Borough-wide Carbon Neutrality Action Plan

2024-2029 Priority Actions

DRAFT V1.0

December 2023

Contents

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01 Introduction

1. Introduction
Overview and Aims

Overview

In January 2022, Cheshire East Council announced a pledge to become a carbon neutral borough by 2045, five years ahead of the UK government's national 2050 target. This aligns with pledges made around the country by signatories to the UK100 target, which now represents over 50% of the UK population.

This report has been commissioned by Cheshire East Council to provide a detailed action plan which focuses on the next 5 years to ensure Cheshire East is on track and has actions in place to progress the borough toward carbon neutrality.

The report is structured as follows:

o **Chapter 1** introduces the work and recaps key information from evidence-based on the Borough-wide Baseline & Carbon Reduction Options report.

o **Chapter 2** sets out the guiding principles on how action will be taken forward and principles the action plan is based upon.

o **Chapter 3** outlines action areas across 6 sectors: Domestic Buildings, Non-Domestic Buildings, Transport, Agriculture and Land Use, Waste and Energy Supply.

o **Chapter 4** contains a monitoring framework to aid towards assessing progress towards the action plan.

o **Chapter 5** contains next steps for the council including how to take the action plan forward.

Further detail and methodology notes are provided in the appendix.

Aims of the Action Plan

o Highlighting the scale of action and collaboration needed across Cheshire East to achieve carbon neutrality.

o Understand the roles and responsibilities of the council and how to maximise this to support borough-wide action.

o Prioritise actions that will help not only reduce emissions within the borough but also provide co-benefits to its residents.

o Measure the impact of the actions they are taking to ensure they are on track to reaching their target.

Council and borough targets

Cheshire East Council have already developed an evidence base and action plan for the Council's own emissions and operations (i.e. their buildings and fleet). The Council set an ambitious target of 2025 carbon neutrality for their own operations and the Council is already delivering projects towards this. Progress against this is reported annually in the Carbon Neutral Progress Update.

The focus of this action plan and supporting analysis is on Cheshire East as a **borough** and how the council can play its part and support stakeholders in the borough to reduce emissions and collectively achieve a 2045 carbon neutral target.
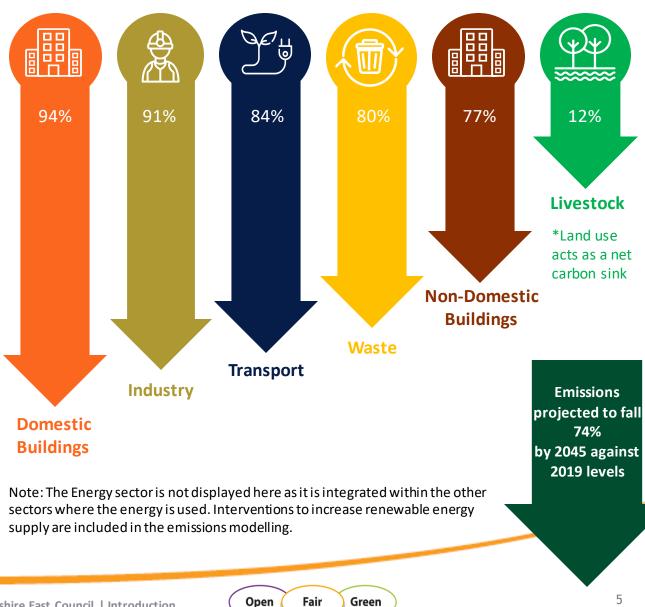
1. Introduction
Work to date

Previous work

Anthesis has previously provided an evidence-based report Borough-wide Baseline & Carbon Reduction Options to Cheshire East Council in order to determine the scale of action required and provide options on to deliver progress towards the Council's goal of becoming a carbon neutral brough by 2045.

The predecessor report provided:

- Borough wide emissions baseline and pathway options with the subsequent activities that would make significant contributions to emissions reduction.
- A range of mitigation options which were established for future emissions considering the borough's 2045 target.
- Examples of projects from across the UK were provided to encourage the next stages of action development.

Below illustrates the emissions reductions needed per sector, which have been drawn from the Borough-wide Baseline & Carbon Reduction Options Report.

94%

Domestic Buildings

91%

Industry

84%

Transport

80%

Waste

77%

Non-Domestic Buildings

12%

Livestock

*Land use acts as a net carbon sink

Emissions projected to fall 74% by 2045 against 2019 levels

Note: The Energy sector is not displayed here as it is integrated within the other sectors where the energy is used. Interventions to increase renewable energy supply are included in the emissions modelling.

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1. Introduction
Work to date

Borough-wide emissions baseline

Cheshire East's borough wide emissions for 2019 totalled 2,845 $ktCO_2e$. This value includes three greenhouse gases: carbon dioxide, nitrous oxide and methane, all of which are combined into one figure measured carbon dioxide equivalent ($ktCO_2e$).

The majority of emissions in Cheshire East come from buildings and facilities (48%) and transport (34%). Livestock (11%) and Industrial emissions (4%) are also significant sources.

The footprint boundary is established from a set list of activities under Scopes 1 & 2 from the Greenhouse Gas Protocol for city-wide emissions. Some of the sub-categories have been merged for Figure 1, the full list can be found in Appendix 2.
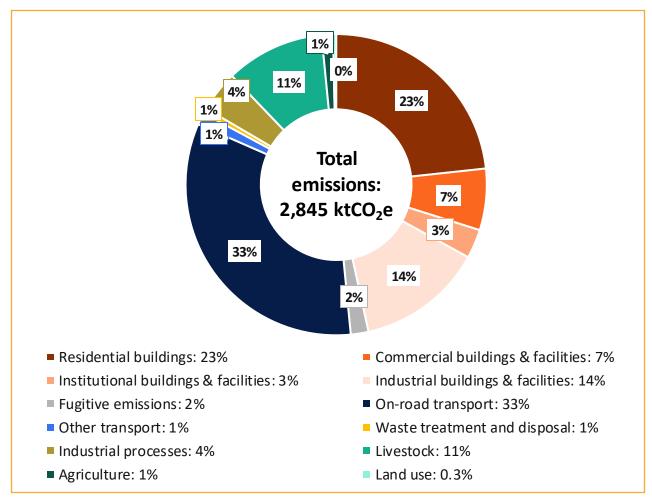

Total emissions: 2,845 $ktCO_2e$

- Residential buildings: 23%
- Commercial buildings & facilities: 7%
- Institutional buildings & facilities: 3%
- Industrial buildings & facilities: 14%
- Fugitive emissions: 2%
- On-road transport: 33%
- Other transport: 1%
- Waste treatment and disposal: 1%
- Industrial processes: 4%
- Livestock: 11%
- Agriculture: 1%
- Land use: 0.3%

Figure 1: SCATTER 2019 inventory for the borough of Cheshire East shown by emissions sub-category.

Note: This page provides a summary of what was in the Borough-wide Baseline & Carbon Reduction Options Report. Please refer back to that report for more detailed information on Cheshire East's SCATTER Inventory. The percentage total may not add to 100% due to rounding.

1. Introduction
Work to date

Pathways towards a carbon neutral borough

The SCATTER Pathways analysis showed two pathways, business as usual and high ambition, compared against a Paris-aligned carbon budget.

The business-as-usual pathway refers to Cheshire East continuing its current trajectory (following national-led policy and grid decarbonisation); however, emissions only reduce by 17% by 2045.

Alternatively, the high ambition assumes Cheshire East goes beyond the current trajectory and is modelled on the maximum ambition levels of all SCATTER interventions. This leads to a higher emissions reduction (74%) by 2045. Even with the high ambition level, 604 ktCO$_2$e will remain. Therefore, it is necessary to go beyond the SCATTER interventions.

Nevertheless, these interventions can be used to understand what needs to happen to achieve this scale of carbon savings. The focus now is on how to achieve this and developing actions which can be linked back to this evidence base.
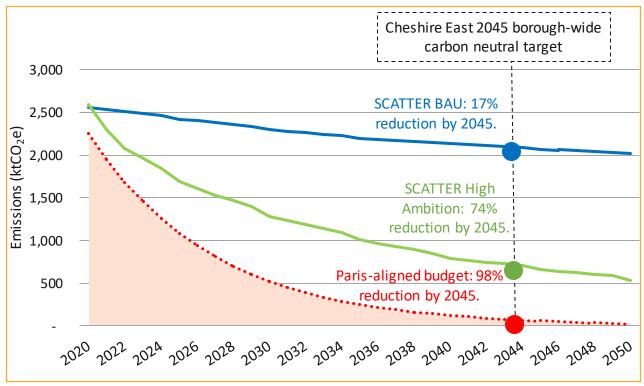

Figure 2: Future emissions pathway for Cheshire East (2020–2050). For more details on the Paris-align carbon budget from the Tyndall Centre, please see Appendix 3.
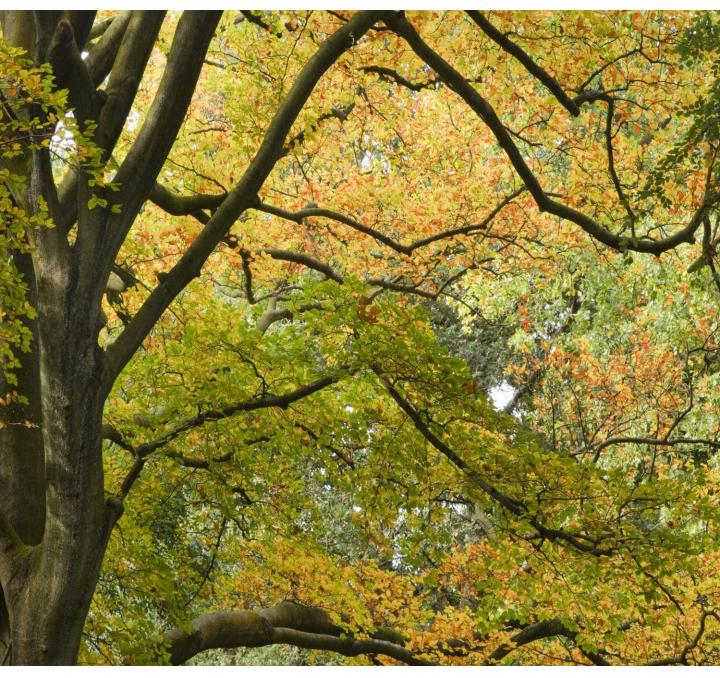
Note: This page provides a summary of what was in the Borough-wide Baseline & Carbon Reduction Options Report. Please refer back to that report for more detailed information on Cheshire East's SCATTER Pathways and overall analysis.

