

EAST RIDING CLIMATE CHANGE STRATEGY

2022 - 2030



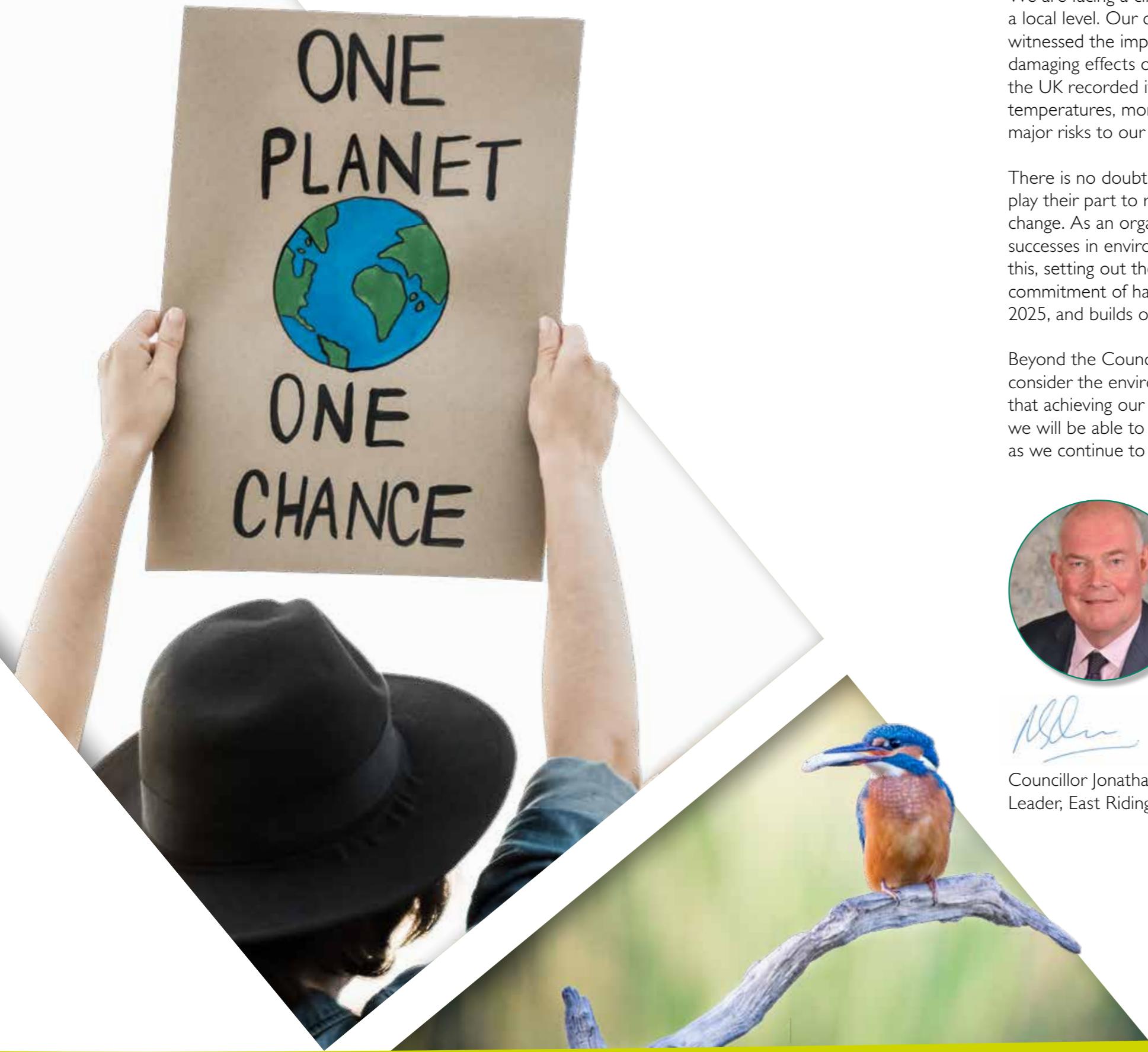
EAST RIDING
OF YORKSHIRE COUNCIL

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Foreword



We are facing a climate and ecological emergency, the impacts of which are being felt globally and at a local level. Our climate is changing faster now than ever before. East Riding of Yorkshire has already witnessed the impacts of climate change on communities, with flooding events in 2007 and 2013, the damaging effects of coastal erosion and the increasing frequency of heatwave events. Just this year, the UK recorded its highest ever daytime temperature of 40.3°C. We are set to face continued rising temperatures, more extreme weather, warming oceans and rising sea levels. All these changes pose major risks to our health, economy, infrastructure, wildlife, energy security and food production.

There is no doubt that climate change poses a significant challenge which will require everyone to play their part to rapidly reduce greenhouse gas emissions and build resilience to the effects of climate change. As an organisation we have set a net zero target of 2050 and we will look to build on our successes in environmental management and carbon reduction. This strategy details how we will do this, setting out the Council's approach to tackling climate change across the East Riding. It reaffirms our commitment of having climate change as a key council priority, as reflected in our Business Plan 2020-2025, and builds on our vision of **Your East Riding... where everyone matters**.

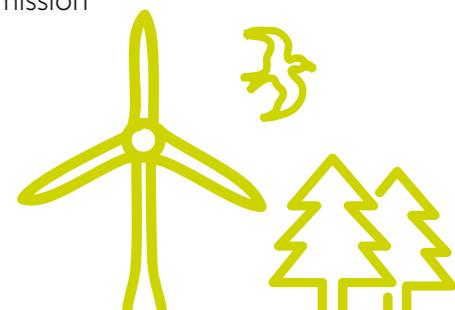
Beyond the Council's own carbon footprint, our ambition is to inspire residents and businesses to consider the environment and make efforts to reduce their own impact on the climate. We recognise that achieving our vision will not be easy, however, through collaborative action and partnership work we will be able to deliver positive climate action. Whether actions are big or small, every action counts as we continue to face the challenges of climate change together.



Councillor Jonathan Owen
Leader, East Riding of Yorkshire Council



Councillor Chris Matthews
Portfolio Holder for Environment and Climate Change
and Vice-Chair of the Yorkshire and Humber
Climate Change Commission



Executive Summary

"East Riding of Yorkshire will be net zero carbon and climate resilient. It will be a healthier and cleaner area supported by renewable energy, sustainable transport and underpinned by a strong local green economy. We will create an environment for people and nature to thrive, helping lead the way to a fairer and more equitable society".

The Climate Change Strategy 2022 - 2030 establishes the vision for how East Riding of Yorkshire Council will reduce carbon emissions and build resilience to climate change. It details the overarching climate change response for the Council, building on the suite of plans already in place for mitigation and adaptation across the authority and the wider region. The strategy sets out key priorities and opportunities for climate action across the East Riding, which have been shaped by analysis of local data, expertise across the authority, feedback from our key partners and an initial public consultation.

The strategy takes an integrated approach to climate change, considering how we become more resilient to the changing climate (climate adaptation) and how we can reduce our impact on the climate (climate mitigation). We recognise that although as a Council we are only directly responsible for an estimated one per cent of carbon emissions in the area, we can use our influence to reduce emissions across the wider East Riding.

The Climate Change Strategy has been designed to set the East Riding on a path to net zero by establishing a flexible road map which can be developed over time as new policies and strategies are introduced that impact our ambitions. It has been developed to cover the period 2022 - 2030 with the aim to kick start rapid action, to reduce emissions and build resilience. During this time, we will focus our efforts on quick win actions (those with the greatest impact or that are the most feasible). This flexible approach will enable us to reassess our position in 2030, and ensure the strategy remains aligned with evolving policy, legislation, and technological changes.

We have set a net zero target of 2050 for our own operations and services and plan for this strategy to be a launch pad for exploring a shared area-wide net zero target. An area-wide target should be developed collaboratively with residents, businesses and organisations from across the area to create a shared target and ownership. We will also seek to review our target to align with an area-wide science-based target where possible.

A more detailed action plan, outlining immediate plans and projects aligned to the strategy, will be developed covering the period 2022 - 2025. Following this, the action plan will be reviewed and updated every five years. Climate action will be monitored annually and will be scrutinised at regular meetings of Environment and Regeneration Overview and Scrutiny Sub-Committee. Updates will be provided through the Council's Environmental Statement.



Climate Change Strategy 2022 – 2030

Our Vision East Riding of Yorkshire will be net zero carbon and climate resilient. It will be a healthier and cleaner area supported by renewable energy, sustainable transport and underpinned by a strong local green economy. We will create an environment for people and nature to thrive, helping lead the way to a fairer and more equitable society.

PRIORITY AREAS FOR CLIMATE CHANGE ACTION



CROSS CUTTING THEMES



Monitoring Progress: A detailed action plan is currently in development for the period 2022 - 2025, to align with the strategy. Climate action will be monitored and scrutinised through regular meetings of Environment and Regeneration Overview and Scrutiny Sub-Committee. Updates will be provided through the Council's Environmental Statement.

Introduction

In 2019 East Riding of Yorkshire Council established a review panel to understand the risks and opportunities presented by climate change. The recommendations of the panel were published in February 2021 and, in line with national government, the Council declared a climate emergency.

The panel concluded that the Council should develop a Climate Change Strategy to co-ordinate our response to climate change and define our ambitions and vision for the future. This strategy aims to fulfil the review panel recommendations and help to understand our impacts on the climate. The strategy will outline how the authority will play its part in tackling the climate crisis as well as supporting our partners, businesses and residents to do the same.

Climate change will impact everyone; however, our young people will have to live with the consequences for much longer. Young people across the East Riding have expressed their fears around climate change and are urging us to do more to protect their future.

"Our generation is the first to feel the impacts of climate change and the last generation that can do something about it."

Barack Obama (Former President of the United States of America).

Our climate continues to change rapidly, and we must all play our part to prevent further damaging warming. Globally, emissions of carbon dioxide must be halved by 2030 if we are to keep warming to 1.5°C. By working together across all sectors of society this challenging target can be met. The chair of the Intergovernmental Panel on Climate Change (a body that brings together climate scientists from across the globe) said that:

"We are at a crossroads. The decisions we make now can secure a liveable future. We have the tools and know-how required to limit warming."

Hoesung Lee (Chair, Intergovernmental Panel on Climate Change).

Climate change will lead to warmer temperatures, changes in rainfall patterns, sea level rises and more frequent and intense heatwaves and flooding events. Even when we dramatically reduce our greenhouse gas emissions, we will still be left with a warmed climate that we'll need to learn to live with. This strategy will consider how we can reduce our impact on the climate and adapt to the inevitable changes we will see in the future.



Global and National Context

International and national bodies, such as the Intergovernmental Panel on Climate Change (IPCC) and the UK Committee on Climate Change (CCC) have given clear messages that Governments are not yet doing enough to tackle climate change, but that there is a viable way to achieve net zero and avoid the worst impacts of climate change. We are currently on course for 3 - 4°C of warming but with a concerted international effort and investment, limiting warming to 1.5 - 2°C is possible, as per the United Nations Paris Agreement.

Climate change cannot be tackled in isolation. The 17 United Nations Sustainable Development Goals, of which climate change is one, show that there are many factors that influence the health and prosperity of people and the planet.

The UK has a world leading Climate Change Act which sets out our national ambition to be net zero by 2050 and contains budgets for the amount of carbon we are able to release into the atmosphere. We have already seen significant progress to reduce our emissions. From the year 1990 we have reduced emissions by nearly 50 per cent and by 2030 we are on track to achieve a 68 per cent reduction.

In 2021, the UK's Net Zero Strategy was published setting out policies and proposals for decarbonising all sectors of the UK economy to meet the national net zero target of 2050.

Regional Context

In November 2021 the Yorkshire and Humber Climate Commission published the first ever climate action plan for the region. The action plan has been developed to encourage shared responsibility for climate action, and makes the case for significant, tangible actions to tackle the climate emergency. The plan highlights the need to move beyond targets and planning, to action and delivery, calling for climate and ecology to be placed at the heart of decision making.

A fundamental aspect of the plan is the importance placed on building resilience to the changing climate (sometimes called being climate ready, or climate adaptation).

Over recent years a considerable amount of emphasis has been placed on reducing our carbon emissions, and other greenhouse gases, to limit warming.

The Yorkshire and Humber Climate Action Plan recognises that even when emissions are cut the climate will still change and we need to be prepared and take action to protect our way of life.

The action plan details a framework for change and 50 actions that will focus climate action across the Yorkshire and Humber region. The plan focuses on building a fair and just transition and to build the region's resilience against climate disasters. It also sets a target to achieve net zero by 2038 and specifies the need for "significant progress" by 2030.

Climate Change Impacts in the East Riding

It is expected that, as time goes on, the East Riding will experience wetter winters, drier summers, higher sea levels and more extreme heatwaves. These climatic changes are likely to have significant impacts on society, the economy and environment within the East Riding by exacerbating existing risks and introducing new risks. This section provides an overview of the most significant climate-related risks to the East Riding.

FLOODING - The East Riding is already highly vulnerable to flooding. It is ranked within the top ten areas in the country with the highest number of homes at risk of river and tidal flooding, while surface water flooding is a widespread and growing risk, especially in urban areas of the county. Furthermore, almost 60 per cent of the population within the Hull and East Riding catchment of the Humber River Basin District (HRBD) are currently at risk from flooding. With more extreme storms and a 20 - 30 per cent increase in winter rainfall as a result of climate change by 2100, the frequency and severity of surface water and fluvial flooding in the East Riding is likely to increase. Similarly, sea levels are expected to rise by up to one meter by 2100, leaving low-lying areas of the East Riding at significantly increased risk from tidal flooding.

COASTAL CHANGE - The majority (48km) of the East Riding coast is made up of soft glacial boulder clay. As a result, the East Riding has one of the fastest eroding coastlines in Europe, with average erosion rates of up to four metres a year and individual losses of over 20m recorded. Based on these rates continuing, approximately 209 residential properties would be lost to the sea within the next 100 years along with businesses, caravans, transport links and utilities infrastructure. However, rising sea levels and increased storminess linked to climate change are expected to result in higher rates of erosion and therefore greater impacts on communities and businesses.

HEATWAVES - By 2100 it is expected that mean summer temperatures in the East Riding will be 3 - 4 degrees Celsius hotter than today. They are also expected to be drier, with more frequent and more extreme heatwaves. Such temperature rises not only have an impact on how we live our lives but can also have a significant effect on public health through heat cramps, heat exhaustion, heatstroke and hyperthermia. This impact is often felt worst by vulnerable residents, including those over 65, who make up a higher-than-average proportion (26 per cent) of the East Riding's population.

While those impacts explored above are of particular importance for the East Riding, and therefore prominent in this strategy, it is important that plans are made to mitigate and adapt to all impacts of climate change. Some additional potential impacts, as outlined in the most recent UK Climate Change Risk Assessment include risks to:

- The viability and diversity of habitats and species.
- Soil health from increased flooding and drought.
- Natural carbon stores and sequestration from multiple hazards, leading to increased emissions.
- Supply of food, goods and services due to climate-related collapse of supply chains and distribution networks.
- Crops, livestock and commercial trees.
- The UK from climate change impacts overseas.
- People and the economy from climate-related failure of the power system.



Cross Cutting Themes

This section outlines the cross-cutting themes which underpin the Climate Change Strategy. Solutions to meet the challenges of climate change should, where possible, also tackle the challenges of the broader societal issues faced in the East Riding of Yorkshire, including the rural nature of the area, health and wellbeing and inequalities.



