

Draft – January 2026

# York and North Yorkshire's Strategy for a Sustainable Future

*Our regional strategy for leading the way in tackling climate change, striving to create a truly sustainable future that benefits communities and businesses across York and North Yorkshire.*

New, green jobs | Affordable energy | Cleaner air | Comfortable buildings | Better, safer, more affordable transport



Thriving communities | More competitive businesses | Fresher, local food | Greener, more resilient landscapes

# Mayor's Foreword

York and North Yorkshire is a region of outstanding natural landscapes, historic cities, towns, and villages, rugged coastlines, and thriving businesses. We have strong, passionate communities, and we are a great place to live, work, and do business.

But York and North Yorkshire is also a region facing some significant challenges. We have seen huge increases energy bills, with our residents and businesses paying the price. Our changing climate has led to record heatwaves, droughts, wildfires, and flooding, impacting the livelihoods of our communities and damaging our environment.

Decisive and urgent action is needed to support local people and make their lives more affordable, while strengthening the resilience of our communities and natural environment. This is why I am proud to champion the development of York & North Yorkshire's Strategy for a Sustainable Future.

This Strategy represents a winning opportunity for York and North Yorkshire to lead the way to become England's first carbon negative region - working to enhance our environment, achieve energy independence, and move towards a stronger, less wasteful economy.

We will seek to achieve economic transformation, supporting our businesses to innovate, reduce operating costs, and boost supply chains, to create new, high-value jobs for our region.

The Strategy will also be central to achieving our overarching ambition of enabling healthy, thriving communities. This includes ensuring that people feel safe and protected from the growing risks of flooding, wildfires, and extreme weather, as well as work to improve everyday life: creating warmer homes, improving air and water quality, and reducing energy bills.

The ambition in this Strategy builds on key areas of work that are already taking place across the Combined Authority: investing in better public transport, creating new walking, wheeling and cycling routes, and improving access to nature and green spaces. In the past two years, the Combined Authority has unlocked over £20.5million of investment to kickstart regional strategy and delivery in clean energy, nature recovery and enhancement, and retrofit, as well as setting up a £4million Active Travel Fund.

Our region is host to a range of assets such as our national landscapes, innovative businesses, pioneering community organisations, and a longstanding agricultural sector - we are uniquely positioned to achieve the ambitions set out in this Strategy.

We all have a part to play in securing a better, more sustainable future for our region. This Strategy will serve as a guiding light for the Combined Authority to work with partners and communities across the region to invest and deliver in climate action, and harness the benefits for our communities, businesses, and environment.

**Mayor David Skaith, Mayor of York and North Yorkshire**



# Strategy for a Sustainable Future Task and Finish Group Co-chair Foreword

In 2019, City of York Council declared a climate emergency, joined by North Yorkshire Council in 2022. These declarations recognised both the scale of the challenge we face and our collective commitment to respond. The creation of the York and North Yorkshire Combined Authority now marks a pivotal moment – a powerful opportunity to unite our efforts and lead a coordinated, region-wide response that rises to this challenge.

As co-chairs of the Task and Finish group, we have seen the development of York and North Yorkshire's Strategy for a Sustainable Future from the outset, shaped in partnership with stakeholders across the public, private, and voluntary sectors, spanning energy, transport, housing, agriculture, industry and beyond. This Strategy is the result of genuine collaboration and shared purpose. On behalf of the Task and Finish group, we extend our sincere thanks to everyone who has contributed their expertise, insight, and commitment.

However, this represents only the first step of many in the transformation needed to achieve our regional carbon negative ambition; unprecedented collaboration is required to deliver at the pace and scale required. It is both a challenge and an opportunity. The way we generate and use energy, the homes we live in, the goods we produce, and the ways we travel are deeply interconnected.

Meeting the environmental challenge and building long-term resilience demands coordinated action across every sector of our economy and wider society.

This Strategy sets a shared vision for a sustainable future – one that is owned by our communities, businesses, and institutions alike. It creates the framework for collaboration and alignment, enabling us to take a joined-up, ambitious approach to climate action and regional transformation.

By working together and acting boldly, we can unlock the full benefits of a sustainable future for everyone. We can create new green jobs and businesses, empower our communities and farmers, improve health and wellbeing, strengthen economic resilience, and not just restore but improve nature and biodiversity.

We owe it to ourselves, to our region, and to future generations to act – together.

*Strategy for a Sustainable Future Task and Finish Group Co-Chairs*



**Councillor Jenny Kent**  
Executive Member for  
Environment and Climate  
Emergency,  
City of York Council

**Councillor David Hugill**  
Climate Change  
Champion,  
North Yorkshire Council

# What is included in the Strategy?

## Introduction

This section provides background to the York and North Yorkshire region and the development of our carbon negative ambition, as well as setting out the new strategic framework and mapping out what success looks like.

## Our Ambition

This section outlines the key principles underpinning our ambition to lead the way in tackling climate change.

## Our Strategic Pillars

This section details our three strategic pillars – securing energy independence, moving towards a circular economy, and enhancing our environment – which will be used to unlock our ambition of creating a truly sustainable future.

## Our High Impact Sectors: Sector Plans

The Sector Plans set out the co-created vision and principles for our highest impact sectors. The Plans include a summary of progress made to date, key strategic priorities, the scale of transformation required (non-prescriptive indicators of the level of change) and actions to overcome critical barriers and unlock the benefits of becoming England's first carbon negative region. The sector plans covering the following high impact areas:

- Clean, Affordable & Reliable Power
- Warm, Comfortable Buildings
- Accessible, Convenient Transport
- Innovative, Sustainable Businesses
- Resilient Landscapes, Sustainable Food & Farming
- Healthy Marine & Coastal Environment
- Empowered Community Action

## Our Strategic Enablers: Levers to Catalyse Change

This section provides an outline of the key “levers” we have to enable systems change, developing the right conditions to make it easy, convenient, affordable and desirable for people and businesses to make sustainable choices, from data and digital innovation to influencing national policy change.

## Our Big Goals

This section details our big “end goals” for creating a sustainable future – healthy & thriving communities, carbon negative, and economic transformation – including the benefits that achieving these goals will unlock for the region, and how we will measure our progress towards them.

## Next Steps

Summary of next steps – including a proposed public consultation, developing detailed implementation plans, and establishing effective governance and performance monitoring processes.

# Contents

<u>Forewords</u>	Page 2 - 3
<u>Introduction</u> <ul style="list-style-type: none"><li>• Introduction to the Combined Authority region</li><li>• Our Journey So Far</li></ul>	Page 6 - 15
<b>1</b> <u>Our Ambition</u> <ul style="list-style-type: none"><li>• Creating a Sustainable Future</li><li>• Underpinning Principles</li></ul>	Page 16 - 20
<b>2</b> <u>Our Strategic Pillars</u>	Page 21 - 24
<b>3</b> <u>Our High Impact Sectors: Sector Plans</u> <ul style="list-style-type: none"><li>• <u>Clean, Affordable &amp; Reliable Power</u></li><li>• <u>Warm, Comfortable Buildings</u></li><li>• <u>Accessible, Convenient Transport</u></li><li>• <u>Innovative, Sustainable Businesses</u></li></ul>	Page 25 - 76
<b>4</b> <u>Our Strategic Enablers: Levers to Catalyse Change</u> <ul style="list-style-type: none"><li>• Developing Ambitious Strategies, Plans &amp; Research</li><li>• Resonating with Motivations &amp; Priorities</li><li>• Securing Funding &amp; Investment</li><li>• Developing Green Skills &amp; Supply Chains</li></ul>	Page 77 - 86
<b>5</b> <u>Our Big Goals</u>	Page 87 - 90
<u>Next Steps</u>	Page 91 - 92
<u>References</u>	Page 94
<u>Appendices</u> <ul style="list-style-type: none"><li>• <u>Appendix 1: Draft Sector Action Plans</u></li></ul>	Page 95 - 130

- York and North Yorkshire Leading the Way
- Strategy Purpose: Aims & Objectives
- Our Strategic Framework

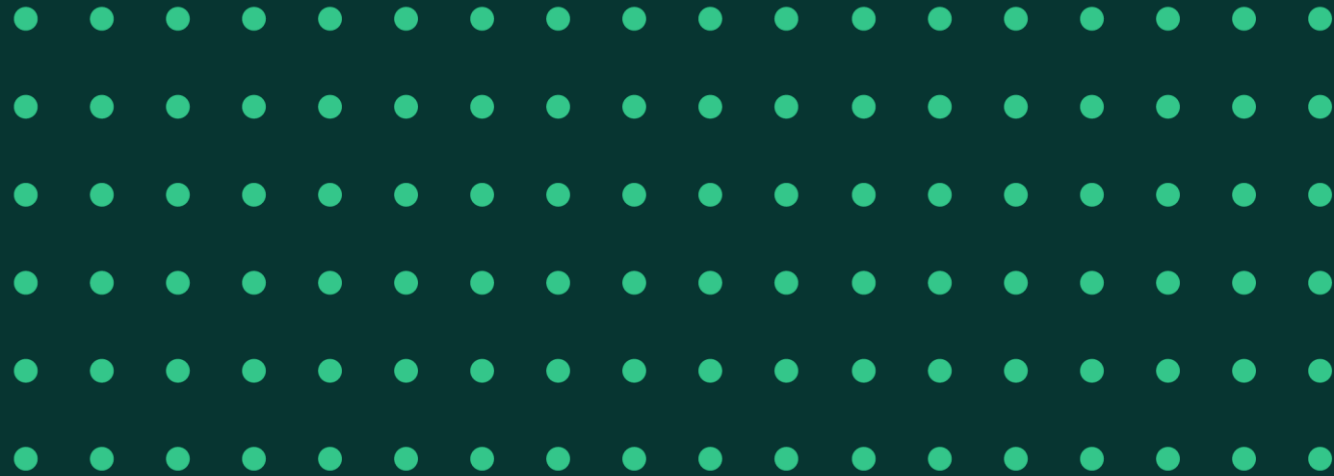
- Creating a Movement

- Resilient Landscapes, Sustainable Food & Farming
- Healthy Marine & Coastal Environment
- Empowered Community Action

- Catalysing Demonstrators
- Innovating with Data & Digital
- Establishing Infrastructure
- Influencing National Policy Change

- Appendix 2: Evaluation metrics and data sources

*This section provides background to the York and North Yorkshire region and the development of our carbon negative ambition, as well as setting out the new strategic framework.*



## Introduction

- **Introduction to the Combined Authority region**
- **Our Journey So Far**
- **York and North Yorkshire Leading the Way**
- **Strategy Purpose: Aims & Objectives**
- **Our Strategic Framework**

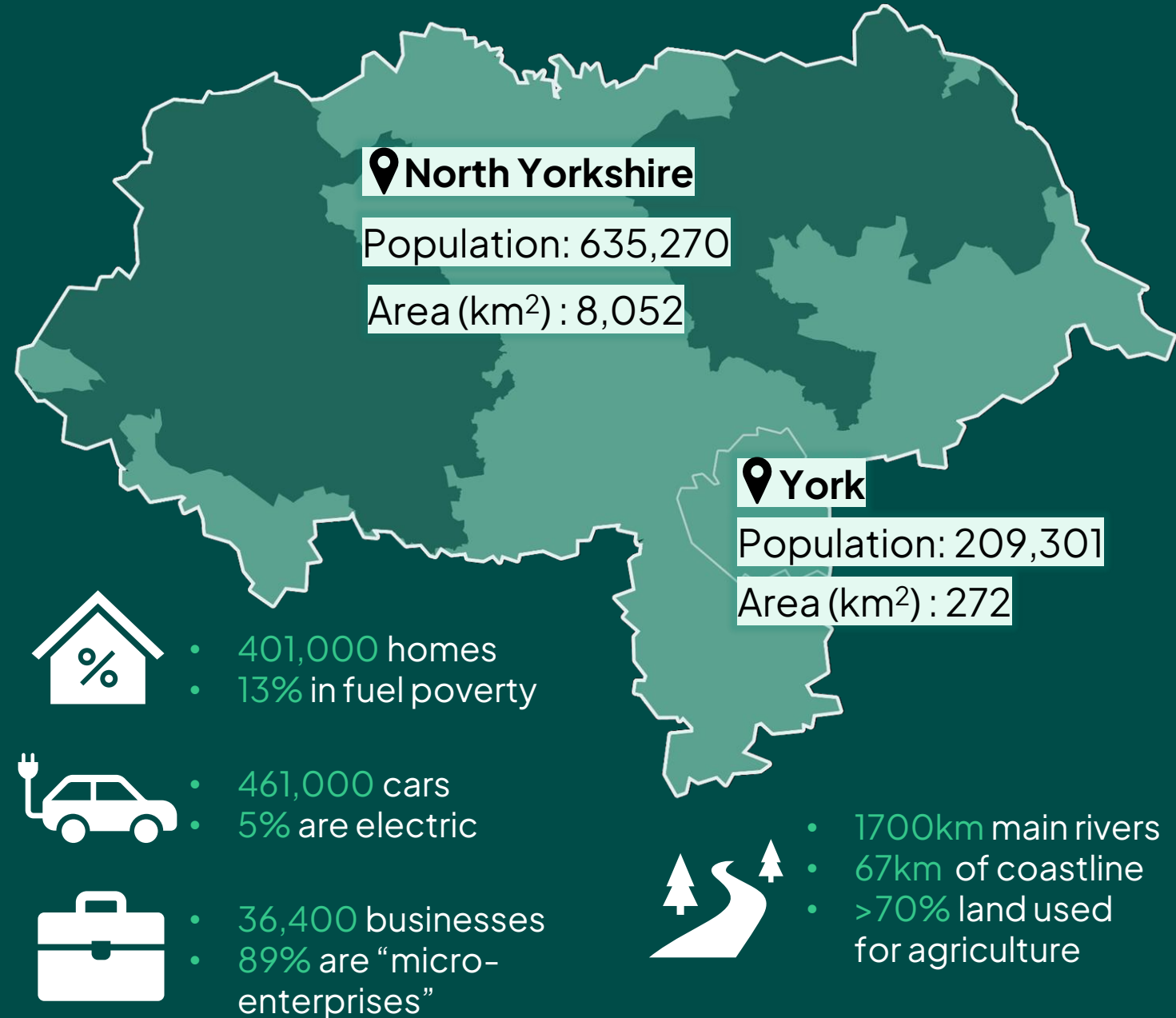
# Introduction to York and North Yorkshire Combined Authority region

York and North Yorkshire is the largest combined authority by area in the UK, comprising the historic city region of York and the rural powerhouse of North Yorkshire. The region has a total population of 834,000 people and an area of 8,324km<sup>2</sup>.

York and North Yorkshire has a highly productive economy, with GVA (gross value added) per hour worked in 2023 at £38.2, making it one of the most productive areas in the North. York and North Yorkshire also has a vibrant and successful visitor economy, worth more than £5.86bn to the region and attracting over 40 million visitors.

The region has abundant land and natural capital assets, supporting 11% of the region's GVA. Over 50% of our land mass is covered by our two national parks (Yorkshire Dales and North York Moors) and three national landscapes (Howardian Hills, Nidderdale, and Forest of Bowland).

The region also has two world-leading research universities, the University of York and York St John University, as well as world class innovation in food and farming, and biotechnology.



# Our Journey So Far. Why are we developing this Strategy?

York and North Yorkshire's Routemap to Carbon Negative (2022 – 2027) was formally launched in October 2022, providing a pioneering co-owned plan to accelerate the transformation to a carbon negative York and North Yorkshire. The former York and North Yorkshire Local Enterprise Partnership (Y&NY LEP) led the development of the Routemap, including comprehensive stakeholder engagement and creating a robust evidence base to inform priorities and interventions. This includes research undertaken by the Tyndall Centre to establish a carbon budget for the region that ensures we make our 'fair' contribution towards the Paris Climate Change Agreement, as well as research to develop feasible carbon reduction pathways across the region's high emitting sectors (including power, heat and buildings, transport, industry, land use, land use change and forestry, and agriculture), known as the Carbon Abatement Pathway (CAP) study.

Given changes in national policy, emerging technologies, and significant lessons learnt, we feel that now is an opportune time to refresh our plans to reach carbon negative and become a truly sustainable region. Critically, York and North Yorkshire now have an elected Mayor and Combined Authority, with new powers and funding that can be used to accelerate the journey to becoming England's first carbon negative region and lead the way to a sustainable future.

The development of York and North Yorkshire's new Strategy for a Sustainable Future has drawn together priorities and lessons learnt from the previous Y&NY Routemap to Carbon Negative, alongside North Yorkshire Council and City of York Council's respective climate change strategies. The development of the Strategy has been a collaborative process, involving over 80 stakeholders to date, focusing on:

- 1) Resetting our vision and level of ambition to ensure alignment on our direction of travel;
- 2) Reviewing progress to date and national policy changes to update our pathway, "scale of transformation" indicators and strategic priorities to reach carbon negative by 2040;
- 3) Consideration of the levers that we have in the region to re-focus interventions and clearly set out the roles of different types of organisations in achieving our goals; and
- 4) Reviewing, prioritising and developing new interventions that deliver the pace and scale of action required to achieve economic transformation, healthy & thriving communities, and becoming England's first carbon negative region.

2019

## Paris aligned carbon budget for the region

Work began with the Tyndall Centre to establish a carbon budget for the region that ensures we make our "fair" contribution to the Paris Climate Change Agreement.

2021

## Carbon Abatements Pathways (CAP) Study

The Carbon Abatements Pathways study provided a baseline of GHG emissions and a series of potential pathways to get York and North Yorkshire to carbon negative.

2022

## York and North Yorkshire's Routemap to Carbon Negative

The Carbon Abatements Pathways study provided an evidence-based, ambitious pathway to develop a co-owned strategy to enable the region to reach carbon negative by 2040, officially launched in October 2022.

## City of York Climate Change Strategy

In December 2022, City of York Council publish their "York Climate Change Strategy 2022 to 2032".

2023

## North Yorkshire Climate Change Strategy

In July 2023, North Yorkshire Council publish their "Climate Change Strategy 2023 to 2030".

2025

## New Regional Strategy

Research has been commissioned to re-baseline emissions and adapt our carbon reduction pathways, alongside extensive stakeholder engagement, to develop our new Strategy for a Sustainable Future for York and North Yorkshire.

# Our Journey So Far. Progress to Date

Since the launch of the Routemap in 2022, there has been significant regional action to move towards a sustainable future – through efforts to reduce our emissions, secure energy independence, support green growth, and enhance our environment. The following flagship programmes and strategic interventions provide a snapshot of climate action within the region:



## Local Area Energy Plans

To map out the region’s pathway to energy independence, the former York and North Yorkshire Local Enterprise Partnership secured funding through the UK Community Renewal Fund to develop a suite of Local Area Energy Plans (LAEPs) for North Yorkshire, alongside City of York Council self-funding a LAEP for York. The four integrated LAEPs set out a clear spatial plan for decarbonising York and North Yorkshire’s energy system in line with future changes in energy demand, enabling the development of a prioritised pipeline of energy projects.



## Retrofit One-Stop-Shop

In an effort to work with communities to improve the health and comfort of their homes, City of York Council have worked with partners to secure £3.3m of Innovate UK funding to develop a retrofit “one stop shop service” in York, supporting residents to improve the warmth of the homes and reduce their energy bills.



## £7m Net Zero Fund

As part of York and North Yorkshire’s Devolution Deal (2022), the YNYCA secured £7m to drive green economic growth through our carbon negative ambition. 21 projects have been delivered, from supporting peatland restoration and surveying kelp stocks, to delivering community and public sector building decarbonisation.



## £7m Carbon Negative Challenge Fund

Utilising key learnings from the Net Zero Fund, the YNYCA established the Carbon Negative Challenge Fund. The Fund is focused on seeking solutions to unlock key challenges that the region is facing in reaching carbon negative, from financing retrofit to place-based solutions to decarbonising heat to scaling up regenerative agriculture. The first application window closed in April 2025, funding a variety of innovative projects seeking to maximise benefits for communities and businesses across energy, circular economy, marine assets, and more.



## £2m City Leap Pilot

York and North Yorkshire were invited to join the Department for Energy Security and Net Zero’s (DESNZ) Local Net Zero Accelerator Programme, which seeks to support three pilot places to accelerate decarbonisation delivery. Y&NY’s £2million pilot is testing the feasibility of replicating the Bristol City Leap model in Y&NY, alongside exploring the potential for other public-private partnership models. This final model should be invaluable in project delivery, unlocking green finance, growing regional supply chains, and ensuring direct community benefit from energy projects.



## Local Investment in Natural Capital

York and North Yorkshire were selected as 1 of 4 pioneering places to join the Department for Environment, Food and Rural Affairs’ (DEFRA) Local Investment in Natural Capital (LINC) Programme, which seeks to pilot new approaches to attract investment to improve natural capital. Y&NY’s £1million LINC project has developed a pipeline of investible projects and co-designed a “buyers club” to match potential investors with projects, driving economic transformation through enhancing our environment.



## SPF Sustainability Programmes

The YNYCA and North Yorkshire Council received the APSE Award for Collaboration (2025) for co-designing and delivering the following Shared Prosperity Funded (SPF) Programmes:

- Business Sustainability Programme: providing audits and grants to support businesses to decarbonise.
- Community Climate Action Programme: providing decarbonisation plans for community buildings and capital grants to support the delivery of community benefit from net zero projects.
- Farm Sustainability Programme: provided energy audits, soil sampling, and biodiversity assessments to support our region’s farms.

Using £250k of SPF-funding, City of York Council supported over 100 businesses to develop decarbonisation plans, implement small scale energy monitoring, and improve their knowledge of energy use and energy savings.

# York & North Yorkshire Leading The Way. The Case for Ambitious Climate Action

## Climate Change Threatens the Viability of Our Economy & Communities

Globally, current policies put us on a trajectory for an increase of 3°C by the end of the century. Recent analysis suggests that the cumulative economic output could be reduced by up to 34% if the global average temperature rises by 3°C by 2100, rather than being limited to below 2°C<sup>1</sup>. In York and North Yorkshire, climate change is predicted to increase the frequency and severity of flooding, heatwaves, water shortages, and rising sea levels. This will have significant impacts on the physical and mental health and wellbeing of our communities. Furthermore, this disruption to business, impact on food production, damage to physical assets, and destruction of ecosystems that underpin key sectors will create substantial costs for the region and threaten the ability to do business here. Fossil fuel shocks have caused half of the UK's recessions since 1970, striving to secure energy independence for the region and reducing our reliance on fossil fuels will help secure the future of our economy<sup>2</sup>.

## York & North Yorkshire Can Lead the Way

York and North Yorkshire stand at a pivotal moment in tackling the climate and nature crisis. With the ambition to go beyond net zero and take a sustainable approach to becoming England's first carbon negative region, we are uniquely positioned

to lead the way in green innovation and economic transformation. This is not just about tackling emissions, it is about seizing a once-in-a-generation opportunity to create jobs, attract investment, and future-proof our economy.

With two national parks, three National Landscapes, and over 70% of our land dedicated to agriculture, our natural assets provide an unparalleled ability to capture and store carbon. Our thriving bio-economy, anchored by world-class innovation through BioYorkshire, is turning research, industry, and farming into a powerhouse of green growth.

Our distinctive coastline offers further potential, from enhancing marine ecosystems to pioneering economic opportunities in seaweed farming. By ramping up action now, we can empower communities, unlock economic benefits, and establish York and North Yorkshire as a national leader in climate action and innovation.

## Providing our businesses with a competitive advantage

York and North Yorkshire's Local Growth Plan sets out our ambition to capture the economic opportunities from the clean energy transition, and ensure economic growth supports the transformation to a carbon negative region.

Urgent and ambitious action will help to provide our businesses with a competitive advantage through lowering energy bills and making it easy for businesses to decarbonise in York and North Yorkshire.

Our drive towards a sustainable future will provide opportunities for business growth, new jobs and investment – from growing retrofit supply chains to sustainable farming to energy industries.

Global research shows that delayed action requires stricter policies and increased costs – acting sooner reduces financial burdens and prevents irreversible environmental damage<sup>3</sup>.

## Enable healthy, thriving communities

Our approach to reaching carbon negative will focus on delivering tangible benefits to communities, from cleaner air to easier travel across the region to more equitable access to resources to cheaper energy bills and high-quality jobs. We will create the conditions that empower and enable communities to take climate action, ensuring communities decide on the solutions that work best for them. By empowering grassroots initiatives, we will support communities in driving meaningful change that reflects their unique needs and aspirations.

# York & North Yorkshire Leading The Way. Building on our regional strengths

With the ambition to become England's first carbon negative region, there are a variety of opportunities for York and North Yorkshire to "lead the way" – building on our regional strengths to attract investment and trial innovative sustainability solutions that can be replicated across the UK and beyond. By showing how new technologies and approaches work and the benefits they bring, we will gain a first-mover advantage, unlock economic opportunities, and inspire other regions to act.

## Green Finance



- **Natural Capital Investment:** York and North Yorkshire are 1 of 4 pioneering places to join the UK Government's programme to pilot new approaches to attract investment for the delivery of natural capital projects, whether that be projects to restore peatland, improve biodiversity, or to enable sustainable farming.
- **Net Zero Investment:** The region has also been selected to be 1 of 3 trailblazing places to be part of Government's programme to develop new approaches to blend public and private funding to accelerate net zero delivery. York and North Yorkshire's pilot is focused on testing the feasibility of replicating the [Bristol City Leap model](#), an innovative joint-venture partnership, alongside exploring alternative models to drive investment into renewable energy and heat decarbonisation projects.

## Clean Energy & Retrofit



- **Local Area Energy Plans:** As the first place in England to develop an integrated suite of Local Area Energy Plans across a regional geography, we have a strong strategic foundation to prioritise the development of energy projects and deliver a cost-optimal pathway to decarbonise our energy system.
- **Geothermal:** We are home to the country's first demonstrator project converting a redundant gas well into a geothermal well (in Kirby Misperton). There is growing interest in the region to explore geothermal opportunities, as the North-East and Yorkshire have unique geological advantages for geothermal energy. The University of York are leading a pioneering geothermal project, funded by a £35 million Public Sector Decarbonisation Scheme grant. The nationally significant pilot project seeks to create a 'living lab' for deep geothermal to heat campus buildings.
- **Retrofit:** Underpinned by our draft Retrofit Strategy, York and North Yorkshire are developing the key building blocks to ramp up retrofit delivery – York's retrofit "one-stop-shop" (providing an end-to-end trusted service to support households to retrofit), a supply chain network (to enable growth in businesses to meet increased demand), innovative finance approaches (to make retrofit more affordable), and planning for devolved retrofit funding (to enable a strategic approach to deploy grant funding). With a high proportion of older and heritage buildings, the region is also well positioned to lead the way in developing solutions to sustainably, sympathetically and affordably retrofit heritage buildings.

## Food & Farming Innovation



- **Grow Yorkshire:** With over 70% of our land used for agriculture, and significant and unique assets across the whole food ecosystem, York and North Yorkshire is the perfect region to lead on sustainable approaches to national food security. To support this ambition, we convene a partnership of food and farming stakeholders, Grow Yorkshire, which enables public-private collaboration to develop innovative solutions to address critical challenges in the sector and realise new opportunities.
- **Regenerative Agriculture:** Regenerative agriculture is a way of farming that works with nature to improve the health of the soil, boost biodiversity, and help tackle climate change. With pockets of best practice within the region, research underway, new funding models being tested, and growing interest from both food manufacturers and farmers around regenerative agriculture, York and North Yorkshire have an opportunity to develop a USP in regenerative agriculture.

## Circular Economy & Bio-Economy



- **Circular Towns:** [Malton](#) and [Norton](#) are pioneering a new approach to the circular economy – applying circular economy principles at a town scale. A circular economy seeks to minimise waste and ensuring resources continue circulating within the economy. Circular Malton and Norton are bringing people together to build a local movement that saves people money and reduces waste, making it fun and accessible to make a difference.
- **BioYorkshire:** BioYorkshire is a regional partnership, including the University of York, Biorenewables Development Centre, Fera Science, Askham Bryan College, and a range of private sector partners. The partnership aims to harness the unique capabilities of the York and North Yorkshire region to create a leading bioeconomy cluster—using the region's world-class science base to deliver profitable bio-based chemicals, materials, and fuel production, as well as productive food, feed, farming and wider land-use practices that support carbon negative goals.

# York & North Yorkshire Leading The Way. A refreshed pathway to reach carbon negative by 2040

Based on progress to date, changes in national policy and stakeholder feedback, we have revised our carbon reduction pathway. This is the York and North Yorkshire “Leading the Way” Scenario; the pathway requires significant electrification of heating, transport, and industry, as well as a substantial increase in renewable energy generation and high rates of forest planting. The trajectory of this pathway is shown below in figure 1. In reality, progress is not linear, and our actual emissions pathway is unlikely to perfectly align with this graph. It is possible we might go further and faster in some sectors, and slower in others. The graph also shows the negative emissions potential for the region and how through a combination of natural carbon sequestration and technological solutions, we can reach carbon negative by 2040. Without an unprecedented level of acceleration nature-based carbon capture alone is unlikely to reach the required levels to achieve carbon negative by 2040, necessitating the need to explore technological solutions alongside progressing nature-based ones. The 2025 North York Moors fires have also highlighted the vulnerability of nature-based solutions, and with wildfire and storm frequency expected to increase throughout the century<sup>4</sup> there is additional risk to relying only on nature-based carbon capture.

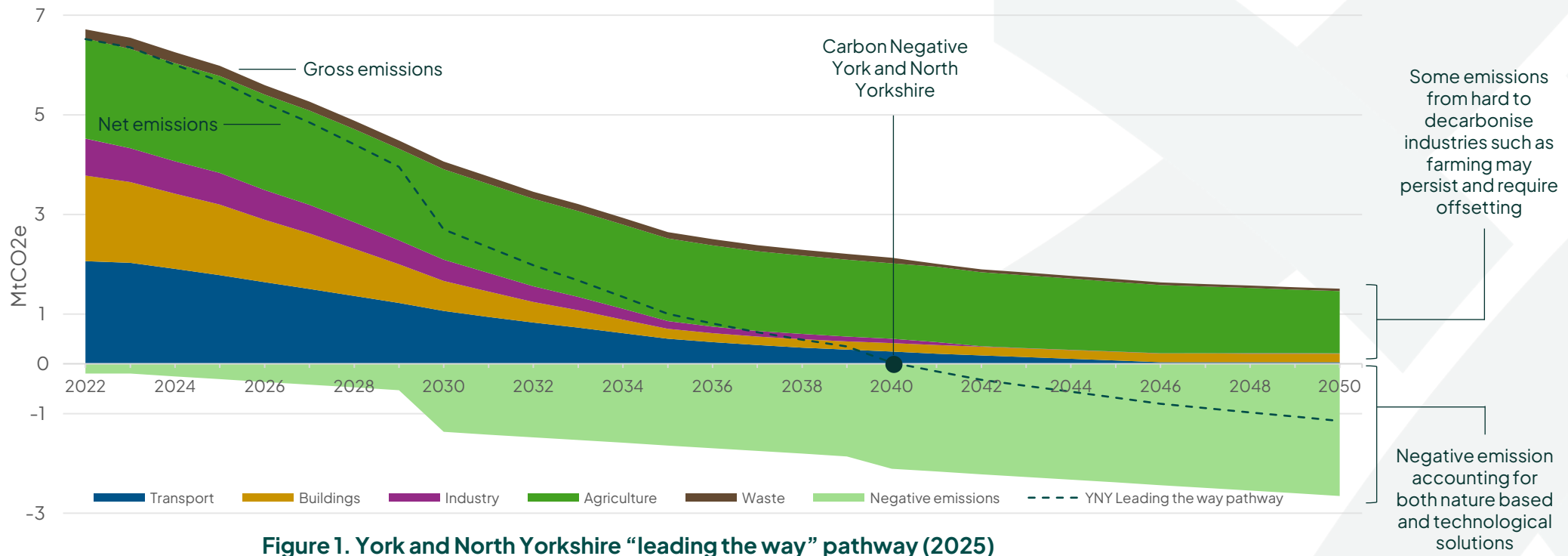


Figure 1. York and North Yorkshire “leading the way” pathway (2025)

Linked to this pathway are a series of “Scale of Transformation” indicators for each of the high emitting sectors, which can be found in the Sector Plans (Chapter 3). These figures are designed to provide an indication of the scale of change required to reach our carbon negative ambition. They highlight the level of ambition needed for this pathway but should not be viewed as prescriptive. For example, planting one less tree than specified in the scale of ambition does not mean that we will not reach carbon negative.

# Strategy Purpose. Aims & Objectives

We want York and North Yorkshire to lead the way in tackling climate change and drive a transformative approach that unlocks benefits for businesses and communities.

## Strategy Aim & Objectives

The overarching aim of York & North Yorkshire's Strategy for a Sustainable Future is:

*To deliver a step-change in climate action that transforms the economy and supports healthy, thriving communities, ensuring York and North Yorkshire leads the way to become England's first carbon negative region by 2040.*

This is a regional strategy covering the whole of York and North Yorkshire. Whilst led by the Combined Authority, it has been co-designed and co-developed by regional partners. It identifies opportunities for the region to deliver on climate action, with a range of responsible organisations across the public, private and voluntary sectors, enabling a joined-up and collaborative approach to securing investment, developing infrastructure, building green skills, and influencing national policy change.

The specific objectives of the Strategy are:

- 1) To maximise local and regional benefits through providing **strategic direction and a coordinated approach** to create a sustainable future, setting out clear strategic priorities and areas of influence to **enable ambitious, collaborative action at pace and scale**;
- 2) To make it **easy, convenient, affordable** and desirable for people and organisations to make more sustainable choices;
- 3) To **build public confidence** that tackling climate change is feasible, **equipping communities** to embrace climate action as a means of improving living standards, quality of life, health, and wellbeing;
- 4) To **harness the economic opportunities** of climate mitigation and adaptation, establishing **York and North Yorkshire as a trailblazing region** for attracting investment, developing skills, and innovating to drive green growth; and
- 5) To position **York and North Yorkshire at the forefront of national climate action** to influence national policy and secure funding, alongside providing innovative solutions and approaches that can be scaled up and replicated across the UK and beyond.

## What does a "Sustainable Future" mean to us?

- **Reducing** our greenhouse gas (GHG) emissions by at least 90% relative to baseline reporting (total emissions in 2022).
- **Removing** more than the equivalent amount of our residual GHG emissions (i.e. unavoidable emissions that cannot be reduced further) within the region to become carbon negative.
- **Adapting** to current and future impacts of our changing climate to ensure our communities and businesses are safe and resilient.
- A shift in mindset from simply *reducing harm* to striving to **do more good** (i.e. *rather than only focusing on reducing emissions and minimising environmental damage, we ask how can we have a positive impact on communities and the environment?*)

## What does this mean for you?

- More affordable energy bills
- Warmer, more comfortable homes
- Cleaner air & better health
- Safer, more convenient and sustainable travel options
- New, high-quality jobs
- Opportunities to connect with others in your community and drive forward climate action projects together.

Ultimately, creating healthier, thriving communities and a more resilient economy.

# Strategic Framework. Overview

1

## Our Ambition

Our ambition is to lead the way in tackling climate change, creating a truly **sustainable future** that benefits communities and businesses.