02 Guiding Principles

2. Guiding Principles
Collaboration and the Council's role

The achievement of borough-wide carbon reduction will require action from multiple stakeholders in Cheshire East and the collaboration of the council, residents, communities, businesses, organisations and national government. The council alone cannot deliver a carbon neutral borough but are well-placed to understand local opportunities and barriers and provide support to stakeholders. They have statutory powers and responsibilities in their local area which can be used to enable and encourage action including setting the priorities for the area; working with council suppliers to provide low carbon services; creating a policy landscape that facilitates climate action; providing low carbon infrastructure; convening strategic partnerships; communicating guidance and best practice as a trusted information source and lobbying for further change and the needs of Cheshire East stakeholders. The Council can therefore provide leadership to the borough and work with stakeholders to deliver carbon neutrality in Cheshire East.

> "Local authorities are directly responsible for between 2- 5% of their local area's emissions. However, local authorities have many levers that can be used to deliver wider local action to reduce emissions and prepare local areas for a changing climate."
>
> - Committee on Climate Change (2020)

Based on this, the council has developed a set of **Guiding Principles** which will steer future council climate action and ensure that the council is maximising its role and influence to reduce borough-wide emissions.

Guiding Principles

Cheshire East Council is keen to encourage and enable carbon reduction activities across the borough by communities, public sector, private sector and third sector. The council recognises that it is unable to provide support to every activity and will therefore prioritise those projects where its available resources will make a material difference to the amount of carbon reduction that is possible.

Overarching recommendations:

1 All strategies, plans and policies created or refreshed by the council to incorporate carbon reduction and climate change considerations as a key element of their outcomes.

2 A member of each team to have carbon reduction as an element of their key roles and responsibilities. These officers to then form together an ongoing Carbon Board chaired by the council's Carbon Manager.

3 Cheshire East Council will continue to use its influence to encourage and enable carbon reduction activity to take place across the borough of Cheshire East and throughout the council's own supply chain.

2. Guiding Principles
Collaboration and the Council's role

To understand the type of actions the council should do and what they should prioritise, it is useful to consider the level of **influence** that the Council has over different emission sources.

Boundaries of Influence

The council's ability to influence stakeholders varies across the different emissions sources within Cheshire East. This is illustrated in Figure 3 the different bandings showing the different levels of **influence over emissions sources** in the borough. Depending on the emissions source, and the associated level of influence, the council may be better equipped either to take direct action, or to take a role in influencing or convening others through more "crosscutting" actions, such as lobbying national government.

It is worth noting that a degree of influence also extends beyond the borough boundary, where Cheshire East's demand (and supply) of goods and services creates emissions in supply chains in other parts of the UK and internationally. These are *consumption-based* emissions. They are not directly considered in this action plan as they fall outside of the boundary of the borough's carbon neutral ambition.
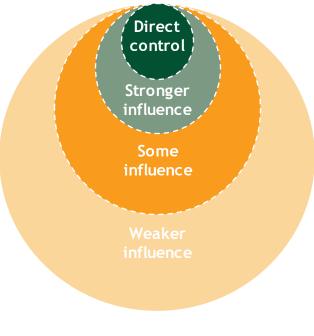

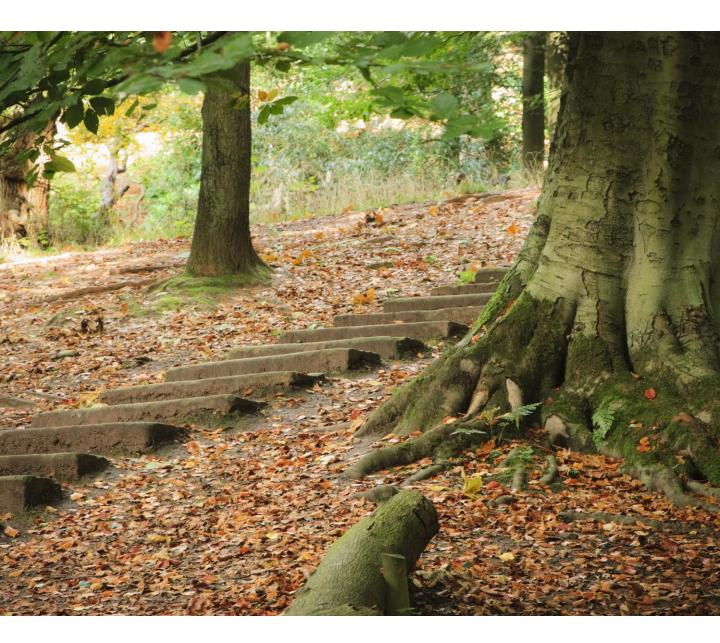Figure 3: Cheshire East influence boundaries [*illustrative and not to scale*]

Table 1: Council degree of influence and the related emission sources

Influence	Description
Direct control	Emissions sources are directly owned or operationally controlled by the council. The council's Scope 1 and 2 emissions are estimated at 2,845 $ktCO_2e$.
Stronger influence	Owners and operators of emissions sources are clearly defined but are not directly owned or operated by the council. For example, some council procured or council led activities.
Some influence	Emissions sources do not relate to council owned/operated assets, procurement or council led activities; however some convening power may exist with specific actors in Cheshire East (e.g., high street businesses).
Weaker influence	Owners and operators of emissions sources are not clearly defined, but still within the borough. Influence limited to lobbying central government, NGOs, trade associations and public behaviour (e.g., private vehicle ownership).

03 2024-2029 Action Plan

3. Action Plan
Principles for action

The following principles have been defined to underpin the 2024-2029 Carbon Neutral Action Plan. They have been used throughout the development of the action plan to ensure the actions agreed are effective and comprehensive.

Evidence-based

Linking actions back to the carbon footprint and emission modelling that has been carried out, to ensure the actions are guided by an understanding of the type and scale of interventions needed. This will also help with monitoring progress and impact.

Inclusive

Ensuring actions consider equity in order to improve the lives of those most marginalised and vulnerable in society and that climate action does not leave communities behind or negatively impact some groups of society.

Localised

Consideration of local priorities to ensure that actions tackle local concerns and use local opportunities. Actions are tailored to the specific context of Cheshire East and the borough's strengths to ensure they are relevant.

Collaborative

As outlined on previous pages, collaboration with stakeholders is key for achieving borough targets. Actions should seek to bring together stakeholders, create partnerships and remove barriers for others.

Reflecting stakeholder views

Throughout the process of developing this action plan, engagement with local stakeholders in Cheshire East to understand local context and identify any opportunities and barriers in working towards carbon neutrality has been key. It is essential that the actions reflect local views and that these are used to inform the principles around inclusivity, local action and collaboration.

Both internal and external stakeholders were consulted throughout the development of this plan, through 14 different workshops, interview and feedback sessions. A summary of stakeholder notes is provided in the Appendix.
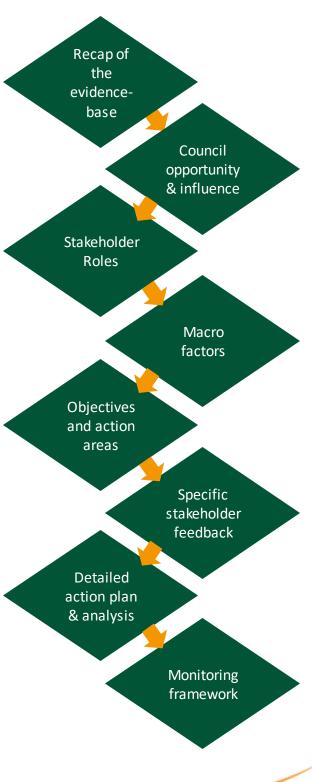
3. Action Plan
Process for developing actions

In order to develop the list of actions, the following steps have been taken to refine and develop a Cheshire East specific list. This was done by first establishing areas of **impact** by reviewing the evidence base alongside the council's opportunities to influence change, followed by developing **detailed** objectives, actions and implementation considerations.

- o **Evidence base recap** - The first step involved reviewing the evidence base on the current context of each sector and the modelled carbon reductions milestones.

- o **Opportunities for delivering progress** - The next step was to understand the council's influence within each sector so that the council understands its role in providing support. This was based on insights from engagement with the council, current policies and plans and research into best practice. Similarly, stakeholder groups were also defined for each sector to show the different actors that would need to be involved and what potential roles could be. This exercise was not exhaustive, nor did it aim to prescribe a set of actions but instead aimed to show where different groups could contribute. This ensured that the council's action plan could focus on how to support or enable stakeholder action. Other potential factors that might impact progress but are beyond the influence of the council were also considered.

- o **Priority actions** - The above steps were then used to create a set of objectives or action areas where the council should focus its support. This was subsequently broken down into a list of more detailed actions, incorporating specific barriers or enablers raised during local consultation. In addition to the actions, a summary of equality considerations has been added to factor in how the actions may impact the wider society. A more detailed analysis of these actions including metrics for measuring success and potential resource requirements are included in Appendix 1.

Finally, a monitoring framework has been developed to help the council progress the action plan forward. Key performance indicators have been assigned to support tracking and assessing the progress of the actions.