East Riding Rurality

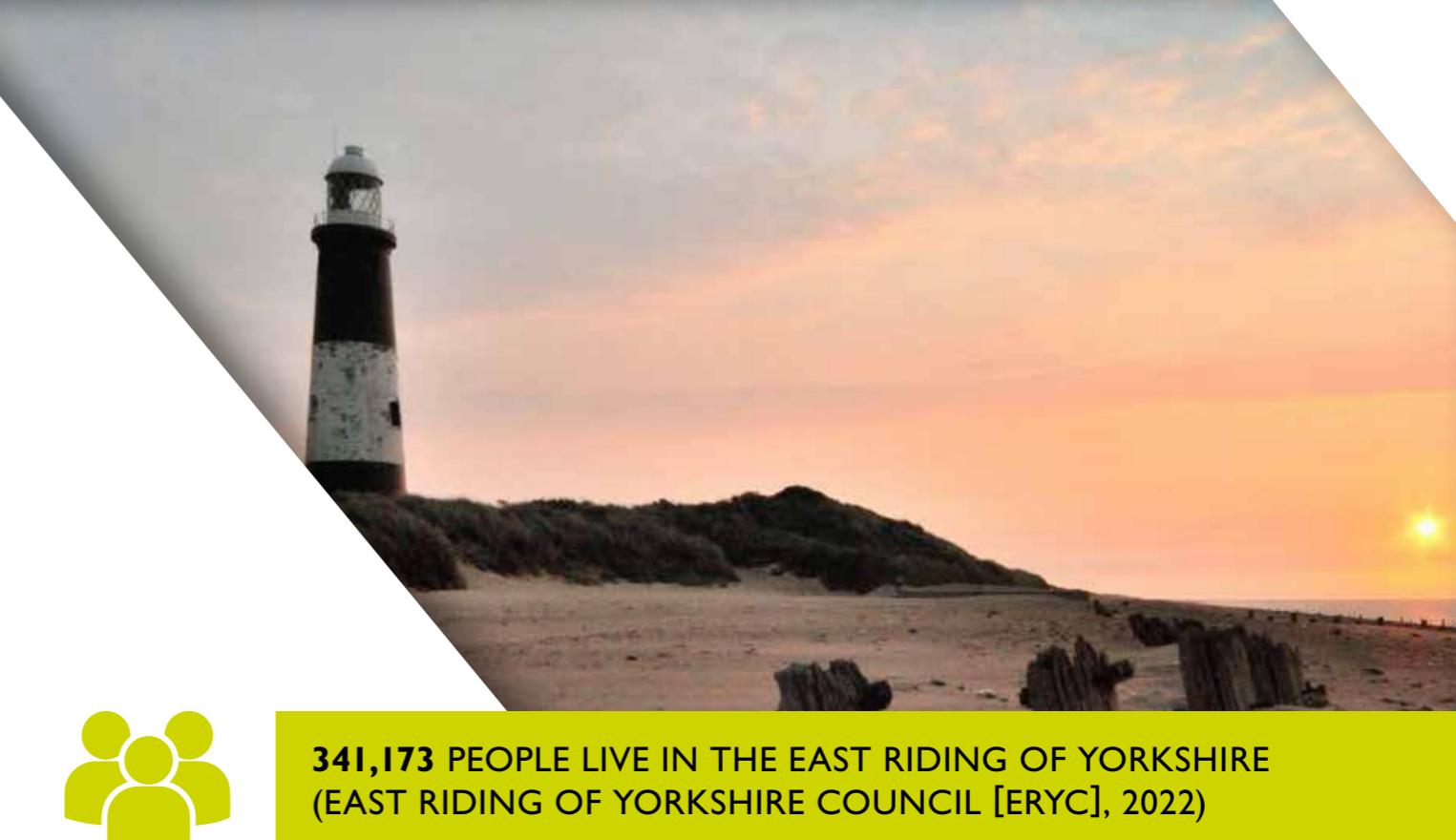
The East Riding is predominantly a rural area, with 44 per cent of residents living in dispersed rural communities. Rural areas face a different set of challenges to that of urban areas especially when tackling climate change. Some of those challenges faced by our residents include limited availability of public transport, or access to suitable employment. The rural nature of the area also poses challenges to the Council, for example, we need more vehicles and crew to complete waste collection rounds.

Like many areas across the UK the East Riding has a broad range of household income levels, however there are pockets of deprivation in places. Increasingly, the population in the East Riding is becoming older, due to a high percentage of people retiring to the area. Deprived populations and elderly people are more likely to suffer from the impacts of climate change as they have less resilience to severe weather events.

Whilst the landscape and demographic of our area is a strength and presents many opportunities, current economic uncertainties, major policy changes and continuing downward pressure on public sector finances are presenting rural communities with numerous challenges and climate change is only adding to these pressures. We have identified where challenges, opportunities and actions relate to the rural nature of the East Riding of Yorkshire (in appendix 2) using the symbol above.

"Rural policies have an essential role to play in reaching net zero greenhouse gas emission targets while also generating benefits for rural communities."

OECD, Rural Agenda for Climate Action



341,173 PEOPLE LIVE IN THE EAST RIDING OF YORKSHIRE (EAST RIDING OF YORKSHIRE COUNCIL [ERYC], 2022)



93% RURAL BY AREA 44% RURAL BY POPULATION (ERYC, 2022)



157,760 HOUSEHOLDS IN AN AREA COVERING APPROXIMATELY 930 SQ/M (ERYC, 2022)





East Riding Coast

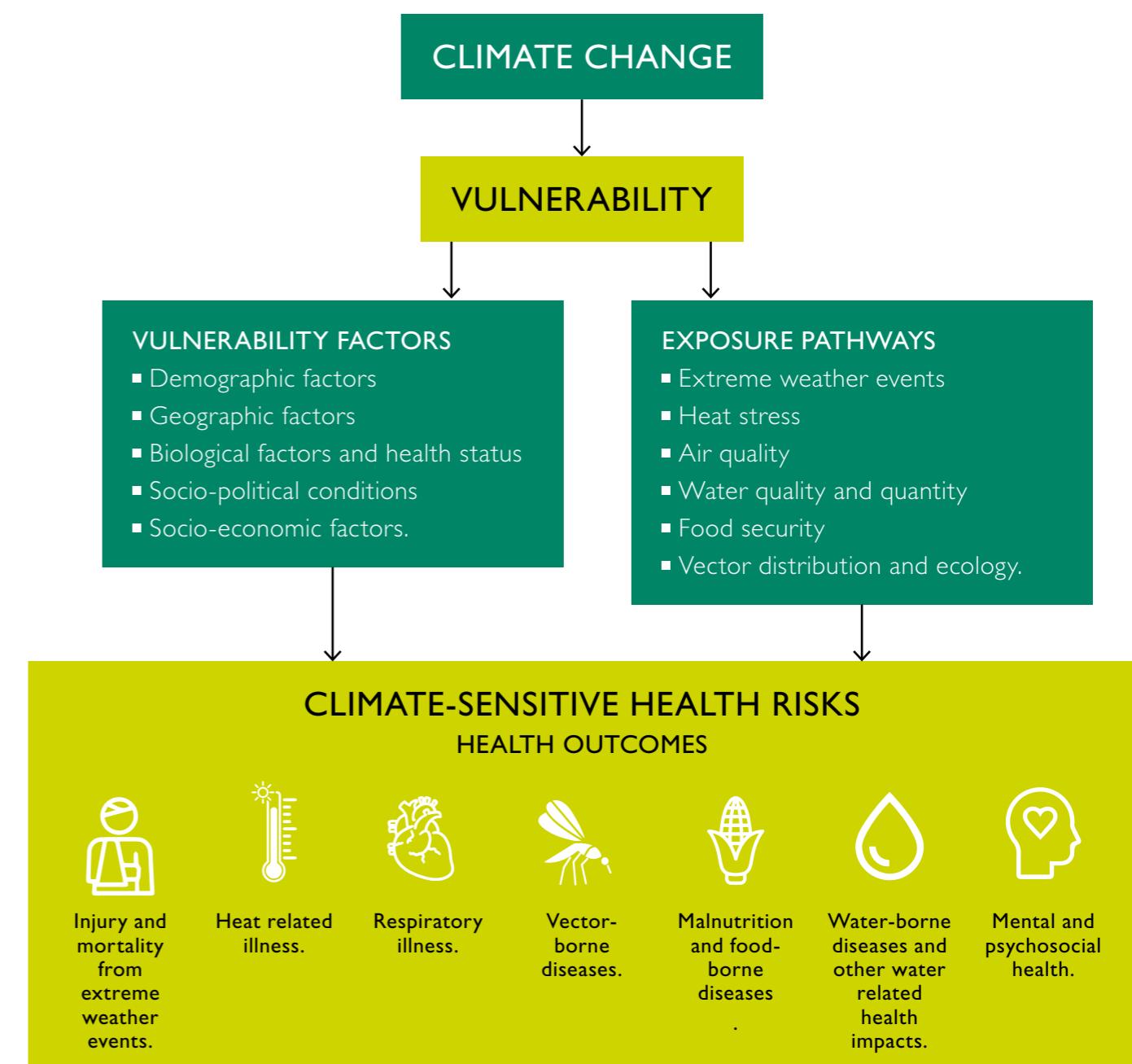
The East Riding of Yorkshire is not only rural, but is also defined by its coast, stretching from Flamborough Head in the north to Spurn Point in the South, a total of 53 miles. The 120-metre-high chalk cliffs, stacks, caves, and coves at Bempton and Flamborough Head support large numbers of seabirds such as puffins, gannets and kittiwakes which together form the UK's largest mainland breeding seabird colony. Several major settlements are located along our coastline (including Bridlington, Hornsea and Withernsea) and have a significant part to play in the prosperity of the area, with fishing, offshore developments and tourism forming a key part of the region's economy. Tourists visit the area specifically for our coastal towns, long sandy beaches and wildlife experiences. The areas connectivity with the Humber Estuary and wider marine environment also means that it is perfectly placed to support a broad range of coastal industries.

The coast and its wildlife are, however, already experiencing the impacts of climate change, and it will be necessary to redress our relationship with the natural environment whilst also securing economic growth. There are many opportunities and challenges linked to our coastline, and a number of climate actions will link to the coastal nature of the East Riding of Yorkshire. These will be identified within the strategy (in Appendix 2) using this symbol above.



Health Implications of Climate Change

It is widely acknowledged that the risks from climate change will affect everyone. Some will be affected more than others. The people whose health is being harmed first, and to a greater degree than the wider population, are often the people who contribute the least to climate change. People in low-income households and disadvantaged communities are often hit first and the hardest. The diagram below, created by World Health Organisation (WHO), provides an overview of climate-sensitive health risks, their exposure pathways and vulnerability factors.



These climate-sensitive health risks are disproportionately felt by the most vulnerable and disadvantaged, including women, children, ethnic minorities, low-income households, migrants or displaced persons, older populations, and those with underlying health conditions. Health impacts of climate change will be determined by how vulnerable and resilient people are and how quickly society can adapt to the changes we see. Climate change is also expected to increase the pressures on our healthcare systems.

Most action we take on climate change will impact health, therefore, as part of the development of this strategy a Health Impact Assessment (HIA) has been carried out. The assessment picks out some of the positive and negative impacts of climate change and highlights steps that can be taken to minimise or maximise the effects respectively.

The strategy will seek to act on the recommendations contained within the HIA either within our action plan following implementation of this strategy, or via relevant Council strategies and policies. The health symbol above will note those areas where health is a consideration within the challenges / opportunities or actions.

"Climate change is the biggest health threat facing humanity."

(World Health Organisation (WHO)).



Inequalities and Climate Change

Certain social groups are particularly vulnerable to the impacts of climate change, for example, single parent households and carers (who are disproportionately female), disabled people and the elderly. The root causes of their vulnerability lie in the intersectionality of their geographical locations, their financial and socio-economic circumstance, and their cultural and gender identity, in addition to their access to services and decision making.

The most vulnerable can also be disproportionately impacted by climate change mitigation measures, which can place a higher financial burden on low-income households. For example, decisions that expand public transport or carbon pricing may lead to higher public transport fares which can have a greater impact on low-income groups.

East Riding of Yorkshire residents have been included in the decision-making process for the Climate Change Strategy. The strategy has been developed and implemented with transparency and provides easy access to information.

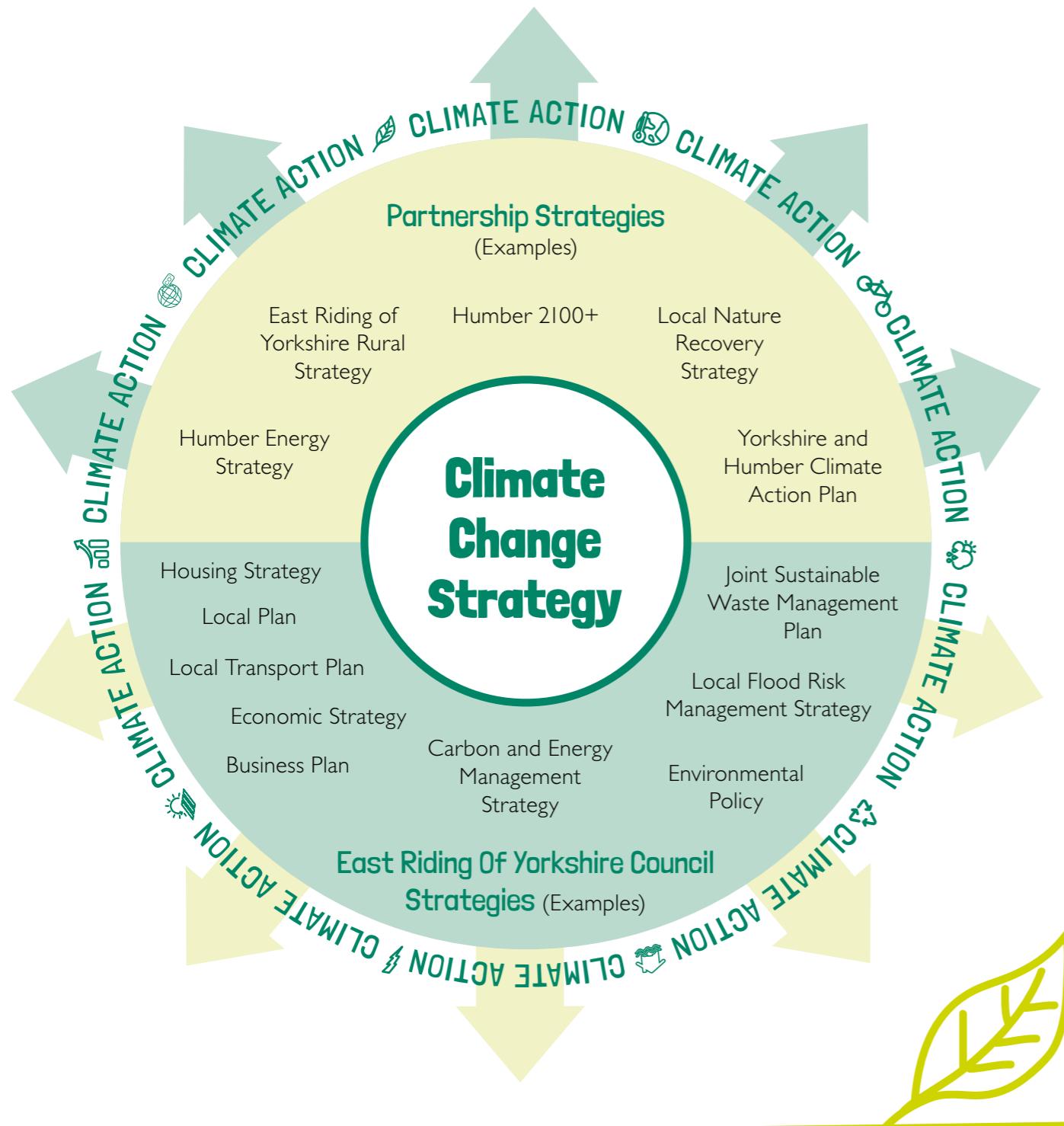
The Council is keen to regularly consult with vulnerable residents on the issue of climate change to ensure that the strategy is inclusive and mitigates / maximises any negative / positive impacts respectively, and that any measures are taken to ease the burden on protected groups as far as possible. The symbol above will indicate (in Appendix 2) those areas where equality is a consideration within the challenges / opportunities or actions.



Links to Other Strategies and Policies

The Climate Change Strategy will set the overarching direction of travel and identify key opportunities for action to tackle climate change across the East Riding. It will form part of a suite of plans, policies and strategies that contribute to climate action.