2

## Our Strategic Pillars

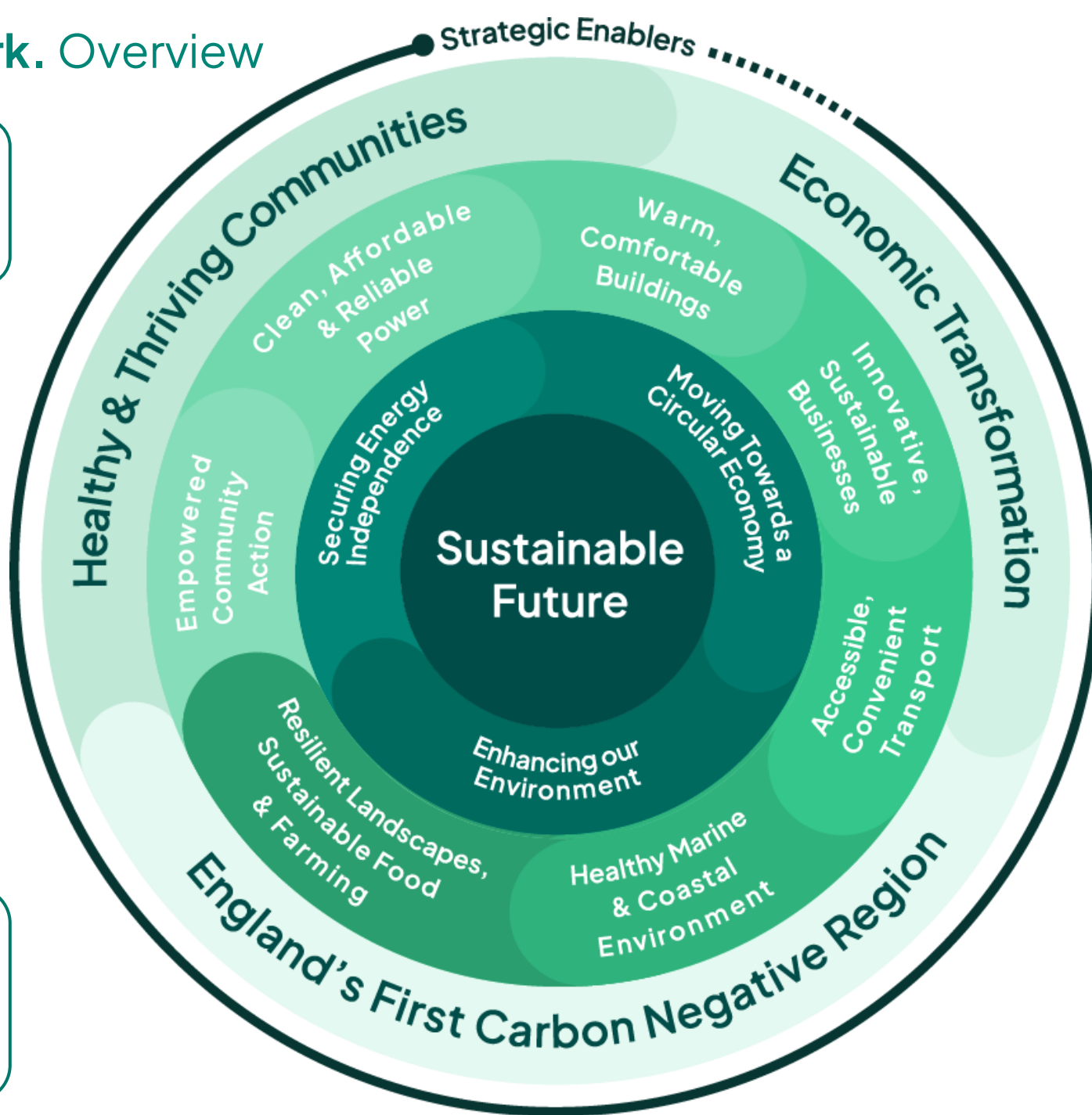
Our ambition will be unlocked through our strategic pillars of:

- **Securing Energy Independence** – providing locally-owned, affordable energy;
- **Moving towards a Circular Economy** – a thriving economy that keeps products and materials in use, whilst eliminating waste and pollution; and
- **Enhancing our Environment** – restoring, preserving, and harnessing the power of nature to improve biodiversity, capture carbon, and support climate resilience.

3

## Our High Impact Sectors

These strategic pillars will be delivered across our high impact sectors. The Consultation Draft of the Strategy includes “sector plans”, which will set out co-created visions statements, strategic priorities and strategic interventions.



4

## Our Strategic Enablers

These are our levers to make it easy, convenient, affordable and desirable for people and organisations to make more sustainable choices, from influencing national policy change to unlocking funding and investment.

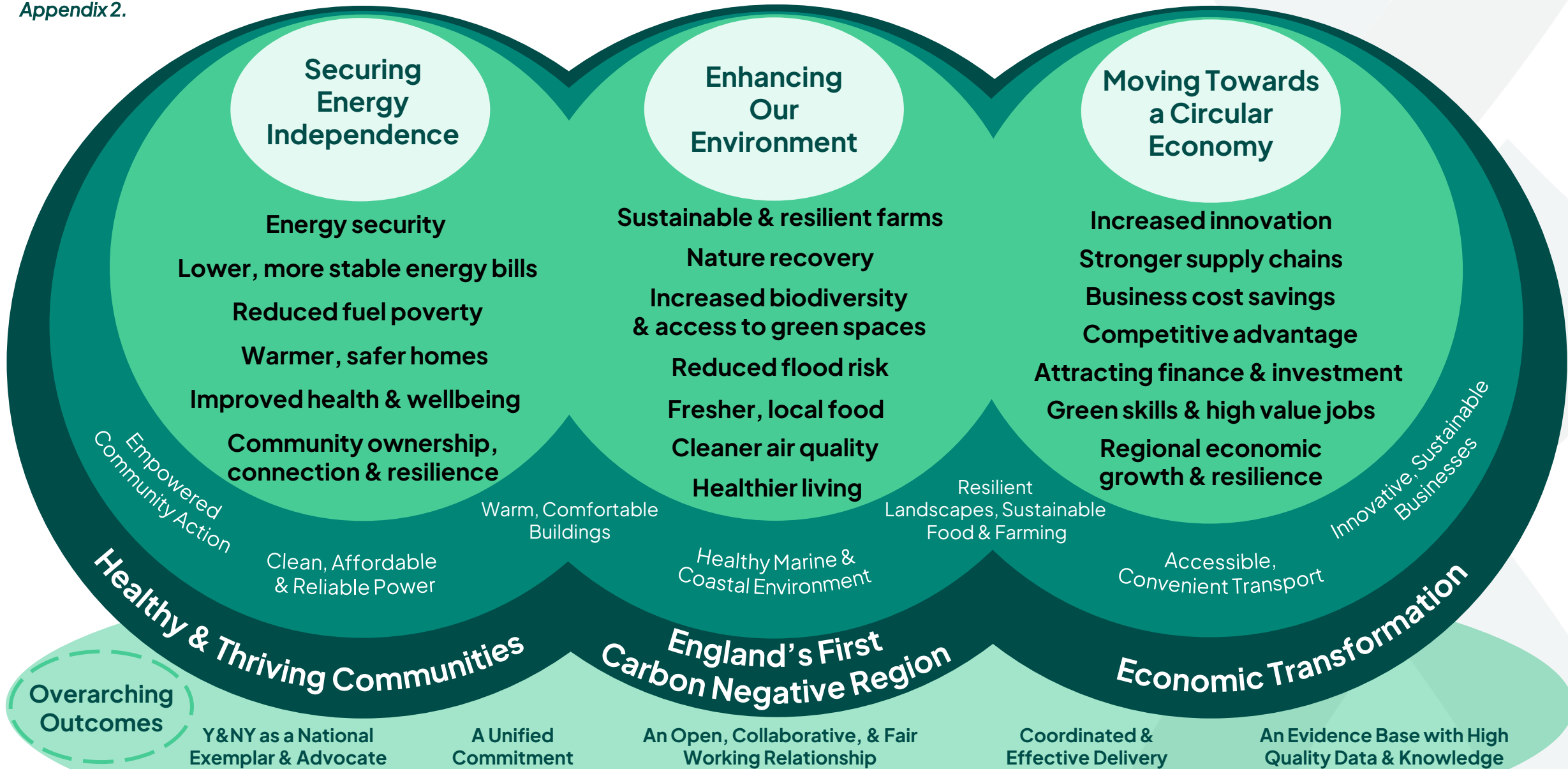
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## Our Big Goals

1. **Economic Transformation** – new, high-quality jobs, business growth, more competitive businesses.
2. **Healthy & Thriving Communities** – more affordable energy, warmer homes, better living standards and opportunities for community wealth building, supporting the YNYCA Mayor's Vision.
3. **England's first Carbon Negative region** – over 90% reduction in our GHG emissions, sequestering more carbon than we emit.

# A Sustainable Future. What does success look like?

Through the delivery of the proposed interventions across the strategic pillars, this Strategy aims to secure the medium and long-term outcomes that will have tangible benefits for our communities, economy, and environment – leading to the final outcomes of achieving our three Big Goals. Details on monitoring and evaluation metrics are in Appendix 2.



*This section outlines the key principles underpinning our ambition to lead the way in tackling climate change, creating a truly sustainable future.*



## **1 Our Ambition**

- **Creating a Sustainable Future**
- **Underpinning Principles**
- **Creating a Movement**

# 1 Our Ambition. Creating a Sustainable Future

## The Case for Ambitious Action

As floods, droughts, storms, and wildfires intensify across the world and in our own region, **now is the time for York and North Yorkshire to show true leadership** in climate action; **creating a better future for all** by trailblazing a path to become England's first carbon negative region.

By leading the charge and acting swiftly, we will **strengthen our economy; creating new, high-quality jobs, attracting investment, and future-proofing our businesses**. Lower energy costs, new opportunities for innovation, and making it easy for businesses to be sustainable within our region will **provide our businesses with a competitive advantage**.

The transformation will also provide **our residents with warmer homes, more affordable energy bills, cleaner air, and better transport, resulting in improved health, wellbeing, and living standards**.

Home to two National Parks, three National Landscapes, and extensive agricultural land, along with distinctive marine and coastal assets, the **region has an unparalleled ability to harness our natural environment to sequester carbon and improve our resilience to climate change**. With world-class innovation assets, pioneering businesses, and passionate communities, **York and North Yorkshire can be a trailblazing region providing innovative solutions that other places can learn from and replicate**.

## What does a “Sustainable Future” mean to us?

To create a sustainable future for York and North Yorkshire, we are committing to:

- **Reducing our emissions by at least 90%**. We have modelled a deliverable carbon reduction pathway, which underpins the proposed strategic priorities to ensure we have an evidence-based approach.
- **Removing more than the equivalent amount of our residual emissions within the region**. This will ensure York and North Yorkshire goes beyond net zero and becomes carbon negative by 2040. Nature-based solutions, such as tree planting, regenerative agriculture and seaweed farming, will be prioritised. To meet the pace and scale required we will aim to take an innovative approach to carbon removal, including the exploration of technological solutions and transition technologies.
- **Adapting to the future and ongoing impacts of climate change to ensure our communities and businesses are resilient**. We have commissioned a study to assess the potential impacts of climate change, and to better understand how we can best adapt. The Adaptation Study is due to be finalised by early 2026 and will help to inform the interventions of this Strategy. We have incorporated some of the initial study outputs into the priorities of this Strategy draft.
- **A shift in mindset from *reducing harm* to *doing more good***. The Strategy sets out our approach to have a positive impact on people and the environment – supporting nature to thrive, fostering healthy and thriving communities and economic transformation.

## Scope of Emissions

Our goal to be carbon negative by 2040 is for Scope 1 and Scope 2 emissions. It is currently not possible to produce an accurate baseline of the region's Scope 3 emissions due to data limitations. However, we expect emissions that occur outside of York and North Yorkshire's boundary, as a result of activities taking place within the region, to be substantial. Therefore, this Strategy strives to tackle the region's scope 3 emissions wherever possible, such as through promoting responsible supply chains and reducing waste.

Reducing scope 3 emissions is fundamentally about reducing consumption and in today's economic model, this would have a knock-on impact on economic growth. This is why we are championing the circular economy to help reduce emissions throughout supply chains by minimising waste and designing materials and products to stay circulating within the economy.

### What are emission scopes?

#### Scope 1: Direct Emissions within the Region

These are emissions released directly from sources located in York and North Yorkshire e.g. emissions from petrol and diesel vehicles, oil and gas heating systems.

#### Scope 2: Indirect Emissions from Purchased Energy

Emissions generated elsewhere to produce the electricity, heating, or cooling used within the region.

#### Scope 3: Wider Indirect Emissions Across Supply Chains

These include emissions linked to goods and services used in the region but produced elsewhere. For example, imported construction materials for new houses, electronic goods, or clothing.

# 1 Our Ambition. Underpinning Principles

To ensure the transition to a sustainable future benefits everyone in our region and does not leave anyone behind, we have co-created a series of overarching principles to guide the implementation of the Strategy.



## 1. Collaborative & Inclusive

Unprecedented collaboration is required to deliver a step-change in climate action that strengthens the economy and improves quality of life. We will build on the strong existing partnerships across the region and enable genuine collaborative action to ensure that a diversity of views are listened to in the shaping and delivery of initiatives, and that we achieve the pace and scale of change required. We will embed a climate justice approach to address the inequitable distribution of climate change impacts, alongside responsibilities to tackle climate change. We will work together to ensure that no community or organisation is left behind.

Our approach will prioritise effective communication, seeking to build an understanding of climate action within communities, whilst also ensuring that we listen to what matters most to our residents. We will work closely with community leaders and groups to engage with communities in the right way, seeking to understand local priorities and empower people to take control of climate action in their communities. Residents should feel seen, heard, and understood, through encouraging participatory approaches and partnerships. We will make sure all voices are represented, actively seeking to engage those most impacted by climate change, including young people, people with disabilities, and other underrepresented groups.



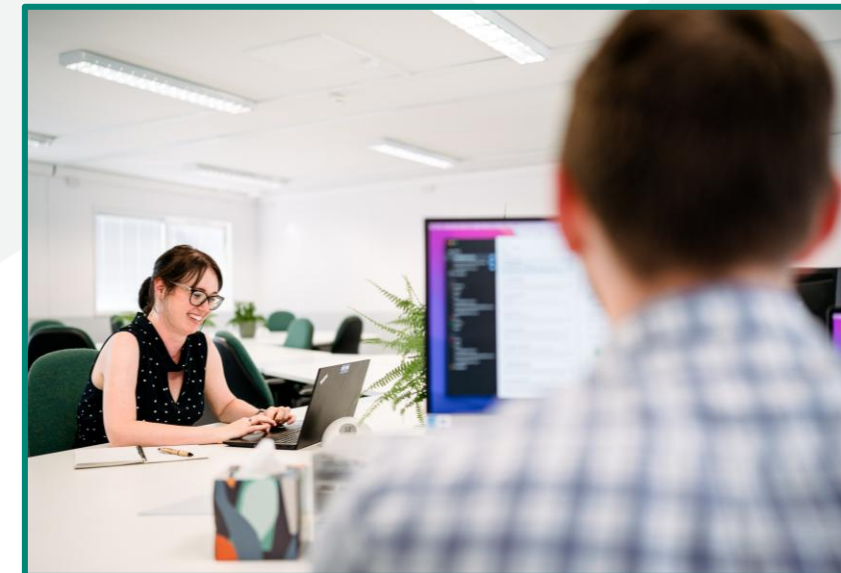
## 2. Place-based Approach

Our approach will protect and build upon York and North Yorkshire's distinctive historic assets and landscapes across our cities, towns, countryside, and coastline. People are at the heart of these diverse places. We will ensure that the transition to a sustainable, better future empowers communities to take action and make decisions about the future of their places and enables them to lead their own sustainability journeys. The Strategy is designed to build on the existing strengths and distinctive assets of the region to create economic opportunities and support the levelling-up of the region. We recognise the importance of "where" initiatives and technologies are rolled out – we will be building on and developing spatial plans, seeking to ensure the "right option, in the right place".



## 3. Evidence-driven & Dynamic

We will utilise emerging evidence and lessons learnt from project delivery to inform and adapt our approaches. The Strategy will be a living document – and the proposed interventions will be regularly reviewed and refreshed in light of new national policy, local priorities, and progress made.

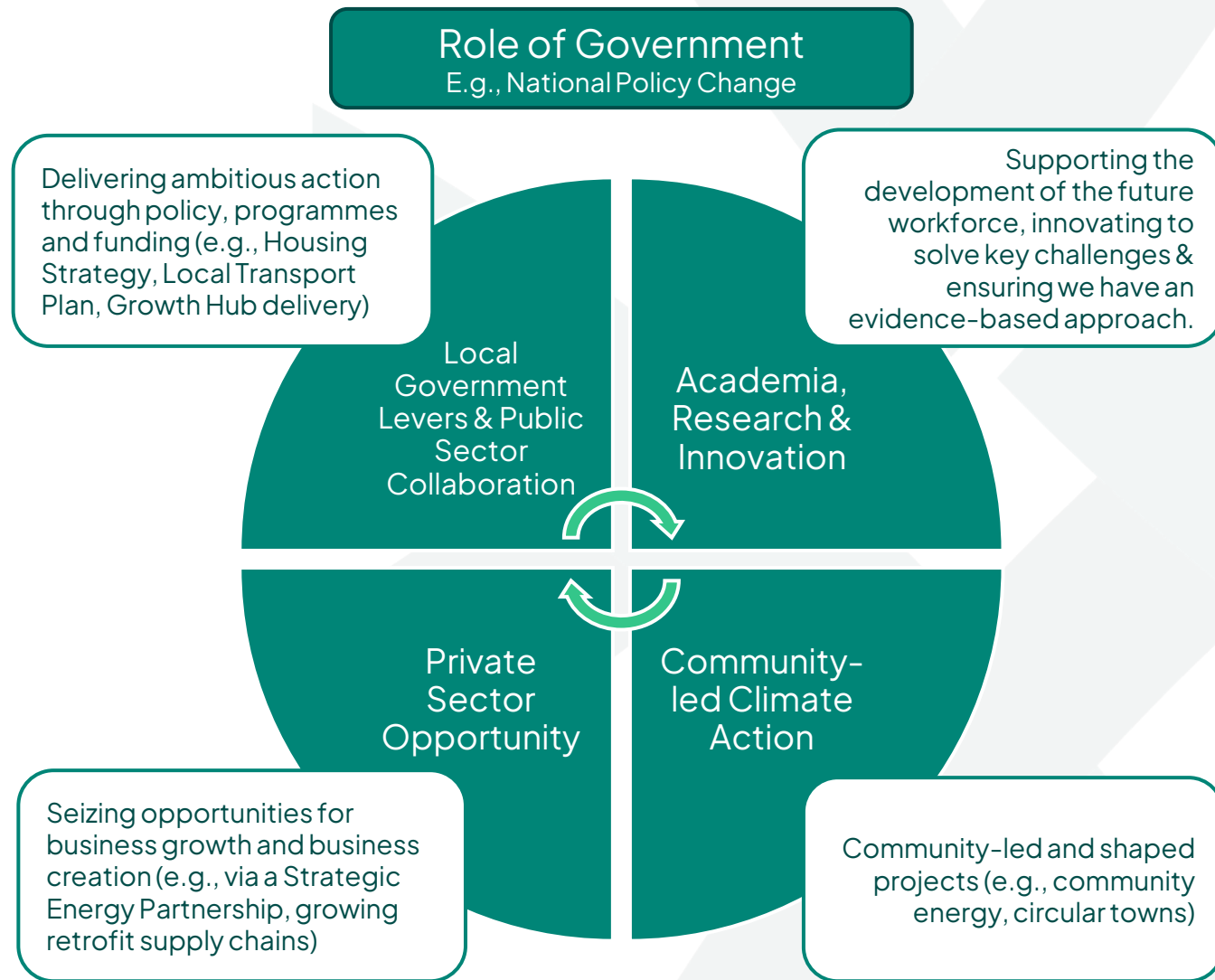


# 1 Creating a Movement. Working together to create change

Delivering York and North Yorkshire's goals of creating Healthy and Thriving Communities, driving Economic Transformation, and becoming England's first carbon negative region requires collaboration across a range of different organisations. This Strategy is intended to be a co-owned document, providing a clear direction of travel to enable the public sector, private sector, communities, and academia to work together. We need to create a movement – underpinned by our shared vision for a sustainable future.

We have adapted the “quadruple helix” framework (originally developed to advance innovation) as a way to visualise how different actors need to come together to deliver change and reap the benefits of a sustainable future. This includes:

- **Local Government Levers & Public Sector Collaboration:** Using existing and future levers that the YNYCA and Local Authority partners have to accelerate the transition to carbon negative, whether that be embedding decarbonisation in regional strategies and policies, or programmes and funding pots. There is also a role for wider public sector partners to lead the way through the decarbonisation of their estates, as well as exploring additional levers they have to make it easy, affordable and desirable for people to make more sustainable choices.
- **Academia, Research & Innovation:** Academia have a key role to play in advancing climate research and innovation, from developing new technologies to informing climate policy. There is also a role for academia in working collaboratively with other research institutions to share global best practices. Furthermore, further education trains future engineers, scientists, policymakers, and entrepreneurs in sustainability and climate literacy, ensuring our future workforce can continue to drive the transformation to a truly sustainable economy.



# 1 Creating a Movement. Working together to create change

- **Community-Led Action:** It is paramount that communities have a leading role in shaping the future of their places, from leading on community climate projects e.g. community gardens, to being able to shape regional policy. This should strive for a wide representation of voices, such as those of young people, ensuring everyone is included in climate action.
- **Private Sector Opportunity:** The private sector have an opportunity to innovate and provide solutions to drive the transition to a carbon negative economy. The green economy sector (i.e. the businesses that support our transition to net zero, such as companies that install solar panels, or factories that build electric vehicles) expanded by 10% in 2024, while the overall UK economy grew at just one-third of that rate, meaning green sectors are growing three times faster than the national average<sup>5</sup>.
- **Role of Government:** It is not possible for York and North Yorkshire to achieve carbon negative without wider policy support. There are policies, regulations and investments that are outside the control of regional bodies. Therefore, we need support from central Government, such as transport legislation, devolved retrofit funding, or incentives for businesses to decarbonise.

The detailed implementation plans for each sector and key enablers will detail the roles and opportunities for these stakeholder-types, and how they can work together.

## Case Study: Collaboration in Action

A strong example of cross-sector collaboration in action is the delivery of the **Retrofit One Stop Shop for York (ROSSY)**. The City of York Council-led and Innovate UK funded ROSSY project has developed a “one stop shop” service in York, in collaboration with York and North Yorkshire Combined Authority, Brightsparks, York Community Energy, the Stockholm Environment Institute and many others. The service is seeing good demand from customers, with 100 assessments completed, 45 customers connected to suppliers for installations and 194 advice calls provided so far.

As part of ROSSY, YNYCA created the York Retrofit Network. With 195 unique attendees across 10 sessions, the network has been a huge success and highlights the opportunities for collaborating and learning from our local supply chain.



*This section details our three strategic pillars, which will be used to unlock our ambition of creating a truly sustainable future.*



## **2 Our Strategic Pillars**

- **Securing Energy Independence**
- **Moving Towards a Circular Economy**
- **Enhancing our Environment**

# 2 Strategic Pillars. Securing Energy Independence

*Providing locally-owned, affordable energy for all*



## Enabling energy self-sufficiency, efficiency & supporting national energy security

York and North Yorkshire has a strong history of powering the nation. From pioneering mining innovation in the 1980s with Selby's groundbreaking "super mine," to hosting the nation's final deep coal mine at Kellingley Colliery, and continuing to fuel the grid through the Drax Power Station, the region has consistently played a vital role in powering Britain forward. This legacy can continue, sustainably, through our transition to a carbon negative region.

Our Local Area Energy Plans tell us that we can produce enough renewable energy to power the region and beyond. Through driving the transition to carbon negative, we can ensure that York and North Yorkshire becomes energy independent - producing enough power to meet our own energy needs, without relying on imports. This will minimise vulnerability to global energy markets and help lower energy bills for both households and businesses. This will also contribute to supporting national energy security.

Supporting energy efficiency is also vital, ensuring that the energy we do create is used and distributed as effectively as possible and meets demand. This includes retrofitting our homes and buildings, so they retain more heat, and supporting residents to generate their own sustainable energy and heat through solar installations, heat pumps, and other technologies.

Furthermore, through prioritising locally owned

renewable energy schemes, i.e., projects owned by local communities, businesses and other organisations, we can ensure that benefits are maximised within region, rather than other actors profiting from renewable energy projects in York and North Yorkshire.

## Case Study: Improving homes

**The lives of residents were transformed through a major retrofit project in Hungate Court in Hunmanby, North Yorkshire.** The project involved large scale installation of external wall insulation, double glazing, loft insulation, innovative ground loop heat pumps, and solar panels on homes. The result was a decrease in annual energy bills by an estimated £632 for the 32 residents, as well as significantly increased comfort and quality of life for those living in the sheltered housing block.



## Supercharging Community Energy

We want to create the conditions in our region to make it easy, accessible and hugely beneficial to develop community energy projects. Whilst there are great examples of community energy projects across the region, there are still many barriers that make it difficult for communities to progress community energy projects and for the wider community energy sector to grow. Examples of some of these barriers include a lack of funding for project development (i.e., feasibility studies, business cases) and delivery, reliance on volunteers, and a lack of technical skills and support to progress projects.

Through the implementation of this Strategy, we will make it easy for individuals to come together to identify viable energy projects, access credible advice (including around grid connection), secure funding to develop projects, and access sustainable finance for project delivery. This has the potential to not only reduce energy bills and provide people with a mechanism to make a difference, but also to build community wealth as profits from community energy projects often stay within the community, funding local initiatives. Where large scale, commercial energy projects are being developed, we need to ensure that communities are empowered and engaged from the outset and that community benefits are designed into the project.

# 2 Strategic Pillars. Moving Towards a Circular Economy

*A thriving economy that keeps products and materials in use, whilst eliminating waste and pollution*



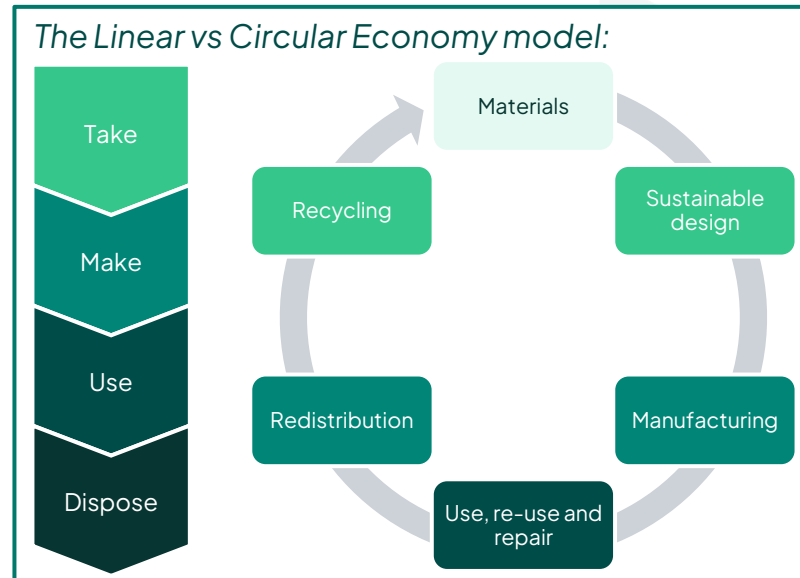
## Moving towards a Circular economy

Research shows that half of global GHG emissions and 90% of biodiversity loss are driven by how we currently use resources<sup>6</sup> – our “take-make-dispose” extractive industrial model. This linear economic model sees valuable materials ‘leaking’ from our economy, which is not only wasteful but is causing significant damage to our environment.

Moving towards a circular economy means decoupling economic activity from the consumption of finite resources and greenhouse gas emissions, ensuring that materials stay circulating within our economy. In practical terms, this means reducing waste throughout supply chains, designing products to last longer (e.g. making it easy to repair, reuse and remanufacture products) and switching to using more sustainable materials.

Taking a circular economy approach is not only about reducing our emissions and addressing climate change. Additional benefits include increased resource productivity, reduced costs for resource intensive businesses, the creation of new opportunities for commercial revenue streams, and increased inward investment for the regional economy. The creation of the Circular Economy Taskforce by central government in 2024 demonstrates the growing interest in adopting the circular economic model and an opportunity for

York and North Yorkshire to take a trailblazing approach in developing our regional economy.



### What does this mean for York and North Yorkshire?

- Becoming national leaders in the delivery of circular economy excellence;
- Developing regional knowledge and expertise in circular economy practice;
- Increasing value from assets;
- Building a regenerative, future-proof economy;
- Enhancing and reducing damage to our natural environment;
- Boosting skills and wellbeing; and
- Supporting more connected and resilient communities.



## Case Study: Pioneering Local Action

**Circular Malton & Norton** is a not-for-profit organisation established in 2021, seeking to develop the North Yorkshire town of Malton and Norton as the first circular economy town.

The organisation promotes a variety of initiatives, such as upcycling workshops and the creation of a local Circular Hub, to achieve local reductions in waste, the uptake of upcycling and repurposing, and the local circulation and sharing of resources. They work closely with both businesses and residents, engaging the entire town community to rethink energy and waste to drive transformative change that will benefit the community, local economy, and the environment.

### What does a Circular Town do?

A circular town is where residents and businesses work together to ensure local items and materials remain in circulation for as long as possible. It includes the uptake of activities such as:

- Reducing food waste and producing food locally through community fridges, gardens, and orchards.
- Running repair shops/cafes, and improving skills through mending workshops.

## 2 Strategic Pillars. Enhancing our Environment

*Restoring, preserving, and harnessing the power of nature to improve biodiversity, capture carbon, and support climate resilience*



### Supporting Regenerative Systems & a thriving Bio-economy

York and North Yorkshire have the opportunity to be a trailblazer in nature-positive growth - going beyond minimising harm and instead focusing on actively restoring and enriching our natural systems. At the heart of this vision lies the principle of regeneration: putting more back into the earth than we take out.

With pockets of best practice within the region, research underway, new funding models being tested and growing interest from both food manufacturers and farmers around regenerative agriculture, York and North Yorkshire have an opportunity to develop a USP in regenerative agriculture. From rotational grazing and agroforestry to cover cropping and low-impact livestock systems, these approaches not only reduce emissions but also improve productivity and resilience for farmers.

But regeneration does not stop at the soil. York and North Yorkshire can also become a pioneer in marine system restoration, including the cultivation of seaweed - a fast-growing, carbon-sequestering crop with applications in food, packaging, biofuels, and even animal feed. Seaweed farming offers a low-impact way to clean coastal waters, boost marine biodiversity, and feed into a circular bio-economy. North Yorkshire is home to the innovative business SeaGrown, which has developed a pioneering approach to seaweed cultivation.

Seaweed captures carbon from the atmosphere and the ocean, mitigating the impacts of climate change, and also creates vital habitats for a diverse array of marine species, helping to restore biodiversity.

By embracing regenerative systems across land and sea, the region can reduce its dependence on fossil fuels and unlock the potential of a thriving bio-economy - one that transforms natural resources into sustainable products, fuels innovation, and creates green jobs. This transition is supported by an ambitious regional partnership, BioYorkshire, which seeks to create a world-leading bio-economy cluster.

### Case Study: Innovation in bioeconomy

**BioYorkshire is a regional partnership that will accelerate the translation of research discoveries into full scale biotechnology applications.** The innovative public-private partnership includes the University of York, Biorenewables Development Centre, Fera Science, Askham Bryan College and a range of private sector partners. It aims to harness the unique capabilities of the York and North Yorkshire region to create a leading bioeconomy cluster - using the region's world-class science base to deliver profitable bio-based chemicals, materials, and fuel production, as well as productive food, feed, farming and wider land-use practices that support carbon negative goals.



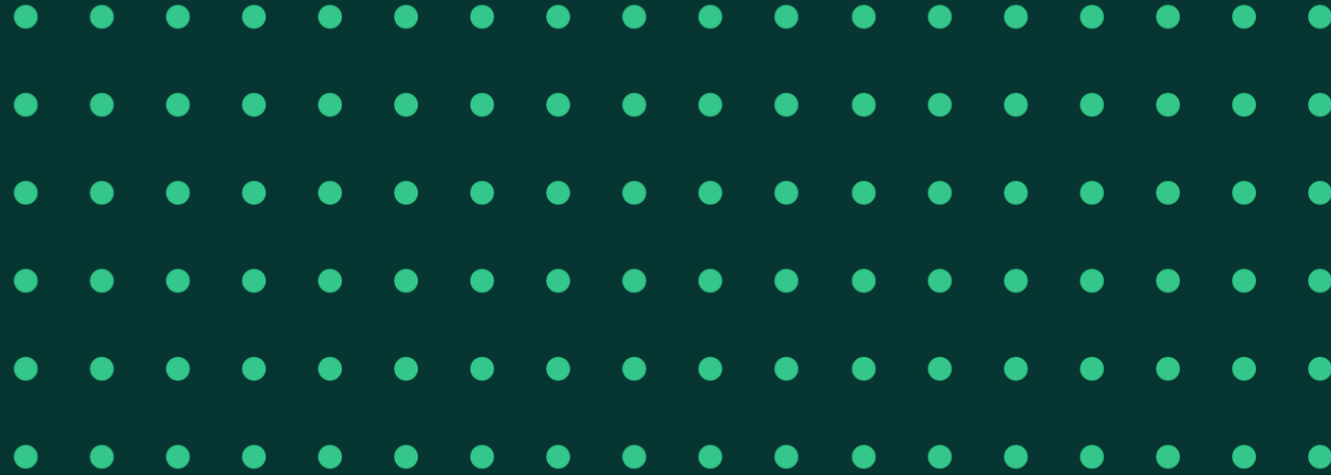
### Supporting Nature Recovery, Climate Resilience and Adaptation

The delivery of the Strategy will seek to support the implementation of North Yorkshire and York's Local Nature Recovery Strategy. Where feasible, programmes and actions will support nature recovery and boost biodiversity.

York and North Yorkshire Combined Authority are currently working with partners to undertake a study to better understand the impacts of climate change in York and North Yorkshire, and how we can best adapt. This study is expected to be completed by early 2026, and the key findings of this study will then be incorporated into the post-consultation draft of the Strategy.

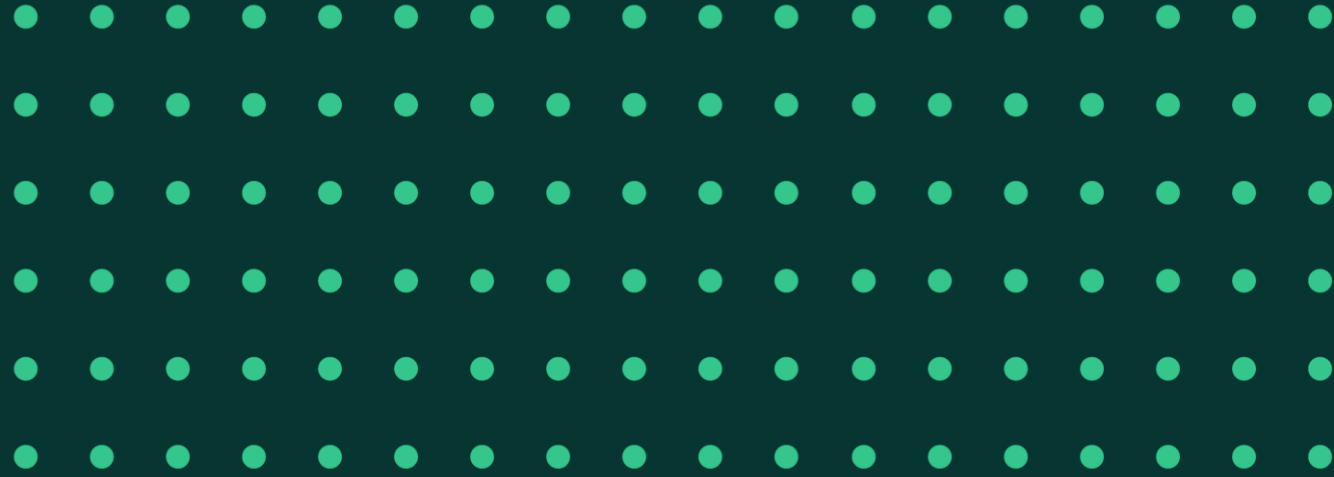
This will ensure that the strategic priorities, decarbonisation pathways and interventions are future-proofed to take into account the impacts of climate change, as well as ensuring that where feasible actions maximise the potential to improve climate resilience.

The Sector Plans set out the co-created vision and principles for our highest impact sectors. The Plans include a summary of progress made to date, key strategic priorities, the scale of transformation required (non-prescriptive indicators of the level of change) and actions to overcome critical barriers and unlock the benefits of becoming England's first carbon negative region.



### 3 Our High Impact Sectors: Sector Plans

- *Clean, Affordable & Reliable Power*
- *Warm, Comfortable Buildings*
- *Accessible, Convenient Transport*
- *Innovative, Sustainable Businesses*
- *Resilient Landscapes, Sustainable Food & Farming*
- *Healthy Marine & Coastal Environment*
- *Empowered Community Action*



***Clean, Affordable & Reliable Power***

# Clean, Affordable & Reliable Power. Plan on a Page

**Vision:** A resilient power system that provides clean, affordable energy to all.

Delivery to Date:



Local Area  
Energy  
Plans



£7m  
Net  
Zero  
Fund



£2m Local  
Net Zero  
Accelerator  
Pilot



£7m Carbon  
Negative  
Challenge  
Fund



APSE  
Award for  
Collaboration



Community  
Energy  
Fund



Community  
Energy  
Award

## Scale of Transformation

Install an additional 2,500 megawatts (MW) of capacity of renewable electricity generation by 2038

Increase installed anaerobic digestion generation capacity by 16 MW by 2038

Increase installed small bioenergy generation capacity by 60 MW by 2038

Deploy energy storage to a scale of 736 MW capacity by 2038

Reduce peak demand by 10% by 2038

Upgrade electricity infrastructure to enable over double existing demand by 2038

## Strategic Priorities

Deliver energy independence and community wealth by **rapidly scaling renewable generation with inclusive ownership models** that reduce bills and foster local pride

**Unlock investment for energy infrastructure upgrades by pioneering green finance**, to support jobs, innovation, and business competitiveness

**Accelerate the adoption of new technologies and demand-side solutions** to create a flexible, affordable energy system that meets rising needs while cutting emissions

Strengthen the reliability and resilience of our energy system by **supporting our partners to adapt our infrastructure networks**

## Barriers

**Infrastructure, planning, and regulatory restrictions**

**Skills for project delivery**

**Attracting and co-ordinating commercial investment and piecemeal public funding**

**Poor public perception**

**Capacity and technical expertise of community energy groups**

**Technical barriers to smart meter roll-out**

## Key Interventions

- Local Area Energy Plan (LAEP) update
- Future Energy System Planning
- Champion National Level Policy change
- Addressing the skills gap
- Showcase delivery of Net Zero Fund and Carbon Negative Challenge Fund
- Develop and implement the Energy Generation Accelerator Programme (EGAP)
- Design a delivery model through the Local Net Zero Accelerator (LNZA) programme
- Support for Community Energy

## Outcomes

Energy Independence and resilience

Unlocking regional investment

More flexible, affordable power

Business cost savings

Optimised energy mix and resource re-use

Unlocking decarbonisation across sectors

High quality jobs

Thriving local green economy

Community wealth building

# Clean, Affordable & Reliable Power Plan. Vision & Principles

The Sector Plan provides the overarching vision and principles for our approach to deliver Clean, Affordable and Reliable Power. The Plan includes a summary of progress made to date, including GHG emission reductions and key programmes delivered. This is followed by key strategic priorities and actions to overcome critical barriers and unlock the benefits of becoming England's first carbon negative region.

