conditioning.
- Full LED lighting with sensors and dimmers in rooms and underground carpark
- Water saving measures such as dual flush toilets and zip taps.
- 27.75 Kw Solar PV System generating c.21,902 kwh p/a.
- Voltage Optimizer installed
- 6 x 22kw charging points installed in the basement car park
- 2 x beehives located on the roof of the building
- Since 2019 the electricity used by Stockport Homes is certified as from a 100%renewable source.

Stockport Homes will continue to investigate new ways that premises can reduce carbon emissions and be made more efficient in order to meet the needs of the future.

8.2 OPERATIONAL FLEET

Stockport Homes manages an operational fleet consisting of 80 plus commercial vehicles with a combined annual carbon footprint of 222 tCO₂. There is a variety of operational vehicles spread across the organisation ranging from the all-electric Nissan LV200 to Citroen 2.2L Diesel tipper vans, with most vehicles currently being 3.5 tonne diesel vans.

8.3 DRIVING EFFICIENTLY

Stockport Homes' operational vehicle drivers have attended eco driving courses in order to improve driving technique, minimise fuel consumption and carbon emissions. To complement the eco driving training, Stockport Homes have been made aware of new telematics technology called Lightfoot. This technology uses real-time sensors to provide instant feedback on driving style through visual and audio prompts and can reduce both fuel costs and carbon emissions by 10-20% and is currently being considered for install across the Operational Fleet.

8.4 ELECTRIC VEHICLES

Electric Vehicles (EVs) have become much more prominent in the market over the past few years and the automotive industry is launching new more efficient models on a regular basis. The Government has recently brought forward its plan to outlaw the sale of petrol and diesel cars and vans, the new date is 2030. The Government has also directed Greater Manchester to introduce a Category C Clean Air Zone. The Zone is expected to be introduced from spring 2022 and will mean vans, buses, coaches, taxis, private hire vehicles, minibuses and heavy goods vehicles that do not meet emission standards would pay a daily charge to travel in the Zone. The Clean Air Zone is designed to improve air quality by encouraging upgrades to cleaner vehicles.

In June 2019 officers engaged with the Energy Saving Trust to implement a fleet review. This review used existing telematics data and fuel invoicing to analyse common routes and mileage, fuel efficiency and carbon footprint with a view to provide recommendations on how to 'green' the fleet.

To sit alongside the work undertaken by the Energy Saving Trust Stockport Homes current telematics provider have produced an EV feasibility study based on millage and live time location tracking of all operational vehicles. This has produced recommendations on number of vehicles eligible for transfer to EVs as well as optimum locations and numbers of EV charging infrastructure

Stockport Homes currently leases 4 fully electric vehicles with a further 7 vehicles being plug in hybrid vehicles (PHEV). Any additional vehicles added to the Operational Fleet will be reviewed and considered for a fully electric model. Where it is not feasible for an electric model to be selected, a hybrid option will be considered as the next best option, diesel and petrol vehicles will be considered as a last resort.

Stockport Homes are currently working through an action plan to significantly increase the number of electric vehicles within the operational fleet with a target of having at least 60% of the fleet electrified by 2024 and 100% by 2028

Stockport Homes lease the majority of the vehicles within the operational fleet, usually on a five-year term. Nearly 90% of the fleet is due for renewal in 2022 and 2023. To achieve targets set for 2024 the majority of the electrification of the fleet will need to be implemented during this period.

Stockport Homes target of electrifying 60% of the fleet by 2024 is double the 30% target given in the Greater Manchester Landlords' Climate Change Strategy and the 100% target by 2028 is significantly more ambitious than the given target of 60% by 2028.

At present Stockport Homes owns 10 electric vehicle charging points within Stockport of which 6 are located within Cornerstone car park. These are currently only for staff use however there are plans to expand the range to reach customers too.

From 2020/2021 Stockport Homes has committed a budget of £50,000 to be spent per annum for three years on expanding the electric vehicle-charging infrastructure across the portfolio. Officers are currently working with on the installation of the charging infrastructure. Alongside the communal charge points Stockport Homes will fund home charging points for operatives with commercial electric vehicles.

8.5 LEASE CARS

Stockport Homes have a lease car service available for staff who have to regularly travel for work. This is accompanied with a lease car policy which encourages the use of a lower emission car by basing the level of car lease subsidies. Stockport Homes new lease car policy starting in 2020 uses the Next Green Car rating which expresses a vehicle's environmental impact as a score out of 100 ranging from 0 for the greenest vehicles to 100+ for the most polluting and allows for a fair comparison across technologies and fuel types.