The diagram below highlights the interdependencies between the Climate Change Strategy, other Council plans and strategies and those of key partners, with all of these contributing to climate action across the East Riding. Examples of other regional plans and strategies supporting and delivering climate action are provided in the diagram below.

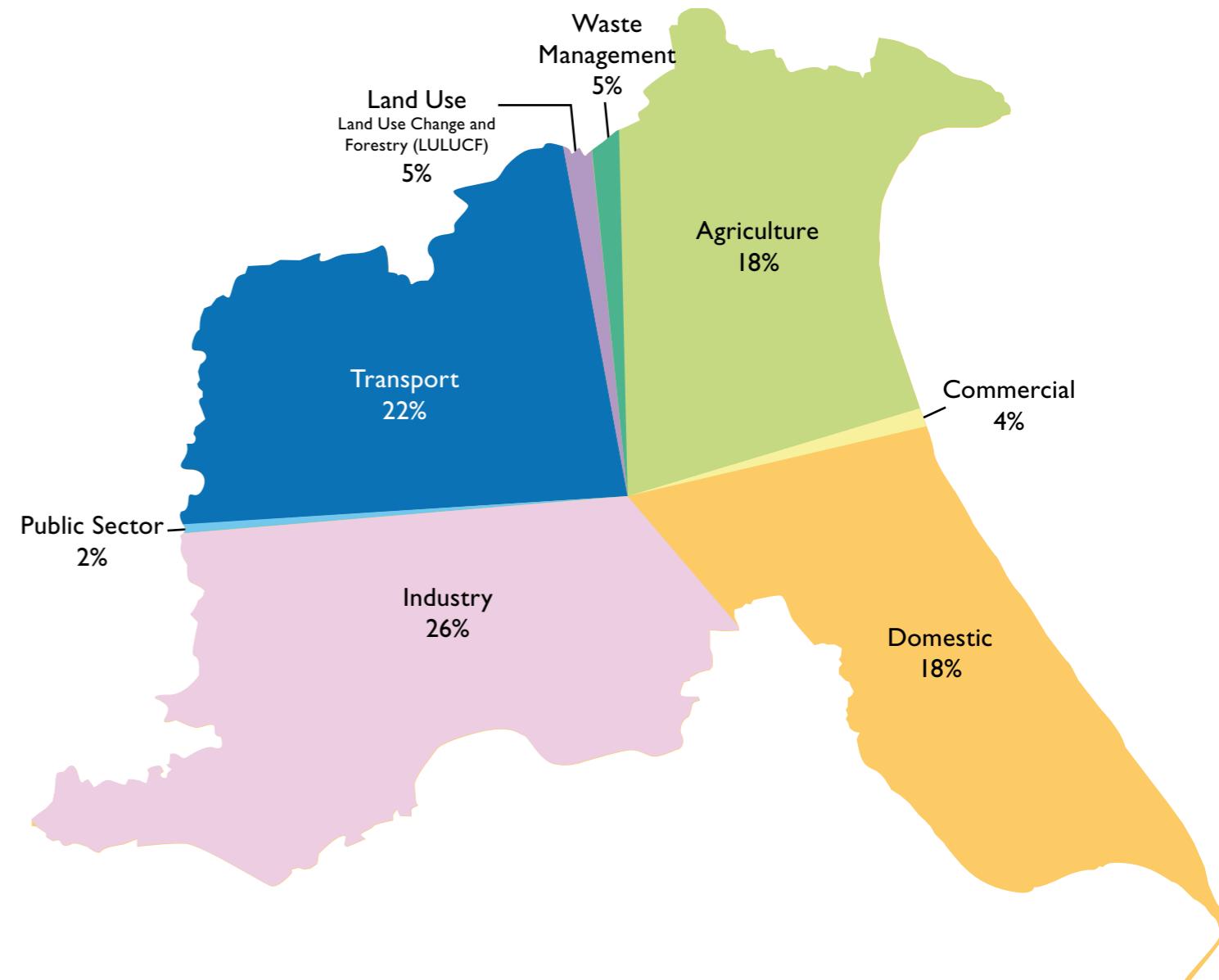


Where Are We Now?

Area-wide Carbon Footprint

The estimated carbon footprint of the East Riding of Yorkshire was 3,217.9 kilotonnes of carbon dioxide equivalent (kt CO₂e) in 2020 (BEIS, 2022). For reference, the Yorkshire and Humber region collectively produced 36,938.7 kt CO₂e, in the same year, and the carbon footprint of England was 291,134.6 kt CO₂e. Please note we will endeavour to continually update this data in alignment with the release of emissions statistics by Government.

To identify priorities for climate action we need to understand where our emissions come from. The chart below shows the main sources of emissions in the East Riding, breaking it down into key sectors. These are the latest estimates of the territorial emissions produced by Government, where emissions are allocated according to the point where that energy is consumed. This does not account for emissions from imported goods into the East Riding.



The industrial sector produces a large proportion of the emissions in the East Riding, despite a reduction in emissions over recent years. The region is nationally recognised for its industry and manufacturing, particularly around the Humber Estuary. The industrial cluster in the Humber region emits more emissions than any other UK cluster and accounts for a large proportion of the total emissions in the East Riding.

Emissions from road transport have only marginally declined since 2005 and remain a large part of the total emissions in the East Riding. This is because, despite improvements in vehicle efficiency and clean technology, these gains have been offset by an increase in road traffic.

Notably, there has been a 64.6 per cent reduction in emissions from electricity in the East Riding from 2005 - 2019. This is largely due to an increase in renewable energy capacity contributing to the decarbonisation (less carbon used to produce electricity) of the national electricity grid. This is alongside phasing out the use of carbon intensive fuel sources like coal, which have contributed to the overall reduction in residential and industrial emissions in the East Riding.

The agriculture sector also produces a large proportion of the area's emissions. These emissions arise primarily from livestock, urea application, liming of soils and fertiliser application.

Not all the emissions we produce in our daily lives are captured in the data above, because carbon emissions are produced from the products we purchase and consume like food and drink, clothes, shoes, consumer electronics and appliances. Each product that is purchased has a carbon footprint, which will depend on how the product is sourced, prepared and transported during its lifecycle.

It is estimated that in the East Riding the emissions produced from food and diet, along with the consumption of goods and services (including leisure and entertainment activities) per household is similar to the UK average household. Changing personal daily habits and what we consume can help tackle climate change.

The Council's Carbon Footprint

The estimated carbon footprint of East Riding of Yorkshire Council was 29,875 tonnes of carbon dioxide equivalent (CO₂e) in 2020 - 21.

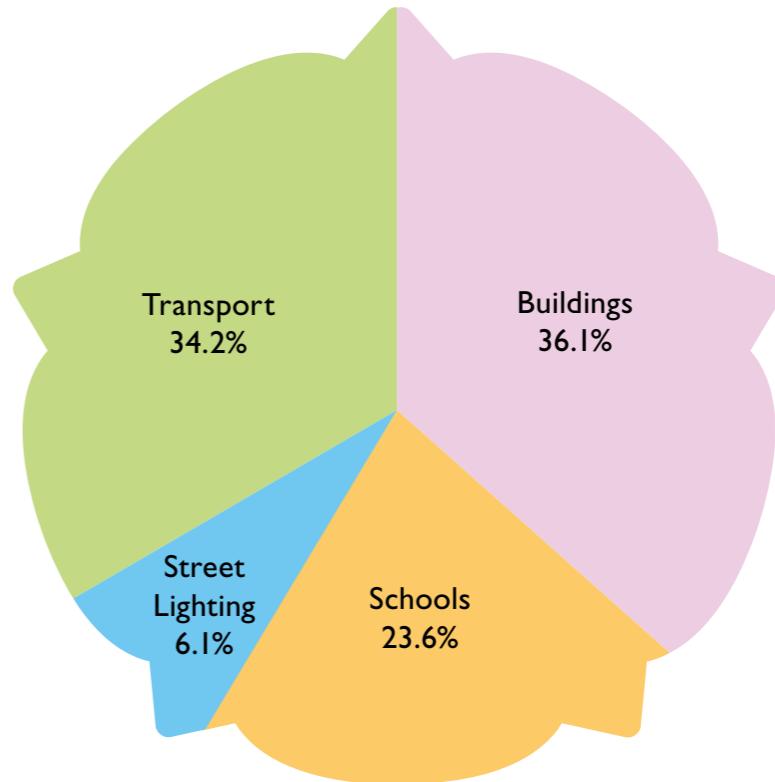
The Council, one of the largest unitary authorities in the country, is responsible for a large array of property and infrastructure assets and provides public services to an area of over 930 square miles.

The Council directly accounts for approximately one per cent of the total carbon footprint of the East Riding of Yorkshire. This includes the total emissions from assets that are owned or managed by the Council including buildings, schools, streetlights and transport (the Council's fleet vehicles and business travel). The following chart below illustrates the relative contribution of these asset groups to the Council's overall carbon footprint, using the most recent data we have available. The Council holds data on carbon emissions back to 2007 / 08. Since then, buildings have always been the largest contributor to the overall emissions, contributing over a third in 2020 - 21 (36.1 per cent). This is followed closely by transport (34.2 per cent). Carbon emissions from schools has reduced over time reflecting the energy improvements as a result of planned maintenance schemes and grid decarbonisation. Street lighting accounts for just 6.1 per cent of emissions and has seen reductions overtime as a result of upgrades from inefficient discharge lamps to high efficiency LED lamps.

Since 2007 - 08 the Council has reduced its total carbon emissions by 27.5 per cent. This has been the result of the Council's carbon reduction initiatives and having an Environmental Policy process that delivers environmental improvements, demonstrated through our ISO14001:2015 accreditation. Major external factors have also contributed to this including the decarbonisation of the electricity grid.

The Council's Carbon and Energy Management Strategy found that whilst the Council's carbon emissions are predicted to decrease in the short-term, due to the decarbonisation of the electricity grid, the Council will fail to meet the Climate Change Committee's (CCC) fourth and fifth carbon budget targets later this decade. To meet these, the Council will have to significantly increase investment in carbon and energy reduction technologies and set relevant policies to reduce the authority's carbon footprint.

More data would support further understanding of the emissions we produce. In particular, the emissions that occur indirectly as a result of the Council's activity. These are often referred to as scope three emissions and usually represent 70 - 80 per cent of a local authority's total emissions. Typically, these relate to the emissions associated with the things we buy (procured goods and services), out sourced contracts and staff commuting. As part of our carbon monitoring and reporting we will explore ways to capture these emissions and set subsequent reduction plans.



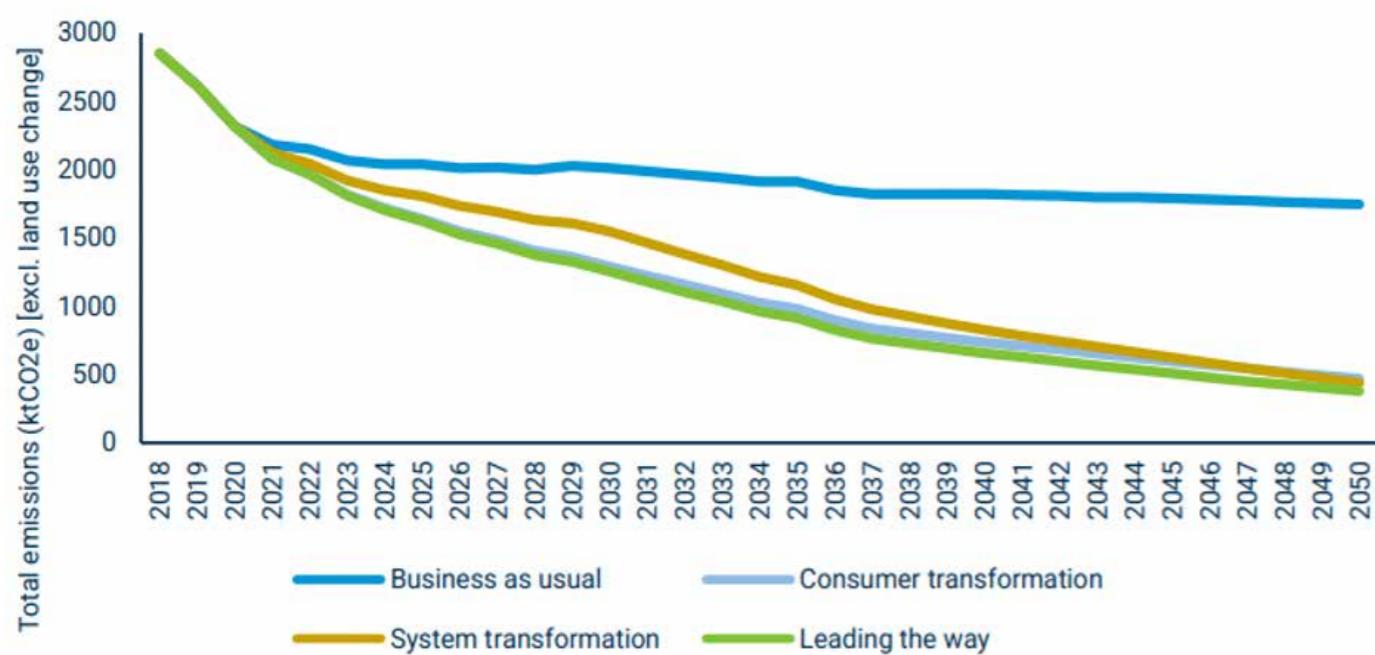
Future Pathways

The Tyndall Centre for Climate Change Research have calculated carbon budgets for each of the local authority areas in the UK. This helps local authorities understand the contribution they must make towards the Paris Climate Change Agreement. The carbon budget sets out the maximum amount of carbon dioxide that can be emitted in a local area to limit global warming to 1.5 degrees compared to pre-industrial levels. With no change to the current emissions produced, it was predicted that the East Riding of Yorkshire would use its carbon budget by 2026.

We have undertaken a study to further understand the various pathways to achieve net zero. The research suggested that to align with a Science Based Target of 1.5 degrees, the East Riding of Yorkshire will need to achieve net zero emissions by 2044.

The challenge for achieving this target should not be underestimated and will require significant changes to the way our energy system operates and fundamental lifestyle changes. Even if we follow the more ambitious pathways presented by the National Grid or Northern Power Grid, this may not achieve the net zero goal by 2044 and would require offsetting of residual emissions, which should always be a last resort. This is presented as the 'Leading the way' scenario on the graph below.

East Riding Total Emissions (ktCO₂e) for Each Scenario



According to study we had commissioned, this scenario would require as a minimum a:

78%
reduction in transport emissions with private vehicles and public transport powered by electricity or hydrogen.

89%
reduction in industrial emissions.

94%
reduction in building emissions by maximising thermal efficiency and the majority of homes and commercial buildings operating a heat pump.

Measuring progress on climate adaptation is more challenging, primarily because the impacts of climate change are so varied and are changing all the time.

Nationally, the Government is required to produce a five-yearly climate change risk assessment, which helps set the National Adaptation Programmes, with the next set for 2023. The Climate Change Committee produces an assessment (every two years) of the UK Government's progress with adaptation. The most recent report found that action on adaptation has failed to keep pace with the worsening reality of climate risk and acting sooner will save more resources rather than waiting to deal with the consequences.

Locally, we continue to monitor and track elements of climate risk in the East Riding across our different work streams and partnerships. This includes:

- A programme to assess the levels of risk from coastal erosion, which includes twice yearly aerial image and Light Detection and Ranging (LiDAR) surveys of the whole East Riding coastline.
- A series of assessments and studies to improve understanding of surface water flood risk, test the effectiveness of flood mitigation works and record the condition of flood defence structures. This includes our cutting-edge approach to produce 'baseline' integrated computer models of the area's drainage catchments, which we can overlay with rainfall and tide level data to simulate combined sources of flooding.
- Our emergency planning team regularly update and share an assessment of the major risks we face in the East Riding, including those from climatic and weather events, so the core responders can plan and prepare for emergencies as necessary.
- Measuring progress with partnerships, such as the Humber Resilience Forum and the Regional Flood and the Yorkshire Regional Flood and Coastal Committee (RFCC).