Recap of the evidence-base

Council opportunity & influence

Stakeholder Roles

Macro factors

Objectives and action areas

Specific stakeholder feedback

Detailed action plan & analysis

Monitoring framework

3.1 Overarching Actions

3.1 Overarching Actions
Introduction

Achieving the borough's target of carbon neutrality by 2045, will require a range of activities across the council's own operations. Cheshire East Council can positively impact their own carbon emissions through strategy and policy updates, procurement changes and educating staff.

Action area	Current context
Council footprint	The Council's footprint for 2018-19 was 15,447tCO$_2$e.
Council staff	The Council employs over 3,500 people working across around 500 services.
Procurement emissions	In the financial year 2021/22 emissions from contracts totalled 4,317tCO$_2$e. The majority of emissions was sourced from professional services and rentals.
Number of Towns and Parishes	There are 12 town councils and 90 parish councils within Cheshire East.
Climate action groups	There are several local climate action groups operating in Cheshire East who have come together to form the Climate Action Alliance

The Cheshire East Council Corporate Plan is the main overarching strategy, while the Carbon Neutral Action Plan includes actions for the council to prioritise in support of its carbon neutral 2025 organisational target. This also includes some enabling actions that will influence climate action across the borough with the council leading by action.

Opportunities for Delivering Progress

Council's influence: High

The main areas in this section consider actions the council can take internally to ensure its processes, people and decisions are aligned to its carbon neutral target. In addition, the council can maximise the partnerships and relationships it has to make the most of its wider influence to key stakeholders connected to the council.

As a result, the council has a high degree of influence over the Overarching actions. Internally, the council can make changes to internal processes and decisions to ensure that they consider the impacts on the carbon neutral ambition. This does occur to some extent already – the carbon impact of projects is reviewed in some cases, but not consistently, and these impacts are not always prioritised in the final decision. There is also an opportunity with the development of a new corporate plan for the council to prioritise climate action.

On its work with partners, the council has a slightly lower level of influence, as it cannot demand changes or effort from partner organisations. However, many local organisations are also committed to similar targets and there could be more for the council to do on maximising existing networks and partnerships to collaborate on action, share ideas and concerns.

3.1 Overarching Actions
Working Together

Taking this into account, there was feedback from stakeholders that resourcing continues to be a challenge in the council and work would need to be done to ensure updating processes was managed carefully.

Stakeholder Roles

Coordination among various stakeholders across the borough will be important to ensure lessons learned and best practice is shared. Efficiencies and economies of scale can be achieved if effective collaboration occurs with local stakeholders. The following table summarises some of the potential roles for identified stakeholder groups.

Stakeholder	Roles
Council suppliers	Reducing emissions in the borough and across the council's wider footprint will rely heavily on local suppliers to not only report their emissions, set targets but also to take actions to reduce emissions from their own operations.
Town and Parish Councils	The local Town and Parish Councils can help with coordination and implementation of actions across the borough. Capacity and resources are limited at Town and Parish Councils, therefore effective management across the Councils will be important.
Local businesses, organisations and residents	There will be specific roles for business, residents and other organisation in each sector but generally there is a need for engagement with guidance and programmes set up by the Council. Communication is needed between all stakeholders.
Public sector	Collaboration and engagement will be required across all public sector organisations in Cheshire East on accessing funding, leading by example and delivering on projects which have multiple benefits e.g. health and climate.

Other factors to consider

The following factors could impact how quickly progress happens:

- **Competing priorities** – When working across different stakeholders across the borough, there will be competing concerns and agenda on how to reach net zero. The priorities of each stakeholder may be different which can be beneficial if lessons and resources are shared, but it could also potentially slow down action if it takes additional time to align activities.

- **Government policy and funding** – Changes to national policy and ambition and availability of funding for resources will help positively or negative enable local action.

3.1 Overarching Actions
Action Plan

Priority Actions

The following actions outline how the council will support stakeholders and deliver on the identified opportunities outlined on the previous pages.

Objective	2024-2029 Actions
Encourage and enable council staff to take climate action	Continue to provide education and enhance climate knowledge and explore rolling climate pledges for council staff.
	Prioritise at least one person per team and all committee chairs and vice-chairs to be certified as carbon literate.
	Every service area within the council to have a named position with a focus on carbon detailed within their role, these carbon champions to form a Wider Borough Carbon Board.
	Provide guidance and support on agile working practices to reduce unnecessary travel.
	Design a communication campaign, different to previous approaches, to inform people of the facts/urgency of the situation and motivate staff to proactively act and support activities.
Council policies and processes to prioritise reducing carbon and climate impact	Prioritise and consistently use carbon assessments in the decision process of projects. Introduce carbon pricing into capital investment decisions.
	All policies, strategies and plans that are being developed or renewed to incorporate carbon reduction as a central pillar. Where possible, documents being reviewed to go through the Carbon Neutral team to ensure they include carbon reduction measures. In particular, upcoming Local Plan, Transport Plan and Corporate Plan.
	Further embed carbon neutral consideration into Procurement Policy, including through social value and increased weighting.
	Continue to explore divesting from fossil fuel investments in the council pension fund.
Reduce the council's supply chain related emissions	Assess and monitor the carbon impact of the Council's supply chain and local supply chain.
Support a regionally co-ordinated climate action approach	Explore collaboration on climate action with neighbouring authorities and sub-regions.

3.1 Overarching Actions
Action Plan

Objective	2024-2029 Actions
Develop partnerships with local organisations to deliver climate action	Engage with the Chamber of Commerce and skills training providers to encourage take up of carbon reduction training in local businesses.
	Develop an ambassador programme for businesses to facilitate knowledge sharing and support collaboration.
	Identify external groups working on overlapping measures to work together e.g. Air quality steering group.
	Work with other local organisations to have joint messaging on the benefits of climate action, in particular the health benefits.
	Increased Co-operation with local environmental and sustainability groups on local engagement and action.
Enable Town and Parish councils to take climate action	Support Town and Parish Councils with information on opportunities for grant funding schemes and potential projects.
	Promote innovative communications at events with climate action at their core to raise awareness to local residents.
	Roaming resident engagement sessions in collaboration with Town and Parish council on Climate Action.
	Work with Town and Parish council to explore setting up dedicated support within the council for Town and Parish climate action and possible opportunities for funding this.
Explore avenues for generating finance for local low carbon projects	Explore the opportunities with business rates to incentivise sustainable development and fund carbon management or projects.
	Continue to promote investment in low carbon projects by the local community and local businesses through community grants schemes.

Equality Considerations

- Ensure that work with Town and Parish councils considers the variety in size and geography of the council areas and constituents, to ensure that resource is used, and climate action is communicated in an equitable way.

- Ensure inclusivity and equality are embedded into the way in which Cheshire East Council operates and manages its sustainability work.

- Ensure projects the council is supporting have considered do not negatively impact certain communities and support inclusion, particularly of marginalised and excluded communities.

3.2 Domestic Buildings

3.2 Domestic Buildings
Introduction

Evidence Base Recap

The domestic buildings sector represents 23% of Cheshire East's total emissions. This sector covers emissions from households from which, fall into one of two categories; heating and hot water emissions and emission from lighting, appliances and cooking. These categories across the borough are an approximately an 80:20 split.

Action area	Current context	Modelled milestones
New builds	1,562 new homes were completed in 2022 across Cheshire East. SCATTER modelled a 12,500 increase in the number of households by 2050.	• 7,200 households receive "medium" retrofit • 57,500 households receive "deep" retrofit • 9,600 new houses projected in SCATTER are built to Passivhaus standards • Reduce energy demand for appliance, lighting and cooking by 31% • 46% of heating systems are heat pumps or equivalent electrified systems, 54% met by gas/solid fuel systems • 32% reduction in gas usage for domestic cooking, displaced by electric systems.
Energy Performance Certificate (EPC)	19% of domestic EPCs were rated B and above.	
Vulnerable households	18,475 properties are classed as in fuel poverty.	
Housing tenure	The 2021 census showed 15% of the market is private rental, 11% is social rented and 71% is owner occupied.	
Gas consumption	From 2010 to 2020, gas consumption fell by 2% borough wide, 12% per household.	

The Council has the Cheshire East Council Corporate Plan , the Local Plan and the Housing Strategies as the main strategies in this area. The council mostly delivers energy efficiency improvements through central government grant schemes e.g. HUGS and SHCF. These schemes have been successful but that only apply to a small proportion of homes that meet the qualifying criteria, leaving many other homes unsupported. The council also has the Rural Action Plan in place which includes rural property actions.

Opportunities for Delivering Progress

Council's influence: Medium

In order to deliver improvements to homes the council relies on central government funding to be available, which is changeable and outside of the council's control. The council does have good networks with registered housing providers which could be maximised to encourage and drive improvements. The council has the ability to share information on grant opportunities to households that qualify (e.g. vulnerable households or rural communities), and does use this influence to encourage householders to take up schemes where relevant. The council has less ability to influence those who do not qualify for funded schemes and will need to provide guidance and information but cannot fund measures in those homes.

3.2 Domestic Buildings
Working Together

There is also opportunity to influence new developments via planning and the update to the local plan. However, ambition may be constrained by what is included in the National Planning Policy Framework and current building regulations. There are also competing priorities for new developments which may limit the extent to which carbon reduction is implemented so the council will need to explore how to balance this.

The private rental market is seen as difficult for the council to influence but there are networks with landlords that the council could use for engagement. The enforcement of MEES and housing efficiency standards was seen as an area that the council was more reactive in but could use its powers to improve.

Stakeholder roles

As the sector with the largest emissions within the borough, it is critical stakeholders are meaningfully engaged to tackling emissions in domestic buildings.