**Working with stakeholders, we have developed the following vision statement to provide a guiding light for energy transformation in our journey to a carbon negative economy:**

**Vision: A resilient power system that provides clean, affordable energy to all.**

To ensure our vision is implemented, we will be directed by the following key principles when designing programmes and activities:

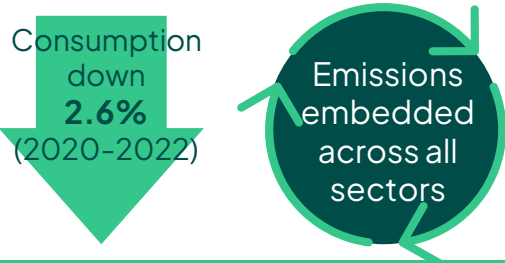
- Use a mix of complementary technologies and efficiency and flexibility measures to ensure a diversified, resilient and robust energy system;
- Prioritise community and locally-owned energy generation (and storage) projects to maximise local benefits;
- Take a place-based approach, considering land-use pressures, local heritage, nature, landscapes and existing infrastructure. Where possible, ensure projects deliver benefits beyond energy generation e.g., supporting flood management, biodiversity;
- Create high-value and sustainable jobs, supporting local economic growth through the energy transition;
- Embed circular economy principles in infrastructure procurement, striving to ensure energy technologies are designed to be re-used and remanufactured; and
- Support a just transition to affordable and accessible clean energy, minimising fuel poverty in the region.



# Clean, Affordable & Reliable Power Plan. Progress to Date

The YNYCA and other partners are striving to support the transformation of the energy system in York and North Yorkshire. The following page provides examples of some of the strategic regional initiatives developed and delivered in recent years.

## Pathway to Carbon Negative: Update on Energy Emissions



### Modest Progress

Emissions related to electricity are embedded within the sectors which consume electricity. Reducing emissions from our energy system will therefore have cross-cutting benefits. A review of progress against the pathway indicators shows modest progress, such as reducing peak demand by 10% by 2038 (on track), or installing an additional 2,500 MW of solar, onshore wind and hydropower capacity by 2038 (modest progress).

**However**, progress does not match the pace of change required across all the pathway indicators. Whilst there has been significant progress establishing our strategic approach to decarbonising our energy system and securing funding to develop and deliver renewable energy projects, we need to accelerate delivery in order to maintain progress.

## Working Towards a Carbon Negative region

### Local Area Energy Plans

The former York and North Yorkshire LEP, City of York Council and North Yorkshire Council worked collaboratively to develop an integrated suite of four Local Area Energy Plans (LAEPs) for York and North Yorkshire, outlining a comprehensive, cost-optimal plan for the region to decarbonise its energy system.

### £14m of Decarbonisation Funding

Through York and North Yorkshire's initial devolution deal (2022), the region secured £7million to drive green growth through supporting net zero projects. The Net Zero Fund has supported several energy focused projects such as The Electric Cow Project at Askham Bryan College - a 22kw anaerobic digester (AD) recognised as the most efficient Bioelectric AD installation in Europe; and Feasibility studies and the development work for Harewood Whin Green Energy Park led-by City of York Council and a Green Energy Park at Seamer Carr led-by North Yorkshire Council.

The success of this fund led to the launch of the £7million Carbon Negative Challenge Fund by YNYCA in March 2025 which aims to fund innovative decarbonisation projects across the region.

## Supporting Healthy & Thriving Communities

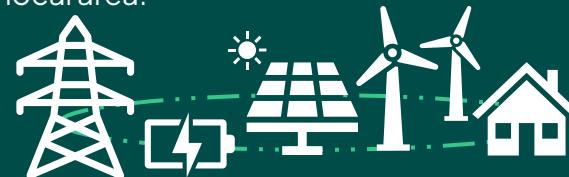
### Award-winning Collaboration

YNYCA and North Yorkshire Council were celebrated at the Association for Public Sector Excellence (APSE) Energy Awards, winning the award for "Working in Collaboration". This was for the joint work in the design and delivery of the SPF (Shared Prosperity Fund) decarbonisation theme, distributing £2.2million of funding in close collaboration with community groups.

City of York Council were also highly commended as a Supportive Local Authority in the 2024 Community Energy England awards. For their 'pivotal' support in promoting community energy initiatives.

### Community Energy Fund

This fund, provided in collaboration with the North East and Yorkshire Net Zero Hub, has supported various projects within the region, encouraging communities to develop ideas for local generation projects that can benefit the local area.



## Driving Economic Transformation

### Pioneering Pilot projects

Working with North Yorkshire Council and City of York Council, York and North Yorkshire Combined Authority (YNYCA) have secured £2million from DESNZ via the Local Net Zero Accelerator (LNZA) Programme. The pilot is exploring the feasibility of developing a Strategic Energy Partnership to accelerate the decarbonisation of public sector assets through private sector investment.

## Summary

We have made significant progress establishing the strategic foundations for decarbonising our energy system via our Local Area Energy Plans and have secured substantial funding to support the development and delivery of renewable energy projects. However, this action has not yet been translated into the pace of change required to reach carbon negative by 2040. There are critical barriers impeding progress, with many requiring national policy change. Therefore, national action is required to unlock York and North Yorkshire's ambition for a resilient energy system that provides clean, affordable energy to all.

# Clean, Affordable & Reliable Power Plan. Strategic Priorities

Being a leader in clean energy will provide York and North Yorkshire with high-quality jobs, more affordable energy bills and energy independence. The following strategic priorities are intended to drive the clean energy transition in a way that provides significant benefits for local communities and businesses.

## 1 Deliver energy independence and community wealth by rapidly scaling renewable generation with inclusive ownership models that reduce bills and foster local pride

*What?* Accelerate project development, secure investment and increase the pace of delivery of appropriate renewable energy projects (including solar PV, onshore wind, hydropower and anaerobic digestion). Our approach will focus on prioritising community and locally-owned energy projects.

*Why?* With a history in powering the nation, we have the potential to be a leader in clean energy, providing affordable and reliable energy to enable businesses and communities to thrive. York and North Yorkshire has a pivotal role to play in achieving the Government's Clean Power 2030 Plan. The region is home to a nationally significant energy asset, Drax Power Station, currently providing up to 8% of the UK's renewable electricity generation. Alongside this, we know that with a rapid increase of Solar PV, onshore wind and hydropower projects, York and North Yorkshire has the potential to produce all the required energy to meet our demand, securing energy independence. We have the potential to be a trailblazing region in clean energy

innovation, pioneering transformative projects across a diverse geography – from our coast, to deeply rural areas, to the historic city of York.

We want the renewable energy revolution to benefit communities in our region. To achieve this, we need to create the conditions for community energy to thrive, making it easy for individuals to come together to identify viable energy projects, access credible advice (including around grid connection), secure funding to develop projects, and access sustainable finance for project delivery. This has the potential to not only reduce energy bills and provide people with a mechanism to make a difference, but also to build community wealth as profits from community energy projects often stay within the community, funding local initiatives. Where large scale, commercial energy projects are being developed, we need to ensure that communities are engaged from the outset to ensure community benefits are designed into the project.

## 2 Unlock investment for energy infrastructure upgrades by pioneering green finance, to support jobs, innovation, and business competitiveness

*What?* Support whole-system planning and increase investment to rapidly and efficiently improve energy networks and infrastructure. Alongside this, work with partners to pioneer innovative mechanisms to attract commercial investment.

*Why?* Secure, reliable and affordable energy underpins economic growth and is critical in decarbonising the economy. Exposure to volatile energy prices and the growing cost of living crisis demonstrates the importance of developing a strong renewable energy sector to reduce energy bills for residents and businesses. Reducing energy bills will enable businesses in our region to be more competitive, whilst growing green supply chains will create new high-quality jobs.

Improving grid infrastructure will enable new renewable energy projects to come online, opening up new opportunities for businesses to generate their own energy on-site. Growth in

renewable energy generation will also attract new investment opportunities, particularly for energy intensive industries, such as AI datacentres, that benefit from co-locating near an energy source.

Our Local Area Energy Plans tell us that decarbonising our energy system will cost over £23.1 billion. Our challenge is to turn this “cost” into an investment opportunity, developing innovative models to attract commercial investment and scaling up our supply chains so that local businesses benefit from the investment. To help unlock this opportunity, York and North Yorkshire Combined Authority, North Yorkshire Council and City of York Council are working together as part of Government's Local Net Zero Accelerator Programme, where we are one of three Combined Authorities tasked with pioneering innovative approaches to attract private sector investment to enable net zero delivery.

# Clean, Affordable & Reliable Power Plan. Strategic Priorities

Being a leader in clean energy will provide York and North Yorkshire with high-quality jobs, more affordable energy bills and energy independence. The following strategic priorities are intended to drive the clean energy transition in a way that provides significant benefits for local communities and businesses.

## 3 Accelerate the adoption of new technologies and demand-side solutions to create a flexible, affordable energy system that meets rising needs while cutting emissions

What? Support the deployment and integration of emerging renewable generation, storage, and demand-side technologies across York and North Yorkshire. This includes exploring emerging technologies, such as geothermal and more sustainable energy storage options, as well as enabling smart energy systems and flexible demand solutions (e.g., smart EV charging, local energy management). Work with partners to pilot and roll out innovative place-based approaches that balance supply and demand, reduce costs, and strengthen system resilience. Ensure that the regional energy mix is aligned with our land use and landscapes.

Why? Power is a critical concern across sectors, and the transition to a carbon negative future relies heavily on electricity. Electrification plays a central role in decarbonisation strategies, particularly in transport through the expansion of bus and EV infrastructure, and in business and industry, with advancements in freight and AI-driven automation. As demand for energy continues to rise, ensuring that we have a flexible and diverse energy system will be essential. Equally important is the development of innovative, place-based solutions to effectively meet future energy needs whilst also maintaining the character of our natural landscapes.

## 4 Strengthen the reliability and resilience of our energy system by supporting our partners to adapt our infrastructure networks

What? Help strengthen the reliability and resilience of York and North Yorkshire's energy system by supporting Northern Powergrid and our partners to adapt our infrastructure networks to better withstand flooding, heat and other climate risks. This includes supporting in the hardening of substations, overhead lines, and key distribution assets. Working with partners to add redundancy through backup generators and battery storage at critical sites ensuring ambulance stations, healthcare facilities and charging hubs maintain secure power during extreme weather. Working with our Local Resilience Forum partners in the mapping and monitoring of critical assets and supporting them by integrating climate-risk data into planning decisions and coordinating with our partners through the Forum to prepare for and respond to power disruptions.

Why? A resilient power network is essential for community safety, economic stability and the functioning of critical services during extreme weather. Supporting Northern Powergrid to upgrade and protect its assets reduces outages, prevents cascading failures and enables faster recovery when events occur. Reliable backup power keeps healthcare, communications and transport systems running when conditions worsen, while improved planning and shared information lower long-term costs. Strengthening both local infrastructure and regional distribution systems ensures homes, businesses and essential services have consistent access to energy, helping the region withstand more frequent climate shocks and maintain reliable power when it is needed most.

# Clean, Affordable & Reliable Power Plan. Key Actions

Being a leader in clean energy will provide York and North Yorkshire with high-quality jobs, more affordable energy bills and energy independence.

Based on stakeholder engagement and recommendations from our research, a number of initial actions have been identified to enable the delivery of the strategic priorities. The long-list of identified actions can be found in Appendix 1, with high-priority actions described below:

## 1. Refresh our Local Area Energy Plans to underpin a Y&NY Energy Strategy and support the development of the Regional Energy Strategic Plan (RESP)

Back in 2022, we developed a series of four integrated Local Area Energy Plans, which set out at a cost-optimal pathway to decarbonise the energy system here in York and North Yorkshire. With progress made developing and delivering renewable energy projects, alongside national energy system reform, there is now a need to update these plans and support the development of a regional energy strategy and delivery plan. Updating the plans will feed into the National Energy System Operator's (NESO) Regional Energy Strategic Plan for the North East and Yorkshire, ensuring we have a strategic, clear way forward to transition to a clean energy system – prioritising small-medium scale renewable projects that are locally owned.

## 2. Delivery of the £2.5m Energy Generation Accelerator Programme

The YNYCA are working in partnership with North Yorkshire Council, City of York Council, North York Moors National Park Authority and the Yorkshire Dales National Park Authority to accelerate the development of strategic renewable energy projects in the region. The £2.5 million programme is already underway and will provide an investment-ready pipeline of renewable energy projects, alongside unblocking key barriers in project development.

## 3. Design and establish a Regional Energy Delivery and Investment Vehicle

York and North Yorkshire are part of the Department for Energy and Net Zero's (DESNZ) Local Net Zero Accelerator Programme that seeks to develop new approaches to leverage commercial investment to deliver decarbonisation at pace. The YNYCA, City of York Council and North Yorkshire Council are underway with designing the most feasible and impactful model to accelerate the development and delivery of energy projects that can leverage blends of public funding and private investment, and deliver tangible benefits for businesses and communities, from reducing energy bills to creating high quality jobs.

## Case Study: New ways to power the region

### The Electric Cow project:



The Electric Cow is a 22kw farm-scale anaerobic digester developed by Askham Bryan College in York and funded by the YNYCA Net Zero Fund. Located at the on-site dairy farm, the innovative method for energy generation uses cow slurry to generate biogas to produce both energy and heat.

This project not only provides a valuable educational opportunity for students but also helps to reduce methane emissions, supports energy self-sufficiency, and makes valuable use of organic waste products from the dairy farm. The system bioproduct, digestate, can also be used as a natural fertiliser. The Electric Cow project is an example of a new, sustainable farming practice that utilises both circular economy principles and works towards regional energy independence through local generation.

### Harewood Whin Green Energy Park:

Developed by City of York Council and funded to Outline Business Case stage through the YNYCA Net Zero Fund, Harewood Whin Green Energy Park is under development as a flagship renewable energy project transforming a former landfill site into a productive asset. The project adopts a phased, solar-first approach to deliver clean energy, reduce GHG emissions, and generate economic and social benefits for York and the wider region. The proposed site demonstrates innovative solutions for local authorities with limited land availability to support communities and the environment, producing more than 5MW of renewable energy, supporting 10% biodiversity net gain, and creating a community energy fund with further potential for part community ownership.



## *Warm, Comfortable Buildings*

# Warm, Comfortable Buildings. Plan on a Page

Vision: Every building in York and North Yorkshire is comfortable, healthy, efficient and affordable to heat.

Delivery to Date:  Y&NY Retrofit Strategy  Retrofit One Stop Shop for York  Housing Retrofit Schemes  Geothermal Pilot  £7m net zero fund  Sheepish natural wool insulation

## Scale of Transformation

- Install rooftop solar PV on 98,227 homes by 2038 and 1745 business rooftops per year by 2038
- Scale up to deploy decarbonised heating to 249,328 homes and 8800 businesses by 2038
- Retrofit ~1600 public buildings to at least a DEC C rating by 2030
- Scale up to retrofit 24,656 existing business premises to EPC C by 2038
- Scale up to retrofit 249,328 homes to EPC C by 2038
- Scale up the supply chain to deploy biobased construction materials in 1200 new homes and 1100 retrofits by 2038
- No new oil boiler installation by 2030
- Design and build new homes to high standards

## Strategic Priorities

- Increase the Comfort, Cost and Climate benefits of retrofit by **increasing the pace and scale of delivery**
- Reduce energy bills, improve air quality and create a more resilient energy system by **moving to sustainable heating**
- Unlock opportunities, create local economic growth and champion our iconic buildings by **leveraging our heritage buildings and biobased materials.**
- Create better places to live, work and visit by **future-proofing our places**

## Barriers

- Securing funding and investment**
- Developing green skills and supply chains**
- Data constraints**
- Lack of demand for retrofit**
- New technology and innovation**
- Infrastructure constraints**
- Fragmented collaboration**
- Poor new build standards**

## Key Interventions

- Y&NY's Retrofit Strategy
- Local Area Energy Plan Update
- Regional Plan for Geothermal
- Develop a Y&NY One Stop Shop
- Heat Network Feasibility
- Better Buildings Now
- Biobased Construction Materials Accelerator
- Public Sector Decarbonisation
- Pilot financial policy options for Y&NY
- Regional Retrofit Network
- Continue regional relationships
- Retrofit Dashboard

## Outcomes

- Improved comfort in buildings
- Mental and physical health improvements
- Lower energy bills
- Supply chain growth and new green jobs
- Reduced emissions from buildings and heating
- More resilient energy system
- Better places to live, work and visit
- Increased investment in the region

# Warm, Comfortable Buildings Plan. Vision & Principles

The Sector Plan provides the overarching vision and principles for our approach to deliver Warm, Comfortable Buildings. The Plan includes a summary of progress made to date, including GHG emission reductions and key programmes delivered. This is followed by key strategic priorities and actions to overcome critical barriers and unlock the benefits of becoming England's first carbon negative region.

**Working with stakeholders, we have developed the following vision statement to provide a guiding light for making buildings more sustainable:**

**Vision: Every building in York and North Yorkshire is comfortable, healthy, efficient and affordable to heat.**

To ensure our vision is implemented, we will be directed by the following key principles when designing programmes and activities:

- Place people at the centre of our approach, ensuring that no one is left behind and benefits such as reduced fuel poverty, health and wellbeing improvements, and reduced bills are felt by all;
- Ensure the right solution for the right building and in the right place (not a one size fits all approach);
- Take a whole-building, technology agnostic approach wherever possible to maximise benefits across interventions;
- Create and support a skilled local workforce and supply chain;
- Maintain existing character of heritage buildings and protected landscapes;
- Maximise circular economy principles in buildings' construction, materials and use wherever possible; and
- Pull on existing levers, such as the need to replace gas boilers, or the financial incentives of installing solar PV, to drive the uptake of sustainability measures.

Vision & Principles

Summary of Progress to Date

Strategic Priorities

Actions

# Warm, Comfortable Buildings Plan. Progress to Date

The YNYCA and other partners are striving to support the sustainable transformation of the buildings in York and North Yorkshire. The following page provides examples of some of the strategic regional initiatives developed and delivered in recent years.

## Pathway to Carbon Negative: Update on Building Emissions



### Progress Lagging

The heat and buildings sector had the highest fall in emissions from 2005 to 2023. Increases in renewable energy generation, above average temperatures and rising costs for electricity and gas are associated with this reduction. Despite this progress, the buildings sector currently accounts for 25% of emissions in York and North Yorkshire, with most emissions coming from the use of gas in our homes. Approximately two thirds of these emissions are from domestic buildings, with the remainder from non-domestic buildings.

These current emissions from buildings are slightly higher than those projected in the decarbonisation pathways - it is therefore assumed that the expected pace of decarbonisation in the pathways has not been achieved.

## Working Towards a Carbon Negative region

### Y&NY Retrofit Strategy

With a final draft expected in Spring 2026, the Retrofit Strategy is a nationally leading document led by YNYCA. The Strategy sets out a regional plan for building decarbonisation and energy efficiency, ensuring we are ready when funding is received to deliver retrofit at pace and scale. Engagement done for the Strategy has created momentum in the region and highlighted the amount of expertise available. This involved a co-design event in October 2024 with 50+ stakeholders from across the retrofit system, including skills, supply chain and retrofit experts.



## Supporting Healthy & Thriving Communities

### Retrofit One Stop Shop for York

The City of York Council-led Retrofit One Stop Shop for York (ROSSY) project has developed a "one stop shop service" in York, utilising £3.3 million of Innovate UK funding. The service is seeing demand from customers, with 100 assessments completed and 194 advice calls provided. ROSSY is designed to help people navigate the complexities of retrofit through providing a streamlined service.

### Funding for Housing Retrofit

Partners in the region have been successful with winning funding from several government schemes. For example, North Yorkshire Council and City of York Council have been awarded approximately £37.2m from the Home Upgrade Grant (HUG), the Social Housing Decarbonisation Fund (SHDF), and the Local Authority Delivery (LAD) scheme. This funding will go directly into making the homes of York and North Yorkshire residents warmer, more comfortable, and fit for the future.

## Driving Economic Transformation

### Building a Retrofit network

Building on the work of ROSSY, YNYCA have created the York Retrofit Network, connecting and engaging with 195 unique businesses involved in retrofit.

### Understanding skills needs

The Retrofit Skills Assessment examined what York and North Yorkshire's current supply chain looks like, what it would need to look like in the future to deliver retrofit at the scale necessary, and what the gaps are between these.

### Summary

Whilst there is evidence of progress of retrofitting homes and developing new approaches to heat, the current pace and scale of decarbonisation is not currently fast enough to reach carbon negative by 2040. Without regional action, alongside national policy changes and increased funding, emissions from buildings are set to increase, and we will not realise the benefits for health, comfort, or our economy. Therefore, urgent action is required to accelerate progress to decarbonise heat and buildings.

# Warm, Comfortable Buildings Plan. Strategic Priorities

Enabling rapid decarbonisation will reduce energy costs for communities and businesses, improve the comfort of our buildings and create new opportunities across our heritage assets, supply chain and unique setting. The following strategic priorities are intended to enable the delivery of the rapid building decarbonisation, whilst unlocking the benefits of carbon negative for our region:

## 1 Increase the Comfort, Cost and Climate benefits of retrofit by increasing the pace and scale of delivery

**Retrofit is improvement work to existing buildings that improves energy efficiency, ventilation and resilience to high and low temperatures.** To realise the benefits for people and meet our carbon negative ambition, we need to increase the pace and scale of retrofit across public and private buildings. In response to this need, the YNYCA have developed a draft **Retrofit Strategy for York and North Yorkshire**. The following priorities match those included in the draft Retrofit Strategy:

What? Increase demand by providing everyone with a route to retrofit;

Why? Retrofit is an opportunity to improve the condition and resilience of our buildings to ensure that every person in York and North Yorkshire is comfortable and can afford to heat and cool their building. This is crucial - there are approximately 50,000 households in fuel poverty in York and North Yorkshire<sup>7</sup>. The condition of our buildings can also have a direct negative impact on mental and physical health. Retrofit can improve the comfort of our buildings, potentially save York and North Yorkshire up to £250 million per year in energy bills, and could save the NHS 42p for every £1 invested in retrofit<sup>8</sup>.

Despite the benefits retrofit can bring, demand is not in line with what is required to meet carbon negative. Reasons for this include retrofit schemes only being applicable to certain groups (and the public being sceptical of these), the retrofit system being difficult to navigate, and a general lack of understanding of what retrofit is.

What? Support the local supply chain to cope with growing demand for retrofit;

Why? Retrofitting our buildings is a £8.7 billion opportunity for our supply chain, which could create nearly 13,000 new jobs by the early 2030s<sup>9</sup>. This could be a crucial shift for those in industries which are expected to decline due to shifts to renewables, such as roles in oil and gas. However, our supply chain is currently unable to scale up to future demand due to skills shortages, a current lack of demand making it difficult to justify scale-up, and the complexity of retrofit requirements.

What? Reduce finance as a barrier to retrofit, to ensure that it does not hold back the rate of change;

Why? Retrofit can reduce energy use, leading to lower bills for homes and businesses. One of

the key areas identified as a barrier to increasing demand is that retrofit is expensive and there is a lack of financial incentives. Reducing this barrier is crucial to enabling more retrofit to take place across York and North Yorkshire. This varies between homeowners, renters and landlords, and commercial buildings, meaning a one-size fits all approach is not appropriate, and blended finance models are likely to have the biggest impact.

What? Ensure a data and research driven approach;

Why? Data constraints limit the amount of knowledge we have about our buildings. For example, Energy Performance Certificates (EPCs) do not paint the whole picture of a building's energy efficiency. EPC ratings do not include all energy consumed within a dwelling, and the metrics used focus on cost rather than efficiency. There is also a performance gap between predicted and actual energy use which means that when EPCs are used to assess energy savings, the results can be unreliable. Additionally, many buildings do not have an EPC (22% of homes in the region), but there is not a viable alternative to measure progress made.

What? Unite organisations across the region in their approach to retrofit and utilise levers; and

Why? The engagement for this Strategy and for the Retrofit Strategy has highlighted the level of knowledge and enthusiasm for retrofit in the region, and the key roles that stakeholders have to play in retrofit. However, many cited the lack of clear roles and responsibilities for retrofit as a barrier to delivery, alongside policy and funding being short term and centrally driven. To increase the pace and scale of retrofit and reap the benefits, regional stakeholders need to work together to use their levers.

What? Demonstrate best practice and deliver programmes that meet the pace and scale of retrofit required.

Why? Organisations across the region have successfully delivered retrofit via government funding schemes. For example, North Yorkshire Council and City of York Council have been awarded approximately £37m from the Home Upgrade Grant (HUG), the Social Housing Decarbonisation Fund (SHDF) and the Local Authority Delivery (LAD) scheme. Despite this progress, delivery is not happening at the scale required.

# Warm, Comfortable Buildings Plan. Strategic Priorities

Enabling rapid decarbonisation will reduce costs for communities and businesses, improve the comfort of our buildings and create new opportunities across our heritage assets, supply chain and unique setting. The following strategic priorities are intended to enable the delivery of the rapid building decarbonisation, whilst unlocking the benefits of carbon negative for our region:

## 2 Reduce energy bills, improve air quality and create a more resilient energy system by moving to sustainable heating

*What?* Develop infrastructure that makes it easy, desirable and affordable to move to sustainable heating such as heat networks, geothermal and heat pumps. This approach must be collaborative, leverage private investment, and utilise spatial planning.

*Why?* Energy bills have soared since 2021, caused by a 50% increase in the wholesale price of gas and exacerbated by Russia invading Ukraine<sup>10</sup>. As of 2024, 36.3% of households spend more than 10% of their income on domestic energy<sup>11</sup>. For businesses, energy bills have risen exponentially with the average bill for small

businesses being £2889. As a result, more than 90% of businesses expect to increase the price of their goods and services<sup>12</sup>. Retrofit can improve the energy efficiency of our buildings and therefore reduce our bills, but moving to sustainable heating methods can also reduce bills, especially when paired with other technologies such as solar PV and batteries. Shifting away from fossil fuels can also improve our resilience to volatile energy prices, especially where this is replaced by local energy generation such as community energy initiatives. Moving away from gas to heat our homes can also improve air quality and therefore improve health.

## 3 Unlock opportunities, create local economic growth and champion our iconic buildings by leveraging our heritage buildings and biobased materials

*What?* Seek opportunities to demonstrate excellence in the biobased materials supply chain and best practice for sympathetically retrofitting heritage buildings, setting an example for other areas. This must include leveraging private investment, working with planning departments, growing the local supply chain and working with agriculture.

*Why?* There are over 14,200 listed buildings in York and North Yorkshire, and 28.25% of the region's dwellings were built before 1930<sup>9</sup>. Over 18,000 properties intersect a conservation area in the City of York, and there are 331 conservation areas across North Yorkshire, including two National Park areas, all of which have additional requirements in terms of planning and permissions. This makes up the region's heritage and identity, including iconic buildings like Fountains Abbey, York Minster, and Castle Howard.

Older buildings require a more bespoke approach for retrofit and repair, different materials and specialist skills. Historic buildings can perform well when properly repaired and maintained, and they can be resilient to the changing climate. Additionally, heritage buildings are people's homes and have a significant economic impact, contributing an estimated £2.1 billion in GVA and 41,000 jobs<sup>13</sup>. Keeping historic buildings in active use and facilitating retrofit where appropriate will ensure that buildings can be used into the future and preserved for future generations. This is a national challenge, as 5.9 million buildings in the UK were constructed before 1919<sup>14</sup>. Therefore, York and North Yorkshire has an opportunity to demonstrate how retrofit can be done effectively and sympathetically in a region with high numbers of heritage buildings. Leading the way in retrofitting heritage buildings could unlock funding and opportunities and showcase York and North Yorkshire's assets.

# Warm, Comfortable Buildings Plan. Strategic Priorities

Enabling rapid decarbonisation will reduce costs for communities and businesses, improve the comfort of our buildings and create new opportunities across our heritage assets, supply chain and unique setting. The following strategic priorities are intended to enable the delivery of the rapid building decarbonisation, whilst unlocking the benefits of carbon negative for our region:

## 4 Create better places to live, work and visit by future-proofing our places

What? Make sure our buildings are future-proofed by ensuring they are built to a high-quality standard, adapted to be resilient to climate impacts, and part of places that are beneficial for communities and businesses. This requires collaborative planning across the public and private sectors.

Strive to ensure buildings are built to a high-quality standard, reducing the likelihood of new buildings needing retrofit in the future, and protecting the health and wellbeing of people in the region.

Seek to improve the resilience of buildings across York and North Yorkshire by upgrading homes, businesses, and public facilities to better withstand flooding, overheating and other climate impacts.

Improve our places to make climate action part of everyday life and ensure that everyone benefits. This could include creating parks and woodland areas to reduce surface water flooding in housing estates, installing water collection equipment and integrated sustainable drainage systems on new and existing buildings, or ensuring that new settlements are well connected by public transport and active travel routes.

Why? Ensuring buildings are built to a high standard of quality is crucial to ensure everyone is safe and comfortable in places they live, work and visit. This will have benefits for health and ensure that new buildings do not need to be retrofitted in the future.

Strengthening the climate resilience of buildings reduces damage, disruption and long-term costs during flooding, heatwaves and severe weather. Well-maintained, flood-resistant and appropriately cooled buildings keep people safe, protect essential services, and limit operational downtime for businesses. By embedding resilience into homes and workplaces, the region creates safer communities, supports economic stability and prepares for the future.

Improving our places will not only make climate action easier and part of everyday life but also has a wide range of benefits from decreasing air pollution and the associated health impacts, to the mental health benefits of living near a green space. Local and Combined Authorities have a key role to play in place making, which will affect every aspect of this Strategy.

# Warm, Comfortable Buildings. Key Actions

Retrofitting buildings and moving to sustainable heating resulting in comfortable, healthy, efficient and affordable buildings

Based on stakeholder engagement and recommendations from our research, a number of initial actions have been identified to enable the delivery of the strategic priorities. The long-list of identified actions can be found in Appendix 1, with high-priority actions described below:

## 1. Finalise and implement a Retrofit Strategy for York and North Yorkshire, a clear, co-owned plan to accelerate retrofit in the region.

Implement a Retrofit Strategy for the region that is a collaborative document which provides strategic direction for retrofit in the region. It must provide a clear, co-owned plan to accelerate retrofit in York and North Yorkshire, tackling key challenges such as skills, finance, demand, data and collaboration.

## 2. Design and deliver a devolved retrofit delivery programme:

Utilising lessons learnt from delivery and the engagement and research completed for the Retrofit Strategy, design and deliver a retrofit delivery programme, to make use of future opportunities for devolved retrofit funding. This programme must compliment existing delivery.

## 3. Building on the Energy Generation Accelerator Programme (EGAP) and the Local Area Energy Plans (LAEPs), seek funding to research opportunities for geothermal and heat networks and the associated finance needs.

- **Explore opportunities for geothermal:** Geothermal is an area of emerging potential in York and North Yorkshire, with the region supporting a uniquely favourable sub-surface geology. We would therefore seek to understand the full scope of the regional geothermal opportunity, investigating the potential for geothermal energy and heat networks that could then be incorporated into our wider Y&NY Energy Strategy. We will also seek to draw on the learnings of the pioneering deep geothermal project at the University of York and its implications on geothermal opportunities in the region.
- **Progress heat network opportunities:** Potential areas for heat networks have been identified via the LAEPs, but further detail is needed, including how to leverage investment, how to best work with the local planning system, and what technologies can be utilised. We would seek to drive forward heat network opportunities in Y&NY, building on central governments Heat Network Zoning and funding opportunities, and seeking further opportunities to progress feasibility assessments, secure investment, and delivery.

## Case Study: Utilising biobased materials

Peacock and Verity have ensured sheep's wool insulation is a major component in the designs of 15 Silver Street in Masham, which is currently undergoing extensive redevelopments. Native Architects are integrating biobased materials into the design, ensuring there are teaching and testing elements. Peacock and Verity have also undertaken consultation and research to explore the strengths and pitfalls of developing a Yorkshire Circular Supply Chain for Sheep Wool insulation.



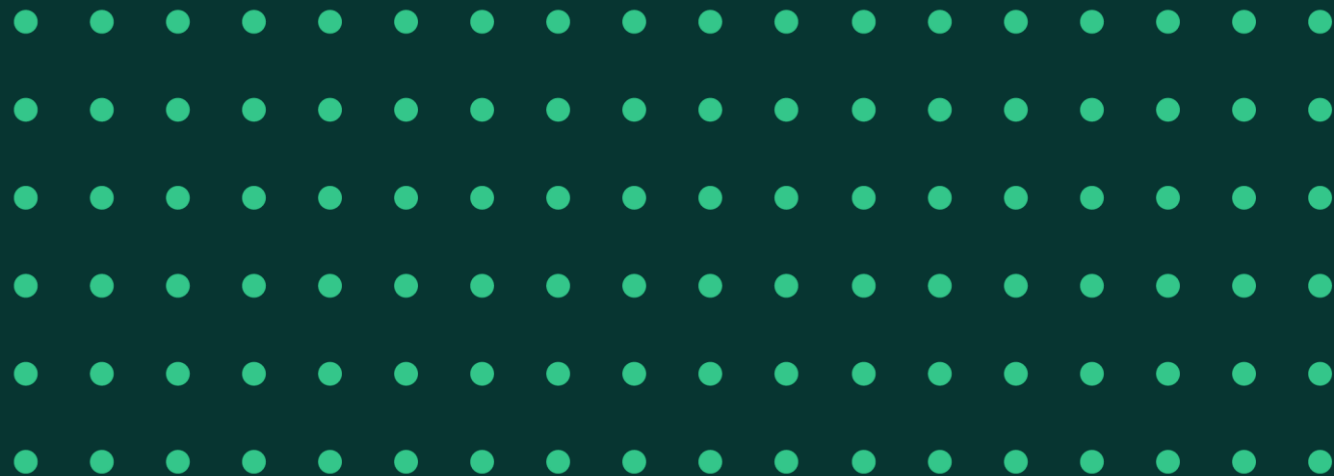
The project not only demonstrates that sustainable retrofit is possible whilst preserving the character of a historic building, but the restored building will also become an asset to the community, attracting tourism, providing a centre for training and

learning, and offering affordable housing units for local people.

## Case Study: Delivering retrofit at scale

Broadacres Housing Association utilised £2.4 million from the Social Housing Decarbonisation Fund to retrofit over 400 homes across the region. In line with their sustainability commitments, the team aim to undertake retrofits which make a significant difference to resident's lives, which often results in measures going beyond EPC C. This includes 400 solar PV systems, 53 Air Source Heat Pumps, 156 loft insulation top ups, floor insulation in 15 homes and smart air bricks in 24 homes.

The scheme has demonstrated the potential for delivering retrofit at scale across social housing stock, including the significant quality of life benefits for residents such as lower energy bills and warmer homes.



***Accessible, Convenient Transport***

# Accessible, Convenient Transport. Plan on a Page

**Vision: A clean, integrated, accessible and affordable transport system that helps communities to thrive, connecting people to better opportunities for work and leisure across the diverse landscapes of York and North Yorkshire.**

Delivery to Date:



Mayoral Transport Settlement



Devolved Transport Powers



Mayor's Active Travel Fund launched



Electric Bus Network



York Station Gateway



Horton in Ribblesdale rail freight link



Discounted Bus Travel

## Scale of Transformation

Ensure walking, wheeling, and cycling accounts for 35% modal share of all trips by 2030

Increase bus and rail travel to over 20% of modal share by 2030

Roll-out of battery electric buses until they account for 95% of the fleet in 2038

76% of vehicles on the road are battery electric by 2038

10% of freight is shifted from heavy goods vehicles to rail by 2038

## Strategic Priorities

Create healthier, more inclusive communities by **making it easy, safe and affordable for people to walk, wheel, use wheelchairs, cycle and use public transport** - helping everyone access opportunities that matter most

Reduce travel costs through **accelerating the transition to clean, shared and electrified mobility** and innovative and integrated ticketing initiatives

Increase business productivity and improve connectivity through **enabling cleaner logistics, using intelligent network management and low carbon business travel\***

Ensure our transport network is resilient against the impacts of climate change through **investment in adaptation and planning**

## Barriers

**Infrastructure constraints and costs of upgrades**

**Need for national-level policy change**

**Coordination across regional strategies and stakeholders**

**Increased demand through tourism and growth**

**Perceived lack of safety in active travel**

**Poor accessibility**

**Private car dependency**

**Challenges of network integration with the scale, topography, and rurality of Y&NY**

## Key Interventions

- Unlock funding and finance
- Data collection
- Targeted policy and legislation
- Innovation in fuel types
- Connection with wider strategies
- Build relationships in the transport and energy sectors
- Work with tourism bodies and regional employers
- Spatial and travel planning
- Scale up School Streets initiative
- Accessibility as a priority
- Public transport investment
- Car and micro-mobility sharing schemes
- Multi-modal approach
- Promote local transport solutions
- Expand EV charging network

## Outcomes

Improved air quality.

