



WARWICKSHIRE SUSTAINABLE FUTURES STRATEGY

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This document was approved in draft by Warwickshire County Council Cabinet on 13 October 2022.

Foreword

Warwickshire County Council is committed to acting decisively to tackle climate change and the biodiversity crisis. Taking action now, so that Warwickshire is a County with a sustainable future, is one of our key strategic priorities. We have already started work towards our goals of reducing carbon emissions to net zero across the Council by 2030 and to support Warwickshire as a County to do the same by 2050 or earlier.

Climate change is one of the most important issues facing the world. The continued burning of fossil fuels is affecting weather patterns around the world as well as causing devastating extreme weather events more locally, leading to flooding, heatwaves, drought and wildfires. These events pose a direct risk to Warwickshire's communities and economy.

At the same time, more than two-fifths of UK species, including animals, birds and butterflies, have seen significant population declines in recent decades. With thousands of acres of habitats lost to development, and pollution affecting our natural environment, the decline in **biodiversity** is impacting directly on our wellbeing and economic prosperity.

Our Sustainable Futures Strategy establishes our direction and priorities to reduce carbon emissions, support biodiversity and promote economic growth across our County.

Our vision is for a Warwickshire that is low in carbon with vastly reduced energy bills, that has landscapes with plenty of wildlife that people can enjoy and farms that provide us with local food, supported by a thriving sustainable economy and resulting in communities that are happier, healthier and empowered.

And our goal is simple; to make Warwickshire sustainable now and for future generations.



**Heather Timms,
Portfolio Holder for Environment, Climate and Culture
Warwickshire County Council**

Executive Summary

This Sustainable Futures Strategy has been developed with three challenges facing the UK today in mind: *Climate Change*, *Loss of Biodiversity* and the *Cost of Living Crisis*. It aims to set out a framework, key action areas and principles for delivering the strategic priorities of being a County with a sustainable future, adapting to and mitigating climate change and achieving the nationwide target of net-zero carbon emissions by 2050. We have committed to net zero carbon for our Council emissions by 2030 and net zero carbon for County emissions by 2050.

Since 2005, County wide emissions have reduced by 24%. During this period, emissions from the transport sector have remained static, while emissions from industry, domestic and commercial buildings have been steadily declining.

Council related activities currently account for 19,500 tonnes of CO₂e per year. To meet our net zero commitment, our emissions will have to be reduced by at least a further 29% by 2026 and 46% by 2030. Reductions are anticipated to occur primarily from transport (-28.5% by 2030) and building use (-17.5% by 2030). To meet these targets, immediate and decisive action must be taken. The actions and strategies within this document have been created to establish a clear pathway towards these goals.

To support this, our Strategy focuses on six key themes:

- **Transport:** We aim to reduce carbon emissions from the transport sector by 1,300 tonnes of CO₂e by 2030, through a transition to alternative fuels and the implementation of a more efficient staff travel plan. We plan to support further emission reduction through promoting integrated and place-based transport planning, supporting the uptake of active travel and zero-emissions vehicle ownership and transitioning to more sustainable fuel sources for commercial and freight transport.
- **Energy:** To maximise decarbonisation of the energy used by the Council, we are committed to identifying opportunities to increase the installation of renewable technologies on Council owned buildings and the volume of in-County renewable energy generation.

- **Built Environment:** Our goal is to reduce emissions from Council buildings by a minimum of 1,700 tonnes of CO₂e by 2030. We will increase our knowledge of energy use within our decentralised assets, decarbonising our natural gas heat supply where viable, identifying opportunities to co-locate with partners, undertaking further property decarbonisation feasibility studies and supporting renewable energy schemes.
- **Resources, Waste and Circular Economy:** Reducing waste and resource usage while supporting a transition to a circular economy are vital steps in moving towards a sustainable future. Following on from the existing National Resources and Waste Strategy, we aim to improve and increase educational campaigns and encourage behaviour change around consumption. We will also identify opportunities to use waste as a resource and work with manufacturers to promote the use of sustainable and reusable materials, extend product life and reduce packaging and single use plastics.
- **Sustainable Communities and Green Economy:** We are committed to supporting a green economy while providing environments that contribute to happy and equitable communities. While efforts to support a low-carbon economy have begun, we plan to intensify these efforts by prioritising investments where green economy principles are integrated, engaging more fully with our community and interest groups.
- **Natural Capital and Biodiversity:** Solutions to the global biodiversity and ecological crisis must begin at local level. This begins by recognising that economies are embedded in the natural environment, not external to it, and that nature itself should be viewed as a critically important asset. We plan to support these principles by developing a natural capital investment strategy, encouraging policies that prioritise environmental net gain, developing a natural capital account to manage our natural assets and by implementing an offsetting strategy for our tree planting targets.