Stakeholder	Roles
Registered housing providers	There will be a need to work with housing providers to improve housing stock and access government funding. There may also be a need for housing providers to engage with their tenants on energy saving.
Private Landlords	Landlords are required to meet certain energy efficiency standards so there is a need for landlords to make improvements to properties and exceed these where possible.
Homeowners	Given that a large proportion of homes are owner occupied, there will be a need for those able to pay to make improvements to their homes. There are barriers to retrofit but other improvements could also be explored such as smart meters. Residents can engage with energy advice and guidance, where applicable.
Developers	With the local plan review, there will be a need for developers to engage with the plans to include further carbon reduction ambitions in new developments.
Retrofit providers	Skills we be needed from industry to deliver home improvements.
National Government	Further funding and grant programmes will be needed to support the most inefficient and poorest households to have energy saving measures. Ambitious planning policy, building regulations and the phasing out of fossil fuels is needed.

Other factors to consider

The following factors could impact how quickly progress happens:

- **Government policy** – Policy changes to domestic heating systems can impact the roll out of heat pumps and other electrified systems.

- **Skilled workers** – There are not enough qualified engineers and retrofit workers to meet the demand that is required. Engaging with education institutions will be important to ensure that there is a growing local workforce.

3.2 Domestic Buildings
Action Plan

Priority Actions

The following actions outline how the council will support stakeholders and deliver on the identified opportunities outlined on the previous pages. A more detailed version of these actions including metrics for measuring success are included in Appendix 1.

Objective	2024-2029 Actions
Support private rental market to improve energy efficiency of domestic properties	Improve enforcement of minimum energy efficiency standards to capture non-compliance, providing support to tenants and landlords where needed. Create mechanism to report landlords not meeting standards.
	Provide guidance and educational resources to landlords on the need to improve properties and the benefits of investing.
	Create green accreditation schemes for private landlords including access to finance, suppliers, installers and discounted EPC surveys as an incentive to the private rental sector to improve energy efficiency.
	Collaborate with partners to work with training colleges to ensure skills to deliver medium and deep retrofit and engineering are within the local workforce.
Enable and advise vulnerable households to improve home energy efficiency	Support off-gas or rural communities to switch heating systems to sustainable sources through grant funding and awareness raising.
	Provide guidance and advice to households to publicise the availability of government funding for retrofitting and energy efficiency measures, such as ECO3 and ECOflex.
	Directly allocate available funding for the retrofit or prioritise delivery of grant funding of low energy efficiency homes in the borough for the most vulnerable households.
	Explore the use of green finance on how to retrofit homes (e.g. green mortgages).
	Continue to work with social housing providers to deliver grant funding and use lessons learnt to expand schemes in future.

3.2 Domestic Buildings
Action Plan

Objective	2024-2029 Actions
Support homeowners and the able to pay market to improve energy efficiency of domestic properties	Establish a framework for large scale residential retrofitting and the councils role within it.
	Provide information to residents on retrofit options where feasible.
	Set up means for residents to collaborate and showcase local examples of decarbonisation via council website.
	Continue to develop sub-regional co-operation on housing, which could lead to sharing capacity and resources and supporting green finance opportunities.
	Support the installation of smart meters and share guidance on installing environmental controls in homes.
Support the development of net zero infrastructure	Engage with DNO to plan for greater electrification of systems in households.
	Identify existing and future residential developments that meet criteria for heat networks.
Planning supports net zero ambitions by increasing energy efficiency in new builds	Explore using the Local Plan refresh as an opportunity to increase ambition on the standard of net zero new builds and carbon reporting.
	Develop supplementary planning documents to provide guidance on improving energy efficiency, low carbon heating and renewables. Consider using Passivhaus as the standard.

Equality Considerations

- Households on low income may struggle to attain the benefits of retrofitting measures due to having a lack of access to upfront capital costs.

- Remote communities are more likely to require substantial intrusive measures due to hard to treat housing from being less likely to be connected to the mains gas and electricity.

- In the rental sector, the cost for some retrofitting measures may be passed on to tenants, who may or may not have the funds.

- Local businesses will feel time and cost pressure from larger businesses meeting their targets.

- Businesses will need to upskill workers to install electric heating.

3.3 Non-Domestic Buildings & Industry
Introduction

Evidence Base Recap

Emissions from non-domestic buildings make the sector the second largest contributor to Cheshire East's emissions profile. There are four sub-categories within non-domestic buildings, the largest being industrial building and facilities (14%), then commercial buildings and facilities (7%), institutional buildings and facilities (3%) and the smallest is fugitive emissions (2%). Similarly, to domestic buildings, emissions within non-domestic buildings split into two categories at a ratio of 60:40; heating and hot water emissions and emission from lighting, appliances and cooking.

Action area	Current context	Modelled milestones
Display Energy Certificate (DEC)	In 2020, over 1 in 4 were rated E,F or G.	• Reduce heating demand in buildings by 17%. • 11% reduction in demand for appliances, lighting and cooking. • 46% of heating systems are electric, with the remaining 54% being supplied by non-electric systems. • Process emissions reduced: 26% for chemicals, 18% for metals, 22% for minerals and 73% other industries.
Businesses	As of 2023, there are 19,500 enterprises in Cheshire East.	
SMEs	Over 90% of businesses in Cheshire East are classed as SMEs.	
Gas consumption	1,700 GWh of gas was consumed in 2021 in Cheshire East.	
Listed buildings	There 2,637 listed buildings in Cheshire East.	
Public sector	In 2020, emissions from public sector buildings was 63.12 ktCO$_2$e. There are 155 schools in Cheshire East and 16 leisure centres.	

The Cheshire East Local Plan is the key policy managing new non-domestic property development. The Council's Asset Management Plan (AMP) also supports the Council's decision making about investment in its land and property assets to deliver its services.

Opportunities for Delivering Progress

Council's influence: Low

As this sector is largely owned and managed by public and private sector organisations outside of the council, most of the activities sit outside the council's direct influence. However, the council has significant influence over the buildings it owns, which form a small proportion of non-domestic buildings across the borough. The council has good relationships with other public sector organisations in Cheshire East (e.g. schools and leisure centres) and the council could support access to funding, feasibility studies and other public sector financing. The council could also use this network to convene public sector organisations to have a joined-up approach.

Through planning, the council can also play a wider role in the decisions around new developments, and the Local Plan can be an enabler to push forward better standards, however the need to align with the national planning framework has historically limited net zero ambition in this area. The council can use upcoming reviews of the Local Plan to influence improvements.

3.3 Non-Domestic Buildings & Industry
Working Together

Influence of private businesses is more limited. For SMEs, some grant funding can be accessed and facilitated by local authorities but this is reliant on the provision of it. The council can use its connections with large businesses in the borough, particularly those which operate internationally and follow international best practice for reporting and target setting to facilitate knowledge sharing and best practice. There may also be a role in convening and facilitating collaborative projects using business networks and clusters.

Stakeholder roles

Tackling emissions in non-domestic buildings requires coordination between multiple stakeholders given the different types of businesses and building owners across a whole borough.

Stakeholder	Roles
Public sector	Some public sector buildings can access grant funding for delivering energy efficiency improvements. Organisations in the public sector can work together and share best practice. Feasibility studies and match funding may be required for improvements.
SMEs	Although only small businesses, there is still a need for SMEs to reduce emissions from their operations. Monitoring energy usage and exploring grant funding or ways of financing improvements will need to be adopted. However, some SMEs may be tenants so will be limited in building interventions.
Large businesses	Large businesses could have a large impact by reducing energy consumption at sites. However, they are not always headquartered in the borough even if they do have significant operations, which can make it difficult for them to have autonomy to act locally. More efficient industrial processes will also need to be delivered by businesses.
Business Parks	There could be a role for businesses located in business clusters to collaborate and share resources on climate action.
Heritage building owners	Heritage buildings may present challenge as there are restrictions on development however it is still important that energy saving measures are made where possible.
National Government	Further funding and grant programmes will be needed to support businesses, particularly small businesses. Further policy and legislation on emissions reduction from industry can support decarbonisation. Ambitious planning policy, building regulations and the phasing out of fossil fuels is needed.

Other factors to consider

- **Government policy** – Changes to policies that impact energy efficiency, low carbon fuels and the uptake of renewables will be important to help give confidence to companies to implement interventions.

- **Innovation and competition** – Companies are increasingly setting their own science-based targets and seeing the pressure from investors and customers to make more sustainable choices. This may drive further demand and opportunities.

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3.3 Non-Domestic Buildings & Industry
Action Plan

Priority Actions

The following actions outline how the council will support stakeholders and deliver on the identified opportunities outlined on the previous pages.

Objective	2024-2029 Actions
Enable and encourage businesses to support the borough's net zero ambition	Engage with business parks e.g. Cheshire Science corridor to share best practice and identify collaborative projects.
	Support and encourage businesses to research and develop and eco-innovate low carbon products and services, which build on the energy and environmental strengths that exist sub-regionally. Where possible, support trials, pilot schemes and products.
	Conduct wider feasibility studies for additional low-carbon energy networks in town centres and industrial estates across the borough.
	Promote the adoption of heat networks, including through heat network zoning and planning.
	Engage with larger businesses particularly those with net zero/carbon neutral targets on climate action and encourage open reporting of energy and carbon data from all businesses.
	Encourage open reporting of energy and carbon data from all businesses. Showcase companies who have net zero targets in the borough.
	Engage with the Cheshire and Warrington sub-regional and the Sustainable and Inclusive Growth Commission to deliver recommendations.
	Explore opportunities to be involved in HyNet North West and Net Zero North West Cluster Plan and maximise the local benefits of such a scheme.
	Explore a climate pledge related to decarbonising buildings for all businesses in the borough.
Provide tailored support to SMEs to monitor and reduce their footprint	Provide guidance and support to SMEs to monitor annual energy usage and create mechanism to report this.
	Continue to support businesses in accessing green finance and grants by providing staff resources for guidance and advice (e.g. shared prosperity fund).
	Rural lead to continue and expand work supporting businesses to increase energy efficiency and development of plans.