Connecting communities to the outdoors.

Safety and wellbeing of children and vulnerable adults.

Reduced congestion.

Increased movement and physical activity in daily lives

Connectivity for rural communities.

Access to opportunities for work, and health and wellbeing services.

York and North Yorkshire as an exemplar for sustainable travel.

# Accessible, Convenient Transport Plan. Vision & Principles

The Sector Plan provides the overarching vision and principles for our approach to deliver an Accessible, Convenient Transport system. The Plan includes a summary of progress made to date, including GHG emission reductions and key programmes delivered. This is followed by key strategic priorities and actions to overcome critical barriers and unlock the benefits of becoming England's first carbon negative region.

**Working with stakeholders, we have developed the following vision statement to provide a guiding light for transport system transformation in our journey to a carbon negative economy:**

**Vision: A clean, integrated, accessible and affordable transport system that helps communities to thrive, connecting people to better opportunities for work and leisure across the diverse landscapes of York and North Yorkshire.**

To ensure our vision is implemented, we will be directed by the following key principles when designing programmes and activities:

- Putting people at the heart of our approach - designing with accessibility, social equity, and inclusion at the forefront, ensuring that travel is safe and affordable for all, and that nobody is left behind;
- Taking a whole systems approach to transport, focusing on reducing overall need to travel, to manage demand on the network and reduce congestion;
- Working to further decarbonise public transport and promote healthy and active travel, ensuring that low carbon travel is a viable option for all;
- Supporting decentralised, place-based, and community-led approaches to address the unique transport challenges of the rural, coastal, and urban landscapes in the region; and
- Striving towards an efficient and convenient multi-modal transport system, that prioritises connection for people to work, family, and leisure across Y&NY and beyond.



# Accessible, Convenient Transport Plan. Progress to Date

The YNYCA and other partners are striving to support the transformation of the transport system in York and North Yorkshire. The following page provides examples of some of the strategic regional initiatives developed and delivered in recent years.

## Pathway to Carbon Negative: Update on Transport Emissions



 **Progress on Track**

Transport remains the largest source of emissions in York and North Yorkshire, making up 32% of our total emissions (2.03 MtCO<sub>2</sub>e). Overall, the transport sector shows an emissions reduction of around 15% (0.36 MtCO<sub>2</sub>e) between 2005 and 2023. This is mostly due to improvements in new car fuel efficiency. In more recent years, in the City of York, transport emissions have fallen slightly between 2020 and 2023, from 0.27 MtCO<sub>2</sub>e to 0.26 MtCO<sub>2</sub>e.

**However**, emissions from transport have increased in North Yorkshire from 1.70 MtCO<sub>2</sub>e in 2020 to 1.77 MtCO<sub>2</sub>e in 2022. This reflects the rural nature of the area and the impact of the significant traffic throughflows on the strategic roads that pass through the region, which brings distinct challenges to decarbonising our transport system.

## Working Towards a Carbon Negative region

### A Growing Electric Vehicle Network:

York's Park and Ride network is now served by a fully electric bus fleet. York FirstBus depot was also the first fully electric bus depot in Yorkshire, with a fleet of 86 electric buses. This has resulted in a 90% reduction in depot emissions since 2020 and significant air quality improvements across the city centre. Through funding schemes such as ZEBRA (Zero Emission Bus Regional Areas), there has also been significant investment in expanding the electric bus fleets across North Yorkshire, including routes through Harrogate and Knaresborough. NYC and CYC have also been successful in securing over £9.7m of LEVI (Local Electric Vehicle Investment) funding since 2022 to expand the region's electric vehicle charging network.



## Supporting Healthy & Thriving Communities

### YNYCA Active Travel Fund:

A new £4 million fund was approved by YNYCA leadership in 2025. Local authorities, active travel organisations, community-based organisations, businesses, and charities will be able to apply to fund projects that encourage active travel behavioural change. The fund aims to promote healthier travel that is accessible and safe, whilst also supporting our environment and economy.

### Supporting Discounted Bus Travel:

YNYCA have supported the continuation of the Youth Fares Scheme in York and North Yorkshire. The scheme helps connect young people in the region to opportunities for education, work, leisure, and more.

### Supporting Rural Bus Services:

YNYCA have supported additional bus services in the two national parks in our region and are working with the Department for Transport to develop rural bus franchise pilot studies in areas across York and North Yorkshire.

## Driving Economic Transformation

### Streamlining Freight for Businesses:

In 2025, work was completed to relink the rail terminal in Horton in Ribblesdale for the use of freight. The new terminal will help transport 1,600 tonnes of limestone every day from the local quarry, reducing pollution and road congestion caused by dozens of heavy freight lorries, whilst also supporting a Yorkshire business that has been operating since 1889.

## Summary

The rise in transport emissions between 2020 and 2023 highlights the urgent need for swift and decisive action to stay on course for achieving carbon negative by 2040. With the YNYCA securing a Transport Settlement and enhanced local powers, we now possess substantial levers to accelerate transport decarbonisation. However, overcoming the complexities of decarbonising transport across our diverse geography demands further investment, infrastructure development, and closer alignment between local and national policies.

# Accessible, Convenient Transport Plan. Strategic Priorities

Enabling the rapid decarbonisation of our transport sector will strengthen our communities through enabling safe and affordable travel, connecting people and businesses to opportunities and services to support health, wellbeing, and prosperity. The following strategic priorities are intended to direct the decarbonisation of the transport system in a way that provides significant benefits for local communities and businesses, from reducing travel costs to providing more convenient travel options.

## 1 Create healthier, more inclusive communities by making it easy, safe and affordable for people to walk, wheel, use wheelchairs, cycle and use public transport – helping everyone access opportunities that matter most

*What?* To achieve this priority, there are number of changes that need to happen:

- Develop the infrastructure to rapidly improve active travel provision, increasing safety, accessibility, and connectivity, to enable the choice to frequently use walking, wheeling, wheelchair use, and cycling for short journeys (<2km walking and 8km cycling).
- Increase the capacity, quality and desirability of public transport to provide a real alternative to private car use, whilst also decreasing GHG emissions and improving the resilience of public transport vehicles and infrastructure through new technology such as electrification and hydrogen.
- Maximise local service offers to reduce the need to travel overall.

*Why?* Whilst York and North Yorkshire is well located to take advantage of key transport connections to other major economic centres, the current transport system is not working for many of our residents, with traffic congestion in urban areas and irregular or limited public transport services in rural areas. North Yorkshire is a predominately rural county, sparsely populated with large parts that are remote or very hilly. This means that private car journeys account for most rural trips and living in rural areas often means travelling longer distances for everyday journeys: travelling to

work, school or to access services such as healthcare and shopping becomes a daily challenge.

With the devolved 'Mayoral Transport Fund' from April 2026, York and North Yorkshire Combined Authority can drive the development of a sustainable, integrated multi-modal transport system, fundamental to ensuring people are connected to work, leisure, family, and important appointments. We need to re-design our transport system so that it puts people first, reducing dependency on the car, providing travel options that are affordable, convenient and appealing. This will require significant innovation to ensure that solutions are economically viable both for individuals and the region.

We must ensure that the movement to a low carbon transport system is a "just transition", focusing on supporting the daily lives and routines of individuals and households who need it most – making sure that solutions, such as electric cars, car clubs and increased active travel are both affordable and accessible to all. Plans will recognise different accessibility needs and ensure that places do not become inaccessible to those who identify as having a disability. Our approach will strive to ensure access requirements are no longer a barrier for anyone who wishes to use public transport, walk, wheel, use wheelchairs, or cycle.

## 2 Reduce travel costs through accelerating the transition to clean, shared and electrified mobility and innovative and integrated ticketing initiatives

*What?* Develop the infrastructure and innovative models to make it easy, appealing, and affordable to access shared ownership/mobility schemes, low carbon and electric vehicles (EVs), electric bikes and other micro-mobility devices, as well as innovative and integrated ticketing initiatives. This includes supporting community-focused and led initiatives.

*Why?* Accelerating the transition to use of electric vehicles, bikes and other micro-

mobility devices will deliver a range of benefits to people that live, work and visit York and North Yorkshire. The air we breathe will be cleaner, particularly in areas which are currently congested. As we grow car clubs and other car sharing models, people will have the choice to no longer need to own their own car and pay the associated costs. Innovative and integrated ticketing initiatives will help us move towards a simplified, multi-modal transport system, allow for more seamless and connected travelling.

# Accessible, Convenient Transport Plan. Strategic Priorities

Enabling the rapid decarbonisation of our transport sector will strengthen our communities through enabling safe and affordable travel, connecting people and businesses to opportunities and services to support health, wellbeing, and prosperity. The following strategic priorities are intended to direct the decarbonisation of the transport system in a way that provides significant benefits for local communities and businesses, from reducing travel costs to providing more convenient travel options.

## 3 Increase business productivity and improve connectivity through enabling cleaner logistics, using intelligent network management and low carbon business travel\*

*What?* Provide the infrastructure, incentives and collaborative environment to support businesses to optimise logistics routes, increase freight to rail and encourage low carbon alternatives for business travel (i.e., walking, wheeling, cycling, using public transport and electric vehicles), as well as supporting the exploration of innovative technologies to transition logistics towards cleaner fuel sources.

*Why?* Making it easier and greener for businesses to move products round the region can reduce costs and logistical delays, resulting in improved productivity. Enabling collaboration between businesses could unlock

opportunities to share vehicles, optimise routes, shift freight to rail and use last mile solutions.

Easier, low carbon alternatives to travel to work, and during work, can reduce time wasted sitting in traffic and can also mean that companies can recruit from a broader geographic areas, accessing diverse skills, as well as unlocking more employment opportunities for people across the region. Workers can reach employment hubs more easily, reducing barriers for lower-income communities and supporting inclusive growth.

\*Also a strategic priority for the Innovative, Sustainable Businesses section

## 4 Ensure our transport network is resilient against the impacts of climate change through investment in adaptation and planning

*What?* Strengthen the resilience of York and North Yorkshire's transport network by investing in climate-ready infrastructure, improving maintenance and contingency planning, and integrating climate risk into our long-term transport decisions. This includes upgrading maintenance and infrastructure on our roads, bridges and transport corridors to better withstand flooding and extreme weather. We will expand the use of sustainable drainage systems and restore natural methods for managing surface water flooding, while maintaining real time travel and flood information. We will also support key providers in strengthening the resilience of their infrastructure and continue developing the YNYCA and partner risk registers to identify our vulnerable transport assets. In addition, we will work with partners through the Local Resilience Forum to protect critical routes, plan for disruption and ensure transport networks can continue to operate during severe weather.

*Why?* A more resilient transport network reduces disruption for residents, businesses and visitors during flooding, and other climate-related events. Strengthening infrastructure and improving preparedness minimises delays, protects supply chains, and safeguards access to essential services. Reliable, well-maintained routes help workers reach jobs, ensure emergency services can operate effectively, and keep communities connected. By proactively reinforcing critical transport assets and planning for future climate pressures, the region can avoid higher long-term costs, support economic stability, and maintain safe, accessible travel for all.

# Accessible, Convenient Transport Plan. Key Actions

Enabling the rapid decarbonisation of our transport sector will strengthen our communities through enabling safe and affordable travel, connecting people and businesses to opportunities and services to support health, wellbeing, and prosperity.

Based on stakeholder engagement and recommendations from our research, a number of initial actions have been identified to enable the delivery of the strategic priorities. The long-list of identified actions can be found in Appendix 1, with high-priority actions described below:

## 1. Creation of the Local Transport Plan (LTP):

The local transport plan is currently being developed as a statutory requirement of the YNYCA as local transport authority. It will set out our transport policy and strategy, and how we will work to deliver against our objectives, which will be closely aligned to this plan. The LTP is in development now and a draft is expected in Summer 2026.

## 2. Impactful delivery of the YNYCA Active Travel Fund:

The YNYCA will seek to deliver the YNYCA Active Travel Fund, supporting Local authorities, active travel organisations, and community-based organisations, businesses, and charities to deliver projects that will supporting the regional uptake of active and sustainable travel.

## 3. Explore a pathway for regional bus improvements:

A diffuse rural towns landscape has resulted in a disparate and large-scale network, with limited public service provision in rural and coastal areas. The YNYCA will consider a range of ways in which bus services might be improved within the geography of the authority. This will include the delivery of a number of internally and externally funded studies to provide evidence and options for consideration.

## 4. Continue to seek improvements to our rail network:

Recent work in supporting York and North Yorkshire's rail network include securing funding for Haxby rail station and increasing train frequencies on the York-Harrogate corridor. The YNYCA will seek to continue these improvements to our rail network – through business case work on increasing service frequency on the York to Scarborough corridor and the development and delivery of the long-term Yorkshire Plan for Rail. We will work closely with rail stakeholders to deliver cross boundary rail improvements and work towards a connected and efficient rail service for the residents of York and North Yorkshire and beyond.

## Case Study: Harrogate Bike Bus & School Street

The School Street at Beechwood Grove by Oatlands Junior School in Harrogate was introduced in September 2023 and following a successful 18-month pilot was made permanent in January 2025. The School Street operates temporary restrictions for motorised traffic at set times in the morning and afternoon to support a safe environment for school drop off and pick up. Prior to the School Street operation, congestion and unsafely parked vehicles were a safety issue and a barrier to active travel for school children, parents and carers, and impeded community connection. The school street has created a safe environment for the school children and wider community, enabling modal shift to active travel for journeys to and from school.

The scheme has also enabled the development of the Harrogate Bike Bus – a collaboration between WalkBikeScoot, Oatlands Infant and Junior Schools (part of the Yorkshire Causeway Trust and Red Kite Learning Trust) and local parent volunteers. The Bike Bus runs every fortnight when up to 100 riders come together for a fun group bike ride to school. It aims to create a fun, social and safe way for children and parents to cycle to school, riding together with music. It builds community, connection and friendship, amongst fellow parents as well as children and is an active way of getting to school with great wellbeing benefits for all involved, helping children to build healthy and sustainable habits for the future.

Over 1,000 journeys have been made to school via the Oatlands Bike Bus in the first year of running and cycling numbers double on Bike Bus days. Oatlands Infant School also has a bike library enabling children, parents and carers to loan bikes and trailers, helping to drive inclusivity and supporting a circular economy.



***Innovative, Sustainable Businesses***

# Innovative & Sustainable Businesses. Plan on a Page

**Vision: York and North Yorkshire will be a UK exemplar in supporting its businesses to reduce GHG emissions, enabling a thriving, innovative and sustainable economy .**

Delivery to Date:



Business Net Zero Action Plan



York Green Business Forum



NYC SPF Business Sustainability Programme



CYC SPF Business Support



SPF Business Sustainability Programme 2.0



Dalton Industrial Site Project

## Scale of Transformation

Install 48GWh of solar PV per year; increase use of sustainable bioenergy by 8% by 2038

Deploy district heat to 22% of businesses by 2038

Increase industrial electrification from 32% to 50% by 2030

Retrofit 62% business premises by 2038 and reduce energy demand by 28% by 2030

Enable circular economy and resource efficiency opportunities at pace and scale

Improve freight logistics, doubling the proportion of rail freight by 2034

## Strategic Priorities

Boost business resilience and reduce costs through **enabling the shift to reliable, affordable, clean & locally-owned energy**

Provide the region's businesses with a competitive advantage and new opportunities through **improving energy and resource efficiency, alongside enabling innovation**

Increase business productivity and improve connectivity through **enabling cleaner logistics and low carbon business travel.**

Support businesses resilience and security through **climate adaptation measures and advice**

## Barriers

**Limited data to inform policy**

**Limited capacity, knowledge & skills**

**Complex supply chains**

**Challenges scaling innovation**

**Issues securing electricity grid connections**

**Economic viability limiting investment**

**Awareness & uptake of circular economy**

**Need for national government policy**

## Key Interventions

- Research business carbon intensity
- New funding models
- Increase support to encourage businesses to decarbonise
- Support regional partnerships and clusters
- Shared business energy solutions
- Y&NY as a Circular Economy testbed
- Champion national level policy change

## Outcomes

- Increased business resilience
- Reduced costs
- Targeted and effective delivery
- Carbon literate businesses with a competitive advantage
- High-tech and productive business clusters
- A strong regional economy
- Industrial efficiency
- York & North Yorkshire as a national exemplar

# Innovative, Sustainable Businesses Plan. Vision & Principles

The Sector Plan provides the overarching vision and principles for our approach to deliver innovative, sustainable businesses. The Plan includes a summary of progress made to date, including GHG emission reductions and key programmes delivered. This is followed by key strategic priorities and actions to overcome critical barriers and unlock the benefits of becoming England's first carbon negative region.

**Working with stakeholders, we have developed the following vision statement to provide a guiding light for business transformation in our journey to a carbon negative economy:**

**Vision: York and North Yorkshire will be a UK exemplar in supporting its businesses to reduce GHG emissions, enabling a thriving, innovative and sustainable economy.**

To ensure our vision is implemented, we will be directed by the following key principles when designing programmes and activities:

- Businesses are equipped with the support, knowledge, skills and access to funding and finance options to enable them to remove reliance on carbon intensive fuel and electricity sources, move away from resource intensive products and processes, support the natural environment and adapt to the impacts of climate change;
- Business support is designed to meet the different needs of businesses – from size, to sector, to geographical location.
- The economic transformation to reach carbon negative unlocks real business benefits, increasing profitability, innovation, and resilience; and
- The drive to become England's first carbon negative region will support and grow existing businesses in the region, whilst attracting new businesses that provide high value, sustainable job opportunities for the local population.



# Innovative, Sustainable Businesses Plan. Progress to Date

The YNYCA and other partners are striving to support the sustainable transformation of our businesses York and North Yorkshire. The following page provides examples of some of the strategic regional initiatives developed and delivered in recent years.

## Pathway to Carbon Negative: Update on Industry Emissions



### Progress Lagging

In York and North Yorkshire, Industry emissions have decreased by almost 45% since 2005, primarily due to grid decarbonisation and a reduction in fuel consumption in processes. As of 2023, the Industry sector contributed 11% of our emissions total for York and North Yorkshire.

Engagement with businesses indicates that individual progress has been limited due to other priorities taking precedent over decarbonisation for many businesses. In a turbulent financial market, many businesses are facing significant headwinds resulting in a reluctance to act without a statutory requirement to do so. In 2022, emissions were higher than expected based on our pathway to reach carbon negative by 2040. This means we are not making progress as quickly as is required.

## Working Towards a Carbon Negative region

### SPF-funded Business Sustainability Programme

In North Yorkshire, £1.3 million in funding supported 23 decarbonisation audits, 3 technical assists and 43 grants for energy efficiency, renewable energy and low carbon heating projects.

City of York used £250k of funding to support businesses to develop decarbonisation plans, implement small scale energy monitoring, and improve their knowledge of energy use and energy savings. 'Cut Carbon, Cut Costs' training was also run to provide decarbonisation support and advice to businesses. The programme resulted in a projected saving of around 897t of CO<sub>2</sub>, and £980k of annualised potential cost savings.

Following the successes of the first Business Sustainability programme, in May 2025 the second round of SPF funded Business Sustainability Programme for 2025/26 was launched through the YNYCA.

## Supporting Healthy & Thriving Communities

### YNYCA Vibrant and Sustainable High Streets Fund

Delivered through the Mayoral Investment Fund, the Vibrant and Sustainable High Streets grant programme aims to support the creation of resilient high streets across the region. It supports projects that address local issues, strengthening small businesses, boosting community wellbeing and opportunities, and supporting creative and sustainable high street initiatives. The third phase of funding was launched in November 2025.



## Driving Economic Transformation

### York Green Business Forum

The York Green Business Forum is a quarterly forum designed to connect businesses in York with experts in decarbonisation, helping to inform carbon emission reductions and futureproofing of operations. There have been 205 unique attendees, with recent forum topics including energy, transport, waste, biodiversity and sustainable tourism.

### Summary

Although industry emissions have decreased by almost 45% from 1.23 MtCO<sub>2</sub>e in 2005 to 0.68MtCO<sub>2</sub>e in 2023, we are not on track for the sector to be carbon negative by 2040. This is due to a combination of interconnected challenges, including the complexity of change required, lack of commercial viability, and policy uncertainty.

# Innovative, Sustainable Businesses Plan. Strategic Priorities

Enabling rapid decarbonisation will provide our businesses with a competitive advantage, strengthen resilience and create new opportunities, and unlock sustainable economic growth. The following strategic priorities are intended to deliver rapid decarbonisation and unlock the benefits of carbon negative for businesses in our region.

## 1 Boost business resilience and reduce costs through enabling the shift to reliable, affordable, clean & locally-owned energy

**What?** Making it easy, attractive and commercially viable for businesses to switch to renewable energy and low carbon heating solutions, encouraging solutions such as on-site renewables, electrification of processes, and connection to heat networks.

**Why?** Reliable and affordable energy underpins economic growth and is critical in decarbonising the economy. UK energy prices are one of the highest in the developed world. This means UK businesses are competitively disadvantaged, especially in high energy use industries, and this restricts the UK's appeal for attracting Foreign Direct Investment.

Hitting the current national 2030 quotas for solar and wind energy would reduce the severity of electricity price spikes by 44% by 2030 (compared to 2024 prices)<sup>15</sup>. Energy price stability provides businesses with a predictability of costs. Furthermore, enabling

business ownership of renewable energy generation can provide more affordable energy, and improved business resilience, as well as greater energy security.

### What this could mean for your business...

- Switching to a green tariff.
- Opportunities to generate renewable energy on-site (e.g., rooftop Solar PV, small wind turbine) or purchase energy from nearby installations.
- Switching to a sustainable heating source e.g., installing a heat pump or connecting to a heat network.

### Business benefits...

- Cheaper, more stable energy bills.
- Enhanced reputation.

## 2 Provide the region's businesses with a competitive advantage and new opportunities through improving energy and resource efficiency, alongside enabling innovation

**What?** Support businesses to improve their energy and resource efficiency to reduce costs, and create the conditions to enable innovation, from realising circular economy opportunities to developing new technologies.

**Why?** Providing the infrastructure and support ecosystem for businesses to decarbonise will not only attract businesses with net zero ambitions to the region but also provide the region's businesses with a competitive advantage through reducing operational costs and strengthening reputation. Reducing GHG emissions can also future-proof business operations against changing regulations and consumer preference, such as increased prevalence of environmental credentials for procurement.

York and North Yorkshire's Local Growth Plan sets our ambition to "Create economic opportunities through the need to transition to Clean Energy". There is a significant opportunity for business growth and business creation to install and maintain low carbon energy infrastructure, from Electric Vehicle charge points to heat pump installation. For retrofitting buildings alone, we need 13,000 people operating in the sector by 2031<sup>9</sup>, from

retrofit assessors to scaffolders to heat pump installers.

There are opportunities for York and North Yorkshire businesses to innovate to provide solutions to net zero, from exploring the region's unique geological advantages for geothermal energy to circular economy through industrial symbiosis, sharing resources and minimising waste.

### What this could mean for your business...

- More efficient processes and technologies, from LED lights to lean manufacturing.
- Using another businesses' "waste" as an input.
- Redesigning your product so it is easy to maintain, repair, be remanufactured and recovered at end of life.

### Business benefits...

- Reduced costs.
- Opportunities for innovation & business growth.

# Innovative, Sustainable Businesses Plan. Strategic Priorities

Enabling rapid decarbonisation will provide our businesses with a competitive advantage, strengthen resilience and create new opportunities, and unlock sustainable economic growth. The following strategic priorities are intended to deliver rapid decarbonisation and unlock the benefits of carbon negative for businesses in our region.

## 3 Increase business productivity and improve connectivity through enabling cleaner logistics and low carbon business travel

**What?** Provide the infrastructure, incentives and collaborative environment to support businesses to optimise logistics routes, increase freight to rail and encourage low carbon alternatives for business travel (i.e., walking, wheeling, cycling, using public transport and electric vehicles), as well as supporting the exploration of innovative technologies to transition logistics towards cleaner fuel sources.

**Why?** Making it easier and greener for businesses to move products around the region can reduce costs and logistical delays, resulting in improved productivity. Enabling collaboration between businesses could unlock opportunities to share vehicles, optimise routes, shift freight to rail, and use last mile solutions.

Active travel and using public transport can reduce time wasted sitting in traffic and

can also mean that companies can recruit from a boarder geographic area, accessing diverse skills. Workers can reach employment hubs more easily, reducing barriers for lower-income communities and supporting inclusive growth.

### What this could mean for your business...

- Encouraging staff to walk, wheel, cycle, or get public transport to work.
- Working with other businesses to share vehicles & optimise logistic routes.

### Business benefits...

- Improved productivity.
- Healthier employees.
- Easier to move products around the region.

## 4 Support businesses resilience and security through climate adaptation measures and advice

**What?** Strengthen business resilience across York and North Yorkshire by providing the infrastructure, guidance, and collaborative support needed to help organisations prepare for, withstand and recover from the increasing frequency and impact of climate-related disruption. This includes improving access to real-time flood and weather information, expanding Property Flood Resilience measures, delivering Local Resilience Forum guidance and training, supporting continuity and contingency planning, upgrading drainage and building infrastructure, and seeking to ensure business districts benefit from major flood-protection schemes. It also involves promoting water efficiency, heat resilience upgrades, and climate ready design standards to safeguard business premises, supply chains, and operations.

**Why?** Helping businesses adapt to climate impacts reduces the risk of operational disruption, property damage, and supply chain delays caused by flooding, heatwaves, drought, and other severe weather events. Improved resilience lowers long-term costs, protects productivity, and supports quicker recovery after extreme events.

Clear guidance and collaborative planning enable businesses to make informed decisions, safeguard staff and customers, and maintain essential services during periods of disruption. With stronger climate ready infrastructure and preparedness, businesses can operate more confidently, attract investment, and continue contributing to a thriving regional economy.

### What this could mean for your business...

- Emergency preparedness and action plans for staff and business operations.
- Physical building upgrades e.g. flood defences.

### Business benefits...

- Reduced risk of property damage and supply chain disruption through flooding or extreme weather.
- Investor confidence that your business is secure against climate change impacts.

# Innovative, Sustainable Businesses. Key Actions

Enabling rapid decarbonisation will provide our businesses with a competitive advantage, strengthen resilience and create new opportunities, and unlock sustainable economic growth.

Based on stakeholder engagement and recommendations from our research, a number of initial actions have been identified to enable the delivery of the strategic priorities. The long-list of identified actions can be found in Appendix 1, with high-priority actions described below:

## 1. Research Carbon Intensity:

There is a current lack of detailed baseline data, real-time tracking and measurement across business and industry in the region to inform policy and enable progress monitoring. We will therefore seek to engage and commission research that identifies key businesses, industrial estates, and business clusters with a view to defining 'heat spots' of carbon intensity in the region. More granular, sector-based data on business and industry emissions will help shape support provided to businesses and enable the YNYCA and business support partners to prioritise activity and target resource more efficiently.

## 2. Greater Support to Encourage Businesses to Decarbonise and Adapt:

Particularly for SMEs, there is limited knowledge around the benefits of adaptation, low carbon technology, and circular economy opportunities. Even with the necessary knowledge, businesses often do not have the resources or time to implement change without disruption or willingly going into debt, which is a significant barrier in the current economic climate. We will seek to continue advice and funding provision, seek to unlock future funding and resource opportunities for businesses, and to signpost to the most appropriate future funding or loans provision. This includes support to both decarbonise as a business and to build the skills to operate in a growing net zero economy.

## 3. York and North Yorkshire as a testbed for Circular Economy:

Support the trial of circular economy principles in York and North Yorkshire industrial clusters, promoting the uptake of circularity in business operations. Identify & bring together the largest sectors of industrial/business clusters in the region, encouraging businesses of all sizes to work with academia & public sector to develop innovative solutions together, identifying barriers and opportunities for supply chains and industrial symbiosis.

**What is Industrial Symbiosis?** – A network of resource sharing for the mutual benefit of businesses, where one business' waste can become another business' resource e.g. materials, energy, or heat.

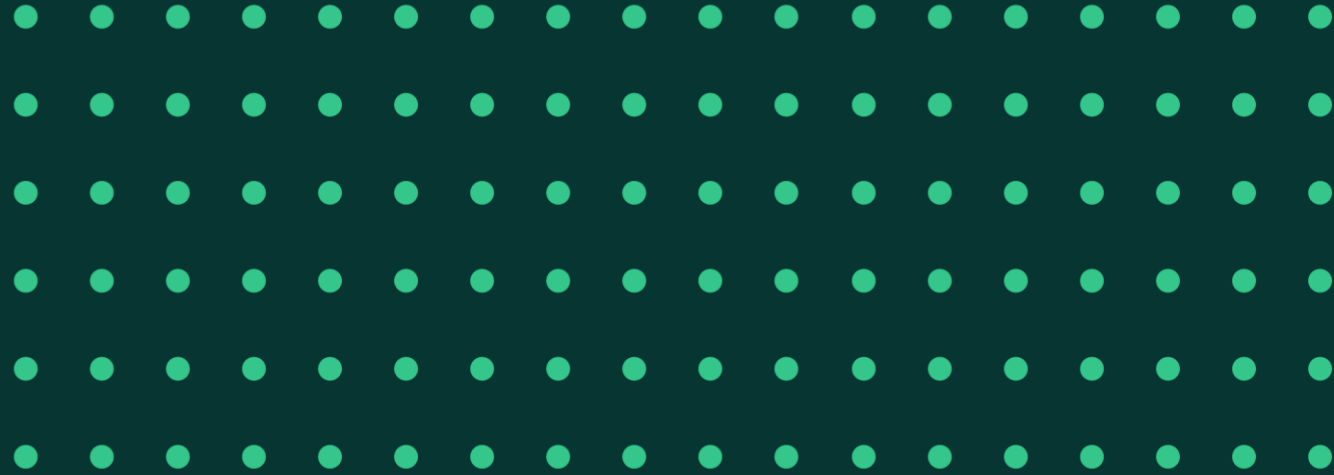
## Case Study: Heck! Food Ltd

Based in Bedale, North Yorkshire, Heck! is one of the region's key food manufacturers. They have strong ambitions to reduce their emissions, tracking their Scope 1, 2, and 3 emissions. Supported by North Yorkshire Council, the company received funding and support through the Business Sustainability Programme to install solar panels on their Bedale premises.

The investment is saving the business 45 tonnes of carbon per year alongside a financial saving of £50,000 per annum, helping the business work towards their sustainability goals whilst also reducing operating costs.

It also encouraged Heck! to invest in an energy monitoring system, demonstrating how businesses can improve operational efficiency whilst also reducing emissions.





***Resilient Landscapes,  
Sustainable Food & Farming***

# Resilient Landscapes, Sustainable Food & Farming. Plan on a Page

**Vision: York and North Yorkshire will lead the way in partnership working to enable a healthy natural landscape that supports food and water security and utilises nature-based solutions for carbon capture and climate change resilience.**

## Delivery to Date:



SPF Farm Sustainability Programme



SPF Business Sustainability Programme



YNYCA Farm Study



White Rose Forest tree planting



Peat restoration



Farming in Protected Landscapes scheme

## Scale of Transformation

Plant 37,000 hectares of trees by 2038

Restoration is initiated on 100% of upland and lowland peat by 2038

Increase the amount of hedgerows in the region by 20% by 2038, alongside improvements to hedgerow width and health

Decarbonisation of on-farm machinery; focused on electrification, biofuels and hydrogen by 2038

Increase high carbon-capture crops by up to 5,000 hectares by 2038

Undertake baselining of soil carbon potential in farmland soils, 80% of farms by 2030

## Strategic Priorities

Support the health of our natural landscapes and climate resilience through **restoring peatland, planting trees, improving hedgerows and enhancing soil quality**

Improve the profitability and sustainability of farms through **increasing the adoption of regenerative and precision agriculture practices**, alongside **improving energy efficiency and switching to renewable energy sources**

Support health, wellbeing and a thriving economy by **improving access to local, sustainable food and reducing food waste.**

**Improve the quality and resilience of our rivers, lakes, and water courses** through partnership working and sustainable land management.

## Barriers

**Lack of secure, strategic, long-term funding**

**Lack of coordinated data**

**Need for skills & knowledge in sustainable delivery**

**Strengthening research & innovation**

**Competing land use pressures**

**Reliance on national policy change**

**Lack of national policy on investment markets**

## Key Interventions

- Delivery of key regional natural capital programmes
- New food, fibre and nature market development.
- Farm carbon baselining
- Skills and regenerative expertise development
- On-farm energy development programme
- Coordination of regional tree planting

## Outcomes

- Healthy and resilient natural landscapes
- Improved farm profitability
- Increased flood and drought resilience
- Coordinated and effective natural capital delivery
- Improvements to on-farm resource use and emissions.
- Skilled and innovative workforce
- York & North Yorkshire as a national exemplar

# Resilient Landscapes, Sustainable Food & Farming. Vision & Principles

The Sector Plan provides the overarching vision and principles for our approach to deliver resilient landscapes and a sustainable food and farming system. The Plan includes a summary of progress made to date, including GHG emission reductions and key programmes delivered. This is followed by key strategic priorities and actions to overcome critical barriers and unlock the benefits of becoming England's first carbon negative region.

Working with stakeholders, we have developed the following vision statement to provide a focus for land use and agriculture in our journey to a carbon negative economy:

**Vision: York and North Yorkshire will lead the way in partnership working to enable a healthy natural landscape that supports food and water security and utilises nature-based solutions for carbon capture and climate change resilience.**

To ensure our vision is implemented, we will be directed by the following key principles when designing programmes and activities:

- Food security and production is supported and integrated into wider nature-based approaches;
- Agricultural businesses are enabled to transition to more productive, low-emission and profitable practices;
- Climate adaptation is considered in the design of wider measures, including building resilience to flooding, droughts, and severe storms;
- The autonomy and independence of farmers and land managers is recognised, and they are empowered to make their own decisions on appropriate actions for their land; and
- Nature-based solutions will be delivered on the basis that they are applied in areas where they are the right solution, ensuring flexibility and awareness of what is most practical.

Vision & Principles



Summary of Progress to Date



Strategic Priorities



Actions

# Resilient Landscapes, Sustainable Food & Farming Plan. Progress to Date <sup>58</sup>

The YNYCA and other partners are striving to support the sustainable transformation of our landscapes and food and farming sectors in York and North Yorkshire. The following page provides examples of some of the strategic regional initiatives developed and delivered in recent years.

## Pathway to Carbon Negative: Update on Agriculture Emissions



Progress on Track

There has been a net increase in carbon sequestration from Land Use, Land Use Change and Forestry (LULUCF) since 2005, showing that the LULUCF sector is acting as a net carbon sink, sequestering more carbon than it releases. This is due to progress in tree planting and peatland restoration. The Agriculture Sector also shows a small decline in emissions since 2005. The majority of agricultural emissions arise from livestock, soils and machinery.

The differences observed in the LULUCF estimates, in particular the fact that the sector functions as a sink in current emissions in 2023 are mainly due to the use of a different methodology and data sources. 2023 agriculture emissions are higher than projected in the “max ambition” pathway, highlighting the need to increase action.

## Working Towards a Carbon Negative region

### White Rose Forest tree planting

The White Rose Forest have supported the planting of 1,055,162 trees, equating to 13,576 tonnes of carbon per year saved (2020-21 to 2023-24), and providing valuable improvements to local habitats and biodiversity.

### Upland Peatland Restoration

The Yorkshire Peat Partnership is restoring over 36,000 hectares of moorland peat, supporting the storage of over 16 million tonnes of carbon.

### Farming in Protected Landscapes

Farming in Protected Landscapes in the Yorkshire Dales, Nidderdale and Howardian Hills, has supported a combined total of 144 projects improving understanding of carbon storage, GHG emissions and climate change impacts.

## Supporting Healthy & Thriving Communities

### York Community Woodland

In partnership with Forestry England, CYC have planted almost 200,000 new trees on 195 acres of land in York. The five-year project aims to improve the local environment through habitat creation and nature recovery, whilst also providing access to green space for residents to harness health and wellbeing benefits.



## Driving Economic Transformation

### YNYCA Farm Study published

Published in July 2025, this nationally leading report has enabled YNYCA to better understand the current state and challenges of farming in the region and to develop a strategic approach to supporting the farming sector to become more economically, socially, and environmentally sustainable. It highlighted that farming produces an annual profit of over £380million within the region.