Whilst we have these procedures in place for measuring climate risk, we will continue to undertake research to further understand all the risks from climate change, estimating the costs of achieving climate resilience and how the Council can support residents and businesses with adaptation measures.



What is Important to our Residents?

Initial Public Consultation

Recognising that early engagement was critical to the development and success of the Climate Change Strategy, East Riding of Yorkshire Council utilised the online engagement platform, Commonplace, to better understand public opinion on climate change in the local area. The consultation took place between November 2021 and February 2022. We had 300 responses and the results are highlighted below.

We found the key climate priorities for respondents, in order of popularity, were:

**Transport and Air Quality | Trees and Green Space | Buildings and Home
Energy Supply | Community Action**

We also found the top priorities for driving climate action, in order of popularity, were:

**Political leadership | Community Involvement | Funding
Education and Awareness | Transparency**

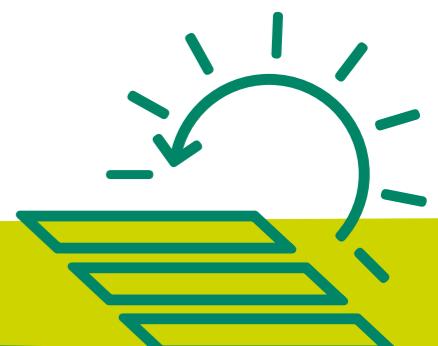
Some of the other frequently mentioned topics outside of the set questions of the survey were:

**Electric vehicle infrastructure.
Electrification of the rail network.
More engagement with residents on climate change and the environment.
Supporting active travel.**

We have worked with members of the Youth Parliament, the Regional Youth Climate Action and East Riding Voluntary Action Services to hear what our young people think about their future and more specifically climate change. Climate Change was a key priority for candidates for the youth parliament. East Riding of Yorkshire Council will support young people to have their say on how climate change is addressed.

East Riding of Yorkshire Council recognises the importance of individual actions and those of community groups, businesses and partner organisations. Consultation and engagement will remain an important tool for the delivery of the Climate Change Strategy.

The views of residents have been considered when developing the Climate Change Strategy. An eight week consultation was completed between August and September 2022. Updates have been made to the strategy to reflect the feedback received.



Our Approach

The Climate Change Strategy outlines the approach that East Riding of Yorkshire Council will use to reduce carbon emissions and build resilience to climate change. It is designed to set the East Riding on a path to net zero by establishing a flexible road map which can be added to over time as new policies and strategies are introduced that impact our ambitions.

The strategy will take an integrated approach to climate change, considering how we become more resilient to the changing climate (climate adaptation) and how we can reduce our impact on the climate (climate mitigation).

The strategy has been developed to cover the period 2022 - 2030 with the aim to kick start rapid action to reduce emissions and build resilience. During this time, we will focus our efforts on quick win actions (those that make big carbon savings or are simple to implement). We'll also develop our data to ensure we have the best information on which to base future decisions. This approach will enable us to reassess our position in 2030, and ensures the strategy remains aligned with evolving policy, legislation and technological changes.

THE STRATEGY IS...

- ✓ Based on our current understanding and evidence which will develop and evolve over time.
- ✓ Integrated. A strategy that sets aims for reducing emissions and building resilience to the climate within the East Riding.
- ✓ A strategy that sets our priority areas for action to 2030.
- ✓ A plan that has been developed in collaboration with key partners and aims to reflect the views of residents.
- ✓ Flexible. We will update this regularly to ensure that it aligns with evolving policy, legislation and technological and market changes.
- ✓ A strategy that builds on the positive actions taken by the Council, its partners, local businesses, and residents within the East Riding.
- ✓ A strategy that has sustainability at its core. We will strive to ensure actions represent a sustainable solution to the challenges of climate change, making best use of resources and having socio-economic benefits.
- ✓ Designed to support, coordinate, and facilitate climate action.

THE STRATEGY IS NOT...

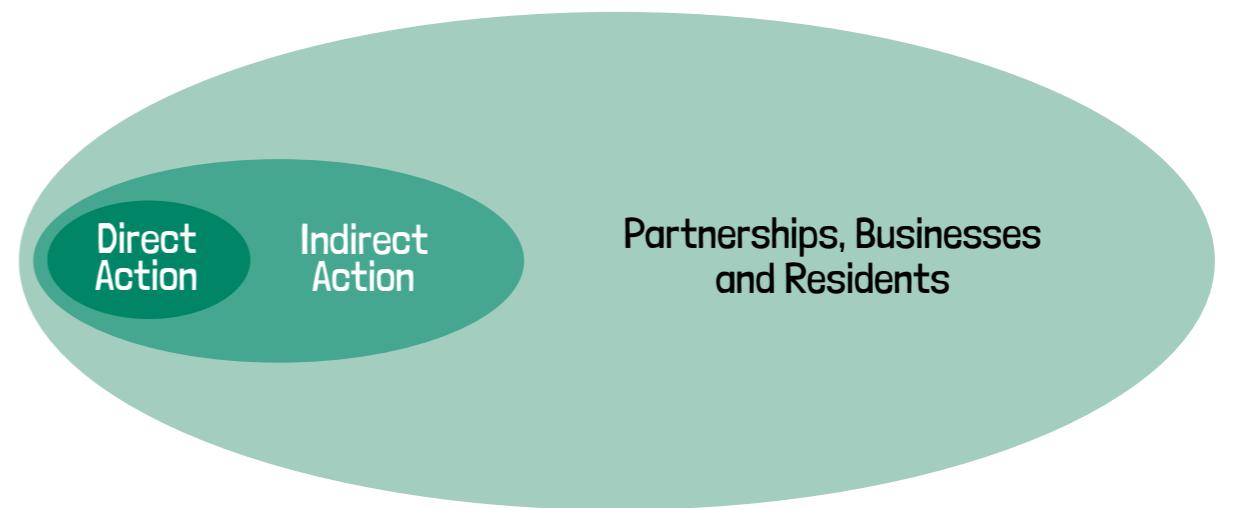
- ✗ Perfect. The Council has led on the development of this strategy at pace, acting in line with the climate emergency that we are facing.
- ✗ A fixed path to achieving net zero. We will continue to review our strategy to ensure we are still heading in the right direction.
- ✗ Enough on its own to meet our climate targets. Everyone must play their part.
- ✗ A strategy that will dictate action. Instead, we hope to work with partners, businesses, and our residents to establish the most suitable actions for the East Riding.

Scope

East Riding of Yorkshire Council recognises that although as an authority we are only directly responsible for a small proportion of the emissions in East Riding, we can use our influence to reduce emissions across the wider East Riding. This strategy has been developed to cover three broad areas of our work.

- East Riding of Yorkshire Council directly reduces carbon emissions and takes action to adapt to the changing climate. East Riding of Yorkshire Council is directly responsible for just one per cent of emissions in the East Riding.
- Indirect climate action will facilitate change through the services the Council delivers. East Riding of Yorkshire Council is responsible for the delivery of many key services, such as planning, housing, economic development, and waste. Estimates suggest that we might influence as much as 30 per cent of the area's emissions in this way.
- East Riding of Yorkshire Council works in partnership with other organisations, businesses and communities and we will support climate action across the East Riding through collaboration.

Local Authority Sphere of Influence



Priority Areas

The Climate Change Strategy proposes climate action to be taken across a series of eight broad priority areas. Although we recognise there is overlap between these areas, they are presented separately in the following pages. The priority areas are set out in the diagram below:



Please note a detailed list of our areas for action within each of these priority areas can be found in Appendix 2 (page 48).

TRANSPORT

KEY AREAS

- Transition to low / zero emission vehicles.
- Shift towards public, active and community led transport.
- Avoid unnecessary vehicle transport.



Transport 🚕

Transport is the sector that emits the most greenhouse gas emissions across the UK, accounting for 31.5 per cent of carbon dioxide emissions in 2021. In the East Riding, the transport sector is second only to industry as the highest emitting sector, making up 22 per cent of all emissions within the East Riding of Yorkshire. Government has introduced a ban on the sale of petrol and diesel cars by 2030, which will start to reduce emissions across the sector, but more work will be required.

To achieve our net zero ambitions there will have to be a transition to low and zero emission vehicles, a modal shift towards active travel and public transport, and an avoidance of unnecessary travel through digital and rational solutions. As set out in the UK Government's Transport Decarbonisation Plan, the electrification of road transport is only part of the solution; it is essential we avoid a car-led pathway to net zero and instead make public transport, cycling and walking the natural first choice for all who can take it.

Reducing carbon emissions and improving healthy lifestyles is a key objective set out in East Riding of Yorkshire Council's Local Transport Plan (2021 - 2039) which sets our transport funding priorities and solutions to help us meet net zero and increase climate resilience.

Electric Vehicle (EV) Infrastructure

The Council's strategic approach for the uptake of electric vehicles for the East Riding area is outlined in the 'Public Electric Vehicle Infrastructure Strategy', which forms part of the Council's Local Transport Plan (2021-2039). The main aim of the Strategy is to support and encourage the use of electric vehicles (EV) by installing a basic network of charging points across the East Riding. Growth of our EV infrastructure is important as it gives people the confidence to visit the East Riding whilst boosting the economy at the same time.

Through the Local Transport Plan, the On-street Residential Charge Point Scheme and other grants and development funding, the Council has successfully installed 15 twin socket 7kW chargers across our 14 main settlement areas. Since their installation the uptake in their usage has increased with all sites being used daily.

The Council has committed to expand their EV infrastructure with a further 100 by April 2023, focussing on our settlement areas and where they can benefit both residents and visitors.



Key Challenges and Opportunities

Challenges to Delivery

Addressing the heavy reliance on car travel - In East Riding, the distance between remote settlements and local services, coupled with higher-than-average car ownership, means there is estimated to be more trips made by car compared to other areas in the Yorkshire and Humber region.

Capital cost of electric vehicles - The current market for ultra-low emission vehicles makes them unaffordable for many residents and businesses across East Riding.

Funding - There is currently insufficient funding to undertake all the proposed transport schemes set out in Council strategies, with reductions seen in funding from National Government for many areas of sustainable and active travel, including for our Local Cycling and Walking Infrastructure Plans.

Rurality - The East Riding of Yorkshire is predominantly rural which is a key factor for high car ownership rates and car use being the preferred mode of transport; these are fundamental challenges to reducing carbon emissions. This means community transport services and the electrification of road transport will be vital in our decarbonisation effort for these areas.

Impact of COVID-19 on public transport - The pandemic and social distancing has caused disruption to bus and rail patronage and industry forecasts suggest a recovery to previous levels will take years.

Opportunities

Encouraging healthy lifestyles - Encouraging and supporting active travel to reduce emissions, can help to reduce the negative effects of a sedentary lifestyle and reduce the likelihood of developing chronic health conditions and associated long-term healthcare costs.

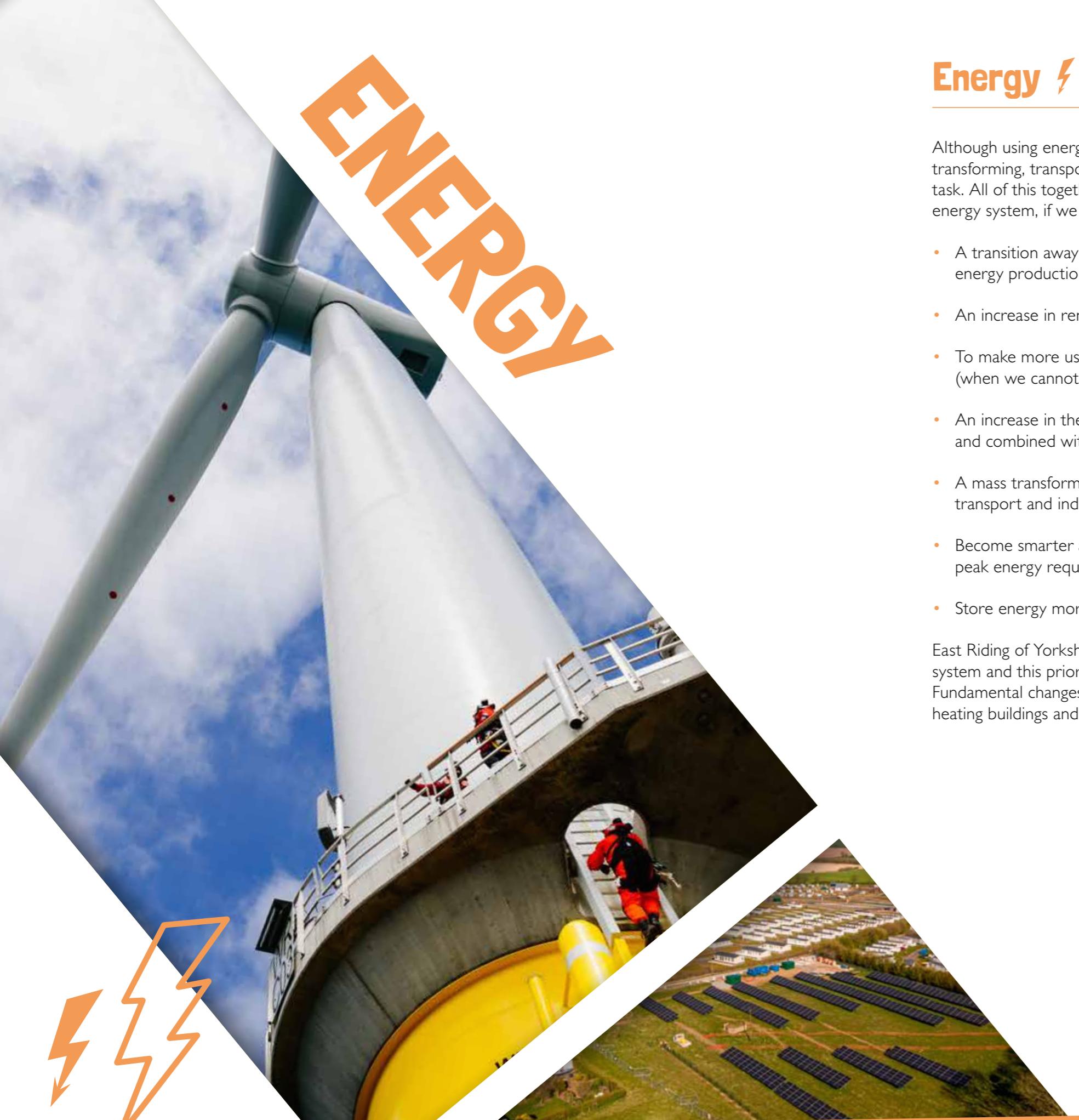
Homeworking - There is an opportunity to take advantage of the demand for homeworking across the East Riding, since the COVID-19 Pandemic, to reduce emissions associated with commuting.

Active travel opportunities - The rural scenic nature, flat landscape and compactness of East Riding's large towns offer residents and visitors an enticing option to travel on foot or by bike.

Reducing congestion - Schemes to encourage active travel and use of public transport will reduce traffic congestions by encouraging more people away from using the private car.

Uptake in cycling - The COVID-19 pandemic led to a change in travel patterns and an uptake of cycling across England. Cycling levels increased to the highest since national travel surveys were undertaken. There is a huge opportunity to capitalise on this at a local level.





Energy ⚡

Although using energy in our homes is easy (we often push a switch to turn on a light), producing, transforming, transporting and distributing that energy across a region is a more complex and difficult task. All of this together is commonly described as our 'energy system.' Based on future scenarios of our energy system, if we are to meet net zero by 2050 or earlier, we would likely require the following:

- A transition away from unabated natural gas. Some natural gas will be required for hydrogen energy production in the short-term.
- An increase in renewable energy production, particularly wind and solar power.
- To make more use of hydrogen energy, which will help with inter-seasonal flexibility (when we cannot rely on solar and wind power).
- An increase in the use of bioenergy (sourced from recently living organic materials), and combined with carbon capture and storage, where possible, to create negative emissions.
- A mass transformation of how we consume energy with the electrification of home heating, transport and industry.
- Become smarter and more flexible in the way we use energy, balancing demand to reduce peak energy requirements.
- Store energy more effectively and reduce energy waste.