3.3 Non-Domestic Buildings & Industry
Action Plan

Objective	2024-2029 Actions
Support the development of net zero infrastructure	Investigate using Section 106 developer contributions and Community Infrastructure Levy to deliver net zero infrastructure.
Planning supports net zero ambitions by increasing energy efficiency in new builds	Explore using the Local Plan refresh as an opportunity to increase ambition on the standard of net zero new builds and carbon reporting.
	Use existing networks (e.g. LGA) to lobby for increased ambition in NPPF.
Enable and encourage public sector and community groups to support the borough's net zero ambition	Use relationships with schools and leisure centres to support them with access to finance for retrofit (e.g. PSDS) and provide guidance on decarbonisation.
	Use the existing sustainability network to share knowledge and build collaboration opportunities. Explore ways the council can support this group.
	Support community groups and charities to decarbonise their buildings and activities.
	Work collaboratively with and support NHS Trusts to work together on Heat Networks and joint procurement.
	Use relationships with schools and leisure centres to support them with access to finance for retrofit (e.g. PSDS) and provide guidance on decarbonisation.
Provide guidance to owners of listed buildings on options for decarbonisation	Provide guidance and best practice and promote knowledge sharing through the sub-region on listed building retrofit. Support owners to understand eligibility for funding and options for retrofit.

Equality Considerations

- New developments can be poorly equipped to future climate risks if not taken into account.

- Most small – medium businesses are tenants, which provides a barrier to retrofitting. Furthermore, the upfront capital cost for retrofitting may be too much and therefore lower operational costs will be missed out.

- Larger businesses achieving ambitious standards will likely apply pressure to local trade in cost and time.

- Many larger enterprises take a portfolio approach to retrofitting, which may lead to sites in Cheshire East becoming deprioritised.

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3.4 Transport

3.4 Transport
Introduction

Evidence Base Recap

Transport is the largest contributor (34%) to the carbon emissions profile for Cheshire East. The majority of emissions are associated with on road transport (33%), which includes all private and freight travel, while the remaining 1% is attributed to waterborne, rail and off-road vehicles (other transport).

Action area	Current context	Modelled milestones
Active travel	In 2021, 35% of people regularly walk or cycle 5 times per week.	• 25% reduction in the average number of passenger miles travelled per person.
Car ownership	75% of the milage on Cheshire East's roads in 2019 were from private cars and taxis.	• 5% reduction in the share of miles driven on roads.
Public transport	The average number of bus journeys per person in 2021 was 6.	• Share of passenger miles increases 5% through active and public transport.
Ultra-low emission vehicles (ULEV)	4,500 of registered vehicles are ULEV.	• 89% of private vehicles are EV (electric vehicle) or HEV (hybrid electric vehicle).
Heavy and light goods vehicles (HGVs/LGVs)	0.2% of HGVs/LGVs were electric in 2021.	• All buses and trains are electric. • Road freight milage reduces by 9% and the efficiency per mile travel increases by 71%.

The Local Plan also includes some policies around minimising journey times. The Cheshire East EV Infrastructure Strategy is the key document outlining delivery of infrastructure to enable electric vehicle use. The Cheshire East Highways Asset Management Strategy focus on council assets. The Local Transport Plan and Local Transport Development Plans outline the actions and potential schemes to improve the transport network to support the borough. The extent to which these strategies prioritise environmental implications needs to be considered, given the potential competing priorities arising.

Opportunities for Delivering Progress

Council's influence: Medium/Low

The council has a higher influence over transport and highways assets that the council owns and operates but is not able to change assets outside of its control. Planning requirements need to be considered with relation to the infrastructure needed to facilitate these changes. There are opportunities with updating the Local Transport Plan which can support and influence change in this sector. The council has the ability to provide infrastructure including cycle ways, public footpaths, bike storage and EV charging in owned car parks. By providing infrastructure and guidance to individuals and businesses, the council can use its wider influence to encourage the use of lower carbon travel options including active travel and electric vehicles. The council can influence access to buses, particularly rural buses but is more limited on national rail services. Lack of resource was mentioned as a barrier to the council, encouraging more behaviour change and the extent to which this is within the council's remit has been challenged.

The council's influence over external organisations on transport is limited but the council should still use existing networks to engage, particularly with larger companies who may have their own climate ambitions. There may be existing relationships with taxi companies via licensing for raising awareness.

3.4 Transport
Working Together

Freight transport is an area where the council will have very limited ability to influence and requires transport authorities and industry to change, though there could be opportunities to explore strategic logistics sites as part of the council's Economic Strategy.

Stakeholder roles

Reducing transport emissions will require coordination from multiple stakeholders to ensure there is an efficient way for people to travel from point A to point B.

Stakeholder	Roles
Health sector	Communications advocating for active travel options can have their outreach extended by collaborating with the health sector.
Schools	Schools are a priority area to ensure that measures are implemented to improve air quality. Schools can play a role raising awareness with parents and pupils and ensuring measures are in place for safe active travel and public transport.
Businesses	Businesses have a key part in supporting employees with sustainable travel options. Guidance on travel planning will need to be distributed by to employees and facilities such as bike storage, showers and EV charging can support staff. Incentives could also be provided. In line with the other interventions in this sector, commercial vehicles will also need to shift to alternative fuels and where possible journeys reduced.
Residents	A large part of this sector relies on residents being able to uptake active travel, public transport and EVs. Whilst it is important this is enabled by the council, there will still be a need for behaviour change from people to choose more sustainable options where possible.
Freight	Freight makes up a significant part of transport emissions so there is a role for freight companies to consider local consolidation and decarbonising vehicles. Although many will operate beyond the boundary of Cheshire East.
National Government	Funding for infrastructure will be needed to support councils to deliver sustainable travel options. There also needs to be ambitious policy and phasing out of fossil fuel vehicles.

Other factors to consider

- **Behaviour change** – Cheshire East is a heavily car dependent area which will require a significant shift in behaviours for residents to switch to active travel options. This change may occur quicker or lower than desired but will rely on a trusted infrastructure system to encourage the change.

- **Technology changes** – Council policies will need to stay flexible enough to allow for the consideration of new innovative technologies. Stakeholders will need to stay on top of emerging changes.

- **Level of coordination** – For the transport sector in particular, it requires increased coordination between different stakeholders as people do not move just within the borough but also to neighbouring local authorities. Understand where the demand is for travel will be important and ensuring that there are low carbon options available for those commutes.

3.4 Transport
Action Plan

Priority Actions

The following actions outline how the council will support stakeholders and deliver on the identified opportunities outlined on the previous pages

Objective	2024-2029 Actions
Planning supports net zero ambitions by prioritising low carbon transport options	Use local plan to encourage developers to create neighbourhoods with good access to services and public transport and active travel infrastructure/facilities (e.g. bike racks, wide and well-lit pavements).
Enable and support schools to reduce their emissions	Work with schools and academies in the borough to encourage active travel, set up walking buses and provide cycle workshops.
	Explore the possibility of restrictions on idling through anti idling campaigns, introduce parking zones and road closures near schools during peak hours.
	Engage with schools to identify opportunities for new or extended school bus routes.
Support decarbonisation of freight	Encourage and support council suppliers and other businesses to utilise rail freight or waterborne opportunities as opposed to HGVs.
	Review opportunities for freight consolidation and loading restrictions, (including personal deliveries) in town centres, to reduce last mile emissions.
	Encourage the use of local suppliers through setting up "meet the supplier" events and promote the benefits of consolidating journeys in forums and business groups.
Encourage businesses to reduce business related journeys and prioritise lower carbon options	Facilitate agile working practice for businesses through the provision of forums for knowledge sharing and best practices around hybrid working.
	Encourage businesses to offer incentives to staff to use more sustainable transport e.g. active travel, public transport and EVs.
	Encourage businesses, particularly large employers to develop a sustainable travel plan including providing facilities for active travel (e.g. cycle to work scheme, bike racks) and infrastructure for EV and alternative fuel (e.g. Hydrogen) to support their staff to make sustainable travel choices.
Support commercial vehicles to switch to EV	Engage with businesses on route optimisation techniques and provide guidance on the benefits of switching to EVs.
	Engage with taxi companies on the benefits of switching to EVs and barriers to switching fuels.

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3.4 Transport
Action Plan

Objective	2024-2029 Actions
Support residents to use more EVs	Run campaigns and provide guidance on travel planning for all groups, and the benefits of switching to EVs so residents can make informed choices.
Explore options to increase active travel and switch to lower carbon transport options	Identify sites of high active travel footfall and consider implementation of Low- or Slow-Traffic Neighbourhoods in these areas.
	Review disincentives such as emissions-based charges, low emission zones, workplace charges to encourage the switch to EVs and consider potential impacts of this.
Enable communities to have more accessible and reliable low carbon transport options	Continue to deliver on Air Quality Action Plan including developing active travel strategy, low emission strategy, website updates and school resources.
	Decarbonise the bus fleet, through switching buses to 100% electric.
	Provide better connectivity for rural parts of the borough through reviewing opportunities to expand the bus network.
	Support demand responsive transport and promote car club developments across the borough.
Improve infrastructure for lower carbon transport options	Install EV infrastructure in identified strategic sites across the borough to support the switch to EVs, in line with the EV charging strategy.
	Continue to deliver on EV infrastructure strategy including measures on buses, taxis, off street parking and DNO engagement.
	Ensure all new roadbuilding projects minimise carbon impact e.g. using low carbon materials and techniques.
	Explore the opportunity to expand cycle lanes across the borough, specially creating a link from Cheshire to Stockport and Manchester.