Critical to our success in delivering our ambitions across these themes are our eight delivery principles and seven strategic enablers, ensuring effective change management, changed behaviours, accountable governance, appropriate engagement, and the right policies. Substantial financial investment will be required in the next decades for decarbonisation, with funding critical to enable actions. Aside from securing financial resources, we will need to consider opportunities for upskilling, redirecting resource and potentially increasing staffing levels in specific areas.

We recognise that it will not be possible to reduce emissions within the County to absolute zero, so it is therefore important to invest in a robust carbon offsetting strategy. We plan to establish a tree nursery to supply specific varieties of flora that thrive in the Warwickshire region. This will assist in meeting our tree planting targets of 566,000 new trees in Warwickshire, with the potential to increase this number even further.

Several actions in support of this Strategy should also result in wider benefits for our communities. For example, implementing reduction and efficiency measures in our own buildings and supporting the community to do the same will help to reduce energy costs. Throughout this Strategy, we have identified how individuals in Warwickshire can contribute to creating a sustainable and prosperous community. For example, by prioritising walking or cycling, improving home energy efficiency, reducing waste, buying sustainable, local products and produce, and taking an active role in the protection and enhancement of our natural spaces.

Introduction and Context

Warwickshire County Council (WCC) recognises that climate change, biodiversity, the cost of living for households and increased costs for businesses are amongst the most important issues facing the UK today. The County's infrastructure assets and economy are under threat from the impacts of climate change, which if left unmitigated will cost the County far more in the long run than implementing mitigation and adaptation measures now. Our response to these issues on behalf of communities, businesses and Council services begins with the development of this Sustainable Futures Strategy.

The UN's [Sustainable Development Goals](#) (UN SDGs) provide a shared blueprint of peace and prosperity for both people and the planet, now and into the future. They recognise that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests. Whilst this Strategy has a strong focus on the reduction of carbon to mitigate climate change and meet net zero commitments, it also aims to achieve wider sustainability by aligning with the UN SDGs.

We have used six thematic areas in this Strategy to mitigate the effects of climate change, biodiversity loss and the cost of living crisis. They represent the areas with the most ability to make a difference: transport, energy, built environment, waste and circular economy, sustainable communities and green economy, and natural capital and biodiversity.





Climate Change Crisis

There is a growing recognition that climate change is one of the most important issues facing the world. The resulting emissions from continued burning of fossil fuels has been causing a global warming effect which has altered weather patterns, melted polar ice and increased ocean acidification leading to changes in sea life, in addition to causing devastating extreme weather events which has led to flooding, heatwaves, drought and wildfires. These events pose a direct risk to Warwickshire's communities and economy.

In 2008 the UK Government created the Climate Change Act, which was updated in 2019 to commit the UK to Net Zero Carbon by 2050 (reducing emissions to 100% lower than the 1990 baseline). It has further committed to reducing economy-wide greenhouse gas (GHG) emissions by at least 68% by 2030, compared to 1990 levels.

The Intergovernmental Panel on Climate Change (IPPC) warned in 2018 that urgent action was needed to cut greenhouse gas emissions and limit global warming to 1.5°C above the pre-industrial baseline, to avoid the most catastrophic impacts of climate change, including risks to food and water security.

In response to this required urgency and the known risks from climate change to our communities, in July 2019, WCC declared a climate emergency. Since then we have committed to becoming carbon net zero as an organisation by 2030, and to support Warwickshire County to become carbon net zero by 2050.

[Our Council Plan](#) (2022-2027) sets out a vision to make Warwickshire the best it can be, sustainable now and for future generations. A key priority of the plan is sustainable futures and climate change. It recognises that climate risks will disproportionately impact the poorest and most vulnerable. The transition to and beyond net zero and associated nature recovery must therefore be managed in a way that widens opportunities through the growth of high value, green-related business sectors and jobs.

“

People are rightly concerned, with the latest IPCC report showing that if we fail to limit global warming to 1.5°C above pre-industrial levels, the floods and fires we have seen around the world this year will get more frequent and more fierce, crops will be more likely to fail, and sea levels will rise, driving mass migration as millions are forced from their homes. Above 1.5°C we risk reaching climatic tipping points like the melting of Arctic permafrost – releasing millennia of stored greenhouse gases – meaning we could lose control of our climate for good.

”

*Net Zero Strategy:
Build Back Greener.
October 2021. BEIS*



Biodiversity Crisis

More than two-fifths of UK species, including animals, birds and butterflies, have seen significant population declines in recent decades. Contributing factors include thousands of acres of habitats being lost to development, the intensification of agriculture and the increasing effect of climate change. Pollution from sewage and agricultural run-off also continue to cause problems for natural areas such as streams and coastal areas. Together these are a significant problem, because decreases in biodiversity are directly related to declining wellbeing and economic prosperity.