East Riding of Yorkshire Council continues to take action to support the transition to a cleaner energy system and this priority area sets out how the Council can further support the ambitions listed above. Fundamental changes to the way we will consume energy such as the electrification of transport, heating buildings and industry are set out in more detail in other priority areas.

KEY AREAS

Transition away from fossil fuels and increase renewable energy production.

Smarter and more flexible energy system.

Solar Farm at South Cliff Holiday Park

In 2021, the Council installed a 370kW solar farm at South Cliff Holiday Park, Bridlington, which generates zero carbon electricity that is supplied directly to the site, significantly reducing carbon emissions by 130 tonnes a year. This is equivalent to the carbon savings associated with powering 22 homes for an entire year. The renewable technology will provide 45 per cent of the site's annual electricity usage.

The Council owns and operates the large caravan park that supplies electricity to approximately 900 static caravans and 250 touring caravan pitches, which is the Council's second highest consumer of electricity.

The shower blocks at the holiday park are also heated using ground source heat pumps to provide low carbon heating. They have solar thermal panels on the roof, which means much of the hot water used by holidaymakers has been heated by the sun. The site is recognised as one of the greenest holiday parks within the United Kingdom.

Funded jointly by the Council and the European Regional Development Fund (ERDF), the project in Bridlington was part of a wider array of green initiatives. The estimated total value of the investment in the solar farm and solar panels was £1,895,341, with the council contributing £1,047,365 towards the scheme.

Key Challenges and Opportunities

Challenges to Delivery

Natural gas - Gas has long been promoted as a transition fuel as it has lower carbon emissions than coal, but still requires a similar scale of centralised infrastructure. As a result, we now have one of the most developed gas networks in the world. This makes the replacement or decarbonisation of the network a key challenge nationally, which is particularly significant given the Government's commitment to phase out the installation of new gas boilers by 2035.

Costs - Whilst we have identified opportunities for carbon reduction initiatives and energy projects, such as new solar farm projects or geothermal heating, the economic viability of projects on this scale are challenging. Rising electricity prices will lead to high running costs for electric vehicles and heat pumps meaning these technologies become less financially viable for businesses and residents.

Fossil fuel economy - The Humber is home to many traditional heavy industries, such as oil refining and steel production, whose long-term future is under pressure from decarbonisation. Ensuring this economy remains sustainable during the transition to net zero is essential to the region. To overcome this challenge partners have come together to create a Humber Industrial Cluster Plan setting out a strategy to achieve net zero.

Environmental impact - We must use our natural resources sustainably and create new infrastructure which does not have negative impacts on the wider environment. For instance, offshore wind can negatively impact seabird populations which are already under significant pressure from climate change. As such, we need to plan energy infrastructure developments efficiently.

Opportunities

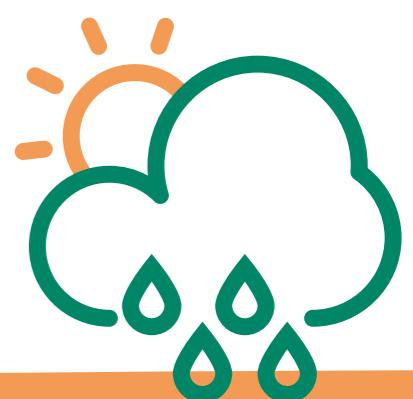
Hydrogen - The Humber industrial area is leading on the development of hydrogen production and storage facilities to create one of the UK's most efficient gas-fired power station and support the roll-out of low-carbon hydrogen infrastructure. Hydrogen has the potential to be blended into the gas network, used for domestic heating and power transportation.

Offshore wind - The Humber region has been identified as a flagship region for wind power and will be key to achieving the Government's offshore wind power targets. This is unsurprising given that region is recognised internationally for offshore wind energy with Ørsted's Hornsea Project One, the largest offshore wind farm in the world, powering more than one million homes. Even larger offshore projects are in development, with most of the turbines manufactured at the Siemens Gamesa factory in Hull.

Carbon capture and storage - Major energy companies have come together to develop offshore carbon capture and storage in the North Sea, forming The Northern Endurance Partnership. This partnership provides the infrastructure needed to transport carbon dioxide from emitters in the Humber to secure offshore storage in the North Sea. In October 2021, this partnership's East Coast Cluster was selected as a priority cluster in phase-one of the UK Government's Carbon Capture, Usage and Storage cluster sequencing process. Once developed it will transport and store 50 per cent of all UK industrial cluster emissions. This will serve the Zero Carbon Humber project, aiming to establish a fully decarbonised industrial cluster on the Humber.

Industrial clustering - The Humber is just one of the six energy intensive industrial clusters in the UK. These industrial districts provide unique partnership opportunities for integrating processes, building more efficient supply-chains, utilising by-products or waste materials, and conducting research and development on low-carbon technologies.

Biomass - The Yorkshire and Humber region is leading the way nationally in terms of biomass energy and fuel production. This includes the 22MW Solar 21 biomass plant in Aldbrough, the Y Pellets wood refinery near Goole and Drax power station in Selby, which is fuelled by compressed wood pellets.



WASTE

KEY AREAS

Manage waste in accordance with the waste hierarchy, aiming to reduce and recycle waste as much as possible.

Move towards a circular economy.



Waste

Greenhouse gas emissions from waste management practices currently account for approximately five per cent of the territorial carbon footprint for the East Riding. These are mainly from methane released from landfill sites, with some also from waste-water treatment and the incineration of waste. In East Riding, a large proportion of our waste is classified as household, commercial, industrial, or agricultural waste.

To reduce the carbon footprint of our waste activities in the East Riding, we will need to reduce how much waste we produce by keeping resources in use for as long as possible and prevent waste by re-using materials and products where possible. The waste hierarchy (below) is a useful guide for reducing emissions, prioritising action further up the hierarchy.

We also have an ambition to help East Riding become a circular economy. This means moving away from the linear process of taking materials from the earth, making products out of them, and throwing them away. We want to create a more cyclical process where materials flow, there is a focus on recovery or regeneration of resources, and we design products that can be made and made again. Based on what we use in our average daily lives across East Riding, over a third of our personal carbon footprint is from the purchase of goods (including food and diet).

The circular economy will require partnership action across all sectors of society, as a unitary local authority only has limited control over the full lifecycle of products and materials.



Bag Sorting at Household Waste Recycling Sites

A waste composition analysis at Household Waste Recycling Sites (HWRS) showed that up to 30 per cent of bags of waste contained recyclables including textiles, cardboards and electricals. A project has been set up asking residents to pre-sort their waste. The aim is to ensure that only non-recyclables are placed in the general waste container. Residents who arrive with a mixed bag of waste are asked to visit the sorting table where they separate out any recyclables and place them in the bins provided.

The initiative started at Driffield HWRS in March 2022 and has since been rolled out across all ten sites. At the Driffield site, there has been a five per cent increase in recycling rates since the scheme started. In the first two months over 40 tonnes less of non-recyclable waste was taken to the site, and nearly seven tonnes extra was diverted to recycling through the sorting area on site.

Although the scheme hasn't been in place across all sites for long, recycling rates across the HWRS have already increased by 3 - 5 per cent. The overall recycling rate for the HWRS is likely to be 82 per cent for 2022 / 23.



Key Challenges and Opportunities

Challenges to Delivery

COVID-19 pandemic - This pandemic has brought new challenges to waste management, in particular the huge amount of extra medical waste produced. There are limitations on how this waste can be recycled or reused.

Commercial waste - The local authority has limited influence over the management of commercial waste, particularly if they do not use the Council's collection service.

Control on production - Many of the products we consume originate from outside the area, and even the country, meaning we have limited control locally over sustainability in the early stage of a products lifecycle.

Collection of waste - We are still awaiting clarity on national changes, through the Environment Act, for the collection of separate waste streams and the impacts this will have, particularly if food waste has to be collected separately from other compostable waste.

Transfer of waste - The transfer of commercial and industrial waste between companies and organisations for alternative or re-use is hampered by overly complex and restrictive waste legislation.

Replacement products - There is limited capacity for the large-scale repairing of products, which means that it is more practical, and often cheaper, for individuals and organisations to purchase replacement products and dispose of faulty items, rather than repair them.

Opportunities

Environment Act - This came into law in November 2021 and plans to extend producer responsibility for waste, create a deposit return scheme for single use drinks containers and further charges for single use plastics.

Saving money - Having sustainable waste management practices in place as an organisation can reduce the amount of waste your business produces, saving disposal costs.

Sustainability - As well as reducing carbon emissions, circular economy principles have wider sustainability benefits, including lowering demand on the finite resources we have available and reducing pollution like plastics.

Waste heat - With the large industrial sector we have on the Humber there is the potential to utilise the waste heat produced from industries to be made available for third parties, without it simply being discharged into the atmosphere.

Product efficiency information - Legislation has come into place, through the Environment Act, giving powers for Government to introduce new resource efficiency information on products, including labelling on the recyclability and durability of products.

Yorkshire Circular Economy - Initiatives by organisations, such as CATCH, are working to establish a circular economy approach across the Humber Industrial Cluster, including the re-use of waste products.

At a local level we must support the sustainable use of land across East Riding meeting our objectives to support nature, people, and the climate. This must consider nature recovery, recreation, food production, renewable energy and creating high quality places to live. Whilst many of these types of land use are picked up through the Climate Change Strategy, this priority area focuses on three: nature, farming, and food systems.

There are fundamental links between the natural environment and climate change:

- Soils, forests, wetlands, peatlands, and oceans absorb and store carbon. Future emissions can be cut through the maintenance of healthy ecosystems and restoring degraded environments. However, damage to ecosystems can reduce their capacity to capture and store carbon.
- Working with and enhancing nature can provide cost-effective and accessible solutions for climate mitigation and adaptation.
- The climate is changing much faster than nature and wildlife can adapt to it. The pressures on natural resources have led to an ecological crisis with species and habitats declining at an alarming rate. The UK has experienced some of the highest rates of biodiversity loss in the world.
- The impact of climate change on biodiversity and ecosystems can exacerbate other pressures such as pollution, over-exploitation, invasive species, flooding and habitat loss and fragmentation.

Agriculture and the food sector will play a large role in the local and national climate response. In the East Riding, 18.6 per cent of emissions are produced from the agricultural sector, largely from livestock, fertilisers, and operational activity. Emissions linked to food and drink production and consumption more broadly can be related to supply chains, transportation, and waste. In East Riding, agricultural land makes up 90 per cent of the land area and supports over 2,000 farming and food manufacturing businesses, illustrating its importance to our economy and cultural identity.

KEY AREAS

Sustainable land-use to support nature, people, and the climate.

Recognise the ecological crisis.

Support emissions reduction in the agriculture and food sectors.



ENVIRONMENT



Humber Forest

Humber Forest is the community forest for the Hull and East Riding region. The team at East Riding of Yorkshire Council help landowners, farmers, businesses, and communities to transform their local environment through tree planting. Humber Forest can provide funding and practical help, making it both easy and effective, at no cost to the landowner. The initiative aims to promote joy and prosperity to communities through the act of tree planting to sustain the planet on which we depend.

Tree planting provides many benefits to the environment and can reduce the effects of climate change locally and globally. Tree coverage across the East Riding and Hull Region is recognised as the lowest in England at 2.2 per cent. With this in mind, it makes planting projects like this one all the more important if we are to combat the effects of climate change.

Humber Forest has increased woodland coverage in this region during the 2021 / 2022 planting season by planting 17.37 hectares of trees / hedgerow / woodland. The goal for planting season 2022 / 2023 is to plant a further 88 hectares in the Hull and East Riding region, with more planned in future years.

For anyone interested in planting on their land, or who would like to find out more information, please visit www.humberforest.org or contact humber.forest@eastriding.gov.uk

Key Challenges and Opportunities

Challenges to Delivery

Invasive Non-Native Species (INNS) - Increasing summer temperatures could lead to an increase in non-native species colonising the area or being able to reproduce more successfully and thus potentially become invasive.

Marine environment - Whilst some impacts of climate change in the marine environment are well-documented, the complexity of marine and coastal ecosystems means that data gathering and implementing management measures can be particularly challenging.

Nature-based solutions - Many nature-based solutions to manage flood and coastal change risk in East Riding are not suitable. Factors such as our coastline's geology often prevents nature solutions to coastal erosion.



Food price - Some of the sustainable and ethical food products can be more expensive, which can disproportionately affect those on low incomes.

Supply chains - Supporting the implementation of a sustainable and resilient food supply chain that extends across all aspects of the East Riding's food network is a huge challenge, requiring change from outside the region.

Opportunities

Regenerative agriculture - Technologies that regenerate and revitalise the soil and environment can help rebuild soil organic matter and restore degraded soil biodiversity, storing more atmospheric carbon and creating more resilient soils that can better withstand climate change impacts like flooding and drought.

The Agriculture Act - This includes the Environmental Land Management Scheme, rewarding farmers for public goods, such as improving soil health, measures to reduce flooding and storing carbon.

The Environment Act - In line with the requirements in the Environment Act, the Council will lead on the creation of a Local Nature Recovery Strategy that identifies opportunities for nature's recovery and delivers wider benefits, including climate change mitigation and adaptation. We will also implement into our planning system a way to deliver measurable net gain improvements for biodiversity by creating or enhancing habitats in association with development.

Government Food Strategy - The national food strategy, published in 2022, contains an objective to deliver a sustainable, nature positive and affordable food system setting out this will only be achieved through a reduction in greenhouse gas emissions of the food system.

COVID-19 - A survey undertaken by Natural England found that more than 40 per cent of people noticed that nature, wildlife and visiting local green and natural spaces has been more important to their wellbeing since the start of the pandemic in 2020. There is an opportunity to capitalise on this newfound appreciation for the natural environment.

Natural capital approach - A natural capital approach allows the value of our natural resources to be included in decision-making. This includes both monetised goods (such as food and fuel) and the non-monetised services we receive (such as health and wellbeing benefits of spending time in nature).



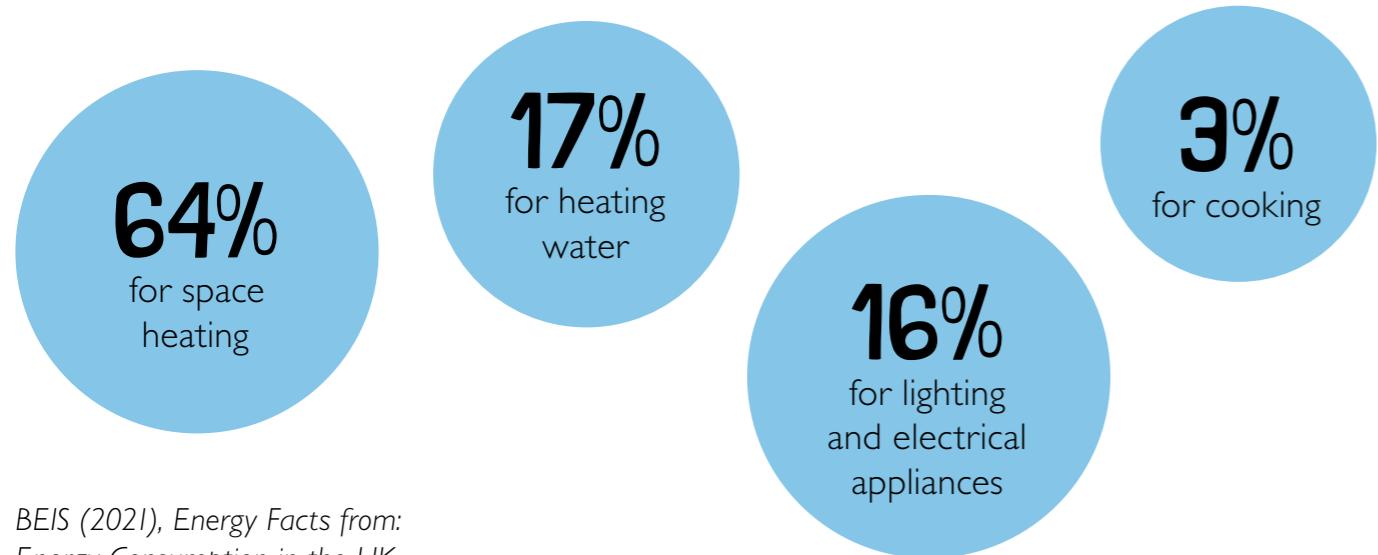
Buildings

Domestic properties in the East Riding account for approximately 18 per cent of the county's greenhouse gas emissions. A priority for significantly reducing carbon emissions in East Riding is to retrofit the existing building stock with technology to produce low-carbon or renewable energy and ensure buildings can then retain this energy as efficiently as possible.