Equality Considerations

- The lack of accessible active and public travel infrastructure may limit vulnerable and differently -abled groups, therefore private vehicles may be their only option. There could be a need for more specialist services and/or equipment which might not be not available locally.

- Low-income residents are less likely to be well served by decentralised services and the high cost of public transport compared to private vehicle use will act as a barrier. It is unlikely that these communities will switch their ICE vehicles to EVs due to the current costs and lack of proper infrastructure.

- Communities in rural areas of Cheshire East will most likely rely on their private vehicles as public transport is not feasible.

- Businesses may have to switch to EVs if they are within a congestion or emission zone. This will cause a high upfront cost which some businesses may struggle with.

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3.5 Agriculture & Land Use
Introduction

Evidence Base Recap

The agriculture and land use sector accounts for 12.03% of Cheshire East's carbon baseline. There are three sub-categories that contribute to this value are livestock (11%), agriculture (1%) and land use (0.3%). Livestock and agriculture are sources of emissions stemming from farm animals and crop farming practices, respectively. Land use acts both as a source and sink for emissions due to changes in the land's use and the natural environment taking up carbon.

Action area	Current context	Modelled milestones
Land use type	70% of land in Cheshire East is classified as agricultural, as of 2022.	• 12% reduction in the number of livestock.
Livestock	1.8 million poultry, 140,000 sheep, 125,000 cattle and 8,000 pigs as of 2020.	• Increase lone tree planting to the equivalent of 50 trees per hectare.
Non developed land	91% of land is classed as non-developed in Cheshire East in 2022.	
Council-owned land	Over 2,600 land and building assets under Cheshire East ownership	• 24% in forest coverage and a 7% decrease in grassland.
Tree coverage	Lone tree coverage for 2020 was approximately 45 trees per hectare.	
Woodland	In 2022, 9,250 hectares across Cheshire East was classed as woodland or forestry.	

The Green Infrastructure Plan is the council's main plan covering the natural environment and outlines the aspirations for a comprehensive and connected green infrastructure that will meet the needs of people and nature in the 21st century; to pass on a better environment to the next generation. This outlines the four reasons to invest in Cheshire East's natural green infrastructure, one of which is climate change.

The Local Plan also includes some policies around the use of land, while the Environment Strategy covers how the council will address the issues in agriculture and land use. Cheshire East Greenspace Strategy covers the management and connection of green space to maintain health and wellbeing and biodiversity while the Landscape Scale Partnership Strategy sets out how the council will work with National Trust to effectively manage land in the north of the borough. The protection of peatland is also a priority of the council following a study into the Peatlands of Cheshire East and their environmental importance.

Opportunities for Delivering Progress

Council's influence: Medium

The council has significant influence over land that it manages and owns, to best understand the most beneficial use of that land in relation to biodiversity, carbon sequestration and sustainable land management practices. The council has less influence over the activities and practices of local landowners on their land but has an opportunity to showcase leadership and provide guidance on sustainable practices. Planning is also a key enabler in ensuring sustainable land use while considering biodiversity implications and can impact new developments.

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3.5 Agriculture & Land Use
Working Together

A particular focus will be on agricultural land, the council has limited influence over farming and farming practices, but it is a key sector for the borough and there are existing networks to engage with. Peatland is also a priority but some of this is on privately owned land so the council must use its influence to raise awareness and work with other landowners.

Stakeholder Roles

Protecting and enhancing the agricultural sector will be greatly help the borough in increasing its carbon sequestration potential. There are a number of land-owners and land uses to consider:

Stakeholder	Role
Farmers	As a significant land use in Cheshire East is agriculture, farmers are a key stakeholder. They have a role in engaging with this agenda and exploring more sustainable farming practice where possible.
Landowners	There are a number of private landowners in Cheshire East that can also play their part by protecting and enhancing green space and biodiversity. There will be a need to engage with the council and other landowners.
Local communities	The use and continued protection of green spaces from local communities will be important to ensure that they are maintained. Volunteer and community groups are often the champions of these efforts and support tree planting efforts.
National Farmers Union	The NFU can help communicate the importance of climate change and sustainability. They have the ability to coordinate nationally and align on guidance and information provided to farmers.
National Government	There is a need for ambitious policies on new developments and support for the agricultural sector to reduce emissions.

Other factors to consider

- **Ownership of assets** – A continued assessment of the ownership of assets that could plant trees, create new wetlands and wildlife zones, and create public green spaces will be important. As ownership changes, engaging with these landlords will be critical to ensuring green infrastructure remains a priority.

- **Biodiversity and ecology** – Plans must ensure carbon reduction and sequestration opportunities do not overtake wider environmental impacts and cause adverse effects on biodiversity and local ecosystems.

- **Changing diets** - There may be a shift in diets that could impact livestock in Cheshire East as people shift to local, seasonal and plant-based foods. The extent at which this behaviour change happens will impact the livestock industry.

3.5 Agriculture & Land Use
Action Plan

Priority Actions

The following actions outline how the council will support stakeholders and deliver on the identified opportunities outlined on the previous pages.

Objective	2024-2029 Actions
Support the farming community to encourage regenerative and sustainable farming practices	Review the Farms strategy and Agricultural Land Holdings to maximise opportunities to reduce carbon emissions.
	Continue to engage with the NFU and other key agricultural stakeholders to provide guidance on sustainable farming practices.
Maximise carbon sequestration, support biodiversity and use sustainable land practices on council owned land	Where possible, restore, retain and protect existing land uses which store CO_2 on council-owned land.
	Update the Green Infrastructure Action Plan to include Landscape-scale projects, town and service improvements.
	Work with town councils and other local community groups to deliver tree planting and other sequestration activities as well as management of trees, especially in flood prone areas.
Planning supports net zero and biodiversity ambitions	Ensure tree cover, green infrastructure and BNG is considered for all new developments through the new Local Plan by mandating for a minimum level of tree coverage in new developments, in line with the Carbon Neutral ambition.
Support local landowners to maximise carbon sequestration, support biodiversity and use sustainable land use practices	Raise awareness through business networks and provide guidance to businesses on tree planting and local offsetting.
	Work with landowners to protect all healthy peatland and where possible restore as much degraded and carbon emitting peat back to health.
	Engage with local landowners and key stakeholders on land use issues and ways in which the council can provide support.

Equality Considerations

- Lower income areas are less likely to experience green infrastructure projects as there is a lack of spaces and services to develop them.

- The agricultural sector may require knowledge sharing/ upskilling if agricultural practices are required to change.

- Businesses with lack of information on climate risk may lead to projects or developments occurring on sensitive or risk-prone areas.

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3.6 Waste

Evidence Base Recap

The waste sector represents 1% of Cheshire East's emissions but consumption in Cheshire East results in emissions in other areas nationally and internationally outside of the borough's boundary.

Action area	Current context	Modelled milestones
Household waste	In 2021, the total collected household waste was 199,826 tonnes of waste, of which 56.3% was sent for recycling.	• 24% reduction in the volume of waste. • Increase recycling rate to 66%.
Commercial waste	The commercial and industrial sectors generate more waste than households. In 2021, the council collected 3,663 tonnes of waste from non-households. There are other waste providers which collect commercial, industrial and construction waste.	

Cheshire East already has a Municipal Waste Management Strategy 2030 which includes high level objectives to reduce household waste, increase recycling and work in partnership with other organisations. A Minerals and Waste Plan has also been developed for the borough. All of the waste collected is diverted from landfill by sending for composting, reuse, recycling and energy recovery. Commercial and Industrial waste in the borough may be collected by other waste management providers, but the council (via ANSA) can still offer recycling services or use its connections with businesses to raise awareness of better recycling and reuse.

Opportunities for Delivering Progress

Council's influence: Medium

The council can reduce waste produced on their own premises and from their own operations, but the majority of waste in the borough will be produced by other stakeholders including residents, businesses and other organisations. However, the council does have an opportunity to influence this through the provision of information and guidance in household waste collection and disposal services (delivered by ANSA); including kerbside collection, recycling centres and litter bins) and by providing education and guidance to stakeholders. The council is also the waste planning authority which means they can develop planning policies to sustainably manage waste for new developments.

An important part of reducing waste is in the design of products to be more sustainable (e.g. ability to repair, recyclability), the council has a limited ability to influence this but could work with local manufacturers or encourage buying of more sustainable products including within their own procurement. For recycling, there needs to be demand or a market for recycled materials. It is challenging for the council to influence this as markets will extend beyond Cheshire East and require intervention at a larger scale.

3.6 Waste
Working Together

Stakeholder Roles

Given the number of waste producers and macro factors at play in the waste sector, a number of stakeholders will need to be involved to deliver the waste interventions.

Stakeholder	Roles
Residents	Residents have a role to play in reducing household waste and increasing recycling and reuse where possible. Individuals can engage with campaigns and resources on how to recycle and reduce waste, engage in community initiatives (e.g. food redistribution, repair shops) and consider the sustainability of products they buy.
Businesses and industry	Commercial and industrial waste makes up a significant proportion of waste generated in borough and so there is a need for organisations to reduce waste, reuse and recycle where possible. Organisations should embed principles of circular economy into their business models and consider opportunities to reduce waste in supply chains.
Other local organisations e.g. NHS, police, schools	Schools and educational institutions can promote good waste practices in young people as well as reducing waste from their operations. There are already schemes in place with schools in Cheshire East to support this. There is also a role for other public sector bodies such as healthcare (e.g. Cheshire East Partnership) to reduce waste where possible and create a waste management plan.
National Government	There is a need for national government to lead the way through upcoming policies such as Extended Producer Responsibility. Food waste collection, Deposit Return Schemes and standardisation of waste collection. There may also be a role in encouraging markets for secondary recycled materials.
Manufacturers	Sustainability should be factored into product design and so manufactures or organising developing products should consider and review the opportunities to improve this.
Other waste collection and disposal providers	Other waste collection and disposal providers should ensure clear information is provided on what can and can't be recycled and work with the organisation collecting from to minimise waste and contamination.