### SPF Farm Sustainability Programme

£150k was provided to support 50 farms across York and North Yorkshire with sustainability related audits or assessments on energy, soils and biodiversity net gain. Following the success of this Programme, the Business Sustainability Programme has offered over £450k for farms to put in place energy-related measures recommended through previously funded audits and assessments.

## Summary

We have made strong progress increasing carbon sequestered in our landscapes, and piloting approaches to support farms to decarbonise. However, the current pace of reducing emissions from agriculture does not match the pace of change required to reach carbon negative by 2040. Therefore, a step-change in action is required to support farms to reduce emissions, alongside continuing to support ambitious action to restore peatlands and plant trees.

# Resilient Landscapes, Sustainable Food & Farming Plan. Strategic Priorities

Driving change to improve farm profitability, food security, and climate resilience. The following strategic priorities are intended to enable more sustainable farming and land use, whilst improving the viability of our farms, supporting local food production, and combating the impacts of climate change.

## 1 Support the health of our natural landscapes and climate resilience through restoring peatland, planting trees, improving hedgerows and enhancing soil quality

*What?* Enable the planting of trees, restoration of peatland, improvements to hedgerows and rebuilding soil health through organic-matter enrichment, reduced compaction, and regenerative farming practices to improve climate resilience and capture carbon in our natural landscapes.

*Why?* Healthier, climate-resilient landscapes reduce the risks of flooding, drought and soil degradation while supporting biodiversity, food security and rural livelihoods.

Natural capital directly supports 11% of our GVA, with the opportunity for natural capital related GVA to grow by 31% by 2050<sup>16</sup>. If we fail to increase investment in our natural capital, we risk continued degradation of our natural capital – resulting in a 5% loss in the sector's GVA, and an increase in greenhouse gas (GHG) emissions owing to our region's high proportion of degraded peatlands, which will continue to emit carbon unless they are restored.

York and North Yorkshire have large and diverse natural landscapes, which can capture and store carbon through nature-based solutions. Alongside capturing carbon, enhancing our natural landscapes through nature-based solutions like tree-planting and peatland restoration, wider natural capital benefits can be gained. These benefits include reduced flooding through natural flood management, improved water retention and drought resilience, and less soil erosion. Improved soil structure and water retention help farms remain productive during extreme weather, lowering costs and reducing vulnerability.

Through using the advantages of our natural landscapes to support the capturing of carbon and developing resilience to the impacts of climate change, York and North Yorkshire can lead the way to becoming England's first carbon negative region.

## 2 Improve the profitability and sustainability of farms through increasing the adoption of regenerative and precision agriculture practices, alongside improving energy efficiency and switching to renewable energy sources

*What?* Support farms to adopt regenerative and precision agriculture practices that increase farm profitability and deliver environmental benefits. Alongside this, enable farmers and land managers to improve energy efficiency and move towards renewable energy sources.

*Why?* York and North Yorkshire have the key ingredients to become a pioneering region in regenerative agriculture, providing a testbed to demonstrate the benefits of different regenerative agriculture practices to attract investment, improve supply chain resilience for food manufacturers and deliver environmental benefits, such as increased carbon sequestration and biodiversity. Sharing our learnings can provide the catalyst for other regions to scale-up regenerative agriculture benefits.

Through mitigating and adapting to climate change, agriculture and land use can also ensure that local food supply chains are resilient. Resilient local food supply chains are

important to the regional economy, with every £10 spent on local food having the potential to be worth nearly £25 to the local economy<sup>17</sup>. Limiting the impacts of climate change on the production of local food is crucial. Already climate impacts are being felt by farms with exceptional rainfall in the region increasing by 20% in the past decade. This has the potential to lead to the York and North Yorkshire food system seeing a 20% reduction in production and an estimate annual loss of £322m to the sector<sup>18</sup>.

Currently, there is a challenge around the lack of clear pathways at a regional level that can effectively enable our agricultural sector to reduce its emissions. To ensure that our agricultural sector can continue to produce nearly 10% of the nation's food and achieve at least £380m of profits annually whilst lowering emissions<sup>18</sup>, we need to research and develop infrastructure to enable this including monitoring, baselining and engagement.

# Resilient Landscapes, Sustainable Food & Farming Plan. Strategic Priorities <sup>60</sup>

Driving change to improve farm profitability, food security, and climate resilience. The following strategic priorities are intended to enable more sustainable farming and land use, whilst improving the viability of our farms, supporting local food production, and combating the impacts of climate change.

## 3 Support health, wellbeing and a thriving economy by improving access to local, sustainable food and reducing food waste.

*What?* Encourage and support farms and food producers to sell their products locally, as well as helping communities gain access to more healthy and sustainable local produce and reduce waste.

*Why?* Importing food products from overseas increases our region's Scope 3 emissions, puts our food security at risk, and fails to support York and North Yorkshire's farms and food producers.

Buying food locally helps to support the profitability of our farms, keeping money circulating within our communities and helping to bolster our regional economy. Local produce supports greater transparency for consumers and better awareness of where food is produced. Buying locally helps our communities to build connections

with local farmers, fostering local pride and more close-knit communities.

Reducing our dependence on overseas food sources will help ensure our long-term food security, reducing the vulnerability of our communities and farmers to external market shocks and climate change impacts e.g. extreme weather in another country leading to food shortages here.

Growing and buying our food locally helps our region move towards a more circular economy, reducing our emissions that result from food transportation. Reducing food waste will also reduce greenhouse gas emissions and ensure that more of the food we buy goes onto our plates. This could also improve regional food security and reduce financial losses for businesses and consumers.

## 4 Improve the quality and resilience of our rivers, lakes, and water courses through partnership working and sustainable land management.

*What?* Work to improve the quality, drought and flood resilience of our rivers and water sources through advocating and providing support for better management practices of our water and landscapes. This includes expanding natural flood-management measures such as wetlands, peatland restoration, and "re-wiggling" rivers, as well as promoting rainwater harvesting, improved irrigation efficiency and enhanced on-farm water storage.

*Why?* York and North Yorkshire contains 1700km of main rivers as well as numerous lakes and water courses, all of which provide vital services for the region. This includes health and wellbeing impacts from recreation, the economic impacts of tourism and agriculture, as well as a host of ecological benefits through habitat creation.

However, historic mismanagement of our rivers and water courses has resulted in many polluted and damaged river ecosystems across our region. River pollution also damages our marine and coastal assets, with economic impacts on recreation and tourism at our beaches, and negative health impacts from poor bathing quality.

Our landscapes cannot be viewed in isolation, the way we manage our woodlands, grasslands, and peatlands directly impacts the flow of water into our rivers and lakes, slowing surface runoff and filtering out pollutants and excess nutrients that influence the quality of the water.

Sustainable management of our land and water assets will have clear benefits for our region, especially in building resilience to flooding and droughts, protecting our communities and businesses from damage to life and property. Looking after our water will help to ensure that the natural assets of our region will continue to support us for generations to come.

Natural flood-management measures protect communities and infrastructure downstream while restoring habitats and enhancing carbon storage. By supporting farmers to adopt sustainable practices and invest in water and soil management, the region can increase agricultural productivity, strengthen supply-chain resilience, and create landscapes that are more adaptable to future climate pressures.

# Resilient Landscapes, Sustainable Food & Farming. Key Actions

Enabling rapid decarbonisation will provide our farms with a competitive advantage, strengthen resilience and create new opportunities, unlocking sustainable economic growth whilst protecting and enhancing our landscapes.

Based on stakeholder engagement and recommendations from our research, a number of initial actions have been identified to enable the delivery of the strategic priorities. The long-list of identified actions can be found in Appendix 1, with high-priority actions described below:

## 1. Development and delivery of key regional strategies and programmes for natural capital, including:

### a) Transition to delivery phase of the Local Nature Recovery Strategy (LNRS)

The LNRS is a biodiversity-led strategy that is due to be published in early 2026. It will then move into the delivery and implementation phase. The LNRS envisions connected natural habitats that target nature's recovery, while also delivering many wider benefits including climate regulation, clean water, flood protection, pollination, and cultivated crops.

### b) Delivery of the Local Investment in Natural Capital (LINC) Programme

The LINC Programme aims to develop mechanisms to drive investment into our regional natural capital, through carbon sequestration, Biodiversity Net Gain and Natural Flood Management schemes. It aims to deliver a refined pipeline of ready-for-investment projects, through unique mechanisms, such as a Buyers' Club, in which aggregation of demand is prioritised.

## 2. Develop schemes to enable knowledge-sharing and upskilling for sustainable food and farming

Support peer-to-peer groups of farmers share knowledge around implementing regenerative practices as well as other activities for advice to be shared. Provide a central hub that coordinates knowledge-sharing activities and advice around food and farming, supporting the development of specialist advice and groups focused on agri-tech and green finance for nature.

## 3. Development of new food, fibre and nature markets

Trial programmes to coordinate and develop key markets to support products including bio-based materials (like hemp insulation) and local regenerative food. Ensure these support landowners, farmers, and local businesses. Identify where locally delivered public funding can support land use and farming practice changes where new markets cannot be developed (support expansion of regen farming).

## Case Study: Ousewem flood resilience project

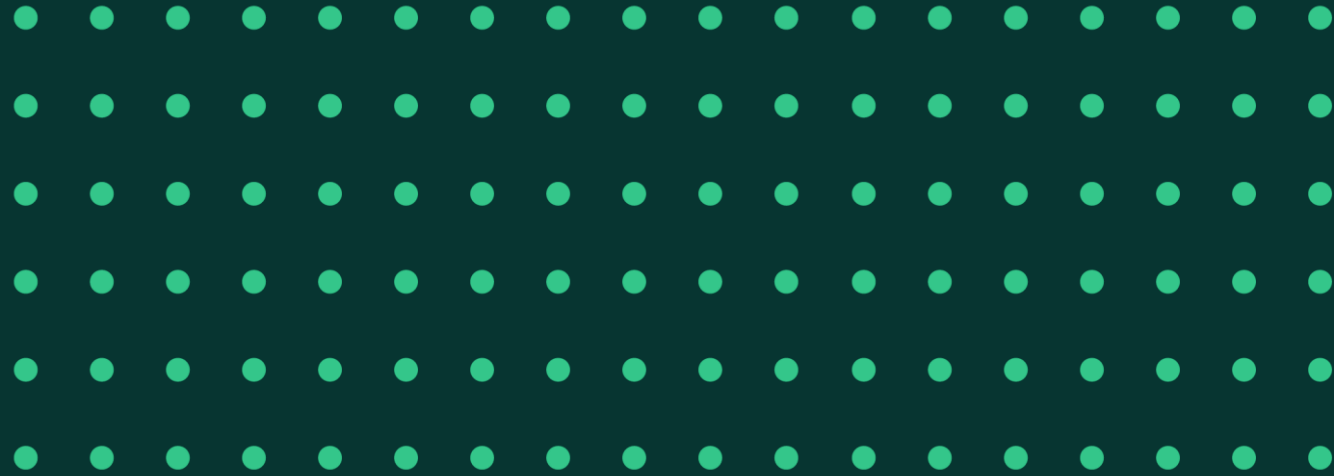
Running from 2021 to 2027 with £6m of Defra funding, Ousewem is an innovative flood resilience project. The focus of the project is identifying and delivering nature-based solutions (NBS), including natural flood management (NFM), to reduce flood risk in vulnerable North Yorkshire communities, spanning Yorkshire's Swale, Ure, Nidd and Ouse (SUNO) catchments. The project is led by the City of York Council in close collaboration with North Yorkshire Council, alongside delivery partners JBA, Natural England, Yorkshire Dales Rivers Trust and the University of York.

Ousewem offers a catchment approach to NFM that seeks to significantly advance our knowledge and experience in managing flood risk for York and North Yorkshire communities. Outputs of the project include a suite of tools, modelling, partnership relationships, and delivery processes to streamline NFM and NBS delivery in the region.

The project seeks to produce a wide range of benefits, including:

- Increased farmer and landowner partnership and awareness of flood risk and nature-based solutions.
- Improved farm resilience and community resilience against flooding, reducing potential losses.
- Enhanced natural habitats through woodland and wetland creation, as well as improved water quality and biodiversity in river catchments.








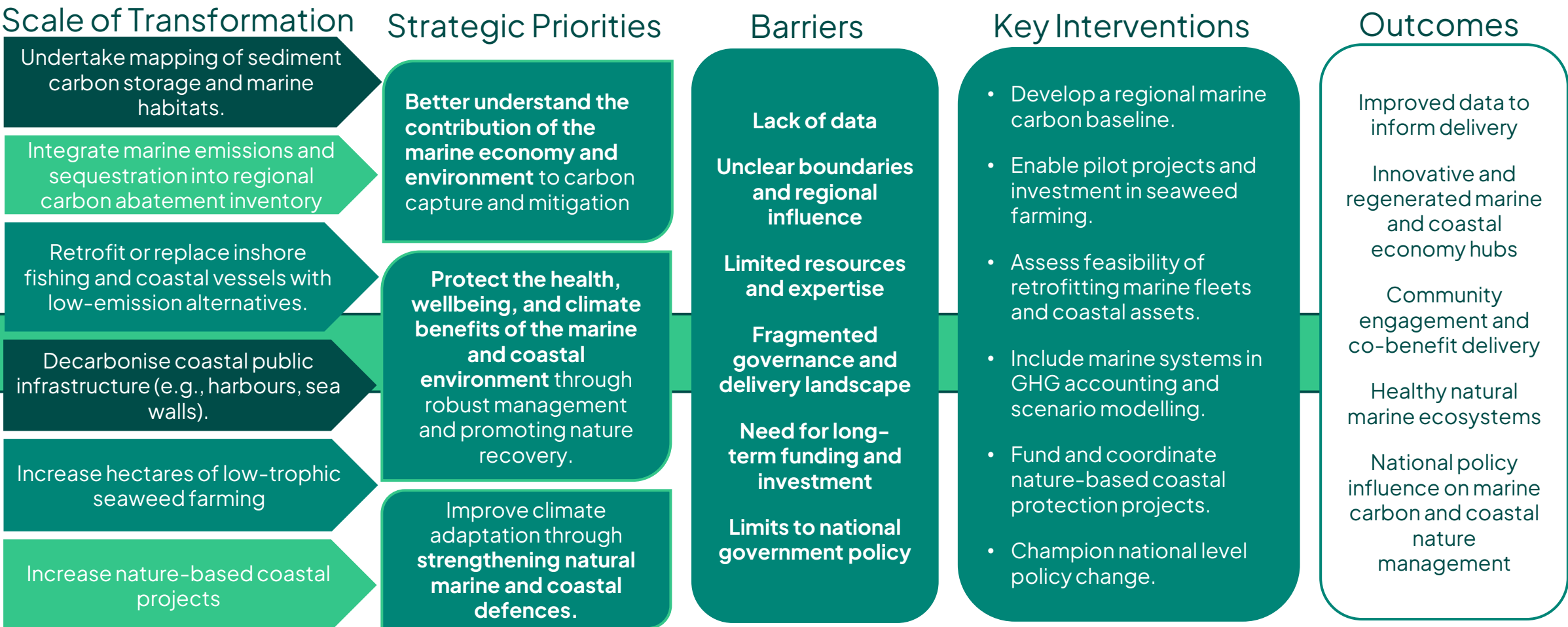
# *Healthy Marine & Coastal Environment*

# Healthy Marine & Coastal Environment. Plan on a Page

**Vision: York and North Yorkshire will be a national demonstrator in nature-based marine and coastal innovation, harnessing solutions for carbon sequestration, flourishing ecosystems, and healthy communities.**

**Delivery to Date:**

-  Kelp forest surveyed
-  Seaweed farming established
-  Marine workshop held



# Healthy Marine & Coastal Environment. Vision & Principles

The Sector Plan provides the overarching vision and principles for our approach to deliver a healthy marine and coastal system. The Plan includes a summary of progress made to date, including key programmes delivered to date. This is followed by the strategic priorities and actions to overcome critical barriers and unlock the benefits of becoming England's first carbon negative region.

Working with stakeholders, we have developed the following vision statement to provide an ambitious focus for our marine and coastal sector in our journey to a carbon negative economy:

**Vision: York and North Yorkshire will be a national demonstrator in nature-based marine and coastal innovation, harnessing solutions for carbon sequestration, flourishing ecosystems, and healthy communities.**

To ensure our vision is implemented, we will be directed by the following key principles when designing programmes and activities:

- Using robust data on marine emissions, carbon storage and sequestration potential;
- Maximising co-benefits across climate mitigation and adaptation, biodiversity, and community resilience;
- Enable inclusive and place-based delivery, involving engagement with coastal communities, local authorities and marine stakeholders to deliver interventions that reflect local priorities;
- Position York and North Yorkshire as a marine and coastal trailblazer, utilising the unique coastal geography and leadership platform to pilot innovative marine carbon approaches and influence national policy.



# Healthy Marine & Coastal Environment. Progress to Date

The YNYCA and other partners are striving to support the marine and coastal environment in York and North Yorkshire. The following page provides examples of some of the strategic regional initiatives developed and delivered in recent years.

## Pathway to Carbon Negative – Marine and Coastal emissions

Whilst we have no direct emissions figures for our marine and coastal sector at this time (due to lack of data availability), we know that features of natural ecosystems such as kelp are helping to sequester carbon. We also know that certain built infrastructure and transport along our coastlines will have an impact on our emissions e.g. fishing boats, and other vessels.

## Summary

The marine and coastal sector is a developing sector with huge potential and opportunity to both enable sustainability and boost local economies. Exciting innovations, partnerships and research are already underway, but there is still work to be done to expand and develop these projects further. Critically, in order to build a sustainable marine and coastal sector, we need to source the data to understand the impact on our region's emissions.

## Working Towards a Carbon Negative region

### Great Yorkshire Kelp Forest

The Yorkshire Marine Nature Partnership have undertaken research on the Great Yorkshire Kelp Forest in Yorkshire. Kelp is a type of seaweed found in lower shore and subtidal habitats that provide great value to marine carbon cycles. Subtidal kelp forests can be found along 12,000+ miles of the UK coastline, including North Yorkshire.

The Great Yorkshire Kelp forest project assessed the size and extent of the forest, considering opportunities for improved management and protection. The study highlighted that the forests are not as large as previously estimated, however, it was able to determine that the forests store approx. 2,000 tonnes of carbon across the Yorkshire coast.



## Supporting Healthy & Thriving Communities

### Yorkshire Marine Nature Partnership

The Yorkshire Marine Nature Partnership brings together key marine and coastal-focused organisations. It has led research and sought collaborative working on managing the coastal and marine environments around Yorkshire, helping to support coastal communities and visitor economies. A variety of organisations are engaged in managing the marine and coastal area, such as North Yorkshire Council, the Inland Fisheries Conservation Authority, and the Marine Management Organisation. Ensuring these organisations work together and collaborate is crucial to avoid duplication and for targeting resources.



## Driving Economic Transformation

### Seaweed Innovation

A unique approach to cultivating seaweed has been established in Scarborough. The seaweed is suspended and farmed in the sea, before being harvested by boats and processed onshore for a variety of purposes, including for food and biofertilisers.

Research has shown that Low Trophic aquaculture (low-level food chain marine species i.e. seaweed), can have a beneficial impact on food emissions. It can reduce the need for more intensive agriculture while providing additional sources of protein.

Producing more food from our coastal and marine assets will not only capture and store carbon, and provide healthy alternative food sources and fertilisers, but also help to boost the economies of our coastal communities, building new businesses and creating sustainable jobs.

# Healthy Marine & Coastal Environment Plan. Strategic Priorities

Through protecting and understanding better the contribution of the marine and coastal environment, the benefits of the sector can be harnessed for communities, businesses, and for carbon capture and climate resilience.

## 1 Better understand the contribution of the marine economy and environment to carbon capture and mitigation

*What?* Support regional research projects and data analysis to provide better knowledge of how much carbon is captured and stored by the coast and marine environment, as well as understanding potential sources of emissions and how they could be adapted to become more sustainable.

*Why?* There are major opportunities for existing carbon stores to be assessed and maintained such as inshore and offshore sediment, as well as possibilities for additional carbon capture through marine and coastal nature-based solutions. York and North Yorkshire has a unique coastline and several key coastal communities that have the potential to support our region in becoming carbon negative.

Understanding the interaction between the marine economy and its impact on climate is important. It also requires a dynamic approach in identifying the sea-space that can be classed as contributing to our region. 12 nautical miles is the limit of existing local authority management of marine and coastal environment; however, many offshore

activities influence our regional sustainability and economy including offshore wind, sub-trophic aquaculture, and transport. Therefore, these activities are crucial to understand, including how they can be adapted in our transition to a sustainable future.

Marine and coastal natural capital currently contributes £3bn annually to the UK economy, based on the value of living species and ecosystems<sup>20</sup>. These environments are also critical for carbon capture and storage; for example, seagrass meadows alone captured at least 2,529 tonnes of carbon in 2024<sup>20</sup>. By improving our understanding and management of these assets, we can maximise their contribution to climate mitigation, support biodiversity, and strengthen our regional economy.

Through targeted investment and evidence-led management of our marine resources, we can lead the way in climate adaptation, carbon sequestration, and economic transformation and resilience.

## 2 Protect the health, wellbeing, and climate benefits of the marine and coastal environment through robust management and promoting nature recovery

*What?* Manage key marine and coastal sites, such as existing Marine Protection Areas and other sites identified through research, carefully and efficiently to promote nature recovery and protect existing marine and coastal natural capital that can support carbon capture and storage.

*Why?* The UK marine and coastal sector regulates 264,798 tonnes of CO<sub>2</sub> equivalent emissions annually<sup>20</sup>. Through protecting existing marine and coastal ecosystems, this vital role in regulating emissions can be maintained and enhanced. Furthermore, the use of marine and coastal ecosystems for recreation currently provides health benefits to 3 million people in the UK each year<sup>20</sup>. Ensuring that these ecosystems in the region are managed effectively and are protected, can ensure these benefits to

wellbeing can continue in the future, as well as wider benefits to tourism and the visitor economy for the region.

Enhancing our existing areas already under protection e.g. marine protected areas is key. We should ensure that there is closer working between key organisations involved in marine management in the region. Coordinated and partnership working should enable more targeted support for these key ecosystems. This will ensure new opportunities for funding, both public and private, can be directed strategically to the best opportunities for enabling regenerative and healthy marine and coastal sector.

# Healthy Marine & Coastal Environment Plan. Strategic Priorities

Through protecting and understanding better the contribution of the marine and coastal environment, the benefits of the sector can be harnessed for communities, businesses, and for carbon capture and climate resilience.

## 3 Improve climate adaptation through strengthening natural marine and coastal defences.

*What?* Protect and enhance York and North Yorkshire's marine and coastal environment by strengthening natural defences, improving catchment-to-coast water management, and restoring habitats that buffer communities from climate impacts. This includes expanding wetlands and natural flood-management measures to reduce peak flows entering estuaries and coastal zones. Restoring river systems and peatlands to improve water quality and sediment regulation; and support effective management of existing protected habitat areas. This also includes supporting the delivery of the Shoreline Management Plan and hard sea defences.

*Why?* Our work will help implement coordinated, catchment-scale planning; address invasive species pressures; and enhance coastal infrastructure resilience through improved maintenance, adaptive design, and the

integration of climate risk into planning frameworks.

A healthier, more resilient marine and coastal environment protects communities, businesses and infrastructure from flooding, erosion and storm surges. Restored wetlands, river corridors and upland habitats slow water, trap sediment and improve water quality before it reaches coastal waters, and supporting fisheries, biodiversity and tourism. Managing invasive species reduces pressures on native coastal ecosystems, while climate ready planning reduces our long-term costs and ensures development does not worsen coastal vulnerability. The region can help safeguard coastal communities and help reduce climate anxiety, support our blue-green economy, and build resilience to future climate impacts through healthy marine and coastal environments.

# Healthy Marine & Coastal Environment Plan. Key Actions

Harnessing the benefits of our marine and coastal assets will provide our coastal communities with a competitive advantage, strengthen resilience and create new opportunities, unlocking sustainable economic growth whilst also sequestering carbon.

Based on stakeholder engagement and recommendations from our research, a number of initial actions have been identified to enable the delivery of the strategic priorities. The long-list of identified actions can be found in Appendix 1, with high-priority actions described below:

## 1. Develop a regional marine GHG emissions baseline:

We cannot efficiently work to decarbonise the sector and harness the benefits of our marine and coastal assets without first understanding the impact they have on our emissions. Therefore, we will seek to develop a regional marine carbon baseline, to understand fully the carbon emitting and sequestering potential of the sector and integrate it fully into our Strategy.

## 2. Assess the feasibility of retrofitting marine fleets and coastal assets and enable pilot projects and investment in seaweed farming:

These can target resources to areas of opportunity for decarbonisation within the marine and coastal sector whilst supporting coastal communities and economies. Retrofit may include electrification, renewable energy generation and sustainable construction materials. Through assessing the feasibility, communities that are affected can be engaged and support can be provided to where challenges are greatest.

## 3. Champion national level policy change:

Showcase innovative coastal decarbonisation projects can highlight the opportunities for the marine and coastal sector to reduce emissions e.g. through nature-based solutions, encouraging national policy change and long-term investment in the potential of our coastal and marine assets.

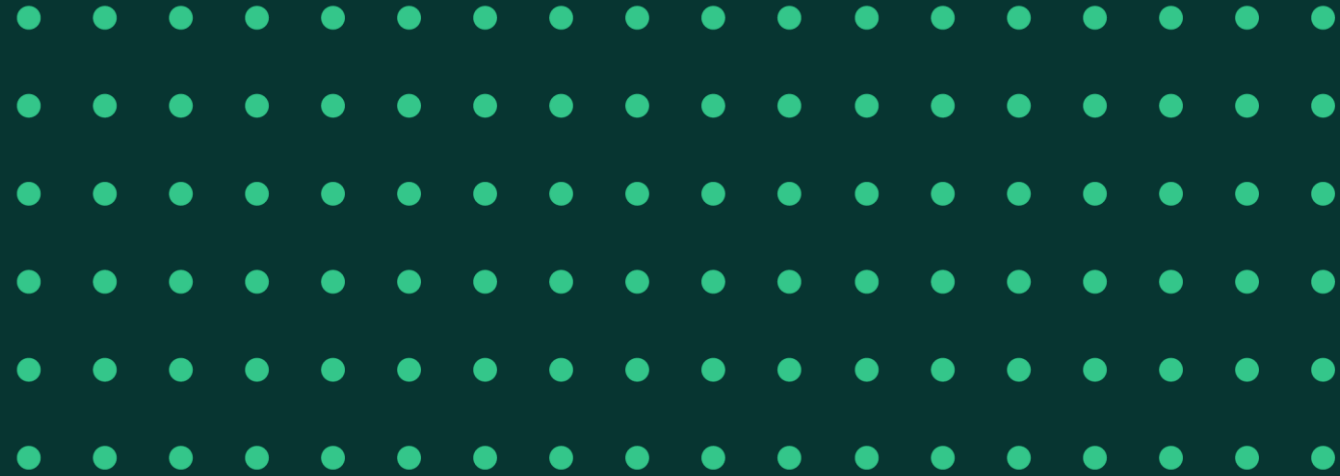
## Case Study: Concrete Coast Project

Managed by the Yorkshire Marine Nature Partnership (YMNP), in partnership with North Yorkshire Council and the East Riding of Yorkshire Council, the Concrete Coast programme is helping intertidal species to thrive on the Yorkshire coast through combining habitat creation with coastal adaptation measures.

Coastal defences such as harbour and sea walls, rock armour, and sheet piling, are man-made structures designed to protect towns, businesses, and harbours from damage by the sea. With rising sea levels and increasingly severe storms from climate change they are a vital adaptation measure for our coastal communities. However, the concrete, stone, steel and wood barriers are cutting off habitats for intertidal species such as limpets, mussels, and crabs as they move inland.



The Concrete Coast programme therefore develops cost effective measures to encourage wildlife to inhabit artificial structures – retrofitting the smooth faces of the structures with pools, holes and crevices to mimic natural habitats. These measures have no impact on the integrity of the structures but work to lessen human interference on the coastal ecology and raise awareness of simple measures to protect local biodiversity.



# *Empowered Community Action*

# Empowered Community Action. Plan on a Page

**Vision:** Community groups and their work within communities are at the heart of the carbon negative transition, working collaboratively with the public and private sector to realise new low carbon opportunities that help local communities to thrive.

Key principles:



Resources to equip communities



Clear roles and responsibilities



Community organisations embedded across strategies

## Scale of Transformation

Enable the increased use of active travel and public transport, and encourage the shift to low carbon technology e.g. electric cars and bikes.

Improve energy efficiency of buildings by retrofitting to EPC C or above, using sustainable materials and low carbon technology. Install innovative heat solutions.

Increase renewable energy installations, including solar, wind, hydropower, with a minimum 10% community owned, whilst also reducing peak demand.

Increase tree planting and hedgerow coverage; reduce food waste and increase recycling

Retrofit local business premises and adopt circular economy principles in processes.

## Strategic Priorities

**Increase community-focused sustainable transport initiatives**

**Support community groups to deliver retrofit demonstrator projects**

**Accelerate community energy schemes**

**Increase support for local biodiversity, food, and land use initiatives**

**Support community and business uptake of circular economy principles**

**Future-proof our communities against the impacts of climate change through supporting practical adaptation measures**

## Barriers

Poor availability and consistency of funding

Capacity constraints

Access to knowledge and advice

Lack of clear regional governance

Ensuring effective communication

Variety of group motivations

Funding and support to deliver key projects

Challenges communicating circular economy and active travel benefits

Wider support required

Disconnect between regional and local delivery

## Key Interventions

- Work to secure funding for community groups
- Skills and Business support
- Regional knowledge hubs
- Framework for collaboration
- Community Champions
- Support a regional network
- Support community biodiversity initiatives
- Build on the circular economy movement
- Funding and support for community energy
- Community focused transport campaigns
- Champion working with communities
- Develop stronger communication channels

## Outcomes

Benefits of carbon negative felt locally

A strong, well-resourced network of community organisations

Skilled community leaders

Clean, locally owned energy

Greener, more connected neighbourhoods

Healthy and thriving communities

# Empowered Community Action. Case for Action

Supporting community led climate action to empower community organisations and generate the social, economic, and environmental benefits of the transition to carbon negative within our neighbourhoods, utilising local knowledge for efficient delivery and supporting healthy and thriving communities.

### Progress to Date:



APSE 'Working in Collaboration' award for SPF delivery in communities.



CYC honourable mention at 2024 Community Energy England awards.



Collaboration with community groups on LEAD (Local Energy Advice Demonstrator).



Funding provided for community organisations through Net Zero Fund & Carbon Negative Challenge Fund

One of the key priorities in the YNYCA Mayor's Vision is to invest in communities to improve their health, resilience, and sustainability. The main approach to this is through collaboration, bringing together key partners to coordinate support for community projects and organisations. Similar approaches feature in the Climate Change Strategies for North Yorkshire Council and City of York Council, emphasising the need for partnership and working collaboratively between communities, businesses, and local government.

*Why should community organisations be engaged in the regional pathway to a sustainable future?*

Climate change and rising global temperatures are already harming the physical and mental wellbeing of communities in York and North Yorkshire. From the immediate impacts of extreme heat, flooding, wildfires, and droughts causing threats to lives and homes, to the economic and social impacts of fuel poverty and the rising cost of living. It is absolutely vital that in our efforts to reach carbon

negative, we ensure that we directly address the challenges faced by our communities and ensure that the benefits of a transition to carbon negative are generated locally.

Local, place-based delivery of climate action, e.g. through community owned energy, can generate economic and social benefits within the community, supporting local supply chains, empowering residents to participate in further climate action, and bringing control over energy, transport, and food production down to the local level.

Community groups are already delivering local climate action projects and engagement strategies. They are key stakeholders in delivering carbon negative through their work communicating and encouraging grassroots acceptance and understanding of regional strategies and programmes. We can help ensure the success of the Strategy delivery by drawing on the local knowledge and experience of community groups.

Both national and regional policy shifts have brought renewed focus onto the role of the community in meeting the national 2050 net zero ambition. We have the potential to

demonstrate our commitment to supporting and working with community groups to national government and fulfil the Mayor's Vision, showing clearly the benefits for our communities that can be generated through a place-based transition to carbon negative.

Community groups are key to delivering place-based climate action but are limited in scope due to constraints in funding, capacity, knowledge (sometimes), and access to region wide governance and resources. Through the devolution process, the YNYCA has access to funding and political power that can potentially unlock these barriers and support community groups in delivering their goals.

**Summary**  
The creation of the Combined Authority since the original Routemap has produced new opportunities to consider how community organisations can be supported in the transition to carbon negative, to ensure that the benefits of a sustainable Y&NY are experienced by all. This section of the Strategy document is the first step towards this.

# Empowered Community Action. Vision & Principles

This section provides a clear case for action on why community groups are a key stakeholder in the delivery of the Strategy, as well as a vision and principles for engagement, strategic priorities for how we can work with community groups, and a series of actions designed to address barriers faced by community groups and help harness the benefits of carbon negative within communities.

In this section, 'Community groups' will refer to community climate action groups, community energy groups, and other groups run by and for the community (not necessarily with climate ambitions); 'Communities' will refer to the wider general public.

**Working with stakeholders, we have developed the following vision statement to provide a guiding light for community groups in our journey to a carbon negative economy:**

**Vision: Community groups and their work within communities are at the heart of the carbon negative transition, working collaboratively with the public and private sector to realise new low carbon opportunities that help local communities to thrive.**

To ensure our vision is implemented, we will be directed by the following key principles when designing programmes and activities:

- Communities are equipped with the resources they need to lead in local climate action;
- There are clear roles and responsibilities across the public, private, and voluntary sectors to allow collaboration and partnership; and
- Grassroots actions from community groups are fed into the ongoing development of the Strategy and other strategic work.

It is not the aim of the interventions outlined in this section of the Strategy to place the burden of delivery of carbon negative onto community groups, but rather to work towards a framework for building the capacity and confidence of community groups to deliver on their ambitions and to work in collaboration with the YNYCA in the advocacy and delivery (where willing) of key decarbonisation projects and programmes. The YNYCA also recognises that significant long-term investment and support is required to strengthen the contribution that community organisations can make in working towards the regional ambition of reaching carbon negative by 2040.

Case for Action

Vision & Principles

Strategic Priorities

Actions

# Empowered Community Action Plan. Strategic Priorities

Community groups can provide valuable contributions across all sectors of the Strategy, championing local measures to reduce emissions and bringing communities on board to the real-life benefits of a transition to carbon negative. We will enable this through the following strategic priorities:

## 1 Create healthier and more connected communities through the uptake of community-focused sustainable transport initiatives



**What?** Work with community groups to design and deliver local transport schemes, including communicating the local health and quality of life improvements of sustainable and active travel, and trialling alternative shared transport services e.g. car share. Support the long-term resilience of existing community transport partnerships in the region.

**Why?** Due to the highly rural, dispersed nature of many communities across York & North Yorkshire, residents face challenges in accessing core transport services in a way that is as accessible and as efficient as private car use. Local organisations understand the transport needs of their communities and can support in the provision of flexible services, tailored to the needs of the community, that can help fill the gaps in transport provision for the area. This

could include shared transport services such as car share schemes, or active travel initiatives such as Bike Buses, bringing communities together to find new solutions for travel, improving health through activity, reducing congestion from private car usage, and improving social connection.

Furthermore, community groups are well placed to communicate and champion the benefits of active and sustainable travel to their communities, engaging closely with schools, workplaces, and households from a place of trust to expand the reach of wider regional strategies and encourage local model shift.

## 2 Champion the pathway to more comfortable, affordably heated homes by supporting community groups to deliver retrofit demonstrator projects



**What?** Collaborate with and support community groups to deliver demonstrator projects in retrofit and low carbon heat, on both community buildings and private homes. Collaborate with community organisations to champion the benefits of retrofit and low carbon heat to local residents and raising public confidence to invest in low carbon homes.

**Why?** By leading the way as first adopters of new energy efficiency technology, local community groups have the power to demonstrate the benefits of retrofit to their communities first-hand.

As trusted local organisations and 'friendly faces', community groups can showcase the benefits of a properly retrofitted home, including lower energy

bills, increased comfort and temperature control, and reduced damp and mould, to help dispel misinformation and anxiety around undertaking retrofit.

This outreach can help support the delivery of wider regional retrofit programmes by helping to generate local demand and connecting residents with information, support, and potential future funding opportunities.

Furthermore, through recommending trusted suppliers and assessors, community organisations can help drive local uptake of energy efficiency measures and sustainable home improvements.

# Empowered Community Action Plan. Strategic Priorities

Community groups can provide valuable contributions across all sectors of the Strategy, championing local measures to reduce emissions and bringing communities on board to the real-life benefits of a transition to carbon negative. We will enable this through the following strategic priorities:

## 3 Support communities in becoming energy self-sufficient and build community wealth through the acceleration of community energy schemes



**What?** Provide the resources and support needed to accelerate work into the feasibility and development of community owned energy installations, and community run energy efficiency schemes.

**Why?** Local community groups can coordinate and convene community resource to help kickstart community energy projects, as well as acting as an informed voice when negotiating community benefits from nearby commercial renewable installations.