Typically, most of the energy used in homes is to heat space. Therefore, we will require a shift away from gas and oil central heating systems to heat pumps, biomass or hydrogen boilers (when commercially available) in our existing building stock. This will have to be coupled with measures to ensure buildings retain heat. Factors that determine whether a building retains heat include how it was built, how much insulation has been installed, the efficiency of the windows, how draughty it is and the behaviour of those who live there.

With provision to be made for 1,400 new houses each year, as set out in the East Riding Local Plan, we will have to transition towards these buildings being designed and built to zero carbon standards as soon as possible if we are to not contribute further carbon emissions as an area.

How is energy used in the average UK home?



BEIS (2021), Energy Facts from:
Energy Consumption in the UK.



KEY AREAS

Improve the energy performance
of existing buildings.

Transition to zero carbon
standards for new buildings.

BUILDINGS



East Riding Future Energy Scheme Grants

East Riding of Yorkshire Council has been awarded funding from The Department of Business, Energy, and Industrial Strategy (BEIS) to install fully funded air source heating systems and other energy saving measures in private sector properties.

The project is aimed at homeowners who have either storage heating, portable heaters, coal, LPG or oil heating in their home at present. The household must also have an energy efficiency rating of E, F, or G and fulfil an eligibility assessment of the property and income threshold.

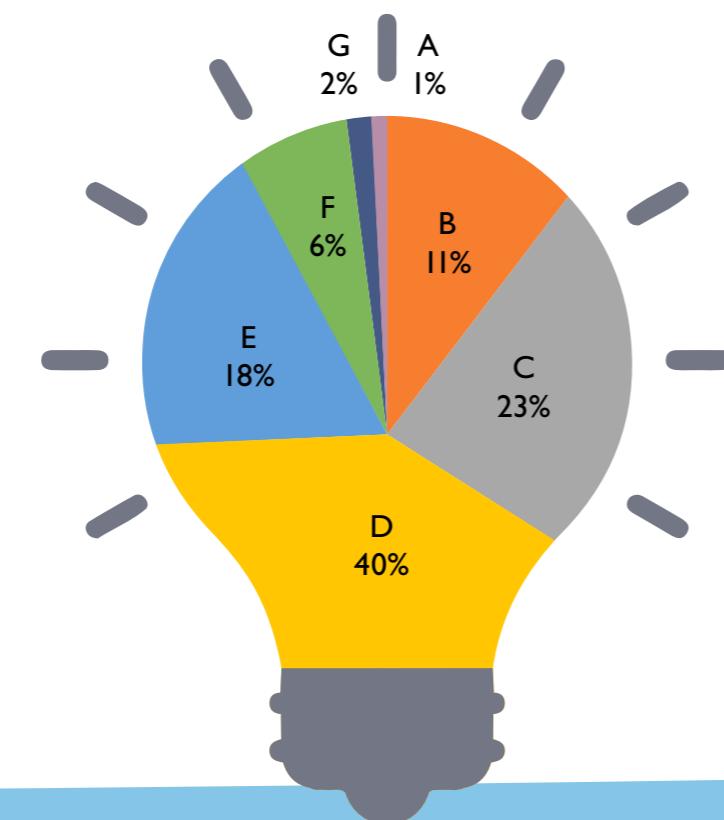
The principle aim of the scheme is to improve the energy performance of homes through the installation of a new air source heat pump as well as insulation and ventilation upgrades, which will help you to keep warmer throughout all your home.

Reverends Vincent and Anne Lewis, whose Broomfleet property is off the gas network and had solid fuel heating, contacted the Council to have an air source heat pump system installed.

They said “We are very pleased with the air source heat pump system, it provides consistent heat throughout all of the house which has made a great improvement to the warmth of the whole of the property, without costing us anymore on our fuel bills. The installation of the air source heat pump was completed efficiently, excellent workmanship, customer service and how to use the system was fully explained to us. We would highly recommend having an air source heat pump installed to other people off the main gas network.”

For further information and to check eligibility for this scheme, contact East Riding of Yorkshire Council's Energy Efficiency at the email healthy.homes@eastriding.gov.uk

Energy Performance Standards of Buildings across East Riding, March 2022



Key Challenges and Opportunities

Challenges to Delivery

Gas network - Approximately 32 per cent of properties in the East Riding are not connected to the mains gas. This means they rely on different heating fuels like oil or liquefied petroleum gas (LPG) which are more carbon intensive and expensive compared to mains gas.

Energy performance ratings - Approximately 66 per cent of the properties in East Riding have an energy performance rating of D or below. The Government's Heat and Buildings Strategy recognised that most homes below EPC band C will need to be upgraded between now and 2050.

Fuel poverty - According to the most recent data, the percentage of households deemed fuel poor in East Riding was 14.7 per cent, compared to an average in England of 13.2 per cent. In response, we have been targeting those on lower incomes for energy efficiency improvements and low-carbon heating grants.

Costs - The costs of household energy efficiency and low carbon retrofits remains high. Whilst very limited grant funding is available, changes to the market and further Government support will be required to reach current targets.

Opportunities

Future Homes and Building Standard - The new standard, setting changes to Building Regulations, should ensure that all new homes built from 2025 will produce 75 - 80 per cent less carbon emissions compared to current regulations, and produce 31 per cent less from 2022.

Gas boilers - The Government's Net Zero Strategy included the ambition for no new gas boilers to be sold by 2035. Although not yet set into law, there has also been indications by Government that as part of changes to building regulations there may be a gas boiler ban for new homes as early as 2025. Furthermore, in Spring 2022, the Government's Boiler Upgrade Scheme opened for applications. This provides upfront capital grants to support the installation of heat pumps (or biomass boilers in some circumstances) in domestic and non-domestic buildings.

Health - Improving the quality of our indoor environment through deep energy retrofits, such as improved insulation, can provide benefits to physical health by creating healthy indoor living environments with healthy air temperatures, humidity levels, noise levels and improved air quality.

Social Housing Decarbonisation Fund - An application will be made in 2022 to the fund which is for social housing landlords to deliver improvements to the fabric of their properties (wall, loft, and other insulation measures) to achieve an energy efficiency rating of C or above. This will make the property ready for the transfer to low carbon heating such as air source heat pumps in the future.



ECONOMY

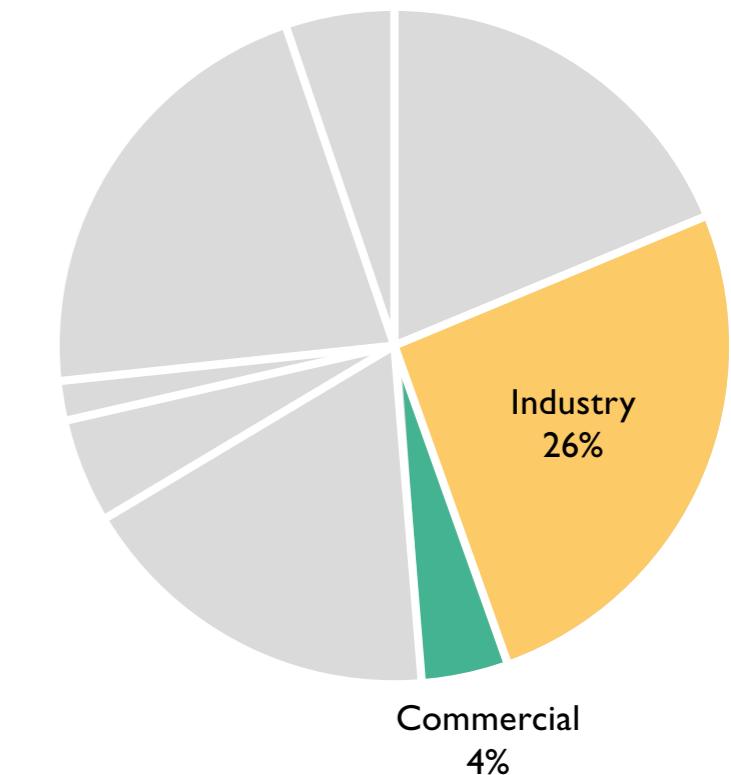
Economy

The commercial and industrial sectors are significant contributors to climate change in the East Riding of Yorkshire, accounting for approximately 30 per cent of the areas carbon emissions, as shown in the following chart.

Across these two sectors, industry makes up a large proportion of the emissions, reflecting the industrial base present in East Riding, particularly in the areas bordering the Humber Estuary.

It is important we work together to drastically reduce commercial and industrial emissions, whilst making sure our diverse economy thrives, building on our natural strengths in the food, manufacturing, tourism, and renewable energy sectors.

Growing the green economy will also be vital for powering the transition to net zero, as we look to increase capacity and skills in key sectors such as sustainable farming, electric vehicles, domestic retrofit, and renewable energy.



KEY AREAS

Support emissions reduction in the commercial and industrial sectors.

Maximise growth and opportunities in the green economy.



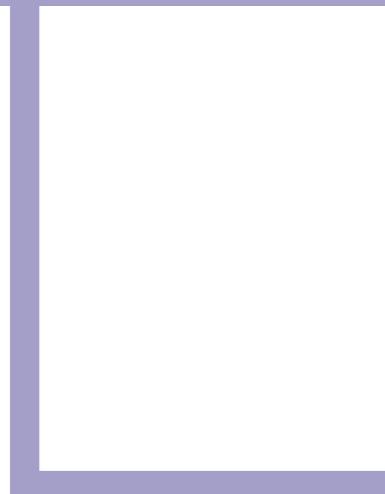
The Aura Innovation Centre

The Aura Innovation Centre (AIC) is a place like no other. Opened in 2020, the AIC accelerates, innovates, and collaborates to support business success and drive green innovation. The centre is a community that supports businesses of all sizes, helping them to bring their low-carbon projects to life.

The AIC, supported by East Riding of Yorkshire Council, connects businesses to the research power at the University of Hull, taking an organisation's carbon reduction objectives and linking them with expertise, equipment, and funding to turn their visions into reality. The centre can assist businesses with prototyping, testing and the manufacturing of sustainable products, supporting emissions reduction and saving of energy costs.

The AIC has already helped many organisations achieve their sustainable ambitions. Key projects already completed include supporting a forestry and horticultural firm to find alternatives to plastic tree guards, finding inventive ways to use discarded pea pods, creating energy-efficient lighting for vertical farms, and finding ways to commercialise novel nanofibers. Our most recent case studies can be viewed on our website: www.aura-innovation.co.uk/case-studies

The Aura Innovation Centre will continue to assist businesses on their journey to net zero, but with ERDF funding due to end in June 2023, more support is needed to enable this vital work to continue.



Key Challenges and Opportunities

Challenges to Delivery

Carbon intensive business - East Riding is home to many traditional heavy industries that are essential to our economy but remain carbon intensive. Working with these to decarbonise is a priority on our pathway to net zero.

Working population - Compared to the national average, a lower proportion of the population of East Riding of Yorkshire is of working age and there are less jobs available for this working age population. Whilst these pose different challenges for the local economy, green job creation and attracting high skilled workers in the low-carbon and sustainability sector can help overcome these.

Skills deprivation - There are pockets of skills deprivation in some urban and coastal areas in East Riding. Alongside green job creation, working with schools, colleges, and training providers in these areas to enhance career opportunities in the green sector will be necessary for creating a greener economy and ensuring we reduce rather than exacerbate existing inequalities through climate action.

Understanding climate change - A survey undertaken by the Carbon Trust in 2020 found many small and medium sized companies (SME) were yet to fully appreciate the importance of climate change for their business and most thought it would not impact their organisation. This suggested more work is needed to communicate the impact of the climate emergency sufficiently to all parts of the economy.

Opportunities

Natural environment - Our environment in East Riding underpins our local economy through agriculture, forestry, fishing, tourism and through an abundance of natural energy resources. This means to strengthen and grow our economy we must protect and invest in our natural environment which can also have wider health and wellbeing, climate mitigation and adaptation benefits, through carbon restoration or flood resilience, for example.

Green jobs - The share of jobs in the Yorkshire and Humber that are in the green economy is above the UK average, indicating a solid foundation for future growth as we look to focus on the production of higher-skilled, better paid, and permanent jobs.

Renewable energy - The Humber has established a merited reputation as the UK's Energy Estuary, with a world-leading renewable energy sector and ambitious industrial decarbonisation targets, indicating further growth opportunities for the local energy economy.

Warmer climate - With East Riding set to experience warmer days we can expect there to be an increase in coastal tourism as a result. Maximising the local economic opportunities from the visitor economy can help facilitate economic growth, whilst presenting opportunities to enable and encourage sustainable and responsible tourism.



This priority area relates to the activities we are taking as an organisation to tackle climate change and build resilience. It includes activities like reducing our carbon footprint, spreading awareness and education of climate issues, and embedding climate action across our services.

In February 2021, East Riding of Yorkshire Council declared a climate emergency and confirmed our ambition to be net zero by 2050. This target relates to reducing the emissions that are produced from the Council's own services and operations. Whilst we have set this initial target, our intention is to continually review this to reflect our ambition and ability to meet an earlier deadline.

To achieve this will require significant investment in decarbonisation projects and embedding a strong culture of climate awareness across the organisation so our staff feel empowered to make change. We also recognise our influential role in engaging, educating, and collaborating on climate change across East Riding.

Our established Environmental Policy, Environmental Management System, and Carbon and Energy Management Strategy will continue to drive forward positive action to reduce the Council's carbon footprint.

Public Sector Decarbonisation Scheme Funding

East Riding of Yorkshire Council were successful in receiving £1.9 million of funding from phase 1 of the Public Sector Decarbonisation Scheme (PSDS) to undertake decarbonisation work across Council sites in 2022.

The Beverley based Annie-Reed Road Depot will benefit from air source heat pumps to reduce the reliance on gas-fired boilers for both heating and hot water.

County Hall will also gain air source heat pumps to transition away from gas fired boilers. It will also see the installation of energy efficiency windows, replacement energy efficient hand dryers and the installation of flow restrictors to hand wash taps to reduce water consumption.

Bridlington Spa will benefit from air source heat pumps and upgrades to more efficient windows and air conditioning units.

Phase 1 of the PSDS provided £1 billion in grants nationally, reflecting the public sector's role in meeting the Government's net zero commitment by 2050.

KEY AREAS

Undertake carbon reduction initiatives.

Embed culture of climate awareness.

Facilitate action through collaboration and education in East Riding.

East Riding
of
Yorkshire
Council



NET ZERO COUNCIL



Key Challenges and Opportunities

Challenges to Delivery

Old building stock - We own and manage several old or even historical listed buildings, which tend to have a lower energy performance than modern buildings, and for the latter, it limits options for energy efficiency improvements.

Energy costs - Despite reducing our overall energy consumption over time, the total energy costs for the Council have actually risen, largely due to the increase in price of grid-supplied electricity.

Scale of council operations - With an estimated 6,209 corporate employees, 4,955 school-based employees, services ranging from libraries to highways maintenance to social care, the scale and complexity for reaching net zero as a large unitary authority should not be underestimated.

Homeworking - The increase in homeworking since the COVID-19 pandemic has reduced emissions from staff commuting, but the increase in domestic energy and heating use at our staff homes will have to be factored into the Council's carbon footprint. Calculating and reducing these emissions poses a challenge.

Opportunities

Business travel - There are many potential ways to reduce emissions associated with business travel at the authority, including lower emission vehicles, pool car schemes, car sharing and the transition to online events.