Other factors to consider

The following factors could impact how quickly progress happens:

- **Government policy** – Changes proposed as part of the national Resource and Waste Management Strategy, the timing and level of ambition will impact on the delivery of waste interventions.

- **Secondary market for materials** – As referenced early, it is important to have a well-functioning secondary market for the use of recycled material to reduce the need for new materials.

3.6 Waste
Action Plan

Priority Actions

The following actions outline how the council will support stakeholders and deliver on the identified opportunities outlined on the previous pages.

Objective	2024-2029 Actions
Raising awareness amongst residents of the waste hierarchy and supporting initiatives that enable reuse	Support community groups to develop sharing/circular economy e.g., repair café, library of things, community fridge, food redistribution centres.
	Continue to work with organisations and develop own campaigns to deliver education and awareness raising on waste reduction, recycling and food waste.
	Continue to engage with schools and other educational institutions to raise awareness and support young people to understand waste reduction and recycling.
Encouraging businesses to follow the waste hierarchy and promoting business with good waste practices	Explore developing a local deposit scheme with businesses or assess incentives for waste production such as 'Pay as you throw'.
	Encourage businesses to segregate their waste including their commercial organic waste to reduce food waste through incentives and sharing best practice.
	Signpost businesses adopting good waste or recycling practices or offering services that support circular/sharing economy to recognise activity and to share knowledge.
Improving waste services to enable waste reduction and circular economy	Develop a circular economy roadmap for the borough, mapping material flows within the area to identify opportunities for circularity and co-location
	Respond to consultations and engage with national government on changing legislation to push ambition and plan for implementation

Equality Considerations

- There are often higher costs for more sustainable products which may exclude lower income groups from accessing these.

- Impacts on vulnerable and disabled residents who require more products in daily life such as the use of disposable items.

- Consider the protection of waste collection jobs through changes to collection.

- The impact beyond Cheshire East should also be considered, including the impact on informal waste collection.

3.7 Energy
Introduction

Evidence Base Recap

The energy sector focuses on decarbonising the energy system within the borough; more specifically, increasing low carbon energy generation and the decarbonisation of the national grid.

The SCATTER model assesses the amount of installed technology that is required to meet local demand using local generation. Therefore, the data refers to the scale of technology required to meet demand rather than the type of technology.

Action area	Current context	Modelled milestones
Electricity demand	For 2021, the total electricity consumed for Cheshire East was 1,612.1 GWh.	• Increase small scale wind capacity to 153 MW.
Fuel type	The national split of fuel type in 2021 was at a ratio of 0.63:0.35:0.02 for gas, electric and solid fuels.	• Increase large onshore wind capacity to 93 MW and offshore wind capacity to 203 MW.
Off gas houses	10% of homes in Cheshire East are not connected to the gas grid.	• Increase small scale solar PV capacity to 461 MW. • Increase large scale PV (major power producers) capacity to 447 MW.
Renewable types & capacity	Energy capacity in 2019 was across five technologies; onshore wind (0.33 MW), solar PV (54.16 MW), Hydro (0.33 MW) and biomass (7.84 MW).	• Increase small- and large-scale hydro capacity to 14 MW.

The Local Plan includes guidance on considerations for planning new renewable energy installations and improvements to buildings to include renewables.

Opportunities for Delivering Progress

Council's influence: Medium

The council has some areas of higher influence in increasing renewable energy installations: on the council's own estate or land and in enabling installations through planning applications. The council can identify suitable assets and land that are viable for renewable energy installations and is already conducting feasibility studies to assess this viability. The council's Corporate Plan is a key enabling policy in this. The council can also play a role in supporting and enabling other organisations to encourage installations by showcasing leadership and providing guidance as well as working with other public sector bodies on accessing finance for renewables.

The council has less influence over installations businesses and individuals make on their properties, however planning plays a key role in enabling these installations. There could be opportunities to feedback through consultations on updates to the local plan and National Planning Framework to improve guidance and enable more renewable energy installations to be approved. There is also an important role for the council in working with the District Network Operator to plan for future energy demand.

3.7 Energy
Working Together

Stakeholder Roles

Addressing energy supply will require a different stakeholders and roles for groups due the nature of energy generation and infrastructure. There are, however, a number of stakeholders that can contribute.

Stakeholder	Role
Public sector	Public sector can install renewables on their buildings or access public sector funding where available to do this. This may be part of a whole building approach to improvements.
Businesses	Businesses will be responsible for their own procurement and installation of renewables.
Residents	For energy supply, the role of residents is mainly installations on their own properties e.g. solar panels. However, not all properties will be suitable, and it would require upfront investment.
District Network Operators (DNOs)	The DNO will be important for the roll out of infrastructure and support to not only the council but also businesses and residents.
Community Energy Groups	Community energy groups provide opportunities to access grants and other funding sources while also providing a direct benefit to residents.
National Government	As with other sectors, there is a need for funding or incentives for renewable energy installations. There may also be barriers in planning policy that national government can work to address. The government will need to provide leadership on national grid decarbonisation and large-scale renewable projects e.g. offshore wind.

Other factors to consider:

- **Cost of renewables** – a key barrier is the high upfront cost of installing renewables which requires either grants or funding schemes to cover. Return on investment needs clarity to ensure this can be considered against upfront cost.

- **Battery storage** – storage is a key enabler for efficient renewable use within the boundary and can help provide long term energy security, however high upfront costs can be a challenge

- **Energy prices** – changing energy prices may create difficulty in understanding the true return on investment of renewables.

- **Planning** – National and local planning policy may discourage or be a barrier to renewable installations in some locations.

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3.7 Energy
Action Plan

Priority Actions

The following actions outline how the council will support stakeholders and deliver on the identified opportunities outlined on the previous pages.

Objective	2024-2029 Actions
Provide advice to residents on increasing renewable energy generation	Provide support and guidance on setting up community led energy schemes and groups. Explore partner organisation/initiatives to help deliver and promote this.
	Provide information of the benefits of installing renewables on property and on how residents can go about this e.g. use existing Solar Together, signposting local installers.
	Assess options for decarbonisation in off-gas and rural areas.
Increase local renewable generation through work with key local partners	Explore ways to expand on or develop opportunities around large-scale energy generation and storage solutions in collaboration with key businesses.
	Provide guidance to businesses on the benefits and options available for renewable energy: Green energy procurement, PPAs, Local generation, solar buy back.
	Review council's own land for renewable potential and consider other priorities for land. Where appropriate, work with larger landowners.
	Coordinate action with DNO to have better forward plans to decarbonise rural areas and towns e.g. Crewe and on initiatives to significantly increase the demand on electricity for heating/ power (as opposed to fossil fuels).
Ensure new developments incorporate renewable energy technologies	Develop a Local Area Energy Plan that will provide priorities for energy demand reduction and opportunities for renewables.
	Review opportunities to promote renewables and increase the requirements for renewables in the Local Plan.
	Provide technical guides and general guidance on applying for planning permission for renewable technologies to make this easier to gain consent.

Equality Considerations

- Residents in rented homes do not have the ability to instal renewable infrastructure, but landlords are unlikely to invest in high-cost installations when they do not recoup the investment from a reduction in bills.

- More remote communities can benefit from increased energy security and reliability from renewables. For large scale renewable infrastructure, the council and businesses will need to engage with local communities to ensure their voices are heard and reach agreement with landowners that considers and supports current usage (e.g. as agricultural land).

- Businesses will face a high upfront cost to switching to renewable energy due to the installation of the technology and the electrical infrastructure to manage decentralised power.

4 Monitoring Framework

4. Monitoring Framework
Introduction

With so many stakeholders contributing to the success of meeting the carbon neutrality target, a framework to monitor progress is critical. Monitoring, refers to the ability to understand and track climate actions being taken in the area and their impact. Reporting, is the ability to present and share these outcomes. This could be internally or externally, in line with existing reporting principles or commitments, or aligning with an external reporting mechanism such as CDP Cities.

Why monitor and report on climate action?

Monitoring and reporting is widely agreed to be key to credible, long term climate action. This is illustrated in the climate action cycle in Figure 4 across, which, is based on C40 Cities guidance on City Monitoring, Evaluation and Reporting. This guidance also underpins the thrust of the recommendations in this section. The cycle in Figure 4 illustrates how Monitoring and Reporting ensures continued improvement over an extended period and can also feed into decision making around timeframes for when strategies and plans need updating and refreshing.

It is also important for transparency and accountability. Monitoring climate action gives councils and other stakeholders the ability to demonstrate progress and quantify the benefits of climate action. This can aid future decision making by indicating where climate action has been most successful, and most challenging. This can also support collaboration by supporting communicating on progress and highlighting areas for partnership working.

Figure 4: The Climate Action Cycle illustrates the typical journey a borough will take when undertaking climate action. This helps to create a cycle of continuous improvement and growing ambition. Adapted from C40 Cities.

Monitoring Framework Principles

The steps below outline the recommended stages needed to develop a monitoring framework.

1) Develop governance structure: The first step is to set up a governance structure to establish both who is responsible for actions across the borough and who is responsible for monitoring this system. This will also need to consider avenues for sharing information and data.

2) Identify indicators: This involves selecting indicators that will be used to assess progress and whether the desired outcomes are likely to be delivered. It should be possible to identify how each metric links to the borough's targets.

3) Monitor, evaluate and report: Progress needs to be reported in a transparent way. The changes reflected in the data should be evaluated in a progress report and communicated with stakeholders.

4. Monitoring Framework
Principles

1. Develop governance structure

This can be broken down into the following two steps:

Developing partnerships and engaging key stakeholders - This refers to the coalition-building process to determine which stakeholders take "ownership" of different actions. An exercise needs to be done to assign responsibility for delivery of actions across the borough, which requires a strong partnership between public and private sector organisations, both across the borough itself as well as wider networks. Cheshire East can use existing networks and forums to support this.