Community energy projects can provide a range of benefits for communities, including reductions in energy bills, and an income from the sale of energy produced that can be invested in other projects to benefit the local area. The

financial savings from renewable energy installations can help tackle local fuel poverty and support more vulnerable members of the community, engaging in community wealth building.

Community energy projects can be a useful tool for engagement and awareness building, demonstrating the tangible benefits of sustainable choices and encouraging further action in smart energy use and consumption. It brings control and decision making over energy into the hands of the community, supporting energy independence, resilience, and security against fluctuating global energy prices. This is especially important for rural communities, where place-based energy solutions can be a vital adaptation measure in the event of flooding or distribution network outages.

## 4 Shape greener and cleaner local landscapes and improve wellbeing through community biodiversity, food, and land use initiatives



**What?** Work with and support community groups in the delivery and scale-up of local tree planting, community food growing initiatives, and other biodiversity improvement projects and messaging campaigns, normalising and communicating the benefits of changes in land use to local communities.

**Why?** Ensuring local buy-in to land use schemes will help to ensure their success and longevity, helping communities understand why these changes are occurring and how they can benefit the local environment. Involving communities in biodiversity schemes will help bring people together and educate residents of all ages on the benefits of climate action, strengthening social ties as well as local stewardship over nature. These improvements will

also have clear environmental benefits through habitat creation, biodiversity net gain, and air, water, and soil quality improvements.

Local food initiatives such as community gardens and orchards provide valuable social spaces for communities to connect, improving health and mental wellbeing, as well as supporting resilience through local food sharing and production.

Community organisations play a key role in coordinating these schemes, supported by a detailed understanding of local needs and attitudes.

# Empowered Community Action Plan. Strategic Priorities

Community groups can provide valuable contributions across all sectors of the Strategy, championing local measures to reduce emissions and bringing communities on board to the real-life benefits of a transition to carbon negative. We will enable this through the following strategic priorities:

## 5 Strengthen local economies and supply chains through community and local business uptake of circular economy principles



*What?* Initiate cross-collaboration between local government, community groups, and businesses to encourage waste reductions, improved product circularity, and the use of local supply chains by residents and local businesses.

*Why?* A linear economic model of take-make-dispose drives excessive consumption and waste. Utilising the voice of community organisations and leaders, in collaboration with local businesses, we can build on the Circular Towns movement to capture the ground level benefits of a circular economy for our communities.

Communities are already doing a lot in this area e.g. in Malton, Tadcaster and many other towns, and are keen to do more.

Encouraging repair and remanufacturing of products can create new local jobs and skills; community fridges and kitchens support health and connection; tool sheds, car sharing, and swap shops reduce costs for people that come from buying new products. This is in addition to the significant scope 3 carbon savings through reduced manufacturing and waste.

## 6 Future-proof our communities against the impacts of climate change through supporting practical adaptation measures



*What?* Support communities across York and North Yorkshire to take practical adaptation actions that strengthen local resilience to flooding, heat, drought and other climate-related impacts. This includes expanding and supporting Flood Action Groups, improving public awareness of flood, heat and nature-related risks, and supporting organisations such as the Local Resilience Forums to provide clear guidance, toolkits and real-time information to help residents prepare for and respond to severe weather. Communities and households can enhance their own resilience by adopting property flood resilience measures, caring for trees and green spaces, using permeable materials in gardens and driveways, participating in citizen science monitoring, and supporting local conservation and natural flood-management efforts.

*Why?* Through training, shared resources, and collaboration across organisations, communities and local networks can collectively plan to

respond and recover from extreme weather events more effectively.

Enabling communities to take adaptation measures helps reduce risk, improve safety, and limit the disruption to peoples' daily lives. When residents understand local hazards and can take practical actions such as preparing their homes, maintaining drains, checking weather forecasts or river levels, and supporting neighbours, future flood and heat impacts decrease.

Alongside this, community participation in nature-based projects increases biodiversity, enhances natural river catchments, and supports wellbeing while reducing our long-term vulnerability. Stronger networks and better access to information ensure everyone receives support during emergencies. Building resilience within communities creates a more connected, prepared and climate-ready region.

# Empowered Community Action. Key Actions

Supporting community organisations to drive sustainable change within their communities, reducing emissions whilst generating benefits for people and place.

Based on stakeholder engagement and recommendations from our research, a number of initial actions have been identified to enable the delivery of the strategic priorities. The long-list of identified actions can be found in Appendix 1, with high-priority actions described below:

**1. Work to secure funding for community groups to start or scale up, and for project development and delivery:** Community groups are often reliant on piecemeal grant funding to continue operating, impacting capacity and project delivery. YNYCA will seek to continue to secure funding to support community organisation projects, direct community groups to new funding sources from other organisations, and explore mechanisms for capacity building, including the exploration of potential long-term funding streams to develop robust operations and helping to ensure that funding recognises full cost recovery and capacity development needs.

**2. Encourage a regional network and framework for active collaboration and knowledge sharing, to support strong governance and effective delivery:** York and North Yorkshire is a large, geographically diverse region and as a result there are a range of community groups with varying capacity, resources, aims, purposes, and appetite for delivery or collaboration with the YNYCA and other partner organisations. This can also sometimes result in isolated groups or duplicated activities.

We will therefore seek to build on existing linkages to further establish a strong network of community organisations across the region, mapping and understanding what each group is capable and willing to deliver and identifying capacity building needs. To enable resilience the network could also share back-office resources e.g. data capture and measurement, communications, and potentially book-keeping. With a focus on establishing clear networks for:

- Community Energy – working with existing community networks, seek to build and support a regional network to share knowledge, best practice, resources e.g. financing, and support.
- Circular Towns – building on the Circular Towns scheme, facilitate and support a regional network of towns adopting and championing circular economy principles.

**3. Ensure regional strategy meets community ambition through a framework for collaboration:** Working with community groups and key delivery partners, YNYCA will seek to build a framework for collaboration between the YNYCA, community groups, and communities on YNYCA projects and programmes. This will produce a guide outlining clear key roles and responsibilities and identify key areas for collaboration with community groups and communities more widely, designing this into projects from the outset, and ensuring that regional strategy and delivery supports community level activity.

## Case Study: Decarbonising Community Churches

With funding from the YNYCA Net Zero Fund, 20 churches in the Yorkshire North & East Methodist District have installed a range of retrofit technology on church buildings, including solar panels, heat pumps and low-energy LED lighting. The project has helped to reduce the energy bills of multiple community hubs, saving emissions and freeing up funds to continue supporting the local community.



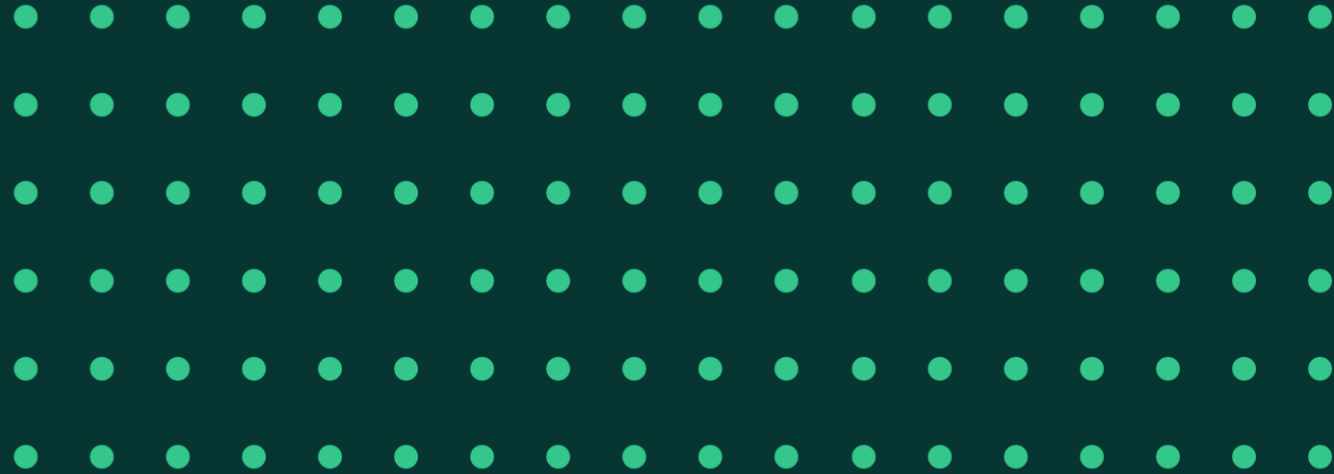
## Case Study: Supporting Accessible Transport

Open Country are a Yorkshire charity that helps people with disabilities access and enjoy the outdoors. With funding through the SPF Community Climate Action programme, they were able to purchase their first wheelchair accessible electric minibus.

The minibus has helped to serve multiple groups in the Harrogate area, providing people with disabilities with safe and comfortable travel to enjoy the North Yorkshire countryside, whilst also reducing the organisation's emissions and fuel costs.



*This section provides an outline of the key “levers” we have to enable systems change, developing the right conditions to make it easy, convenient, affordable and desirable for people and businesses to make “sustainable” choices.*



## **4 Our Strategic Enablers: Levers to Catalyse Change**

- **Developing Ambitious Strategies, Plans & Research**
- **Resonating with Motivations & Priorities**
- **Securing Funding & Investment**
- **Developing Green Skills & Supply Chains**
- **Catalysing Demonstrators**
- **Innovating with Data & Digital**
- **Establishing Infrastructure**
- **Influencing National Policy Change**

# Enabling Systems Change. Introduction

## Creating the conditions to make it easy, convenient, affordable and desirable for people and businesses to make the “sustainable” choice

To create a Sustainable Future, we must develop the right conditions to make it easy, convenient, affordable and desirable for people and businesses to make “sustainable” choices. This requires a fundamental shift in how systems operate - bringing together policy, investment, infrastructure, skills, and community engagement in a joined-up approach that enables lasting change.

Our “strategic enablers” are the “levers” we have to create systems change:

### Developing ambitious strategies, plans and research

Whilst the draft Strategy itself provides a shared vision and clear pathway to a sustainable future, there will be a need for more detailed sector-specific strategies and plans, alongside further research. Examples of these include:

- Retrofit Strategy
- Local Transport Plan
- Refreshing our Local Area Energy Plans
- Skills Strategy
- Investment Strategy
- Get York and North Yorkshire Working Plan
- Developing the Spatial Development Strategy

The Strategy will initiate and respond to new research and innovation, utilising the world-class academic and scientific assets of the region. This includes working in partnership with the University of York, York St John and other academic institutions within the region.

### Resonating with Motivations & Priorities

Climate action decisions such as getting a heat pump, getting the bus rather than driving, or buying second hand clothes, are all interconnected, and impacted by the context of people’s lives. In policy, these decisions are often only viewed as related to considerations such as infrastructure and cost, which are covered in the other parts of this section.

This ignores the emotional aspects of decision making, which can mean that climate policy only supports the ‘early adopters’ who are already more engaged. To enable a step change in climate action, we need to ensure making sustainable choices aligns with people’s values and fits with their existing priorities, by including this way of thinking across programmes, projects and strategies.

### Securing funding and investment

We know from our Local Area Energy Plans that over £21billion of investment is required to decarbonise our energy system alone. The Strategy will set out how we can effectively fund and invest in climate action, ensuring we are maximising the impact of public funding and leveraging commercial investment. The Strategy will also ensure that we follow a cost-effective pathway, and that sustainable solutions are affordable to all.

### Developing green skills and supply chains

As the pace and scale of decarbonisation grows, we must ensure that we have the necessary skills within our workforce to drive this - from building retrofit and installing EV chargers, to restoring peatland and engineering new local carbon technologies. This will create new, high-quality jobs, and provide the opportunities for businesses to grow in an emerging green economy.

### Catalysing demonstrators and programmes

We need demonstrator projects to showcase the art of the possible and to catalyse wider action. For example, Askham Bryan College’s “Electric cow project”, funded through the CA’s Net Zero Fund, produces energy from slurry, demonstrating the benefits of a micro-anaerobic digestion facility. The Strategy will identify where demonstrator projects are needed, and where we need new programmes to deliver climate action at scale.

### Innovating with data and digital

Developing data and digital solutions will enable more effective planning, monitoring and feedback in real-time. The Strategy will identify opportunities for data and digital innovations that will support decarbonisation at pace.

### Establishing infrastructure

Across sectors, there is a significant need for infrastructure improvement to enable decarbonisation. This could be improving the electricity grid to enable businesses to generate renewable energy on-site, or improving active travel routes to ensure people feel safer to walk, wheel, use wheelchairs, and cycle.

### Influencing national policy change

York and North Yorkshire’s economy operates within a wider context of national policy and regulation. Some changes, such as phasing out oil boiler use or high sustainability standards for new homes, require national policy change. The Strategy will identify areas where we are reliant on national policy change to deliver rapid climate action.

*Enabling actions in relation to specific sectors are highlighted within the sector plans, whilst the following sections outlines overarching enabling action in more detail.*

# Developing Ambitious Strategies, Plans & Research.

Developing ambitious strategies, plans and research

*Ensuring there is a shared vision, co-owned strategies, plans and goals, underpinned by research, will enable stakeholders to be aligned on a clear direction of travel – supporting collaboration and rapid action.*

## York and North Yorkshire's Strategy for a Sustainable Future: the Foundation for a Shared Vision

Ensuring there is a shared vision and co-owned strategy will enable stakeholders to be aligned on a clear pathway to a sustainable future – supporting collaboration and rapid action. This Strategy has been collaboratively developed – including stakeholder workshops to co-create the vision statements, strategic priorities and actions within each sector plan. The Strategy is underpinned by robust research and we will be developing a performance monitoring framework that includes clear metrics to track progress and impact.

*Further information detailing the wider strategic alignment across the delivery of this Strategy is currently under development.*

### Strategic Actions:

#### 1. Developing Implementation Plans

As one of the key next steps, we will work with partners to develop detailed implementation plans for each sector, which will set out timelines and deliverables for the proposed actions.

#### 2. Embedding Sustainability in other Strategies & Plans

To create a truly sustainable future, we must embed sustainability across all YNYCA strategies and plans. The ambition to become England's first carbon negative region already underpins the following strategies:

- York and North Yorkshire Combined Authority's Economic Framework
- York and North Yorkshire's Local Growth Plan
- York and North Yorkshire's Investment Strategy
- York and North Yorkshire's Skills Strategy

The YNYCA are also committed to embedding sustainability in the following emerging strategies:

- Local Transport Plan
- Get Working Plan
- Innovation Strategy

The YNYCA, where appropriate, will also support partners to embed sustainability across their strategies and operations.

#### 3. Commissioning Research to understand the potential for emerging opportunities

Becoming England's first carbon negative region will require significant innovation, leading the way to realise new opportunities. Through stakeholder engagement to date, there are a number of key areas where further research is required, for example:

- Geothermal: understanding the scale of the opportunity for geothermal across York and North Yorkshire, and how to ensure a strategic approach to developing geothermal projects within the region (e.g. aggregation of smaller scale geothermal projects to secure commercial investment)
- Marine and Coastal sector: research into the emissions and sequestration potential of the marine and coastal environment is required in order to understand the opportunities of the sector, as well as the levers that the YNYCA has to drive change.

# Resonating with Motivations & Priorities

*Ensuring climate action resonates with the motivations and priorities of everyday life, making climate action an easier choice*

Climate action decisions such as getting a heat pump, getting the bus rather than driving, or buying second hand clothes, are relational and contextual. In policy, these decisions are often only viewed as related to considerations of infrastructure, cost, which are covered in the other parts of this section. This ignores the emotional aspects of decision making, which can mean that climate policy only supports the 'early adopters' who are already more engaged. To enable a step change in climate action, we need to ensure making sustainable choices aligns with people's values and fits with their existing priorities.

## Ensuring climate action fits with people's priorities:

Particularly in a cost-of-living crisis, people are stretched emotionally and logistically. Climate action feels like something difficult and additional to everyday life, often falling down the list of priorities for individuals, families and communities. These might include:

- Taking care of an elderly parent;
- Big life events like moving house;
- Childcare;
- Ensuring a consistent income.

This can also be applied to businesses, who may have priorities like:

- Protecting their assets;
- Avoiding fines;
- Retention of staff.

Therefore, climate action initiatives must become part of this list of priorities, rather than conflict with it.

Ensuring climate action resonates with people's motivations:

Many environmental initiatives rely on moral framing – that climate action is the right thing to do. However, this does not resonate with everyone. Motivations guide behaviour, so utilising these as a basis for climate action is more likely to resonate with the 'hesitant majority' – those who are broadly supportive of climate action but are yet to find a route to engage.

This could include motivations such as:

- Community;
- Family wellbeing and safety;
- Health;
- Status and self-image;
- Peace of mind and avoiding hassle.

Motivations guide behaviour, so utilising these as a basis for climate action is more likely to resonate with the 'hesitant majority' – those who are broadly supportive of climate action but are yet to find a route to engage.

## Strategic Actions:

### 1. Embed relational thinking across programmes, projects and strategies.

By our role in Retrofit Reimagined, YNYCA are starting to incorporate this way of thinking into retrofit policy by centring the design around the desired user. However, there is work to be done to develop this way of thinking and embed it further across strategies, programmes and projects.

## Resonating with Motivations & Priorities

### Retrofit Reimagined

Retrofit reimagined proposes a strategic shift: from one-size-fits-all policy to targeted, precision policy shaped by real motivations, behaviours and life events.

The research is being conducted by an interdisciplinary team, which includes the University of York. Based on assumptions, existing knowledge and stakeholder input, they have created 'personas', which are representations of target users. These are intended to be used early in user research to guide initial design thinking and prioritise research focus. The personas include "Graham the reluctant landlord" and "Wendy the reluctant renovator" and include details around their motivations, personal challenges and emotions.

Retrofit Reimagined has recently received funding from the MCS Foundation to work with the Yorkshire Combined Authorities to create policies centred around people, utilising these personas. This included two Human Centred Design workshops in York and North Yorkshire. The next phase of the project is to test the policies and scale up the ones that best support people.

# Securing Funding & Investment

*Making York and North Yorkshire the most attractive region to invest in place-based decarbonisation, natural capital and climate adaptation.*

## The need for a coordinated approach to secure funding and investment

Our Local Area Energy Plans (LAEPs) estimate that **£23.1 billion** of investment is needed to transition York and North Yorkshire to a fully decarbonised energy system. In parallel, research highlights a further **£15 billion opportunity** to enhance the region's natural capital—through initiatives such as **Biodiversity Net Gain, Natural Flood Management, and Carbon Credits**.

Securing isolated, ad-hoc funding for individual projects will not support delivery at the **pace and scale** required to achieve carbon negative. To unlock these opportunities and accelerate progress, we must adopt a **strategic, coordinated approach to funding and investment**—one that aligns priorities, leverages partnerships, and maximises impact across the region.

York and North Yorkshire are leading the way in developing innovative approaches to green finance as part of two national pilot programmes: **Local Investment in Natural Capital** and the **Local Net Zero Accelerator Programme**. These initiatives aim to design and implement new investment models that attract **commercial capital** to deliver projects focused on **natural capital enhancement** and the **net zero transition**, unlocking significant opportunities for sustainable growth across the region.

## Strategic Actions

### 1. Develop & Deliver an Investment Plan

The Investment Plan would cover place-based decarbonisation, enhancing our natural capital and climate adaptation, seek to achieve the following objectives:

- (1) Attract and secure private sector investment, reducing reliance on public funding;
- (2) Maximise the impact of public funding, optimising blends of private finance and public funding; and
- (3) Provide a long-term strategic approach, supporting the creation of the right market environment, increasing investor confidence and enabling public-private collaboration.

The Plan would ensure that different types of funding and investment mechanisms are "matched" to the range of projects that need to be delivered as part of this Strategy. For example, farmers seeking to adopt regenerative agriculture practices could be funded via a local Landscape Enterprise Network (LENs), whereby organisations with similar interest in environmental outcomes can co-fund sustainable farming practices. Or, alternatively, land-owners seeking to create revenue from nature recovery, could benefit from a "buyers club" to find a buyer for biodiversity net gain credits.

## Securing Funding & Investment

Delivery of the Investment Plan is expected to involve scaling of existing funding mechanisms (e.g. LENS) and the creation of new funding and investment mechanisms (e.g. an Impact Investment Fund to enable commercial investment in place-based decarbonisation).

This will also build on the more localised Town Investment Plans currently being developed.

### 2. Securing Devolved Funding

Devolving national funding streams to the regional level is critical to achieving our ambitions. Local control over these resources enables **long-term strategic planning**, ensuring that investment decisions are aligned with regional priorities and deliver maximum impact. By moving away from short-term, fragmented funding cycles, devolution provides the certainty needed to develop integrated programmes, leverage private investment, and accelerate delivery at scale. This approach not only maximises the value of public funding but also empowers our region to design solutions tailored to our unique economic, social, and environmental contexts - driving faster, more efficient progress toward a sustainable future.

# Developing Green Skills & Supply Chains.

*Ensuring we have the skills and resources needed to deliver at pace and scale, while capturing the employment and upskilling benefits of the green economy to help our communities and businesses to thrive.*

## Skills needs

We need to ensure we have a skilled workforce now and a growing, future workforce to support the transition to carbon negative and facilitate economic transformation. The current workforce will need to be supported to adapt, reskill and upskill and respond to changing sector needs. The future workforce will need to be supported to understand career pathways, and new and emerging green jobs.

## Links to our Skills Strategy

Our Skills Strategy, developed in July 2024, highlights a number of key ambitions necessary to ensure our people, skills system, businesses and communities are ready and able to fully contribute to and benefit from this transition:

- **An integrated, flexible and responsive skills system.** A system that is easy to navigate, responsive to key sectors, the transition to carbon negative and new technologies.
- **Accessible Careers Support for all ages.** Support that ensures high quality careers advice linked to the local labour market, that supports career adaptability, transferrable skills and new and emerging skills sets.
- **Thriving Businesses.** Ensuring that employers can identify current and future needs linked to emerging economic opportunities and recruit, retain and grow a productive, innovative and inclusive workforce.

- **Empowered Communities.** Ensuring that communities have the knowledge, confidence and skills to enable residents to fully participate and progress in learning and work.

## Building on previous good work

Foundation and capacity building have been key priorities in previous delivery. We have worked in partnership to deliver retrofit and green skills training to our local authorities and housing association teams, we have upskilled our careers leaders in schools and colleges, and we have enabled training to be embedded in our providers curriculum for future training needs.

We have learned that flexibility in the way training is delivered, offering a range of training from introductory to higher level and ensuring accessing training is simple, are important key factors in successfully upskilling the workforce.

## Programmes responsibility

YNYCA have number of key areas of responsibility in delivery (Skills Bootcamps, Adult Skills Fund, economic inactivity programmes) and strategically (careers, key stakeholders). We will ensure that we align our key areas of work to enable the skilled workforce needed to transition to carbon negative.

## Developing Green Skills & Supply Chains

*A further action plan for green skills development will be developed with stakeholders post-consultation.*

### Retrofit Skills Assessment

The Retrofit Skills Assessment, completed in February 2025, aimed to set out future retrofit skills requirements for York and North Yorkshire, and identify the gap between this and the current supply chain. The assessment examined roles such as installers, manufacturers, professional services (such as advice and evaluation) and other administrative roles. The main conclusion from the assessment was that there is a **significant gap between the current labour force of 500 people and the peak labour requirement for 2031 of 13,000 people**, across a range of roles. This highlights a substantial challenge in the delivery of retrofit in the region and will require extensive collaboration across stakeholders.

However, the study also identified **25,000 potential employees in other industrial groups that have similar skills profiles to retrofit**, including roles that will be phased out in the transition to carbon negative, such as those linked to oil and gas industries. This highlights another key area of work for the skills sector in supporting these employees in the transition to new roles within the retrofit sector, providing long term job security and equipping the region to deliver retrofit.

# Catalysing Demonstrators

*Showcasing the art of the possible to inspire action and confidence.*

## Inspiring action and providing confidence in sustainable solutions

Demonstrator projects are an important tool to showcase the art of the possible and inspire wider action. For example, Circular Malton and Norton have identified a number of demonstrator projects to inspire action within their town, as well as circular economy action in other towns across the region.

Demonstrator projects are also important to provide residents, businesses and investors with confidence around new technologies. This has been identified as particularly important with building retrofit due to concerns around the effectiveness of heat pumps. The Innovate UK funded Retrofit One Stop Shop in York (ROSSY) project established a series of retrofit demonstrator projects that residents could visit and find out more about different retrofit measures, from heat pumps to insulation. We also know that demonstrators are important to prove commercial viability for emerging technologies, such as geothermal.

### Strategic Actions:

#### 1. Delivery of the Carbon Negative Challenge Fund

The Carbon Negative Challenge Fund was established to fund demonstrator projects that

overcome key market failures that were holding back York and North Yorkshire's decarbonisation pathway in the following areas:

- Retrofit finance & solutions for place-based heat decarbonisation;
- Scaling up community energy and circular economy projects;
- Scaling up sustainable agriculture practices (including regenerative agriculture); and
- Innovative approaches to increase carbon sequestration in marine and coastal areas.

Funding has now been allocated to a selection of revenue and capital projects. [Further detail on CNCF projects will be provided once available].

#### 2. Identify where further demonstrator projects are needed and where we need new programmes to deliver climate action at scale

As we strive to deliver decarbonisation at pace and scale, we will seek to identify new and emerging areas where demonstrator projects are required and seek to develop programmes to support these.

## Catalysing Demonstrators

# Innovating with Data & Digital

*Embedding evidence-based decision making and innovative digital solutions across sectors to maximise delivery*

Having sufficient, coordinated data will be fundamental to achieving place-based solutions that truly meet the needs of the communities they serve. With a variety of city, coastal, rural, and industrial landscapes across York and North Yorkshire having ample data to strategically plan solutions that maximises the benefit for that environment is critical to ensuring efficient delivery.

Everything from balancing the international energy system, to monitoring your local bus timetable will rely on data and digital to ensure the transition to a sustainable future goes smoothly. That is why York and North Yorkshire Combined Authority will endeavour to take an evidenced based decision-making process wherever suitable data exists placing this at the heart of projects and programmes

## Strategic Actions:

### 1. Taking an evidenced based approach to actions

Having data at the foundation of decision-making helps tells us that we are focusing on the right areas in the right quantities to be effective. Through continuous monitoring we will be able to drive efficiency – speeding up where progress is good and pivoting or adapting where we are not seeing desired outcomes.

### 2. Filling data gaps with novel methodologies

Wherever data gaps exist YNYCA will aim to work with partners to fill these such as through involvement in pilot schemes aimed at generating and disseminating new data outputs, or through our support of partner projects such as at the Yorkshire Marine Nature Partnership's Kelp Forest survey which used innovative underwater videography and satellite remote sensing to provide unprecedented understanding of kelp forests on the Yorkshire Coast. As we move towards a sustainable future there will undoubtedly be data gaps that are come across, these will provide York and North Yorkshire the opportunity to be an international leader in how we bridge the gap.

### 3. Using innovative digital solutions to create efficiencies for programmes to thrive

As part of the transition to a sustainable future there will be opportunities for novel digital solutions to ensure the process goes smoothly and brings new benefits to everyday lives.

These solutions have the potential to be felt across a multitude of scales from integrated public transport ticketing at the household scale to digital rail signalling at the national scale. Both will be critical to ensuring public transport is able to meet the needs of its users, and both will be reliant on digital solutions. There will also be opportunities for

industry to showcase innovative digital solutions as shown by Schneider Electric's new £42 million smart factory in Scarborough. The factory provides a blueprint for sustainable manufacturing by being net zero in both scope 1 and 2 emissions and creates business efficiencies through digital energy management and automation.

Across the UK smart technologies are putting energy efficiency in the hands of the user from Smart Meters, to smart thermostats, to time of use tariffs, to full suite building management systems (BMS). What may individually appear to be small scale interventions when deployed at scale can have a significant contribution to conscious energy use, helping to secure a sustainable future through digital solutions.

**Innovating with  
Data & Digital**

# Establishing Infrastructure

*Creating the infrastructure to make it appealing, convenient and affordable for people and businesses to make the “sustainable” choice*

## Establishing Infrastructure for a Sustainable Future

Creating the infrastructure that makes sustainable choices **appealing, convenient, and affordable** is essential for driving meaningful change in York and North Yorkshire. Without accessible options - such as reliable public transport, electric charging networks, energy-efficient housing, and low-carbon business solutions—individuals and businesses face barriers to adopting greener practices. By investing in infrastructure that integrates sustainability into everyday life, we remove friction, increase uptake, and ensure that the transition to a sustainable future is not only achievable, but attractive. This approach will strengthen the economy, improve quality of life, and position the region as a leader in climate resilience and innovation.

Due to the nature of infrastructure being related to specific sectors (e.g. power, transport) the majority of infrastructure actions are embedded within each sector.

## Strategic Actions

### 1. Spatial Development Strategy

As part of the new responsibilities for Combined Authorities, York and North Yorkshire Combined Authority will need to produce a Spatial Development Strategy that sets out a long-term, integrated framework for where and how development, infrastructure, and investment should occur across the region to meet economic, social, and environmental objectives.

This plan is important in creating a sustainable future because it will:

1. Align priorities across housing, transport, energy, and natural capital, ensuring decisions are coordinated rather than fragmented;
2. Support sustainability goals by embedding decarbonisation, nature recovery and adaptation into land-use planning, infrastructure delivery, and investment strategies;
3. Provide certainty for investors and developers, creating a clear pathway for sustainable growth and regeneration; and

4. Balance competing pressures—such as economic development, environmental protection, and community wellbeing—within a single, coherent vision.

The plan should link to the CYC and NYC Local Plans.

The plan will act as a blueprint for place-based transformation, guiding how York and North Yorkshire can grow sustainably while achieving climate and economic ambitions. For example, planning for circular economy clusters in advance so that the right businesses can be co-located.

**Establishing  
Infrastructure**

# Influencing National Policy Change

*Influencing national policy change to create the conditions for accelerated action.*

## Influencing National Policy Change

York and North Yorkshire's ambition to be carbon negative by 2040 goes further and faster than the UK Government's ambition to be net zero by 2050. As a result, there are a number of areas that we have identified where we need to work closely with central Government to ensure we have the policy in place to deliver on our carbon and wider sustainability targets. Sector specific policy areas will be identified in the detailed implementation plans, and overarching strategic actions are outlined below.

### Strategic Actions:

#### 1. Coordinated Policy Asks

Work with key partners, such as the Yorkshire and Humber Climate Commission, to update our policy asks as necessary and ensure where feasible that we speak with "one voice" to Government on critical issues.

This will include identifying where there are significant funding gaps between national funding programmes and what is required to deliver interventions locally (e.g., additional costs associated with retrofitting older properties). These funding gaps will be evidenced from robust findings from feasibility studies and other relevant research.

#### 2. Provide evidence for National Policy Change

Increase the visibility of good practice and generate evidence from local projects and programmes to inform national policy. This includes raising the profile and awareness of key findings from local research, pilot programmes, and demonstrator projects.

We will utilise government consultations as a key method for engaging with national policy. This will require capacity and expertise, as well as close coordination with local authorities.

**Influencing  
national policy  
change**

*This section details our big “end goals” for creating a sustainable future, including the benefits that achieving these goals will unlock for the region, and how we will measure our progress towards them.*



## **5** Our Big Goals

- **Healthy & Thriving Communities**
- **Economic Transformation**
- **England’s First Carbon Negative Region**

# 5 Our Big Goals. Healthy & Thriving Communities

People are at the heart of our approach, and our first goal is to ensure climate action improves people's living standards, supporting the YNYCA Mayor's Vision for healthy and thriving communities

## What are we seeking to achieve?

Healthy & Thriving Communities is a cross-cutting strategic ambition incorporated into multiple YNYCA strategies, visions, and frameworks, including the Mayor's Vision, our Economic Framework, and our Local Growth Plan. It is at the heart of all YNYCA activity, and it is therefore our first goal to ensure that communities are supported in mitigating and adapting to climate change.

We will seek to:

- Ensure the benefits of a sustainable future are generated for Y&NY communities, and those who live, work, and visit in York and North Yorkshire;
- Protect our communities against the impacts of climate change through supporting adaptation measures; and
- Empower and make it easy for our communities to lead healthy, sustainable lives.

## What does this mean for York and North Yorkshire?

**More affordable energy bills:** Locally owned renewable energy projects will help reduce energy costs, saving people money and helping to tackle the cost-of-living crisis.

**Warmer, more comfortable homes:** Improving energy efficiency and moving towards low carbon heating solutions will ensure that every person in York and North Yorkshire is comfortable and can afford to heat and cool their home. With over 50,000 households in York and North Yorkshire in fuel poverty, home upgrades are critical to improving living standards.

**Strengthening communities:** Grassroots community climate action encourages people to come together to develop projects, share resources, and help to improve their local environment. This will reduce loneliness, help tackle climate anxiety, and provide opportunities for community wealth building. For example, community-led energy projects can generate profit that can be invested back into the community.

**Cleaner air, improved health & wellbeing:** Cleaner air and reduced pollution, alongside warmer homes and more options for active travel, will support people's physical and mental health.

**More convenient, safer and sustainable travel options:** Service needs are met more locally, so people do not have to travel long distances to access core services such as healthcare or shopping. More convenient, accessible and affordable public transport options, alongside improving cycling, wheeling and walking infrastructure, will provide people with greater choices, making daily travel easier and more accessible. With fewer cars on the roads, when you do need to drive, your journey will be smoother, faster and less stressful.

## Key opportunities in our region include:

- **Rich history & rural character** – Our region has a long and rich history, from strong rural farming communities, to cities and towns with unique heritage and character. We can build on this strong cultural identity and community pride for the region to ensure York and North Yorkshire becomes a pioneering region for strong and sustainable communities.
- **Strong voluntary sector** – York and North Yorkshire boasts a passionate and committed VCSE sector, with a range of organisations across the region engaged in supporting the health and well being of communities and residents.
- **Growing skills base** – We are a highly skilled region, leading in sectors such as engineering biology, food and farming, and rail innovation. Our communities are skilled and are already helping to drive our region towards a leading green economy.

## How will we measure this?

Examples of how we intend to monitor and measure our progress towards Healthy & Thriving Communities include:

- Number of homes retrofitted or fitted with energy efficiency measures.
- Number of community schemes supported.
- Monitoring improvements in air quality.
- Number of homes protected from flooding.
- Investment in sustainable transport and active travel infrastructure.



# 5 Our Big Goals. Economic Transformation

We want to ensure the journey to a “sustainable future” creates new economic opportunities and enables our economy to be more resilient to the impacts of climate change.

## What are we seeking to achieve?

The impacts of climate change are an economic concern. Economic estimates by the National Energy System Operator (NESO) show that achieving our climate goals is the cheapest option for the UK – slow action is more expensive e.g. through increasing costs of fossil fuel imports. We will not only seek to avoid these costs for our communities and businesses but actively seek to create economic opportunities in the transition to a sustainable future.

We seek to decouple economic growth from environmental damage, focusing on one of the most promising UK growth sectors – the green economy (growing three times faster than the wider UK economy<sup>5</sup>). This is investment into renewable energy, innovation in food production and farming practices, as well as financial and manufacturing industries to fuel the pathway to a carbon negative economy. This presents a unique opportunity to position York and North Yorkshire at the forefront of a sustainable economic future, and as a national hub for the green economy.

We are seeking to:

- Capture the opportunities and benefits of a growing green economy for Y&NY;
- Transition our regional economy away from environmentally damaging practices and drive circular economy principles; and
- Minimise the economic costs of climate change for our businesses and communities through taking early and decisive action.

## What does this mean for York and North Yorkshire?

**New, high-quality jobs:** As green industries grow, there will be new, high-quality jobs created, from heat pump engineers to seaweed farmers.

**More affordable energy bills:** Reducing energy use and switching to renewables can reduce energy bills, making businesses in our region more competitive.

**Lower operational costs:** More efficient processes and minimising waste (e.g. via lean manufacturing processes) can reduce operational costs.

**Future-proofing:** Shifting to more sustainable operating models can help businesses to comply with future regulations and changing customer preferences.

**Increased opportunities for funding and investment:** Businesses can take advantage of sustainability grants, as well as investors increasingly favouring businesses with strong sustainability commitments.



## Key growth opportunities in our region include:

York and North Yorkshire’s Local Growth Plan, adopted in 2025, identifies the following competitive advantage sectors for the region:

- **Clean energy** – growing retrofit supply chains, installation and maintenance of energy infrastructure & geothermal opportunities; and
- **Food & farming innovation** – including developing innovative solutions and supporting the adoption of regenerative and agriculture practices.

As well key assets shaping our regional economy:

- **Outstanding natural capital** – The foundational economic impacts of the farming sector; as well as new initiatives such as LINC attracting commercial investment for biodiversity net gain, peatland restoration, and other projects that deliver environmental improvements.

## How will we measure this?

Examples of how we intend to monitor and measure our progress towards Economic Transformation include:

- Number of new green jobs created.
- Hours of green skills training provided.
- Number of businesses taking up sustainability measures.
- Investment in sustainability programmes /innovation.
- £ investment into green industries, clean energy, and natural capital.