Schools - Many schools managed by the authority have an energy performance that is below the national average, suggesting there are many opportunities for dedicated energy project work with our schools.

Scope 3 emissions - The indirect emissions that occur from our activities are estimated to make up 70 - 80 per cent of our overall carbon footprint, yet we are only at the starting point for understanding and tackling action to reduce these.

Behaviour change - Changing how we work and live on a daily basis has an important role in reducing the further onset of climate change. Moving forward we will explore different interventions to change behaviour, potentially including climate literacy training for staff, campaigns on environmentally conscious behaviour, and providing supporting mechanisms to encourage change.

Agile transformation - The Council's agile project, leading on the transition to becoming a more modern, flexible, and responsive workforce brings more opportunities for staff to work digitally or from work hubs, potentially closer to their residence. This brings opportunities for reducing unnecessary travel.

CLIMATE
RESILIENCE



Climate Resilience



Flooding, coastal erosion and heatwaves can have significant impacts on society, the economy, and the natural environment. In the East Riding, this has been demonstrated by the devastating economic and human impacts of the June 2007 and December 2013 floods, the complete loss of homes and businesses due to ongoing coastal erosion and public health impacts from heatwaves in 2018 and 2019.

Climate change is likely to cause an increase in the frequency and intensity of these weather events, so their impacts are likely to also increase significantly. To limit these impacts we must ensure that the East Riding is resilient to climate change. While in some cases this may mean negating the impacts of climate change (for example through flood and coastal defence schemes), in most cases it will involve adapting our buildings, infrastructure and behaviour to reduce the inevitable impacts of future extreme weather events.

The scale of adaptation required will be dependent on the level of future greenhouse gas emissions, however the 'baked in' impacts of past emissions will require significant action to take place to make the East Riding a climate resilient county.

South Withernsea Coastal Defence Scheme

The challenge of managing the East Riding's defended and rapidly eroding coastline is anticipated to increase as sea level rise driven by climate change and increased storminess impact upon erosion and sediment transport rates.

As a response to high erosion rates at the coastline south of Withernsea, in 2019, the Council took the decision to construct a new rock armour coastal defence structure that extended the existing defences southwards by an additional 400m. The structure was carefully designed to provide protection without exacerbating downdrift coastal erosion issues. This scheme was completed in 2020 at a cost of just over £7 million and has permanently removed approximately 70 residential properties from risk, along with 250 chalets and caravans and the A1033 (Hollym Road).

Work has also begun for the creation of additional habitat, through ecological enhancements on the completed defence scheme. This will involve the management of the regraded cliff face to create maritime cliff and slope habitat, and the potential creation of artificial rockpools, holes and grooves in the rock armour itself, which provides habitat for inter-tidal species.

KEY AREAS



Adapt our buildings, infrastructure and behaviours to build resilience in East Riding.

Deliver schemes to manage the risks and reduce the impacts of climate change.

Key Challenges and Opportunities

Challenges to Delivery

Knowledge - There is often a lack of understanding and recognition of the impacts of climate change beyond flood risk. We need to better understand the wider impacts of climate change in the East Riding and the range of potential solutions required and available.

Engagement - One of the biggest challenges to becoming a more resilient region is engaging with as many communities, businesses and stakeholders as possible to promote cultural and behavioural change. This will require large scale and prolonged participation across the region, targeting multiple sectors including residents, businesses and educational institutions.

'Defend-first' approach - Much of the national budget for flood and coastal erosion risk management continues to be used on defences meaning there is less financial support for adaptation and transition. It has been proved in this area that this can be successful and cost effective, particularly in areas where it is not sustainable to install or maintain hard defences.

No one-size-fits-all solution - As climate change brings different pressures across areas of the East Riding, we recognise that an area-wide single adaptation plan will not be effective.

Older population - East Riding has a higher proportion of older adults (65+) compared to the England average. Older populations are more likely to be vulnerable to extreme heat, poor air quality and extreme events. As an authority we aim to ensure homes are suitable for this population across the East Riding, taking into account future climatic change.

Resilience of energy infrastructure - Flood events, high-winds and lightning are all examples of weather events that have the potential to disrupt energy generation, transmission and distribution. Planning for and monitoring these risks is essential to ensure our energy infrastructure can be climate resilient, so we can avoid future losses of power.

Opportunities

Coastal adaptation and transition - The Council has recently secured funding to deliver an East Riding Coastal Transition Accelerator Programme, in partnership with the Environment Agency. The programme aims to deliver effective coastal change management, transitioning away from a reactive approach (prioritising those at imminent risk) to a planned long-term transition based on the projected impacts of climate driven coastal change.

Co-benefits - The designing of areas to be more resilient to flooding and heatwaves often results in multiple benefits such as better access to green space, improved air quality and health benefits. This is especially the case where multiple uses of space is factored into the design of open spaces. For instance, a flood storage area which acts as sports pitches in the summer.

Education - Working with the Hull and East Riding Living with Water partnership, our flood risk strategy team have visited schools to engage with young people on the water cycle, flood risk and water management, increasing awareness of the impacts of climate change and to learn more about their role in reducing flood risk.

Local Resilience Forums - The Government has committed to strengthening the role of Local Resilience Forums so they are able to support delivery of more climate resilience initiatives and further minimise the impacts of potential emergency events.

Mental health - The threat from flooding and coastal change have been shown to cause significant physical and mental health issues. Any actions which can be taken to make communities more resilient to flooding and coastal change will have benefits for health and wellbeing.

How can you reduce your carbon footprint?

TRANSPORT

For shorter trips, walking and cycling is a good way to reduce your carbon footprint and can have a positive impact on your health.

If you cannot access more sustainable forms of travel, have you considered car sharing? It is a great way to help the environment and can save you money on travel costs too. Liftshare manages a car sharing scheme that is open to all. See link liftshare.com/uk

ENERGY

Switching to a green energy tariff can reduce your carbon footprint.

Installing renewable energy technologies (e.g. solar panels) on a property can significantly reduce the carbon footprint of your home and save you money.

Replacing lights with LED bulbs, washing your clothes less frequently and not leaving your devices on standby can help you save energy and money.

Line drying clothes where possible promotes energy saving.

WASTE

Consider how a product is packaged. Can you reuse or recycle these materials?

Avoid single-use plastics where possible and use reusable shopping bags and cups.

Use your brown kitchen caddies to store food waste at your home before transferring it to your brown wheelie bin.

Have you considered donating old clothes, rather than throwing them away?

Do you have any unwanted domestic large appliances still in good working order? You can donate these at your local recycling site. www.eastriding.gov.uk/environment/bins-rubbish-recycling/tips-and-recycling-sites/recycling-site-finder

ENVIRONMENT

If you are interested in planting trees on your land or volunteering to help plant trees, check out this link to get involved with the Humber Forest www.humberforest.org/get-involved

As weather patterns shift due to climate change, some insects that depend on particular flowers might suffer, so consider planting a diverse variety of pollinator friendly plants with ranging flowering times. Planting trees and plants can help tackle climate change by absorbing carbon dioxide and reduce risks of flooding by slowing rainwater runoff.

Consider shopping locally for your food and drink.

BUILDINGS

Have you considered the energy performance of your home or business? You may be able to find the energy certificate for your property, along with tips for improving its efficiency, here www.gov.uk/find-energy-certificate

See the Council website for advice and support on improving energy efficiency at home. www.eastriding.gov.uk/housing/energy-efficiency/energy-efficiency-at-home

ECONOMY

Consider shopping local. Locally owned businesses often make more local purchases requiring less transportation and cutting carbon emissions.

If planning a holiday, have you considered local or domestic destinations? Staying local can reduce your carbon footprint. See websites below for more information.
www.visithullandeastryorkshire.co.uk www.visitbritain.com/gb/en

When installing renewable energy or heat pumps, source a reputable local trader to help build local supply chains. See the website for more information - mcscertified.com/find-an-installer

CLIMATE RESILIENCE

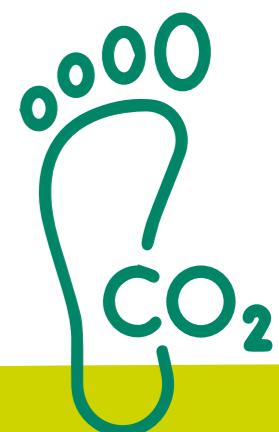
You can sign up to receive personal flood alerts or warnings by phone, text or email here: www.gov.uk/sign-up-for-flood-warnings

In hot temperatures, trees can offer effective ways of keeping cool. If possible, consider planting trees in your garden as they can provide shade for you and your home.

Exterior shutters or blinds can reduce overheat exposure in homes.

Refrain from opening windows when the outside temperature is higher than indoors.

Check out the Met Office's guidance for protecting your property from flooding: www.metoffice.gov.uk/weather/warnings-and-advice/seasonal-advice/your-home/protecting-your-property-from-flooding



Governance

This strategy is a living document, which means that as our knowledge of climate change improves, or more national policy and legislation come into effect, this will be reflected within the strategy. We will review the strategy annually to ensure it is up to date and accurate. We will also provide an annual update on progress through a revised Environmental Statement. This will reflect key activity taken throughout the year and achievements made, including reporting our corporate and areawide carbon footprints.

Taking action to address the Climate Emergency cannot be done solely by officers, but instead needs a multi-disciplinary approach. We will need to draw on skills and resources from across the organisation and with wider partners. It will need to be part of the way we do things and embedded in the way we deliver our services. We will review our service plans to ensure that they align with the ambition of the strategy.

We will also explore the opportunities to develop an areawide climate change action group. This could take several forms and will be subject to public consultation to ensure it meets the needs of residents. Such a group would aim to expand on existing community involved and support future action. It would enable regular two-way dialogue and share ideas with and across local community representatives.

Due to the broad range of areas the Climate Change Strategy covers it is essential to have an action plan detailing activities and projects that contribute to the strategy vision and priorities. The action plan for this strategy is in development and will cover each of the priority areas identified. The action plan will be updated every five years, except for the initial action plan, which will be for the period 2022 - 2025. The initial period of the action plan will lay the foundations for future activity and focus in on actions that will deliver rapid emission reductions.

Climate action will also be monitored through our corporate risk register, which as well as quarterly reporting will be reviewed annually to ensure that we are capturing all the risks effectively and that they are still appropriate. Action will also be scrutinised at regular meetings of Environment and Regeneration Overview and Scrutiny.

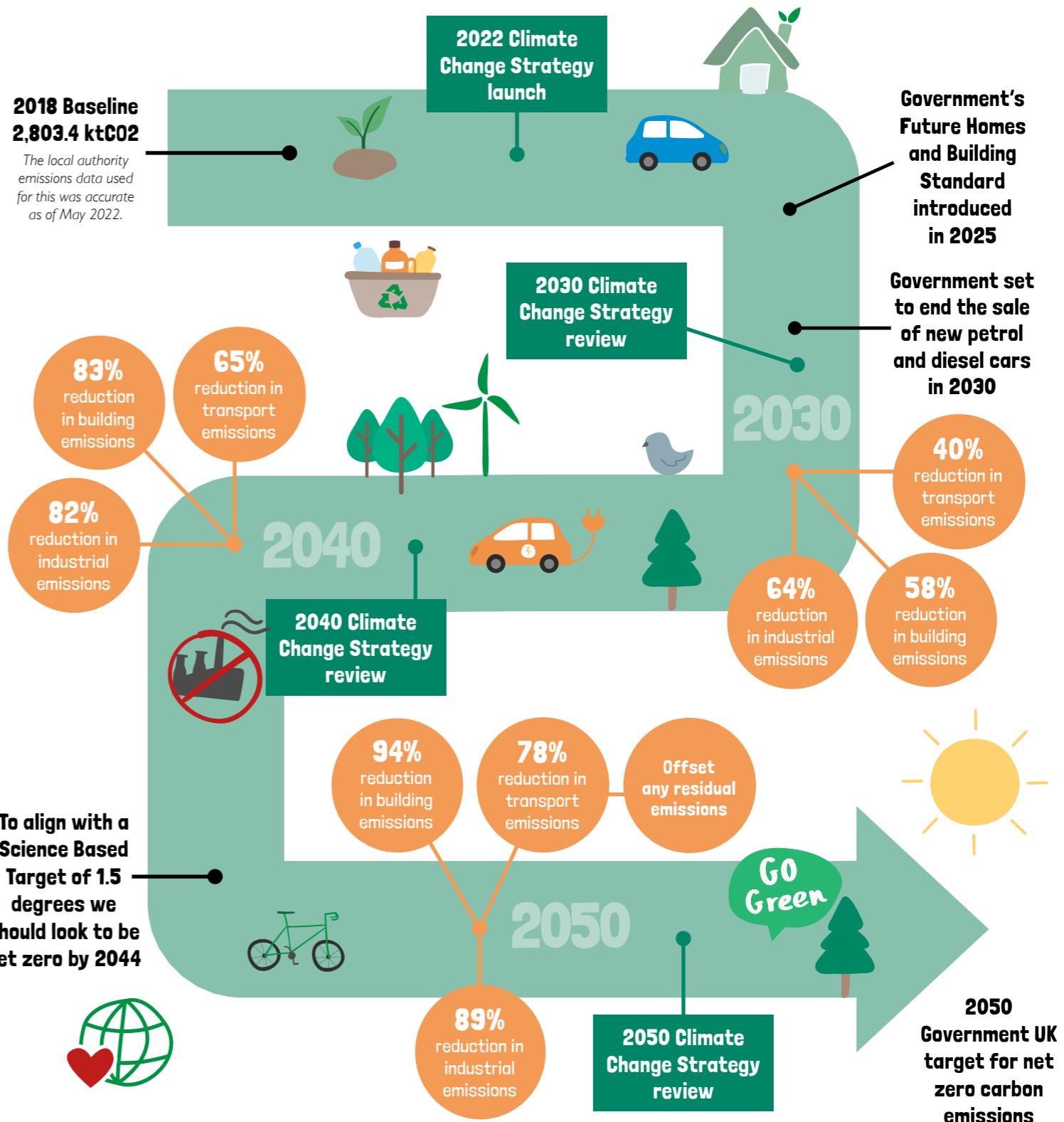
Targets

The council set a target for its services to be net zero by 2050 in line with national government. This target will be reviewed over the period of the next action plan to ensure we are able to achieve it and identify opportunities to bring this date forward if possible.

An areawide emissions target has not currently been set. This is because such a target needs to be developed through extensive consultation across partner organisations, businesses, and residents. During the course of the action plan, we will consult widely on a potential areawide target which can be supported and monitored by the action group as defined within the governance section.

Road Map to Net Zero

Road map based on an ambitious scenario for achieving the fastest credible decarbonisation, achieving net zero before 2050. Scenario built around key elements of future energy scenarios by Northern Powergrid and National Grid ESO.



Appendix 1

Understanding Climate Change Language

Term	Definition
Carbon footprint	A carbon footprint is the total amount of greenhouse gases that are generated by the actions of a particular individual, organisation, or community. The UK average footprint for 2022 is 9.5 tonnes per person. It includes activities relating to commuting, food, shopping, and travel.
Circular economy	A circular economy is a model of making and using products, which involves sharing, reusing, refurbishing, and recycling existing materials and products, so that they can be used for as long as possible. It is a solution to the global climate emergency where products and services are designed to maximise their value and use and minimise waste. It can be explained as 'make, use, remake'.
Climate change	Climate change is the long-term changes in global temperatures and other characteristics of the earth's atmosphere. The earth is surrounded by a layer of greenhouse gases, which trap heat from the sun, keeping our planet warm. Since the industrial revolution and the burning of fossil fuels like coal, oil and gas, more greenhouse gases have been released into the atmosphere, which traps more of the sun's heat causing the planet to heat up. Climate change affects everyone and as the earth warms, we will experience more unpredictable and extreme weather events such as big storms and heavy rainfall to droughts and wildfire.
Climate resilience	Climate resilience is the ability to anticipate, prepare for and respond to hazardous events, trends or disturbances related to climate.
Climate risk	Climate risk refers to the potentially negative impacts of climate change, for example the potential adverse effects on lives, the economy, and the environment.
Decarbonisation	Decarbonisation refers to the process of removing carbon dioxide from a given activity. For example, the decarbonisation of the national grid means the reduction of the amount of carbon used to generate a unit of electricity.
Energy efficiency	Energy efficiency means using less energy to get the same job done and eliminating waste energy. For example, energy-efficient LED lightbulbs can produce the same amount of light as normal lightbulbs but use 75 - 80 per cent less electricity.
Fairer and more equitable society / equalities	The principles of equity, justice and fairness are fundamental to understanding and addressing the challenges of global climate change. An equitable society is one in which everyone can participate and prosper and is fair and reasonable in a way that gives equal treatment to everyone.
Fuel poverty	In England, a household is considered fuel poor if they are living in a property with an energy efficiency rating of band D or below, and when they spend the required amount to heat their home, they are left with a residual income below the official poverty line.
Green economy	A green economy is a concept that creates a sustainable low-emission world that benefits both society and the planet. A green economy is defined as low carbon, resource efficient and socially inclusive and is driven by investments into activities, infrastructure and assets that benefit the planet.