A higher contribution has been introduced for vehicles that are 100% electric and fall in the lowest Next Green Car band. As cars become increasingly efficient, the maximum threshold may decrease to encourage the most fuel-efficient cars be leased and to keep in line with the latest laws and technology.

Officers are looking to develop a plan for the reduction in grey fleet (lease and personal cars) environmental impact. In line with Greater Manchester Landlords' Climate Change Strategy targets Stockport Homes are working towards a 25% reduction in environmental impacts per FTE by 2025.

8.6 POOL CARS

In many organisations, grey fleet mileage is unnecessarily high. On average, grey fleet vehicles are older, less safe and more polluting than alternatives, such as company or pool cars.

A pool car fleet can be a simple, cost effective, low emission and safe method of meeting staff travel needs, especially for daily trips. Implementing fully electric pool cars will lead to a reduction in emissions from business miles and will also allow staff more freedom to commute to work using low or zero carbon transport.

Officers are currently looking into the viability of introducing electric pool cars for Stockport Homes staff.

8.7 POOL BIKES

Pool bikes demonstrate a positive commitment to sustainable transport and other environmental targets. They can help to improve staff morale and attract new staff as well as improving health and fitness for staff members while reducing travel emissions and travel expenses.

In line with the huge push for walking and cycling within Greater Manchester and the planned Beelines, Stockport Homes have four electric pool bikes available for use by employees when attending appointments, visits or meetings at other sites. Transport for Greater Manchester (TfGM) provided match funding in order to buy the bikes and cycling equipment.

A total of 621 miles of journeys were undertaken in the first year of use with 42 staff members undertaking the pool bike user induction and 11 staff members being regular users. Plans to roll out the user induction to other members of staff were put on hold with the Covid pandemic, the roll out will be continued when appropriate.

The benefits of expanding the pool bike numbers and locations will be reviewed by officers.

8.8 CYCLING TO WORK

Stockport Homes has developed a cycle to work scheme which advocates cycling by providing an interest-free loan for staff to purchase a bike and associated equipment. Stockport Homes' head office (Cornerstone) provides showering facilities, lockers, clothes dryers and cycle lock up facilities so cyclists can find it as convenient as possible to choose this travel mode for work. Transport for Greater Manchester (TfGM) provided match funding in order to fund the clothes dryers which further encourages cycling to work.

Stockport Homes participate in the national Cycle to Work Day which is held annually and encourages staff to cycle to work and reduce carbon emissions.

8.9 SMART WORKING

Smart working principles acknowledge that technology and flexible working patterns are changing the way we work for the better. They are creating modern workplaces that support more flexibility and collaboration to give staff a better work/life balance. This, in turn, results in greater productivity and efficiencies for the employer whilst also benefiting the environment by reducing the need to travel.

Stockport Homes encourages working at home when desired by providing staff members with laptops and endorsing flexible working. The flexibility of working at home prevents the need to travel into work therefore minimising carbon emissions associated with commuting. This initiative works in line with the Greater Manchester Low Carbon Implementation Plan which comments on the encouragement of homework.

The advancement of technology now means that remote meetings are easily conducted using video and audio conferencing. In-person meetings with suppliers, clients and satellite offices can take up valuable hours of the day as well as increasing

carbon emissions through travel. Stockport Homes meeting rooms are fully equipped to undertake remote audio video conferencing.

With the recent COVID-19 pandemic, Stockport Homes along with companies around the globe rolled out flexible remote working. This has led to a number of obstacles for areas of the organisation but has also led to a number of opportunities for how work can and will have to change moving forward.

The Covid -19 lockdown measures resulted in an increase of Stockport Homes staff working from home. This had a positive effect on the environment with over 17,000 kg of CO₂ saved during a month of lockdown and air quality improved as fewer staff are commuting into the office. Furthermore, the water consumption and pages printed at Cornerstone has been significantly reduced.

Continuing with and even expanding on some of the work practices that have been forced into place due to COVID-19 should be encouraged in order to create a more flexible working environment as well as reducing emissions from commuting and work-related travel.