Setting up the governance structure for monitoring - Once responsibility has been established, the governance of the reporting framework must be set up to allow effective monitoring and reporting. The key themes are:

o **Co-ordination** – Assigning roles and responsibilities for monitoring different elements of the framework. This will require co-ordinating with stakeholders, partners and internal staff to identify metrics, collect data and report findings
o **Data collection process** – Setting up systems to collect and analyse data as well as identifying new potential data sources. Factors such as the type of data collected, expectations for data quality and data management need to be defined.
o **Communication** – Determining how the findings and data collected will be communicated and who it will be shared with. There are different formats available for reporting progress which can be evaluated.

2. Identifying indicators

The next stage is measurement and incorporating some degree of "impact" analysis. This involves selecting data sources which can be used to indicate the level of progress made across 3 levels.

o **Greenhouse Gas Inventory -** Broadly, progress towards the borough's emissions targets will be recorded by changes in the borough's carbon footprint. This will provide an indication of the overall direction of progress across the region and by sector or sub-sector.
o **Key Performance Indicators -** Using only emissions data to measure progress can pose a challenge because it is only available two years in arrears, and it may not provide the necessary detail to understand how different programs or changes have impacted emissions. Therefore, there is a need for key performance indicators (KPIs) that can act as more useful proxy for measuring progress within a reporting year. The indicators identified track progress against Cheshire East's objectives to illustrate how emissions are being reduced. These indicators do not need to be carbon focused.
o **Project Tracker -** By examining projects that are occurring across Cheshire East, a better indication of the action taking place across the objectives can be gained. This helps the borough better understand where time, resource and investment is occurring. It is still challenging for emissions data to be provided on an action-by-action level and monitoring the specific impacts of a project in this way is difficult. However, it is recommended that Cheshire East track progress at a project level as well.

4. Monitoring Framework
Principles

3. Monitor & Report

Monitoring - This requires developing data collection and management systems to ensure the data can provide the evidence needed for each indicator. It is important to develop a management strategy which covers the following factors: data needs, data systems, transparency, responsibility and quality assurance.

Evaluation - Cheshire East must evaluate actions periodically following the monitoring stage. Robust evaluation provides a critical assessment of changes in monitored parameters and data as a means of informing future activity. A good evaluation process provides an explanation for the causality between an action and its measured impact; in other words, identifying why measured changes have been recorded and what has created them, whilst holding the relevant stakeholders to account. This is ultimately used as the basis to revise the scale or resource for each action and share learnings between stakeholders and partners. Evaluation should be carried out alongside reporting cycles after a defined period, whilst monitoring is a continuous process.

The process itself is essentially an assessment of observed changes in the performance indicators of each action according to pre-defined criteria, designed to identify the extent of progress. This assessment should be carried out collaboratively with the affected owners and stakeholders for each action. The evaluation process serves to bridge the gap between observed progress of each action and reporting; translating progress into a narrative which can then be used to communicate successes. In the case of actions with little or no observed progress, these evaluation criteria also help to identify the required changes necessary to get back on track.

Reporting - The final piece of this framework is the reporting of progress in an accessible and transparent way. For this, there needs to be a clearly defined internal and external reporting process. It will be important to supplement quantitative metrics with qualitative narrative to help understand the reasons, challenges and opportunities associated with the metrics. This narrative is key in communicating the progress towards net zero and maximizing opportunities.

5 Summary

5. Summary
Taking this forward

Summary

This report sets out an action plan and a monitoring framework to be implemented in order to be a carbon neutral borough by 2045. To meet this target, Cheshire East will need to take into account the following recommendations:

- **The Council should use its influence and powers to help accelerate action across the borough.** The council will be unable to provide support to every actor and action and will require support from stakeholders across the borough to play their part. The council will need to prioritise projects where its resource and influence will make the most impact.

- **Collaboration across the borough is required by communities, public sector, private sector and third sector.** These stakeholders will need to use existing and new networks and forums in order to build capacity and share expertise.

- **Significant resource is required to implement the action plan.** Additional resource and officer time will be required within the council to ensure that strategies, plans and policies can be refreshed and created to consider climate change. It would be beneficial to have an officer in each team who has carbon reduction as an element of their role. In addition, knowledge and expertise will be required to ensure that the council can effectively engage and deliver projects.

- **When implementing climate actions, equity must also be considered.** It is crucial that actions go beyond just achieving carbon reductions but also provide other co-benefits and equity considerations. This should consider (but not limited to) low-income households, vulnerable populations, and remote communities.

- **Measuring progress against the action plan is critical**. Even though the council is not responsible for delivering all of the actions outlined in this action plan, coordination will be required to ensure the borough is on track to meeting its target. Transparently reporting progress, measuring the impact being made against the metrics identified and communicating to stakeholders will be important to ensure actions are being implemented effectively.

Next Steps

To take forward this action plan the next steps are recommended:

- **Communicate and engage stakeholders**: Begin identifying key stakeholders to communicate the action plan and start identified roles and responsibilities.

- **Prioritise equitable climate action:** The action plan recommends actions that need to occur in the next 5 years. However, actions will need to be prioritised to ensure they enable further action. The council will need to consider resource, funding, impacted communities and carbon potential when evaluating which actions they should deliver first.

- **Delivery plans:** The action plan recommends actions that need to occur in the next 5 years. Delivery plans will need to be produced to ensure teams across the Council are able to manage available resources.

Appendices

Appendix 1

TBC [Excel Action Plan Table to be added and notes on methodology.]

Appendix 2 – SCATTER Inventory

Notes:

- SCATTER calculates a territorial emissions profile and therefore excludes emissions from goods and services generated outside the borough (also referred to as consumption emissions).
- Within the SCATTER model, national figures for emissions within certain sectors are scaled down to a local authority level based upon a series of assumptions and factors.
- The inventory data presented here relates to the 2019 reporting year as emissions are reported two yeas in arrears

Sub Sector	DIRECT Scope 1 tCO_2e	INDIRECT Scope 2 tCO_2e	OTHER Scope 3 tCO_2e	TOTAL tCO_2e
Residential buildings	489,754	172,839	NO	762,406
Commercial buildings & facilities	81,945	105,763	26,969	214,676
Institutional buildings & facilities	65,779	22,964	12,074	100,817
Industrial buildings & facilities	256,705	128,838	65,752	451,296
Agricultural fuel use	34,678	4	8,254	42,937
Fugitive emissions	54,057	-	NE	54,057
On-road	942,413	IE	405,099	1,347,512
Rail	14,473	IE	3,444	17,917
Waterborne navigation	13,009	IE	IE	13,009
Aviation	NO	IE	211,286	211,286
Off-road	9,408	IE	NE	9,408
Solid waste disposal	7,323	-	IE	7,323
Biological treatment	NO	-	IE	-
Incineration and open burning	1,729	-	IE	1,729
Wastewater	6,945	-	NO	6,945
Industrial process	125,404	-	NE	125,404
Industrial product use	0	-	NE	0
Livestock	301,822	-	NE	301,822
Land use	9,482	-	NE	9,482
Other AFOLU	NE	-	NE	-
Electricity-only generation	NO	-	NO	-
CHP generation	NO	-	NO	-
Heat/cold generation	NO	-	NO	-
Local renewable generation	30	NO	NO	30
TOTAL:	**2,414,923**	**430,408**	**832,693**	**3,678,055**

IE	Included Elsewhere
NE	Not Estimated
NO	Not Occurring
	Included as part of profile
	Excluded as part of profile

Open Fair Green

Appendix 3 – Carbon budget analysis

What is a carbon budget?

A carbon budget is a fixed limit of cumulative emissions that are allowed over a given time in order to keep global temperatures within a certain threshold.
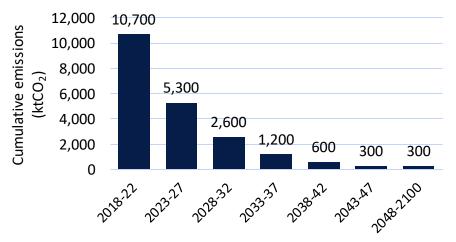
The Tyndall Centre Carbon Budget

The Tyndall Centre for Climate Change Research, based at the University of Manchester, have translated the Paris Agreement targets of limiting temperature change below 2°C into a fixed emissions 'carbon budget' for each local authority. There are two key ideas underpinning their research:

1. The carbon budget is a fixed amount: A global emissions limit represents the total emissions allowed before the 1.5°C threshold for greenhouse gas concentration is crossed. This global "budget" can then be scaled down to a national level, and finally, a regional level. **2. Emissions now mean impacts later**: The most crucial element of this approach is understanding the importance of cumulative carbon emissions. Once emitted, carbon dioxide remains in the atmosphere for many years, contributing to increasing the average global temperature. The carbon budget does not reset; it represents a fixed upper limit to emissions. These two principles mean that the annual reduction rate of emissions becomes very important. Cumulative emissions and the scale & speed of action in the short-term are crucial in meeting the targets of the Paris Agreement.

Results for Cheshire East

o To keep Cheshire East aligned with the Paris Agreement, emissions should be reduced by 13.6% each year.

o Between 2005 and 2017, the average annual emissions reduction rate in Cheshire East was around 3%, highlighting the ambitious action required to meet the Paris Agreement targets.

o If Cheshire East continues along a business-as-usual pathway, the carbon budget (2020 – 2100) will be exceeded before 2030 and this could happen as soon as 2026.

o By 2041, 5% of the budget remains, provided that Cheshire East achieves the recommended annual reduction rate.

The chart above describes the carbon budget targets based on the recommended annual reduction rate. Slight differences in scope mean that direct comparisons of this budget with the cumulative emissions from SCATTER Pathways trajectories should be taken as an estimate only.