Term	Definition
Land Use, Land Use Change and Forestry (LULUCF)	The LULUCF sector covers emissions and removals of greenhouse gases resulting from direct human-induced land use, land-use change and forestry activities. Carbon is sequestered by forestry and grassland, while carbon losses occur on existing cropland and natural land (e.g. grassland) that is converted to cropland or settlement.
Net zero and carbon neutral	Being Carbon Neutral means balancing greenhouse gas emissions by 'offsetting' (removing from the atmosphere) an equivalent amount of carbon for the amount produced. A commitment to being carbon neutral does not require or imply a commitment to reduce overall GHG emissions. In contrast, a commitment to net zero means reducing greenhouse gas emissions with the goal of balancing emissions produced and emissions removed from the atmosphere. For the purposes of this strategy, we will use the following definition (SBTi Net Zero Standard 2021): Reducing scope 1, 2, and 3 emissions to zero or to a residual level that is consistent with reaching net zero emissions at the global or sector level in eligible 1.5°C-aligned pathways Neutralizing any residual emissions at the net zero target year and any GHG emissions released into the atmosphere thereafter.
Scope 1,2 and 3 emissions	Greenhouse gas emissions are divided into three different groups or scopes to help trace where those emissions came from and make it easier to report on them. Scope 1 emissions are produced directly at source from fuel combustion e.g. for company vehicles. Scope 2 emissions are indirect emissions from purchased electricity. Scope 3 includes all other indirect emissions e.g. from outsourced services or purchased goods.
Sustainability	Sustainability means meeting our own needs without compromising the ability of future generations to meet their own needs. Sustainability does not only refer to environmentalism, but also includes things such as social equity and economic development. Sustainability as a value is shared by many individuals and organisations who want to demonstrate it through their policies, everyday activities, and behaviours.
Sustainable transport	Sustainable transport refers to any type of transport that has a low impact on the environment and is also about balancing our current and future needs. Examples of sustainable transport include walking, cycling, car sharing or ultra-low emission vehicles (ULEV) e.g. electric vehicles.
Vulnerability in the context of climate change	Climate change vulnerability is the tendency to be adversely affected by climate change and is a component of climate risk. It refers to the degree to which places / people / the natural environment are susceptible to and unable to cope with the adverse effects of climate change, for example extreme weather variability and extremes.

Appendix 2

Areas for Action

AREAS OF FOCUS		CROSS-CUTTING THEMES				Shift towards public, active and community led transport	Work with schools to encourage children and parents to walk, cycle or scoot to school and provide support to schools to help them achieve a Modeshift sustainable travel accreditation.				
		Health 	Rurality 	Inequality 	Coastal 						
PRIORITY AREA: TRANSPORT											
Transition to low and zero emission vehicles	Explore measures to reduce the carbon emissions of the Council's fleet including by transitioning to electric vehicles, procuring vehicles at the highest emission standards and monitoring driving behaviours.						Work with partners such as East Yorkshire Buses, the Rail Industry, the Highways Agency and other authorities to improve accessibility to public transport. Continue to encourage use of public transport in areas with high quality public transport links.				
	Install publicly accessible EV charging points across the East Riding.						Explore with partners projects to decarbonise the rail network and continue to put forward proposals for rail electrification in the Humber area.				
	Explore with partners innovative projects that support on-street EV residential parking and the creation of EV charging community hub locations.						Maintain the Public Rights of Way network in the East Riding to provide a better experience for all users, supporting the shift away from car travel.				
	Assess ways to reduce emissions associated with freight transportation, such as by using renewable fuels or through transportation by rail or water instead of roads.										
Shift towards public, active and community led transport	Undertake infrastructure improvements to the local walking and cycling networks.						Develop an East Riding Local Plan that supports developments where there are services, facilities, homes and jobs which reduce the need to travel and can be served more easily by sustainable modes of transport.				
	Support and encourage residents to walk or cycle for short trips through promotional tools, free cycling training and other behaviour change programmes.						Support and empower parish councils, local communities and groups to devise innovative and sustainable transport solutions, offering our Parish Transport Toolkit we have created and utilising the network Parish Transport Champions.				
	Work with partners on innovative projects that improve the experience of rail and bus journeys in the East Riding.						Promote car sharing for residents who cannot use or access more sustainable forms of travel.				
	Invest in infrastructure to support sustainable multi-modal journeys, such as improved cycle parking at bus and rail stations.						Through our Broadband East Riding Programme, work with suppliers to ensure our residents, visitors and businesses enjoy faster broadband connectivity enabling digital options that reduce unnecessary travel.				

AREAS OF FOCUS	CROSS-CUTTING THEMES				Smarter and more flexible energy system
	Health	Rurality	Inequality	Coastal	
PRIORITY AREA: ENERGY					
Transition away from fossil fuels and increase renewable energy production	Lead by example, maximising opportunities for renewable energy and sustainable energy consumption throughout the Council's estate.				
	Work with landowners to assess the benefits and potential of hosting renewable generation.				
	Explore and investigate emerging technologies to support energy decarbonisation and storage in the area, such as carbon capture utilisation and storage, hydrogen technology or heat networks.				
	Explore further economic measures to support the expansion of the renewable and low-carbon energy sector.				
	Work with the North East and Yorkshire Net Zero Hub to support local energy projects and attract finance for energy projects.				
	Support work to reduce the environmental impacts of new energy infrastructure construction, operation and decommissioning, to achieve truly sustainable energy production.				
Smarter and more flexible energy system	Assist schools with energy projects by identifying new funding opportunities, providing financial support, energy audits and general advice.				
	Promote the importance of maximising the use of energy assets through energy reduction, flexibility and storage.				
	As a planning authority, support new developments that enable low carbon energy with neighbourhoods planned around infrastructure such as local microgrids, enabling energy autonomy through self-generation and direct consumption.				



AREAS OF FOCUS	CROSS-CUTTING THEMES			
	Health	Rurality	Inequality	Coastal

PRIORITY AREA: WASTE

Manage waste in accordance with the waste hierarchy, aiming to reduce and recycle waste as much as possible	Continue to review our household waste management procedures using the waste hierarchy principle, increasing the percentage of waste to be reused, recycled and composted, with the remainder sent for energy recovery.			
	In line with the Environment Act, review the efficiency of our household waste collections.			
	Prioritise reuse and repair above recycling through setting up and organising sites where household waste in good condition can be donated rather than disposed of.			
	Work with key partners, such as FCC Environment and Hull City Council, to continue to set up initiatives to help increase sustainable waste management, based on the success of previous schemes like trialling bag sorting at household waste sites or the electrical item collection events.			
	Engage with staff, public, schools and communities to support learning and share best practice, including on waste prevention, waste contamination and maximising the value of products through repair and re-use opportunities.			
Move towards a circular economy	Work with partners and businesses to reduce commercial waste, encouraging re-use and recycling.			
	Work with local government and waste industry bodies to influence and implement the Resources and Waste Strategy for England through extended producer responsibility, consistency in recycling collection and the deposit return scheme.			
	Explore new opportunities for the utilisation of waste heat across East Riding.			

AREAS OF FOCUS	CROSS-CUTTING THEMES			
	Health	Rurality	Inequality	Coastal

PRIORITY AREA: ENVIRONMENT

Recognise the ecological crisis	Explore the value of declaring an ecological emergency, recognising the links between nature and climate change.				
	Lead on the development of a Local Nature Recovery Strategy.				
	Integrate biodiversity net gain into our local planning policy.				
	Develop an approach to mapping and valuing natural capital and ecosystem services across the sub-region to help inform climate decision-making.				
Sustainable land-use to support nature, people and the climate	Work with partners, such as the Humber Forest, to calculate carbon sequestration rates of tree planting and to explore the creation of a carbon-based tree planting Strategy for East Riding.				
	Create habitats and plant trees on Council land, where appropriate, maximising opportunities for carbon sequestration.				
	Explore further opportunities for carbon sequestration in East Riding, including in marine and intertidal habitats.				
	Work with partners, such as the Yorkshire Marine Nature Partnership, to advocate for the marine and coastal environment and further explore opportunities for environmental progress.				
	Ensure through the review of the Environmental Policy that the Council implements measures to enhance the natural environment and reduce food waste through its own policies and procedures.				
	Promote nature-based solutions and development of blue-green infrastructure wherever possible.				

Support emission reduction in the agriculture and food sectors	Work with Council farm tenants to encourage more climate and wildlife friendly practices.				
	Engage with local farmers and national farming bodies promoting sustainable agriculture practices.				

AREAS OF FOCUS	CROSS-CUTTING THEMES			
	Health	Rurality	Inequality	Coastal
PRIORITY AREA: BUILDINGS				
Improve the energy performance of existing buildings	Deliver an ambitious programme of energy efficiency improvements to the East Riding of Yorkshire Council's housing stock.			
	Capitalise on new funding opportunities to support the rollout of energy efficiency and low-carbon improvements across the East Riding, with targeted support for low-income households and those off the gas grid.			 
	Provide advice to residential and non-residential sectors on low-carbon and energy efficiency opportunities, including the promotion of Government funding opportunities (e.g. the national Boiler upgrade scheme).			
	Work in partnership with local contractors, community interest groups, energy providers and local energy hubs to improve building energy performance standards across East Riding.			 
Transition to zero carbon standards for new buildings	Ensure that climate change is embedded throughout the East Riding Housing Strategy.			 
	Develop future Local Plan policies to ensure low-carbon opportunities and climate risks are identified in new developments, reviewing local energy efficiency standards following the release of the Future Homes and Buildings Standards.			 



AREAS OF FOCUS	CROSS-CUTTING THEMES				Maximise growth and opportunities in the green economy	Work with local schools to engage staff and students on climate change and environmental issues, showcasing the opportunities for careers in the green sector.			
	Health 	Rurality 	Inequality 	Coastal 					
PRIORITY AREA: ECONOMY									
Support emission reduction in the commercial and industrial sectors	Provide support to local businesses to help them reduce their carbon emissions, including guidance for calculating their organisations' carbon footprint, developing a carbon reduction strategy and advice on grants and funding available.								
	Work with local partners at the Aura Innovation Centre to engage with SMEs, raising awareness of climate change and sharing opportunities for reducing carbon emissions.								
	Showcase examples of how businesses are responding to climate change across East Riding.								
Maximise growth and opportunities in the green economy	Stimulate the local green economy by working with local contractors and suppliers to deliver carbon reduction programmes in sectors such as renewable energy, district heating and housing retrofit.								
	Support innovation, commercialism and growth in the local green sector; through further investment in local economic growth and promoting the attractive opportunities for low-carbon and renewable enterprises in East Riding.								
	Deliver education and training to ensure East Riding residents are better placed to take advantage of job opportunities in the green economy.								
	Look to support businesses in the green sector, through financial incentives such as business grants or shared energy networks.								
	Maximise collaborative opportunities for renewable and environmental enterprises through our Ergo partnership.								



AREAS OF FOCUS	CROSS-CUTTING THEMES				Facilitate action through collaboration and education in East Riding	Explore options to bring people together across East Riding to discuss recommendations for climate action and partnership working, for instance, through a climate assembly, digital forum or through established community groups.			
	Health 	Rurality 	Inequality 	Coastal 					
PRIORITY AREA: NET ZERO COUNCIL									
Undertake carbon reduction initiatives	Through our Carbon and Energy Management Strategy process, maximise opportunities to reduce carbon emissions across our range of assets, including: Council owned buildings (e.g. offices, leisure centres, libraries). Council maintained schools. Street lighting. Council fleets vehicles.					Share our experience and best practice of carbon reduction with parish councils, businesses and communities.			
	Look to reduce scope three emissions by better understanding emissions that occur indirectly from the Council's activity, including from procured goods and services, outsourced contracts, staff commuting and homeworking.					Look to expand our sustainability and climate change section of the Council's website, providing information updates on climate action in East Riding and tips for us all to reduce our personal carbon footprint			
Embed culture of climate awareness	Explore how to integrate climate change further into decision-making processes within the Council.					Work with public sector partners (such as the Association for Public Service Excellence and the Local Government Association) to share knowledge and delivery of carbon reduction in local government.			
	Include climate change as a cross-cutting theme within the update of the Council's Environmental Policy, illustrating its linkages with the wider sustainability themes of the Policy and to raise opportunities for joint-action.					Engage and support local schools, parish and town councils, organisations and community groups on climate change and broader environmental issues.			
	Explore the rollout of a carbon literacy programme in the Council.					Collaborate with young people in East Riding to ensure they have a fundamental role in how we can respond to climate change moving forward.			
	Explore further the financial implications of meeting a target of net zero by 2050 (or sooner) to support financial planning and budgeting within the authority.								
	Continue to provide updates on our response to climate change through Your East Riding and on social media platforms.								

AREAS OF FOCUS		CROSS-CUTTING THEMES				Deliver schemes to manage the risks and reduce the impacts of climate change.	Work closely with partners, such as the Environment Agency and DEFRA, to deliver flooding and coastal erosion risk management schemes.							
		Health	Rurality	Inequality	Coastal									
PRIORITY AREA: CLIMATE RESILIENCE														
Adapt our buildings, infrastructure and behaviours to build resilience in East Riding.	Through the Council's updated Environmental Policy, look to improve the resilience of Council assets and ensure climate change remains a key consideration for the design and delivery of infrastructure projects.						Explore with partners, such as the University of Hull, the impacts of climate change on health to influence future decision making.							
	Provide advice to communities and businesses on building resilience to climate change through East Riding of Yorkshire Council communications and social media.						Provide advice and information on flood insurance, directing residents to information on Flood RE.							
	Work with residents and partners to find the best solutions for changing behaviours to become a more resilient East Riding.						Feed into national guidance and policy on flood and coastal erosion risk management, making sure it remains appropriate for local resilience action in East Riding.							
	Work with partners to increase climate change resilience across the region's built assets, including our transport network and energy infrastructure, to protect communities and businesses.						Work with partners to build climate readiness through improved emergency and recovery planning by promoting regional climate risk assessment, multi-agency collaborations, provision of climate response training for emergency responders and support for local resilience forums.							
	Ensure that the East Riding Local Plan accounts for the impacts of climate change in future design and developments, including limiting inappropriate development in certain areas at risk from flooding and coastal erosion.						Explore sustainable funding mechanisms and new funding opportunities to develop and deliver local schemes to limit the impacts of flooding, coastal erosion and heatwaves.							
	Design developments to maximise the wider sustainable benefits of climate risk management, prioritising nature-based solutions and those that provide more socio-economic benefits.						Work with partners to develop a whole of society approach to emergency response raising awareness of new risks to the region and the available hazard warning systems, followed by clear communications and training as to what individuals, communities and businesses should do during differing emergency scenarios.							
Deliver schemes to manage the risks and reduce the impacts of climate change.	Continue to work with communities, businesses and partners to enable them to proactively plan their transition away from coastal change risk.													
	Work with partners and utilise scientific models and the latest technology (such as aerial surveys, water level sensors and cameras) to effectively monitor and manage the risk of flooding and coastal change within East Riding.													



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