8.10 MY PLANET AND ME

To contribute towards Greater Manchester's bid to become one of the first carbon literate city regions, which was announced in the Green Summit in March 2018, Stockport Homes has designed and developed an interactive environmental awareness course called 'My Planet and Me' which is delivered by Stockport Homes' staff members. The course is accredited to the Carbon Literacy standard however is further enhanced to include additional areas of focus such as biodiversity and waste management. The bespoke course takes one working day to complete and afterwards attendees are awarded with a Carbon Literacy Certificate.

In line with Greater Manchester Landlords' Climate Change Strategy targets the long-term goal is to have the whole organisation trained to be Carbon Literate by 2025. The benefits of this course can ensure that staff know about climate change issues and can therefore act accordingly to play a role in reducing its impacts. Stockport Homes leadership team have already undertaken the training with plans for the Stockport Homes board members to attend a training session in the near future.

8.11 GREEN CHAMPIONS

To help achieve and promote Greener work practices in the office there are a team of dedicated 'Green Champions' to discuss projects and initiatives that have and could be developed to make our workplaces greener. The Green Champions encourages anyone to join; they meet quarterly to discuss projects and ideas. Currently members are from a variety of teams from IT to Housing support, Carecall to the development team. Members' feedback ideas and results to the rest of SHG through team meetings and two members of Green Champions also sit on staff voice.

Their previous projects have included the development of the electric pool bikes, adapting the Green Office Guide and associated environmental commitment statement, reducing single use plastic, as well as promoting Fairtrade products within

Cornerstone. The Green champions are always looking to raise awareness and educate staff on environmental topics. These campaigns have covered topics such as the RSPB 'let nature sing' week, World Earth Day focusing on climate action as well as annually supporting days such as 'cycle to work day'.

Future projects for the Green Champions will include supporting staff in the transition to greener travel and SHGs transition to an electrified fleet.

8.12 GREEN OFFICE GUIDE

The Green Office Guide was developed by the Green Champions in 2019 and the guide is aimed at providing simple and easy to implement actions, which will help to deliver services in a sustainable and "eco-friendly" way. The Green Office Guide is made available to all staff members.

The Green Office Guide is reviewed annually by the Green Champions.

8.13 WASTE MANAGEMENT

As landfills and incineration are becoming an increasingly bypassed method of waste disposal due to the high levels of toxic gases produced, it is vital that waste is managed appropriately to avoid these paths.

Stockport Homes use an external company to sort the waste produced at Cornerstone and other sites such as the hostels and stores to ensure maximisation of recycled waste. This has led to an average of 75% of waste being recycled and 25% sent to energy recovery and 100% of waste diverted from landfill. Other sites and stores have waste sorting bins on site to ensure the correct segregation of materials and to make sure that gypsum and hazardous waste is disposed of appropriately.

Stockport Homes will make all efforts to ensure all waste produced by the organisation and its contractors is disposed of correctly to diminish waste going to landfill and to maximise recycling rates. This is done by site audits in order to ensure compliance with the Environmental Management System (EMS) and government regulations. Auditors monitor whether proper waste disposal is being undertaken and implement measures to improve waste management.

Stockport Homes Furniture Recycling Project collects and recycles furniture and electrical white goods in good working condition. These items are donated to families or residents in need. Furniture is collected from empty properties and through donations from people across the borough. Between April 2020 and March 2021, the Furniture Recycling Project collected furniture from 454 households and delivered to 515 households in need with 1125 individual pieces of furniture and white goods provided. A total of 44.45 tonnes was diverted from landfill.

Since launching in 2014, Stockport Homes Group and Foundations Stockport have successfully developed five 'Your Local Pantry' schemes across Stockport with the initiative now being rolled out across the UK. Pantries go beyond the food bank model, creating a sustainable and long-term solution to food poverty. Members pay a small weekly fee, for which they can choose at least ten items of food each week, along with additional opportunities of volunteering and training. Your Local Pantry is a

member of environmental charity FareShare, who are committed to tackling food waste through redistributing surplus food to charities. Each Pantry receives a weekly FareShare delivery, containing items which would otherwise go to waste. During 2020-21, Your Local Pantry diverted 80.7 tonnes of food from landfill saving 266 tonnes of Co2 emissions. Your Local Pantry are developing initiatives to increase recycling through a Plastic Free Pantry pilot project and to further reduce food waste through educational sessions around meal planning and nutrition

8.14 SUSTAINABLE PROCUREMENT

When procuring suppliers, Stockport Homes currently ensure sustainable procurement is executed throughout the organisation by having suppliers sign a document when the contract is being drawn to state that they will commit to reducing their carbon emissions and protect the environment. Furthermore, Stockport Homes positively influences suppliers by encouraging them to think of ways in which they can increase their sustainability during their contract with the organisation.