# 5 Our Big Goals. England's First Carbon Negative Region

We want to ensure we are carbon negative by 2040, that nature is thriving, and that our environment supports climate resilience.

## What are we seeking to achieve?

According to 2023 data, York and North Yorkshire is currently emitting 6.36 mtCO<sub>2</sub>e. However, based on the modelling of our carbon reduction pathway, we have the capability to go beyond net zero and reach carbon negative by 2040.

York and North Yorkshire benefits from nationally significant landscapes, many of which function as a carbon sink. Through protecting and enhancing these landscapes e.g. through tree planting, peatland restoration, and sustainable land management, we can utilise our environment to store carbon. We have the potential to become England's first carbon negative region, leading the way on tackling climate change, ensure that nature is thriving and build our resilience to the growing impacts of climate change.

We will seek to:

- Reduce our total emissions by at least 90%, by taking ambitious action across all our high impact sectors;
- Support nature recovery and enhancement of our environment to increase biodiversity and habitat creation, carbon sequestration and resilience to climate change; and
- Remove more than the equivalent amount of our residual emissions within the region, to ensure York and North Yorkshire reaches carbon negative by 2040.

## What does this mean for York and North Yorkshire?

**Tackling Climate Change:** York and North Yorkshire can demonstrate climate leadership by leading the way to decarbonise our economy and places.

**Thriving nature:** By taking a joined-up approach to tackle climate change and the biodiversity crisis, we can support nature to thrive. Our Strategy will be aligned with the strategic priorities set out in the North Yorkshire and York Local Nature Recovery Strategy.

**Resilient Landscapes:** Capturing and storing more carbon in our landscapes, such as through peatland restoration, tree planting, regenerative farming, and improved soil management, will strengthen our natural defences against flooding, drought, and extreme weather.

**Access to the outdoors:** Expanding and protecting access to green and blue spaces, and conserving the natural beauty of the region will improve public health, support wellbeing, and deepen our connection to nature. A carbon negative region is one where people and planet thrive together.



## Key opportunities in our region include:

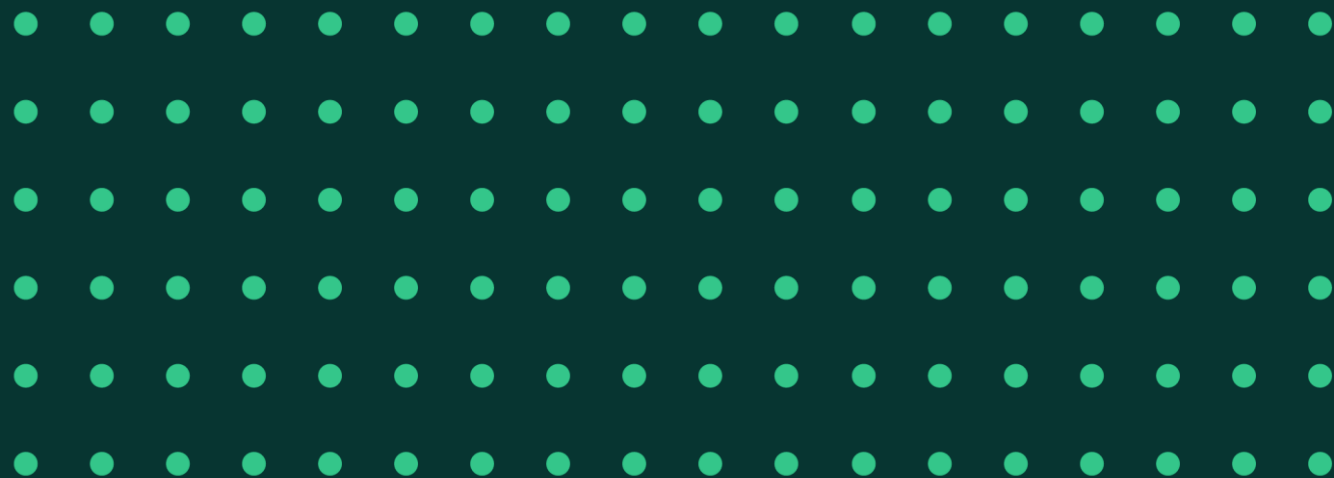
- **Abundant natural capital assets** – Our region contains a range of natural capital assets, including peatland, moorland, grassland, marine and coastal landscapes, with significant potential to capture and store carbon.
- **Farming innovation** – With >70% of the region's land used for agriculture, we have the potential to explore innovative ways to reduce on-farm emissions, as well as the use of agricultural land to enhance nature and sequester carbon.
- **Clean energy potential** – York and North Yorkshire has the potential to generate enough renewable energy to meet our own energy demands; exploration of innovative generation methods such as geothermal, anaerobic digestion, biochar, and small-scale hydropower.

## How will we measure this?

Examples of how we intend to monitor and measure our progress towards becoming England's First Carbon Negative Region include:

- Emissions reduction across sectors.
- % of peatland under restoration.
- Number of trees planted.
- Total number and volume of hedgerows.
- Biodiversity net gain.

*This section outlines the next steps for this Strategy following the conclusion of the public consultation.*



## Next Steps

- **Incorporating Feedback**
- **Developing Implementation Plans**
- **Governance, Performance Monitoring and Reporting Mechanisms**

# Next Steps. Summary

Following the public consultation, there are a number of key next steps to ensure that the finalised Strategy for a Sustainable Future provides a robust, credible and deliverable pathway to achieve our ambitious carbon targets in a way that maximises benefits for our communities and businesses.

## Incorporating feedback from public consultation

Following comprehensive analysis of feedback from consultation responses, the YNYCA Team will undertake further engagement as required to revise the Strategy. Where there is a lack of consensus, for example conflicting views around strategic priorities or interventions to be included, we will hold workshops to unpack such “knotty” issues and agree a way forward.



## Developing Implementation Plans

Using feedback from the consultation around interventions required, we will develop detailed Implementation Plans for each sector and the key enablers. These will include strategic interventions that have regional significance, from national or local policy change to new programmes or demonstrator projects. Each intervention will be “owned” by specific organisations, be fully costed and set out a clear timeline for delivery.

## Establishing Effective Governance, Performance Monitoring & Reporting

As reaching carbon negative requires collective action, we need to ensure governance arrangements embed accountability across multiple organisations. We will work with key partners to establish an effective governance model that provides strategic oversight, clear accountability and enables performance monitoring. As part of this, we will establish the frequency of reporting on progress and impact delivering the Strategy.

To support monitoring and tracking of progress, the YNYCA plan to create a “climate action dashboard”, which will track progress delivering projects and their associated social, economic and environmental impacts.



# York & North Yorkshire Combined Authority

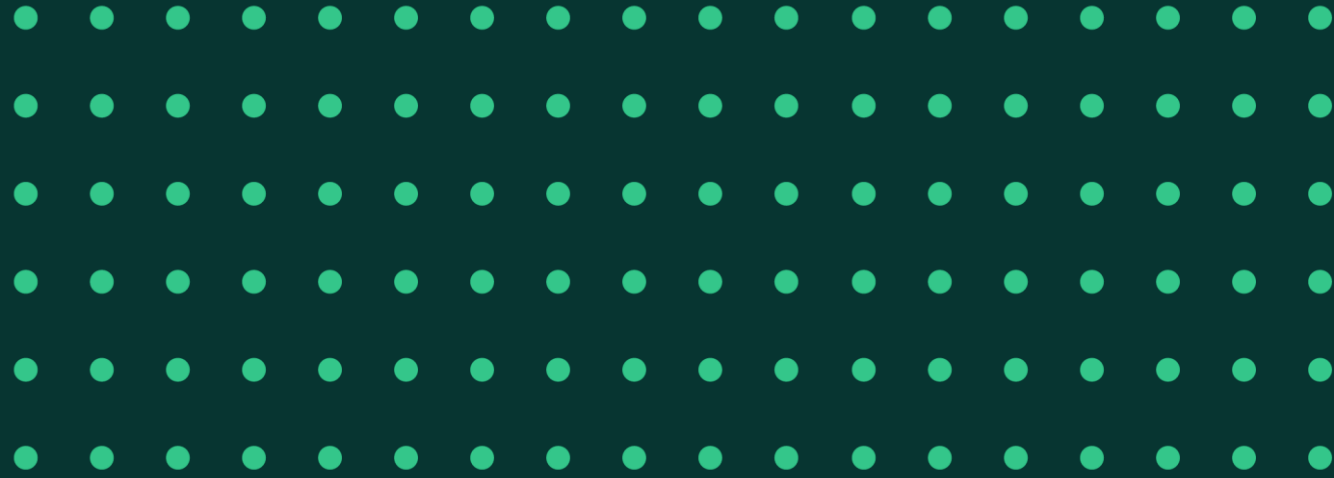
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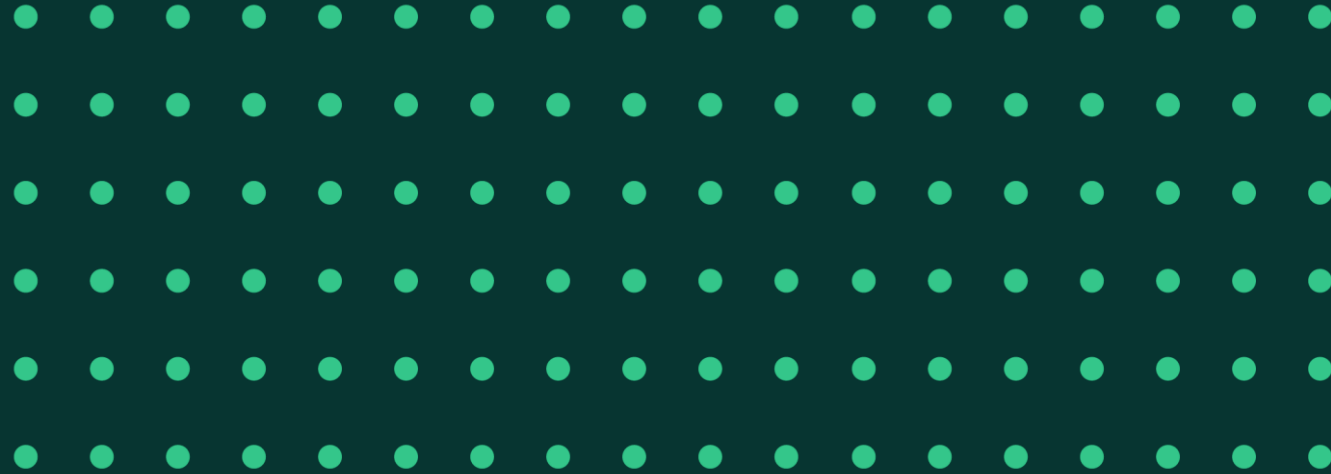
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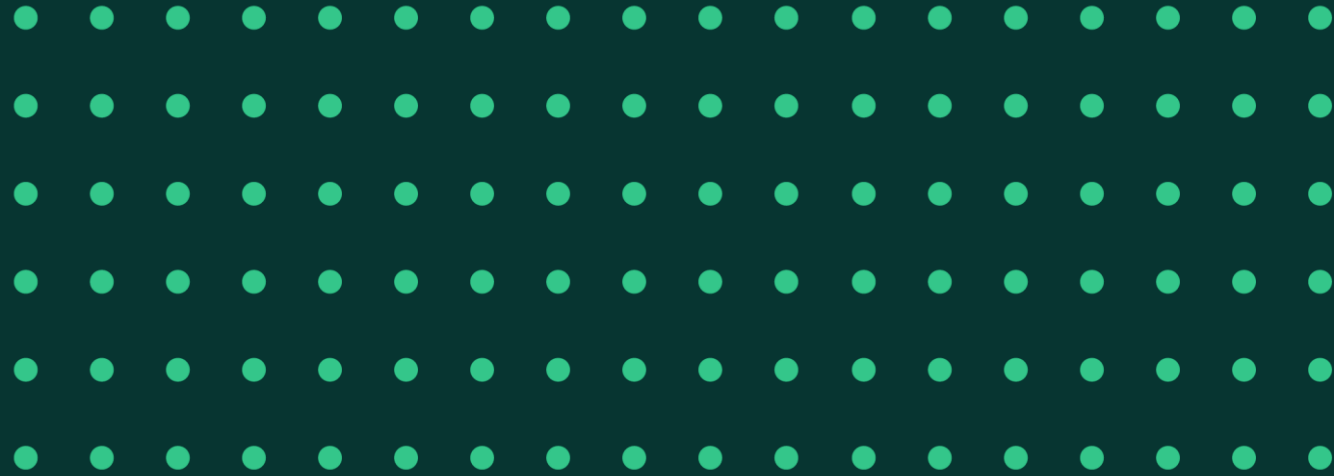
# Appendices

*This appendix contains the draft actions for each of our high impact sectors. Developed through extensive stakeholder engagement, these action plans will be refined through the public consultation to ensure the interventions are the most impactful and address our goals and the needs of communities and businesses.*



# Appendix 1

- **Sector Action Plans**



## ***Clean, Affordable & Reliable Power***

- ***Draft actions***

# Clean, Affordable & Reliable Power Plan. Actions

## Barriers

## Proposed Actions

## Outcomes

### Infrastructure, planning and regulatory restrictions:

The delivery of renewable energy projects is constrained by overlapping infrastructure, planning, and regulatory challenges. Land use conflicts arise where renewable energy development competes with other land uses such as agriculture. These sensitivities often delay or restrict site selection and approval.

At the same time, limited grid capacity and delays in the connections queue are slowing deployment, while significant investment is required to adapt the grid to accommodate new small-scale generators and innovative projects.

Regulatory shifts compound these challenges; for example, changes to the National Planning Policy Framework in 2015 led to a de-facto ban on onshore wind, which significantly reduced the project pipeline in the region. Even as policies evolve, the uncertainty and risk created by shifting regulations remain a key barrier to achieving a carbon negative energy system.

**Local Area Energy Plan (LAEP) update:** Update the LAEPs to ensure they reflect current opportunities, local ambition, and infrastructure constraints. These will inform investment in feasible and impactful energy generation projects [also in Heat & Buildings sector].

**Future Energy System Planning:** Liaise with partners in Northern Powergrid and National Energy System Operator (NESO) to advocate for investment and policy changes for the development of the required infrastructure (e.g. grid capacity) for the carbon negative projects and growth in the region.

**Champion National Level Policy change:** Utilise our devolved powers to champion the regulatory environment required to central government and unlock the policy changes and funding needed to strengthen our energy generation transition.

**Optimised resource mix** through maintaining a coordinated, locally approved, and maximum efficiency pathway to deploying clean energy infrastructure resulting

**Unlock decarbonisation across sectors** with a future-ready energy system that removes grid barriers, accelerates renewable deployment, and underpins a resilient carbon negative transition

Align with national government on a policy environment that overcomes regulatory barriers, unlocks funding, attracts investment, and accelerates renewable energy deployment in York and North Yorkshire

# Clean, Affordable & Reliable Power Plan. Actions

## Barriers

**Skills for Project Delivery:** Achieving a net zero energy system at pace and scale requires significant upskilling and expansion of the region's workforce. This includes, the installation and maintenance of solar PV, wind turbines, hydropower, heat pumps, geothermal systems, EV chargers, as well as energy efficiency and smart energy upgrades. Ongoing innovation will also demand retraining as our energy infrastructure becomes increasingly diversified.

## Piecemeal public funding

Renewable and community energy projects face major challenges due to fragmented and short-term funding structures. Limited support for early-stage activities such as feasibility studies and business case development prevents many projects from reaching investment readiness. Even when strong business cases are established, delivery funding is often only available through competitive, short-term grant schemes that do not align with long-term regional project pipelines. This piecemeal approach creates uncertainty, slows progress, and hinders the scaling of renewable energy deployment.

## Proposed Actions

**Addressing the skills gap:** Explore developing training programmes in collaboration with universities and technical colleges.

**Showcase delivery of Net Zero Fund and Carbon Negative Challenge Fund:** Utilise the funding secured through our devolution deal to showcase why York and North Yorkshire can lead the way in the carbon negative transition to attract long term investment from the public, private, and third sectors.

**Develop and implement the Energy Generation Accelerator Programme (EGAP):** Use EGAP to accelerate the development of renewable energy generation projects in York and North Yorkshire. The programme will support early-stage project development, including feasibility studies and business cases, and address barriers such as planning, community engagement and grid connection. It will provide strategic oversight of priority locations and technology options across the region.

## Outcomes

Training programmes ready to deliver a scaled up, diverse, futureproofed, local workforce capable of delivering the pace and scale of decarbonisation required.

A nationally recognised reputation for decarbonisation projects that attracts inward investment.

An investment-ready pipeline of renewable energy projects, strategically aligned to deliver York and North Yorkshire's carbon negative ambitions.

# Clean, Affordable & Reliable Power Plan. Actions

## Barriers

### **Attracting and co-ordinating commercial investment:**

Securing private finance for Renewable and community energy projects is hindered by a combination of structural and capacity challenges. Many project developers, including local authorities and community groups, lack the expertise to prepare investment-ready proposals or engage effectively with investors. Smaller and community-led projects often face weak commercial viability due to high technology costs, uncertain revenue streams, or limited economies of scale, leaving them reliant on public or grant funding. At the regional level, the absence of a coordinated investment framework further limits opportunities to de-risk projects, bundle investments, and develop mechanisms such as public-private partnerships. Together, these factors reduce the flow of commercial capital into the sector and slow progress towards carbon negative.

**Poor public perception:** Many projects, particularly commercial solar and battery storage developments, are perceived to offer few direct benefits to nearby communities. Without clear advantages such as local job creation, shared ownership, or lower energy costs, these proposals are frequently met with objection during the planning process.

**Capacity and technical expertise of community energy groups:** The community energy sector in York and North Yorkshire is less developed than other regions, due to financial and technical barriers. Most groups rely on volunteers with limited capacity and technical expertise, with limited knowledge on where to find the right support and resources for new projects.

## Proposed Actions

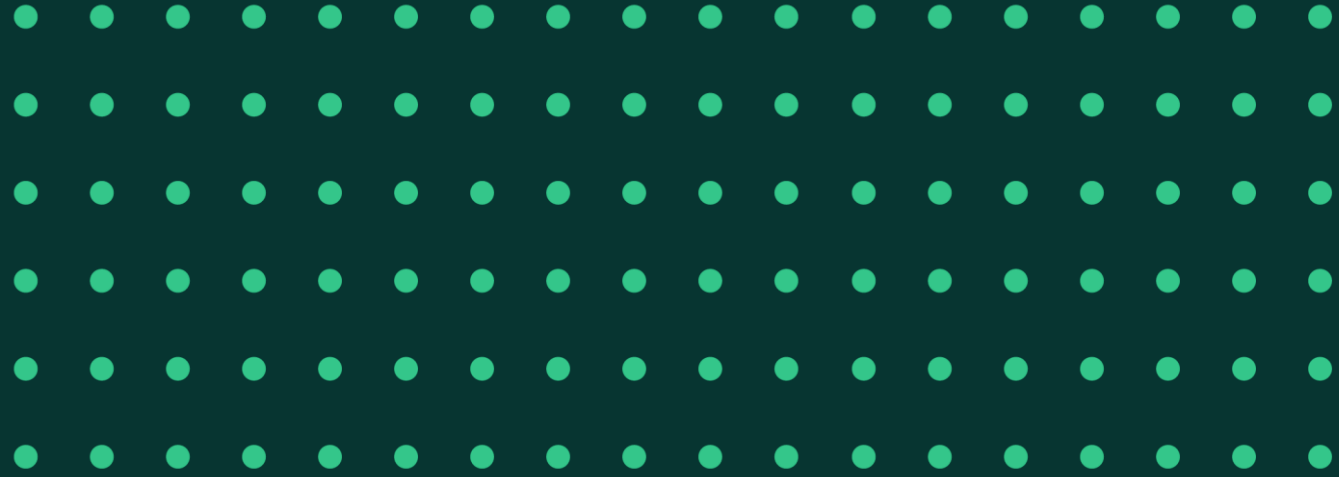
**Design a regional delivery and investment vehicle through the Local Net Zero Accelerator (LNZA) programme:** This model will facilitate innovative financing, de-risking, and aggregation of investable energy projects across sectors, including power and heat. The mechanisms explored through the Strategic Energy Partnership should facilitate private sector investment in renewable energy projects and smart grids within our region.

**Support for Community Energy:** Provide regional support to community energy projects, focused on developing skills, creating capacity in local organisations, and building public support. Directing community energy groups to funding support and exploring possibilities to unlock more consistent funding for community energy projects and groups.

## Outcomes

**A thriving local green economy** through a stable, long term approach to delivery, with a defined priority partner utilising economies of scale to derisk investment, resulting in a sustainable growth strategy

**Community wealth building** via a thriving community energy sector that empowers residents and makes the energy transition more inclusive and socially supported.



## *Warm, Comfortable Buildings*

- *Draft actions*

# Warm, Comfortable Buildings Plan. Actions

## Barriers

**Funding and investment:** The national Government funding landscape is short term, competitive and only tackles the tip of the iceberg, leading to a lack of scalability. The finance market is currently not interested in retrofit due to the lack of commercial returns from retrofit and there is a large finance gap for those looking to undertake retrofit, especially for those who are not covered by government schemes. There is limited support for pilot projects or non-traditional ownership models, and innovation risks can deter private investment, which impacts the development of technologies like geothermal. Additionally, retrofit is viewed as expensive, and whilst there can be energy bill savings due to retrofit, this is often substantially less than the cost of investing in retrofit. For example, the typical cost of installing cavity wall insulation in a semi-detached house is £2700, which can save on average £280 per year on energy bills.

## Proposed Actions

**Co-design and implement a Retrofit Strategy for York and North Yorkshire:** Develop a Retrofit Strategy for the region that is a collaborative document which provides strategic direction for retrofit in the region. It must provide a clear, co-owned plan to accelerate retrofit in York and North Yorkshire, tackling key challenges such as skills, finance, demand, data and collaboration.

**Pilot financial policy options for Y&NY:** Taking a relational approach, seek funding to pilot financial policy approaches in York and North Yorkshire, working with other Yorkshire Combined Authorities to gain wider learnings. Offers should align to the one stop shop and other provision, and aim to fill gaps in current retrofit finance, such as offering a blend of funding and loans to those in the group between 'able to pay' and covered by government schemes.

**Finance Industry Roundtable:** Host a Roundtable to discuss the state of finance for retrofit in the region, identify opportunities for new products or approaches, and agree a future communications strategy. This may include mortgages, loans, funds and other finance mechanisms.



Also included in the Retrofit Strategy

## Outcomes

Clear sense of direction for local and national stakeholders

Creation of momentum and certainty for the supply chain

Easier access to appropriate finance solutions

Increased uptake of retrofit resulting in comfort, cost and climate benefits

Use of private sector finance

Bill savings

# Warm, Comfortable Buildings Plan. Actions



Also included  
in the Retrofit  
Strategy

## Barriers

**Skills and supply chain:** There are major skills gaps in the supply chain for retrofit, such as heritage skills and knowledge of whole building physics. Furthermore, innovative approaches to retrofit, and use of materials such as biofibre, are currently constrained by a lack of guarantees and narrow requirements of funding which focus on more tried and tested approaches. There is also a lack of capacity across most organisations such as businesses, local authorities and social housing providers, which limits the pace and scale of retrofit being done.

## Proposed Actions

**Regional Retrofit Network:** Seek finance to extend the currently Innovate UK funded and York based Retrofit Network. As part of this, the network should be extended to include North Yorkshire. Topics should include biobased construction, quality and performance standards, skills etc. Additional aspects may include:

- An online platform for resources to use between sessions;
- Using the Careers Hub's Collaboration Tool, connect businesses with schools and colleges;
- Support for businesses, such as support to register with MCS and Trustmark;
- An annual conference for the retrofit supply chain with Yorkshire Combined Authorities.



**Biobased Construction Materials Accelerator:** Create a biobased materials accelerator through the York Central development to grow the biobased construction industry, support skills development and test the use of biobased materials where feasible

## Outcomes

Stronger local supply chain leading to increased pace and scale of delivery

Increase in future-focused jobs and upskilled individuals and businesses

Increased economic benefits for York and North Yorkshire

Skilled, collaborative businesses

Strengthened supply chain for biobased materials

Economic growth

Y&NY as an example of best practice which can be used to encourage further work regionally and nationally

# Warm, Comfortable Buildings Plan. Actions



Also included  
in the Retrofit  
Strategy

## Barriers

**Data:** Data constraints limit the amount of knowledge we have about our buildings. For example, Energy Performance Certificates (EPCs) do not paint the whole picture of a building's energy efficiency. EPC ratings do not include all energy consumed within a dwelling, and the metrics used focus on cost rather than efficiency. There is also a performance gap between predicted and actual energy use which means that when EPCs are used to assess energy savings, the results can be unreliable. Additionally, many buildings do not have an EPC (22% of homes in the region), but there is not a viable alternative to measure progress made. For geothermal and other emerging technologies, there is also a lack of feasibility data and market maturity.

## Proposed Actions

**Retrofit Dashboard:** Create a shared retrofit data platform to support market development and ensure a joined up regional approach. This should include data on buildings such as EPC, adaptation needs and heritage status, and wider retrofit data such as skills needs, public engagement etc. The dashboard should be utilised to:

- Create a spatial plan for retrofit which can be utilised for future funding and opportunities.
- Establish an investible project pipeline, to include non-domestic opportunities and community energy.
- Establish clear metrics and methods for evaluation as part of the dashboard.

This should compliment the Local Area Energy Plans and other data work in the region, and be user friendly to recognise capacity constraints in different organisations.



## Outcomes

Strengthened project pipeline for the region

Improved understanding of building condition, leading to agility and flexibility for future funding opportunities and ability to target retrofit interventions

# Warm, Comfortable Buildings Plan. Actions



## Barriers

## Proposed Actions

## Outcomes

**Lack of demand:** The general public have limited awareness of retrofit, alternative heating options to gas, and routes to energy efficiency upgrades. The ROSSY project found that whilst this is not a limiting factor on its own, in combination with limited access to finance, the hassle of undertaking retrofit work, and a lack of supplier trust, this can lead to a lack of demand.

**Develop a York and North Yorkshire Retrofit One Stop Shop:** Building on the work done so far in York and North Yorkshire such as two Local Energy Advice Demonstrator (LEAD) projects, and the Retrofit One Stop Shop for York (ROSSY) project, undertake a full options appraisal to explore the options for a one stop shop for York and North Yorkshire. This appraisal will include scoping finance options to operate the service, as well as exploring available finance options for residents and landlords in both domestic and commercial buildings, and linking with existing service provision, such as Citizens Advice and the NHS. Based on evidence from LEAD and ROSSY, the one stop shop itself should encompass the whole retrofit journey, including advice, assessments, finance solutions and suggested tradespeople.



**Pilot financial policy options for Y&NY:** Taking a relational approach, seek funding to pilot financial policy approaches in York and North Yorkshire, working with other Yorkshire Combined Authorities to gain wider learnings. Offers should align to the one stop shop and other provision, and aim to fill gaps in current retrofit finance, such as offering a blend of funding and loans to those in the group between 'able to pay' and covered by government schemes.



More uptake of retrofit with benefits for comfort, cost and climate  
Strengthened local supply chain

More uptake of retrofit with benefits for comfort, cost and climate  
Examples of financial policy for different demographics

# Warm, Comfortable Buildings Plan. Actions



Also included in the Retrofit Strategy

## Barriers

## Proposed Actions

## Outcomes

**Infrastructure:** Grid capacity constraints and long connection times come up frequently as a challenge for decarbonising heating, and can be off-putting to the general public looking at installing renewables.

**Local Area Energy Plan (LAEP) update** – Utilising the Energy Generation Accelerator Programme (EGAP), update the LAEPs to inform delivery of retrofit and new build, and phasing out fossil fuel use for heat. This should examine options for different technologies and approaches such as heat networks and geothermal. [also in Power]

Strengthened project pipeline for the region

Improved understanding of energy system and capacity needs allowing for forward planning

**New technology and innovation:** Innovative approaches such as geothermal require feasibility, testing, and investment to deliver, which can be difficult when they use new technologies. This can restrict the amount of activity using new technologies and innovation.

**Seek funding to research opportunities for geothermal and heat networks and the associated finance needs:** Geothermal is an area of emerging potential in York and North Yorkshire, with the region supporting a uniquely favourable sub-surface geology. Potential areas for heat networks have been identified via the LAEPs, but further detail is needed, including how to leverage investment, how to best work with the local planning system, and what technologies can be utilised. We would therefore seek to understand the full scope of the opportunity, investigating the potential for geothermal energy and heat networks that could then be incorporated into our wider Y&NY Energy Strategy.

Pipeline of geothermal and heat network projects

Improved understanding of potential in the region

Improved understanding of financial models required

# Warm, Comfortable Buildings Plan. Actions



Also included  
in the Retrofit  
Strategy

## Barriers

## Proposed Actions

## Outcomes

**Fragmented collaboration:** Whilst there is a lot of activity happening around retrofit and heat, this can lead to duplication and resources being stretched unnecessarily.

**Continue regional relationships:** Continue working with and learning from other areas and organisations such as West Yorkshire Combined Authority (WYCA), South Yorkshire Mayoral Combined Authority (SYMCA), North East Combined Authority (NECA), Greater Manchester Combined Authority (GMCA), the North East and Yorkshire Net Zero Hub, and the National Retrofit Hub, seeking opportunities for collaboration. This should particularly focus on challenge areas such as adaptation, skills and finance.

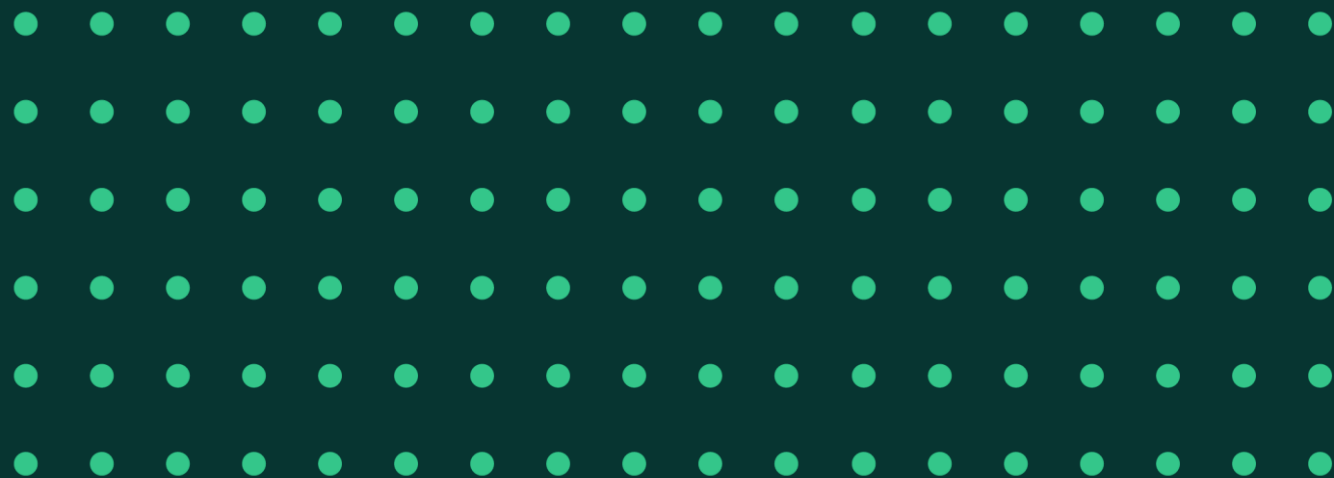


Increased collaboration between areas  
Shared case studies, resources and knowledge  
Creation of single voice to Central Government

**Poor New Build Standards:** Future homes are not necessarily built to the highest possible fabric standard, and using decarbonised heat sources. This will lead to homes needing to be retrofitted in the future, and residents not benefitting from the comfort, cost and climate benefits.

**Better Buildings Now:** As a Combined Authority, work to ensure that building developments are built to high standards and are compliant with carbon negative. Utilise relationships with central government to influence building standards, such as ensuring the Future Homes Standard delivers buildings compliant with our regional principals.

Increased comfort and higher quality homes  
Decreased energy bills



## ***Accessible, Convenient Transport***

- ***Draft actions***

# Accessible, Convenient Transport Plan. Actions

## Barriers

**Cost of transport upgrades:** Upgrading transport infrastructure is often costly and requires significant amounts of long-term investment. There is need to secure long-term funding at all levels.

**Infrastructure constraints:** Current 'pinch points' along the transport network e.g. limited capacity of railway stations and lines, suppress network growth to meet demand, and will need to be identified and unlocked.

**Need for national-level policy:** Challenges coordinating regional transport plans with national policy shifts, including ongoing changes to national legislation on vehicle standards, such as banning diesel vehicles. National level policy can have a significant influence on the region's ability to transition the transport sector to net zero at the required pace and scale.

## Proposed Actions

**Unlock funding and finance:** Seek to secure long-term integrated and proportional funding, including central government settlements and/or private investment, to upgrade transport infrastructure and invest in local transport schemes.

**Data collection:** Work to build up regional data for transport infrastructure, to identify the key areas within the transport network ('pinch points') that can be addressed to improve the efficiency and capacity of bus, road, and rail services. Working with key stakeholders and in the development of the Local Transport Plan.

**Targeted policy and legislation:** Review local policy and implement regional policy and legislation where possible, including air quality and noise legislation. Understand which interventions will require strong national legislation and utilise the powers of the YNYCA to champion the necessary transport reforms to central government.

## Outcomes

A transport sector with the long-term resources it requires to decarbonise at pace and scale, allowing for strategic planning of infrastructure.

Identifying the transport interventions that will have the maximum impact in improving the speed, efficiency, and reliability of public transport.

York & North Yorkshire as a national advocate for sustainable transport advancement.

# Accessible, Convenient Transport Plan. Actions

## Barriers

**Need for collaboration between stakeholders:** Responsibility and powers over transport are split between a wide variety of public and private entities. The creation of an integrated and connected transport network will require significant and ongoing cross-sector collaboration.

**Coordination across regional strategies:** The transport sector has large scope of influence, including planning, housing, and businesses, and therefore there is a risk of misalignment between various regional strategies on the development of the transport sector in York and North Yorkshire.

**Challenges around fuel type:** There is a risk to strains on the electricity grid through increased electrification and renewable installations, including updating rail and bus infrastructure to accommodate electrification. There is also a major cost challenge to rail electrification and the sourcing of alternative energy sources e.g. battery, hydrogen.

## Proposed Actions

**Build relationships within the transport sector:** Utilise the powers and reach of the YNYCA to convene transport stakeholders in the region and beyond, striving for efficient collaboration and coordinated delivery.

**Connection with wider strategies:** Coordinate this Strategy with the key objectives in the developing YNYCA Local Transport Plan, and other YNYCA strategies, to ensure a unified regional approach to decarbonising the transport sector. Also, ensure a cross-boundary approach, working with neighbouring Combined Authorities to take a partnership approach to transport strategy.

**Work closely with energy sector stakeholders:** Coordinate transport electrification projects with key stakeholders in the energy sector, including DNOs, such as Northern Powergrid, and National Grid.

**Encourage innovation in low carbon fuel sources:** Take a flexible approach to transport decarbonisation, adapting to the viability of different technologies for different places and vehicles.

## Outcomes

A connected transport network – multiple modes of travel integrated across the region, allowing for easy and smooth journeys.

The vision for an accessible, efficient, affordable and convenient decarbonised transport network is embedded throughout all regional delivery.

A flexible and adaptable transport system.

Emissions reduction and increased efficiency through using a variety of low carbon fuel sources.

# Accessible, Convenient Transport Plan. Actions

## Barriers

**High levels of tourism:** More than 32 million people visited North Yorkshire in 2024\* and York receives on average 8.9 million tourists per year. Ensuring these tourists travel sustainably is a significant step needed to reduce the region's transport emissions.

**Demand from Economic Growth:** Transport is a key enabler for economic growth and helping communities to thrive. Therefore, in the renewed push for regional growth, it is vital that the impact on transport demand from commuting and logistics are addressed in these plans.

**New building developments:** New housing developments not considering transport impacts or having a car centric design, with consultation often coming too late in the planning process, is a significant barrier to combatting congestion and poor public transport provision.

## Proposed Actions

**Work with tourism bodies and businesses:** Collaborate with tourism bodies and businesses to promote and incentivise sustainable travel, including how visitors travel both to and within the region. Explore providing incentives for tourists who travel via public transport or active travel e.g. through the gamification of sustainable transport.

**Engage with regional employers:** Work with key regional employers to encourage workplace modal shift e.g. cycle to work schemes, and support the decarbonisation of company fleets and movement towards cleaner and more local delivery/freight logistics.

**Coordinate with the Local Growth Plan:** Coordinate the delivery and priorities of the Strategy with the delivery of the Local Growth Plan.

**Exercise statutory powers in spatial planning:** YNCYA can influence how transport is addressed in new developments e.g. housing and workplaces, through the Spatial Development Strategy, as well as feeding into the North Yorkshire Local Plan development.

**Work with service providers:** Prioritise reducing the need to travel by improving local service provision, working with anchor institutions such as the NHS to create service provision locally.