8.15 ENERGY PROCUREMENT

Stockport Homes purchase energy using a Flexible Purchase Contract (FPC). This involves purchasing energy at an optimum time when market prices are low. Having this flexibility compared to a fixed term purchase agreement can be cheaper and diminish the restrictions associated with the fixed term. Stockport Homes currently use an external broker to do this on its behalf. By using an energy broker and an FPC, electricity is purchased at an average of 10-13% below market average prices which therefore produces huge amounts of savings for Stockport Homes.

Since 2019 the electricity used by Stockport Homes is certified as from a 100% renewable source. There are currently fewer 'green gas' tariffs available but this will be implemented ahead of the Greater Manchester Landlords' Climate Change Strategy target of 100% green gas tariffs by 2025.

9 MEASURING & REPORTING

It is good practice to set targets to enable the ability to track progress through continuous measuring and reporting. This strategy will be monitored in a range of ways to ensure that Stockport Homes remains on target, resolves any problems and accomplishes objectives. Setting KPIs will be key to monitoring and judging what future plans to implement.

SHG aims to achieving net zero carbon status by 2038 to align with ambitious Greater Manchester regional targets. This strategy and associated action plan creates a "roadmap" journey to achieving this goal along with sub-target achievements of 48% reduction in CO2 emissions by 2025 compared to 2010 baseline data. Annual reporting on emissions will be used to measure the percentage change in carbon emissions.

Other KPIs to be used will be EPC ratings of properties, percentage of renewable energy products on properties, percentage of staff members and customers engaged with.

In terms of reporting, 'Our Environmental Commitments' page on the Stockport Homes website and the Stockport Homes Annual Report will be key to demonstrating progress.

Please see Appendix 1 for the Action Plan which assists in the delivery of this Climate Change Strategy.

10 UPDATING THE STRATEGY

This strategy is active over the next five-year period until 2026 and subsequently after will be updated with the latest progress and future plans to create a new strategy which is relevant at the time. A great deal is expected to occur over this period in terms of innovation in new technologies and in newly proposed regional and national plans, therefore, annual reviews will take place to consider these changes and ensure the strategy remains relevant.

11 SUMMARY

This climate change strategy sets out a range of targets and aspirations in order to reduce Stockport Homes' carbon footprint and overall impact on climate change. Over the coming years, Stockport Homes will commit to meeting these targets throughout all sectors of the organisation from improving the energy efficiency of the housing stock to ensuring sustainable best practice is executed within the offices. This will enable Stockport Homes to contribute to meeting the carbon neutrality target by 2038 set by the GMCA as well as the wider agenda set by the UN's Paris Agreement.

12 ACTION PLAN

The Climate Change Strategy action plan is attached as appendix one. The action plan outlines the work which will be undertaken over the next 5 years, the plan will be monitored and refreshed annually.

13 EQUALITY IMPACT ASSESSMENT (EIA)

There are potential differences in the impact's climate change has on gender, disability, age and race. For specific groups in particular, adapting to climate change could have a more significant effect. Through the work SHG does with customers on climate change the Energy Advice service will ensure appropriate tailored support is provided for all customers. A focus on the provision of Greenspace is also invaluable towards improving customers mental and physical health

14 LINKS TO POLICIES

The 2021-2026 Climate Change Strategy is influenced by and influences a number of agreements, policies and strategies including:

Stockport Homes Development Strategy
Stockport Homes 30 Year Asset Management Strategy
Stockport Homes Corporate Social Responsibility Policy
Stockport Homes Environmental Management System (SHIFT)
Stockport Homes Sustainable Procurement Strategy
Stockport Homes Greenspace Strategy
Stockport Homes Hydro Investment Strategy
Stockport Homes Floor Risk Strategy (planned)
Stockport Homes Green Office Guide
Stockport Homes Pool Bike Scheme
Stockport Homes Transport Policy

Stockport Council Climate Strategy - Stockport CAN
Stockport Council - The Stockport Council Plan

Greater Manchester's Landlords' Climate Change Strategy

15 FURTHER INFORMATION

For the latest information on what environmental projects Stockport Homes are doing and to find out more about the environmental commitments visit:

www.stockporthomes.org/about-us/how-we-are-doing/environmental-commitments