## Outcomes

York and North Yorkshire as an exemplar for promoting sustainable travel, demonstrating to visitors from around the world that we are dedicated to supporting better ways for moving across the region.

A sustainable and efficient transport system that drives regional economic growth.

Improved connections between people and job opportunities.

People's needs are met locally, with access to health, education, retail and other services. Public transport is easily accessible and affordable for when travel is required.

# Accessible, Convenient Transport Plan. Actions

## Barriers

**Lack of safety in active travel:** A significant barrier to the use of active travel is the real or perceived lack of safety when walking, wheeling, using wheelchairs, and cycling. This includes congested or high-speed roads, uneven surfaces, lack of pedestrian crossings, and dangerous driving by other vehicles.

**Poor accessibility:** Limited or no accessibility measures is a significant and life-altering barrier for many when it comes to using public transport or active travel infrastructure. It results in people becoming dependant on private cars or unable to travel at all. Strong action is required to ensure that sustainable travel options are available to all, including people with disabilities, families and young children, low-income households etc

**Private car dependency:** Poor connectivity and reliability of public transport in the region creates a dependency on private car use, especially in rural areas. Making it easy and appealing for people to choose to use public transport remains a key challenge.

## Proposed Actions

**Scale-up the School Streets initiative:** Work to identify viable sites and secure funding to continue the adoption of the Schools Streets initiative across York and North Yorkshire; championing the benefits for children and encouraging further uptake among parents and communities.

**Increasing safety for active travel:** Invest in active travel infrastructure and travel planning. Explore adopting a Vision Zero target for Y&NY, with a focus on road safety for walking and cycling and improving the safety of rural roads.

**Accessibility as a priority:** Work with disability action groups and planning authorities to ensure that accessibility is built-in to all public transport and active travel provisions. Ensure that active travel infrastructure safely accommodates wheelchair and mobility aid use. Work with public transport providers to ensure improved accessibility at stations and stops, and increase provision of accessible seating in buses, trains, and taxis.

**Public transport investment:** Collaborate closely with public transport providers to expand network provisions. Work continuously to ensure the affordability, safety, and built-in accessibility of public transport. Promote innovative solutions to make sustainable travel easier to use – e.g. connected ticketing/Mobility as a Service, and multi-modal transport hubs.

**Encourage community car sharing and shared mobility schemes:** Reduce the number of private vehicles on the road through incentivising and communicating the benefits of car sharing (i.e. car clubs) schemes.

## Outcomes

Happier, healthier, more active communities, with fresh air and exercise built into daily lives.

People feel safe walking, wheeling, and cycling.

Children are more active and engaged on the journey to school.

A fair and inclusive transport system, accessible to all and supporting those who need it most, through improved connections to services that support health and wellbeing.

An efficient, connected, and easy to use public transport network.

Cleaner air and less congested roads.

# Accessible, Convenient Transport Plan. Actions

## Barriers

**Challenges of network integration:** To encourage increased public transport use, the transport network needs to be connected and convenient. This requires coordination and collaboration across a variety of stakeholders in bus, rail, and active travel to achieve a fully integrated multi-modal transport system.

**Complexity in the scale and rurality of North Yorkshire:** A diffuse rural towns landscape has resulted in a disparate and large-scale network, with limited public service provision in rural and coastal areas. Phasing out private ICE car use without strengthening public transport provisions could further increase rural isolation.

**Lack of EV charging infrastructure across the region:** EV uptake across Y&NY is being hindered due to poor access to public EV charging sites, as well of challenges for homes with no off-street parking.

## Proposed Actions

**Encourage a multi-modal approach:** Take a cross-modal approach to travel, trialling micromobility devices such as e-bikes or scooters to help address the last mile journey and improve connectivity between transport hubs. Encourage railway and bus stations developments to take a multi-modal approach, providing good quality bike storage or rental, and other active travel provisions.

**Promote local, place-based transport solutions:** Work with communities in towns, rural, and coastal areas to develop place-based solutions to sustainable transport, including the piloting of new schemes e.g. car-sharing, e-bikes. Explore the integration of multiple social and environmental benefits where possible e.g. street trees, building on the Green Streets initiative. Build on the Local Cycling and Walking Infrastructure Plans.

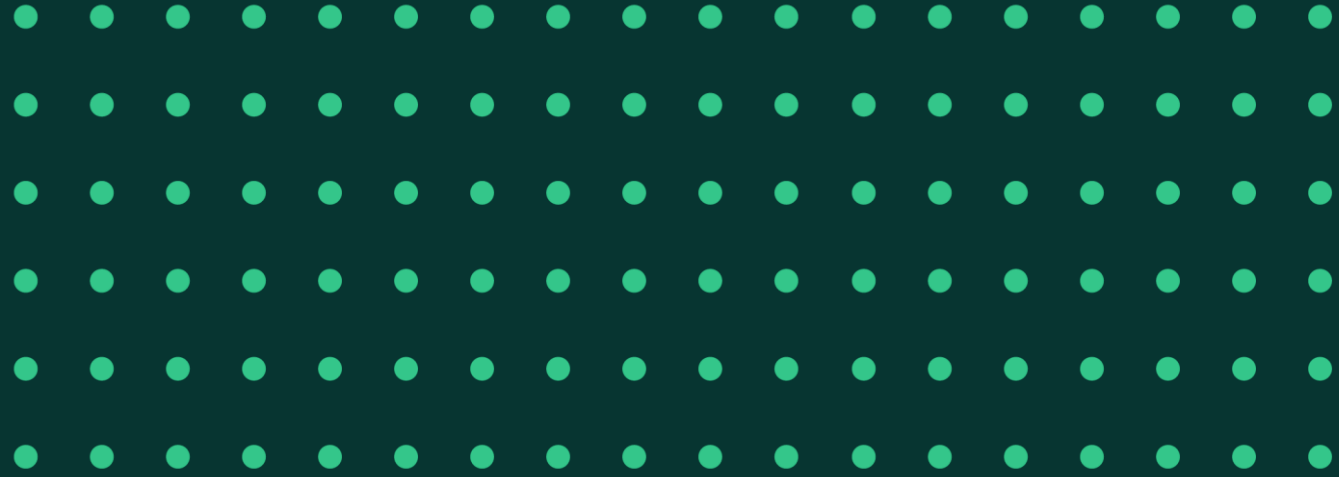
**Expand EV charging infrastructure:** Encourage the shift away from petrol/diesel vehicles through investments into EV charging infrastructure. Explore funding opportunities e.g. Local Electric Vehicle Infrastructure (LEVI) funding to work towards a full regional charging network. Explore deploying innovative charging solutions, such as on-street/cross-pavement chargers (in line with the priorities of CYC and NYC EV Charging Strategies).

## Outcomes

An integrated public transport system, allowing for seamless journeys, promoting sustainable travel as the easiest, most convenient travel option.

Towns and villages in Y&NY have transport solutions that work for them, enhancing the beauty and connectivity of our rural communities.

A fully integrated EV charging network allow for seamless zero emissions travel across the region, improving air quality and the health of residents.



## ***Innovative, Sustainable Businesses***

- ***Draft actions***

# Innovative, Sustainable Businesses Plan. Actions

## Barriers

**Limited data:** There is a current lack of detailed baseline data, real-time tracking and measurement across business and industry in the region to inform policy and enable progress monitoring and to understand the highest energy users and carbon emitters in the region.

**Capacity, knowledge and skills:** SMEs tend to face challenges around having the capacity to consider and take steps towards reducing emissions. Particularly for SMEs, there is limited knowledge around the benefits of low carbon technology and circular economy opportunities. Even with the necessary knowledge, businesses can lack the resource to implement change without disruption or debt.

**Supply chain and innovation:** Business decarbonisation is reliant on decarbonising complex supply chains. There is currently limited support for businesses, alongside regulatory blocks limiting businesses to move at speed with scaling innovation.

## Proposed Actions

**Research Carbon Intensity:** Engage and commission research that identifies key businesses and industrial estates/business clusters with a view to enabling prioritisation of activity and define 'heat spots' of carbon intensity in the region.

**Greater Support to Encourage Businesses to Decarbonise:** Provide further resources to increase number of businesses engaged and supported through advice and funding. Encourage change & signpost to potential future funding or loans provision.

**Work with key regional economies:** Work more closely with key employment sectors to support in decarbonisation, such as tourism and the Visitor Economy.

**Support Regional Partnerships and Clusters:** Identify & bring together the industrial/business clusters in the region, to work with academia & public sector to develop innovative solutions together and identify opportunities for supply chains and industrial symbiosis (resource and waste sharing between different businesses) across businesses of all sizes.

## Outcomes

Targeted and effective delivery that focuses on the most carbon intensive industries.

Skilled and carbon literate businesses that have the knowledge and resources they need to improve operational efficiency, reduce costs, and drive regional decarbonisation.

High tech and efficient business clusters that utilise and grow regional supply chains, forming a strong network of industry in York and North Yorkshire that pioneer innovative green solutions.

# Innovative, Sustainable Businesses Plan. Actions

## Barriers

**Economic viability:** Decarbonisation is not a priority for businesses unless it is advantageous to cost reduction or a regulatory imperative. There is limited and complex access to funding and finance and low-carbon solutions are not always cost effective for businesses or are cost-prohibitive.

**Awareness and uptake of Circular Economy:** Previous programmes focusing on supporting businesses in adopting circular economy practises have seen limited success, often because the language used around circular economy is not always accessible and the economic benefits are not immediately clear for businesses.

**National Government Policy:** There is a need for more policy support from government, outside of GB Energy decarbonisation of energy infrastructure. This is exacerbated by current global economic and political uncertainties.

## Proposed Actions

**New Funding Models:** Explore Government funding or a devolved Funding model to support decarbonising high carbon intensity businesses &/or groups of businesses on industrial estates, in regions.

**Share Solutions:** Develop a model for shared business energy solutions for development sites, industrial parks, high streets throughout York and North Yorkshire, considering ownership models and commercial viability. This will allow the region to be competitive with Foreign Direct Investment requests and provide an access to finance model for businesses

**York and North Yorkshire as a testbed:** Support the trial of circular economy principles in York and North Yorkshire industrial clusters, promoting the uptake of circularity in business operations.

Potentially something that could fall under the [Circular Economy Task Force](#).

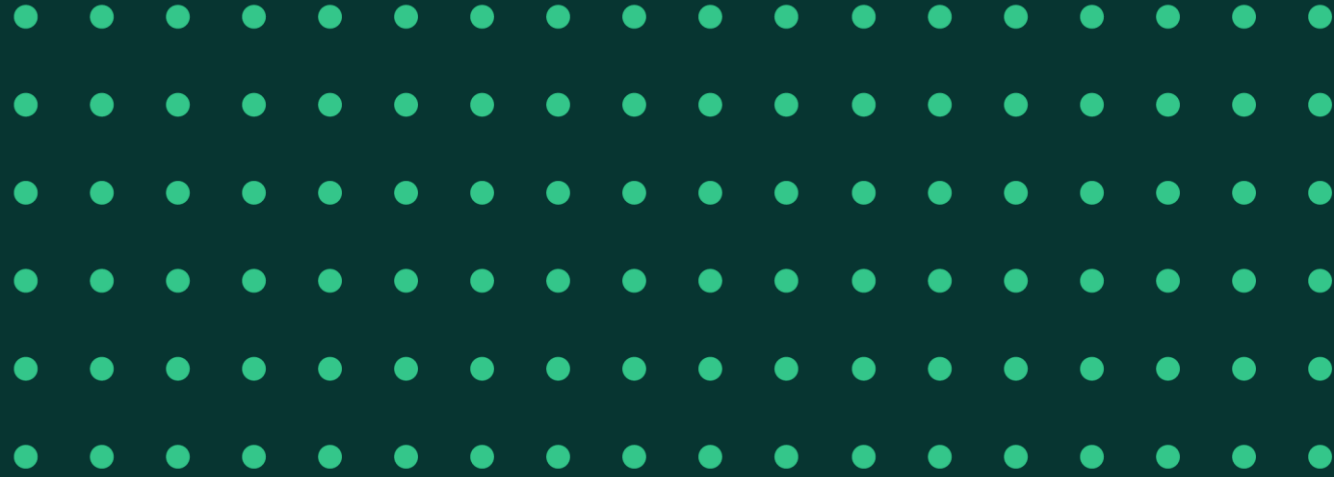
**Champion National Level Policy change:** Utilise our devolved powers to champion the businesses of York and North Yorkshire to central government and unlock the policy changes and funding needed to strengthen our regional economy.

## Outcomes

A strong regional economy, with the funding and solutions required to drive economically viable carbon reduction measures.

Industrial efficiency, reducing waste and maximising operational efficiency.

A strong regional economy; York and North Yorkshire as a national exemplar in supporting businesses to harness the benefits of decarbonisation.



## ***Resilient Landscapes, Sustainable Food & Farming***

- ***Draft actions***

# Resilient Landscapes, Sustainable Food & Farming Plan. Actions

## Barriers

**Uncoordinated funding and data for tree and hedgerow planting:** There has been a variety of funding schemes available for tree-planting and hedgerow creation, primarily from central government. However, there has been a lack of coordination of this funding and related data at a regional level, resulting in limited ability to target funding and monitor collective progress.

**Lack of secure, strategic, long-term funding:** There is a current lack of long-term funding to enable delivery at the pace and scale of transformation required, including enabling lowland peatland restoration, increasing carbon sequestration from marine habitats, farm carbon audits, and associated funding to deliver recommended measures. There are also concerns around the future funding certainty of upland peatland restoration, with the expected closure of the Nature for Climate Peatland Grant Scheme in April 2026.

**Need to develop skills in sustainable delivery:** Farmers need the expertise and skills to move towards sustainable farming, particularly learning from one another and existing examples of good practice. Developing and building opportunities for peer-to-peer learning is key. Alongside this retention of skilled workforce is difficult both for agriculture, nature recovery work, and advisory services.

## Proposed Actions

**Coordinated regional tree-planting and hedgerow creation:** Bring regional partners together to share data and pool resources, enabling the strategic delivery of tree-planting and hedgerow creation. Map key target areas including consideration of soil types and tree types. Through coordination, a variety of options for planting more trees in the region including agroforestry and green-streets should be supported.

**Delivery of the Local Investment in Natural Capital (LINC) Programme & the Local Nature Recovery Strategy:** Unlock the investment potential of natural capital projects through delivering the next phase of the LINC Programme and drive strategic delivery through the Local Nature Recovery Strategy (LNRS) including its priorities and map proposals for specific actions to drive nature's recovery and provide wider environmental benefits.

**Develop plans to improve skills in the following areas:**

- Support peer-to-peer groups of farmers share knowledge around implementing regenerative practices as well as other activities for knowledge to be shared. Provide a central hub that coordinates knowledge-share activities and advice around regenerative agriculture.
- On-farm decarbonisation technology and agri-tech support.

## Outcomes

**Coordinated and effective natural capital delivery;** supporting improved use of resources and expanded reach.

**Coordinated and effective natural capital delivery, a strong regional economy, and Y&NY as a national exemplar in natural capital;** supporting carbon capture, natural flood management, and drought resilience.

**Improvements to on-farm resource use and emissions and a skilled and innovative workforce;** delivering expanded regenerative farming practices and implementing new technologies

# Resilient Landscapes, Sustainable Food & Farming Plan. Actions

## Barriers

**Lack of data on farm sustainability:** There is a lack of regional data around the emissions and performance of farms on sustainability. Emissions from farms are different from other businesses, with carbon emissions being lower. The extent of data on other GHG emissions from agriculture at a regional level are limited.

**Limited national policy direction for investment and innovation markets:** New markets for green finance, local procurement and other natural-based products produced on farm like biofibres, are limited. There is a lack of national government policy direction on how these markets will develop and how farm businesses and land managers can engage in these markets

**Lack of knowledge and capital for farms to invest in energy decarbonisation:** On-farm energy efficiencies and decarbonisation is capital intensive, reducing the ability of cash-poor businesses to invest in low-carbon energy. Innovation and knowledge on new opportunities for on-farm energy sources is growing, but there is a lack of clear signposting and direction around how farm businesses can engage in this.

## Proposed Actions

### Farm Carbon baselining

Assess funding options and programmes to undertake extensive farm carbon audits to understand the specific emissions of different farm types. Utilise this data to monitor agricultural emissions and enable farms to identify key opportunities to reduce emissions and costs including improving resource use.

Specifically assess opportunities to evaluate the role of soils in reducing emissions and capturing carbon.

### Development of new food, fibre and nature markets

Trial programmes to coordinate and develop key markets to support products including bio-based materials (like hemp insulation) and local regenerative food. Ensure these support landowners, farmers, and local businesses. Identify where locally delivered public funding can support land use and farming practice changes where new markets cannot be developed (support expansion of regen farming).

### On-farm energy decarbonisation support

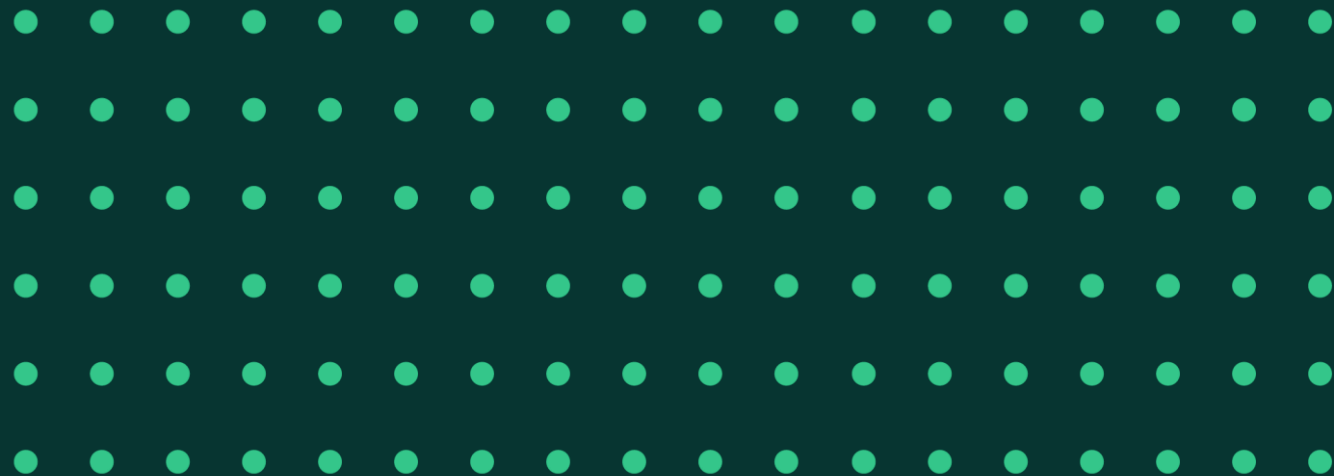
Identify opportunities for grants, demonstrators, toolkits and sign-posting to be made available to farms to engage with decarbonising on-farm machinery, renewable energy, anaerobic digesters, and retrofit.

## Outcomes

**Improvements to on-farm resource use and emissions and York and North Yorkshire as a national exemplar;** with regional data enabling more targeted responses.

**Improvements to on-farm resource use and emissions and strong regional economy;** with farms accessing diversified and resilient markets, and locally produced food having low-emissions whilst maintaining food security.

**Improvements to on-farm resource use and emissions and strong regional economy;** with decarbonised on-farm energy supporting local communities and farm business profitability and resilience.



## *Healthy Marine & Coastal*

- *Draft actions*

# Healthy Marine & Coastal Environment: Actions

## Barriers

**Lack of data:** There is limited data at a regional level on the extent of carbon captured by sediment and other marine habitats. The role of the wider marine environment on regional and national emissions is also limited. This leaves marine out of overall understanding of regional emissions and the potential role it plays in mitigation.

**Limited resources and expertise:** Though there is funding for decarbonisation work regionally, this does not often focus on the marine or coastal sector. The sector also faces high capital costs to achieve decarbonisation, as well as limited expertise to deliver marine-based decarbonisation.

**Fragmented governance and delivery landscape:** There is no single organisation that is responsible for decarbonising the marine and coastal sector or assessing its impact on the climate. It prevents large-scale cross-sector projects from being developed and achieved.

## Proposed Actions

**Develop a regional marine carbon baseline:** This will involve undertaking regional mapping of sediment carbon storage and marine habitats. In turn it will enable the identification of opportunities for marine and coastal enhancements for further carbon capture. Marine and coastal systems should also be integrated into GHG accounting and scenario modelling for the region.

**Assess the feasibility of retrofitting marine fleets and coastal assets and enable pilot projects and investment in seaweed farming:** These can target resources to areas of opportunity for decarbonisation within the marine and coastal sector whilst supporting coastal communities and economies. Retrofit may include electrification, renewable energy generation and sustainable construction materials. Through assessing the feasibility, communities that are affected can be engaged and support can be provided to where challenges are greatest.

**Fund and coordinate nature-based coastal protection projects:** A focus on natural capital to support decarbonisation and assessing its role in protecting our coast can bring key organisations together and support integrated planning such as the Local Nature Recovery Strategy. It will involve identifying investable projects, building local authority capacity, and private and public sector engagement.

## Outcomes

Marine emissions and sequestration integrated into regional carbon budget, and healthy natural marine ecosystems

Innovative and regenerated marine and coastal economy hubs and community engagement and co-benefit delivery.

Community engagement and co-benefit delivery, and healthy natural marine ecosystems.

# Healthy Marine & Coastal Environment: Actions

## Barriers

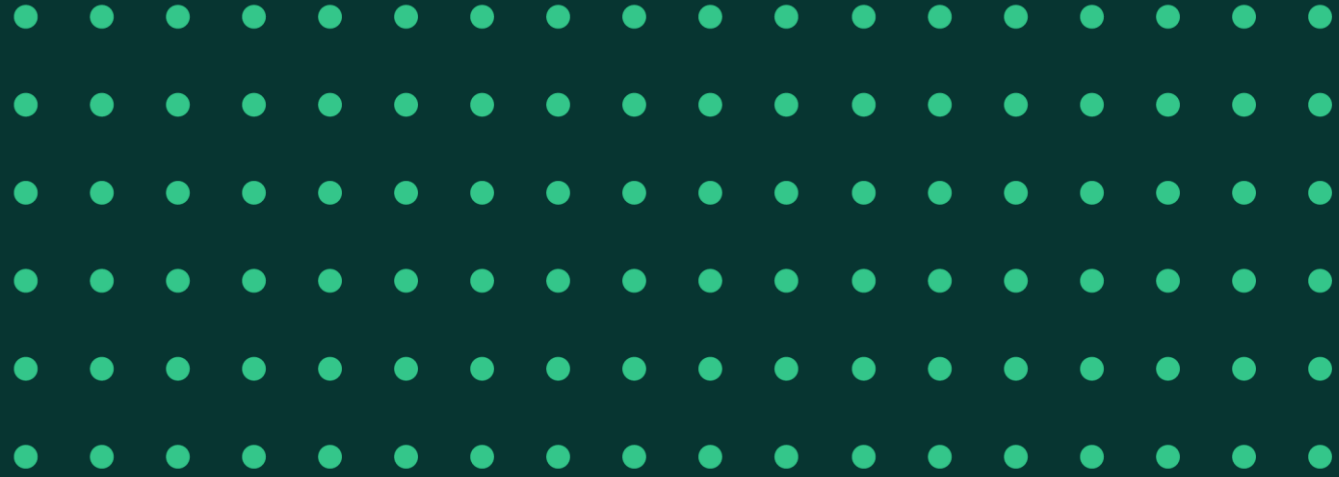
**National Government Policy:** Funding available at a national level for local marine and coastal decarbonisation is often short-term. It is focused primarily on port-based infrastructure rather than nature-based approaches or assessing the role of existing marine and coastal ecosystems.

## Proposed Actions

**Champion national level policy change;** Showcasing innovative coastal decarbonisation projects can highlight the opportunities for the marine and coastal sector to reduce emissions e.g. through nature-based solutions, encouraging national policy change and long-term investment in the potential of our coastal and marine assets.

## Outcomes

Unlocking funding and investment, advocating for national policy change. York and North Yorkshire leading the way in marine and coastal innovation



## *Empowered Community Action*

- *Draft actions*

# Empowered Community Action. Actions

## Barriers

## Proposed Actions

## Outcomes

### Poor availability and consistency of funding:

Community groups are often reliant on piecemeal grant funding to continue operating. Continuous funding applications pull resources away from group activities and limit capacity for strategic, long-term planning. Funding is competitive and constrained in its uses, and there is currently a lack of long-term, core funding to support organisational capacity building. Project delivery is artificially stalled by funding challenges, there is a need for project funding that covers all stages of the design process, including pre-feasibility and project development.

**Work to secure funding for community groups:** Seek to secure funding for community group projects through a variety of funding programmes e.g. UKSPF, direct community groups to new funding sources from other organisations, and explore mechanisms for capacity building, including access to potential long-term funding streams. Seek to ensure funding recognises full cost recovery and capacity development needs.

Community group projects in Y&NY supported from idea through to implementation. Community groups with more capacity to deliver a wide range of projects.

**Variety of group motivations:** York and North Yorkshire is a large, geographically diverse region and as a result there are a range of community groups with varying capacity, resources, aims, purposes, and appetite for delivery or collaboration with the YNYCA and other partners. A uniform approach will not work when collaborating with community groups, and more work needs to be done to understand what each group is able and willing to deliver e.g. demonstrator projects vs messaging campaigns.

**Understand and build a regional network:** build on existing linkages to further establish a strong network of community organisations across the region, mapping and understanding what each group is capable and willing to deliver and identifying capacity building needs. To enable resilience the network could also share back-office resources e.g. data capture and measurement, communications, and potentially book-keeping. With a focus on establishing clear networks for:

- Community Energy – working with existing community networks, seek to build and support a regional network to share knowledge, best practice, resources e.g. financing, and support.
- Circular Towns – building on the Circular Towns scheme, facilitate and support a regional network of towns adopting and championing circular economy principles.

A strong regional network of community groups allowing for quick collaboration and coordinated delivery across the region.

**Lack of clear regional governance:** There is a lack of a clear regional and national governance structure for community groups. York and North Yorkshire is a large region and therefore many grassroots groups can become isolated, which limits knowledge sharing and risks duplication of activities. There is also need for more clarity over roles and responsibilities when community groups collaborate on projects with local government.

**Framework for Collaboration:** Working with community groups and key delivery partners, build a framework for collaboration between the YNYCA, community groups, and communities on YNYCA projects and programmes. Producing a guide outlining clear key roles and responsibilities. Identify key areas for collaboration with community groups and communities more widely, designing this into projects from the outset.

An open, clear, and fair working relationship between YNYCA and community groups.

# Empowered Community Action. Actions

## Barriers

## Proposed Actions

## Outcomes

**Disconnect between regional and local delivery:** Additionally, Local Authorities and the YNYCA may have limited sight of community group activity in the Y&NY region and therefore miss opportunities to support and collaborate.

**Develop stronger communication channels:** Continue to work with community groups to deliver messaging surrounding carbon negative initiatives to their communities. Use the YNYCA platform to amplify the work of community groups to the wider region. Encourage community groups to reach out to the YNYCA with ideas for projects and programmes.

A close and effective collaboration between the YNYCA and community groups, where projects can be delivered jointly, maximising the delivery of projects for communities.

**Capacity constraints:** Many community groups are volunteer led and as a result have limited capacity. Community groups are not often eligible for business support and can therefore struggle to build capacity. This limits the ability of groups to advance project delivery and work towards becoming a professional/formal and financially secure organisation, if desired.

**Signposting and awareness:** Direct community organisations to existing support for capacity building, working with partner organisations such as the Net Zero Hub.

**Skills support:** Work with community groups to identify skills gaps and explore ways to develop skills in key delivery areas e.g. retrofit assessment training.

**Business Support:** Explore opening-up opportunities for business support to community groups, encourage existing business support programmes to offer capacity building support.

Community groups have the skills and knowledge to run a successful organisation that delivers on its goals and actively benefits the local community.

**Access to knowledge and advice:** Community organisations are predominantly volunteer led and therefore may have limited professional knowledge (in some cases) when it comes to more technical project delivery e.g. community owned energy installations.

**Regional knowledge hubs:** Coordinate with other regional organisations to signpost and support community organisations to access knowledge and professional advice including project specific support e.g. community energy installations, and wider organisational support e.g. business advice.

Knowledge and support for community groups is coordinated and effective, so any community wishing to start a project knows exactly how and where to start.

# Empowered Community Action. Actions

## Barriers

**Ensuring effective communication:** Community groups have limited reach and resources to advertise their projects and services to local communities and beyond, as well as facing wider challenges of misinformation and climate denialism. Community groups need support to communicate the benefits of carbon negative to communities in a way that is understandable, accessible, and strategic, targeting the areas where they can encourage the most change; addressing the challenge of engaging the unengaged in climate conscious activities.

**Funding and capacity to deliver local biodiversity projects:** Groups often rely on volunteers to deliver nature recovery projects, with limited funding, and can often face challenges around land use.

**Challenges communicating the benefits of Circular Economy:** Whilst there are strong examples of community group work in circular economy, there has been limited engagement from communities and businesses with previous circular economy programmes. A coordinated effort is needed between community groups and local government, to communicate the benefits of circular economy to local businesses and residents.

## Proposed Actions

**Community Champions:** Work with community groups to support and train community champions for key programmes, who can work as trusted individuals within the community to demonstrate the benefits first hand and direct residents to the appropriate resources. Key areas where this can be delivered include Community Energy, Retrofit, and Active Travel/Modal shift.

**Community biodiversity initiatives:** Collaborate with community groups in the local delivery of biodiversity and green space enhancing projects. For example: Community woodlands, Community hedgerows, Other biodiversity initiatives e.g. community gardens, or community allotments. Engage community groups in nature recovery programmes run by the YNYCA.

**Circular Economy movement:** Building on the previous work of the circular town movement and other circular economy programmes, seek to continue working with community groups to advertise circular economy principles to local businesses and residents. E.g. through continuing work to support repair cafes and the wider reuse and repair ecosystem.

## Outcomes

Skilled community leaders who can effectively engage the unengaged and unlock the benefits of carbon negative initiatives for local residents.

Communities working together to create green, beautiful spaces in their neighbourhoods. Producing food to support healthy, thriving communities.

Strong local supply chains, creating jobs. Local economic resilience and community wealth building, where local businesses are supported. Communities collaborating to reduce waste.

# Empowered Community Action. Actions

## Barriers

**Challenges developing community energy projects:** The time, resource, knowledge, and funding required to initiate a community energy project are significant barriers for progressing ideas for projects.

**Communicating the benefits of active and shared travel options:** Community groups are well placed to conduct messaging campaigns on sustainable travel, but would benefit from funding and support in the effective delivery of these programmes.

**Wider support needed for the development of community climate action:** Community groups are well placed to deliver climate action projects at a local level but require a larger shift in national funding and policy approaches to drive the benefits of the transition to carbon negative within communities.

## Proposed Actions

**Funding and support for community energy:** Develop innovative solutions for accelerating community energy projects, utilising programmes such as the DESNZ funded Local Net Zero Accelerator Programme and the Energy Generation Accelerator Programme to develop innovative funding and support solutions for a range of community ownership models.

**Active travel campaigns:** Work with community groups to deliver local engagement campaigns, promoting the benefits of active travel and encouraging modal shift away from private car use. Such as: Education and outreach in schools and colleges; Cycle sharing schemes; Promotional material on local walking and cycling routes.

**Community run public transport schemes:** Continue to support community owned public transport services and other transport initiatives e.g. car and bike share / car clubs. Support community groups to deliver pilot sustainable transport schemes e.g. e-bikes.

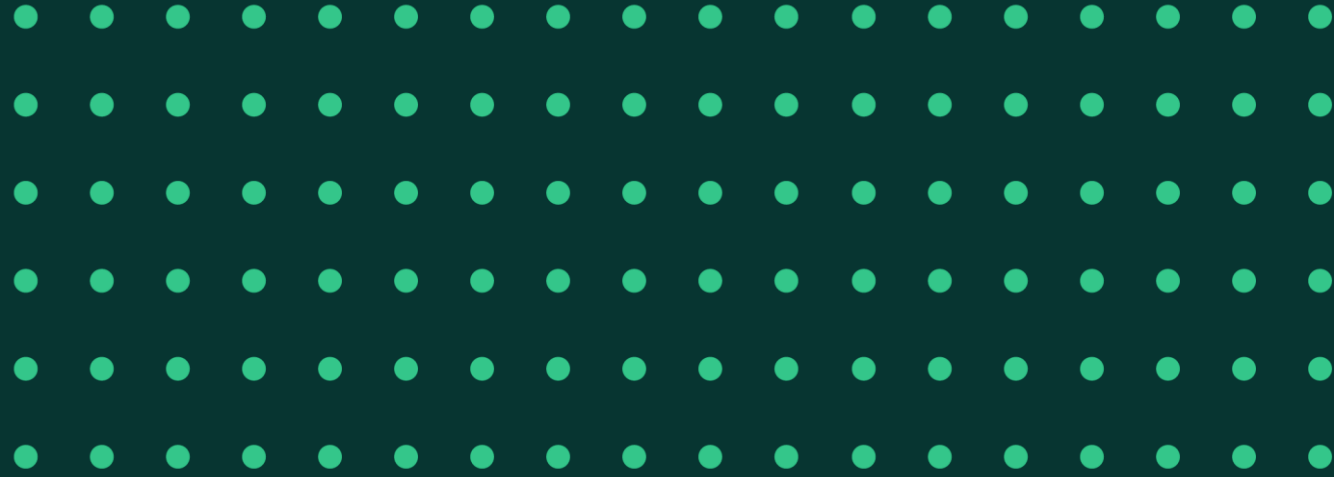
**Champion working with community groups:** Utilise the powers of devolution to champion the merits of working in collaboration with local climate groups to deliver carbon negative. Encourage greater investment in community initiatives from central government, seeking to unlock funding for community groups and local carbon negative projects.

## Outcomes

Clean, locally owned energy, empowering residents in their energy use, reducing energy bills, and demonstrating the tangible benefits of low carbon solutions.

Happier, healthier, more connected communities, less dependant on private car use and making the most of local services. Communities benefiting from cleaner air and safer, less congested roads.

Y&NY as a national exemplar for supporting and working with community organisations to generate the benefits of carbon negative for our communities



## Appendix 2

- Evaluation metrics and data sources

# Evaluation

Prior to delivery, more detailed implementation plans will be created for the actions in the Strategy, including how success will be measured. Some example metrics include:

Sector	Indicator	Metric	Source*
<b>Overall sector emissions</b>	CO2 equivalent emissions	Tonnes of CO2e (Carbon Dioxide equivalent)	Department for Energy Security and Net Zero: UK local authority and regional greenhouse gas emissions statistics
<b>Energy</b>	Energy Consumption	MWh (megawatt hour)	Department for Energy Security and Net Zero: LSOA and MSOA domestic and nondomestic gas and electricity consumption
	Embedded renewable energy capacity	MW (megawatts)	Northern PowerGrid: Embedded Capacity Register
<b>Buildings</b>	Fuel Poverty	% of households	Department for Energy Security and Net Zero: Sub-regional fuel poverty data
	% of buildings above EPC/DEC C	EPC rating	Department for Levelling Up, Housing & Communities: Energy Performance of Buildings Data: England and Wales
	Heat network deployment	MW (megawatts)	Department for Energy Security and Net Zero: Heat Networks Planning Database
	Low carbon technology installations (sub 50kW)	Number of installations	MCS: The MCS data dashboard
<b>Transport</b>	% low emission vehicles	% of registered vehicles that are low carbon	Department for Transport: Vehicle licensing statistics data tables
	Modal shift	% share of journey by each mode	Department for transport: National Travel Survey

\*Wherever possible YNYCA will strive to utilise open data sources to evaluate the success of this Strategy. Where this is not possible YNYCA will explore options to collaborate with partner organisations to develop further metrics.

# Evaluation

Prior to delivery, more detailed implementation plans will be created for the actions in the Strategy, including how success will be measured. Some example metrics include:

Sector	Indicator	Metric	Source*
Business	Non-domestic energy Consumption	MWh	DESNZ: LSOA and MSOA domestic and nondomestic gas and electricity consumption
	Embedded renewable energy capacity	MW	Northern PowerGrid: Embedded Capacity Register
	Energy Efficiency of non-domestic buildings	EPC/DEC Rating	Department for Levelling Up, Housing & Communities: Energy Performance of Buildings Data: England and Wales
Landscapes, food, and farming	Tree Planting	Hectares	Forestry Commission: National Forest Inventory England
	Amount and volume of Hedgerows	Metres and Metres Cubed	Ordnance Survey: National Geographic Database- Field Boundaries
	Peatland restoration	% of peatland receiving restoration work	Yorkshire Peat Partnership Annual Report  Natural Capital Ecosystem Assessment, Department for the Environment, Food and Rural Affairs & Natural England: England Peat Map
Circular economy	Waste management endpoints	Tonnes per capita	Department for Environment, Food and Rural Affairs: WasteDataFlow - Local Authority waste management

\*Wherever possible YNYCA will strive to utilise open data sources to evaluate the success of this Strategy. Where this is not possible YNYCA will explore options to collaborate with partner organisations to develop further metrics.