The UK Government, along with many governments across the globe, responded in 2019 by declaring a biodiversity emergency. Globally, the UN Convention on Biological Diversity (CBD) released a draft global biodiversity framework, to guide actions worldwide through to 2030, to preserve and protect nature and its essential services to people.

In order to achieve the framework, many other European countries will be following the EU Biodiversity Strategy for 2030, with specific actions, commitments and tracking. The UK will instead be following the Nature Positive 2030 reports.

Warwickshire needs a strategy and vision of how to implement and deliver these evidenced requirements of how to live in harmony with nature. What are we aiming for locally? What are the focus areas we need to work on over the next few decades?

“

Nature is in decline globally and in the UK. Between 1932 and 1984, we lost 97% of our species-rich grassland, five species of butterfly have disappeared from England in the last 150 years, and indicators showing the state of birds dependent on farmland stand at less than half their value compared to 1970.

”

*Environment Bill:
Nature and conservation
covenants (parts 6 and 7).
September 2021. DEFRA*



Cost of Living Crisis

At the time of developing this strategy the UK is under pressure from a cost of living crisis. With inflation rising and the cap on energy bills being increased drastically, along with the impacts of the Russian invasion of Ukraine on fuel and food prices, huge pressures and burdens are being placed on families and businesses. There is significant concern for people's health (both physical and mental) and the ability of smaller firms to stay afloat with the soaring cost of energy. This crisis has also contributed to widening inequalities across the UK, further emphasising the need for Levelling Up on a local level.

This is a long-term Strategy to create a sustainable economy and communities, so it does not seek to address this crisis in the short-term. However, many of the objectives and actions identified will help to alleviate this burden in the long term through measures such as improving energy efficiency to reduce fuel bills, thus reducing fuel bills and addressing the *take-make-dispose* economic model which traps consumers in a constant state of needing to replace products.

“

Our "consume-as-you-go" model, based on over-consumption as a premise for economic growth, has attained its limits at a high price for our planet, the worse-off among the population and future generations. Our consumption-based economic model needs to undergo a significant overhaul.

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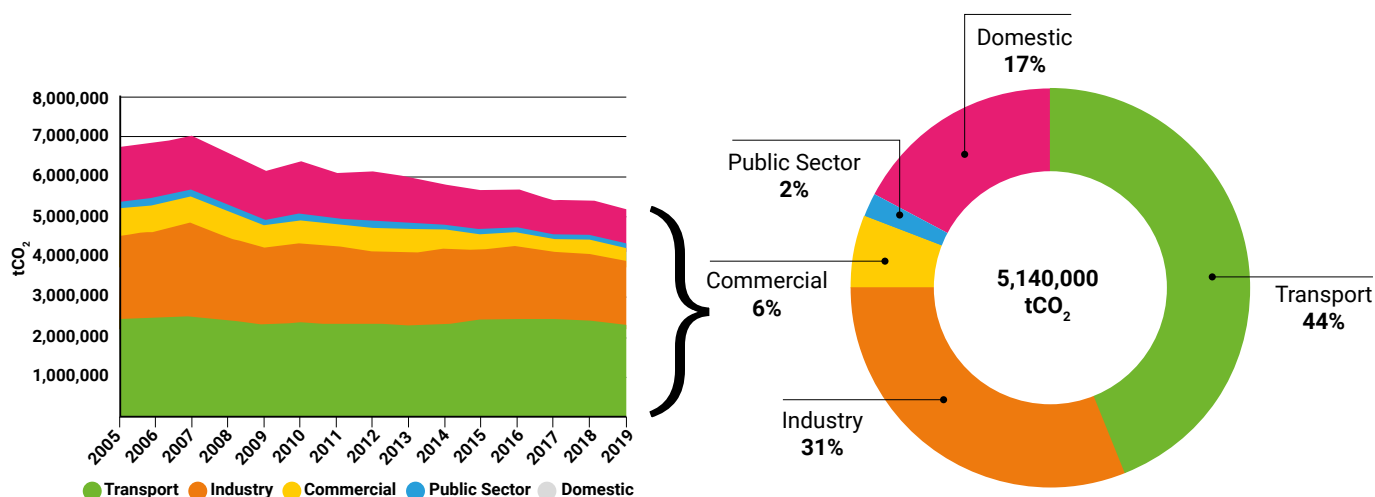
Monique Goyens, Director General, The European Consumer Organisation

Our Carbon Emissions

Warwickshire County-Wide Emissions

Where we are now

Since 2005, the County's emissions have reduced by 24%, arriving at 5,140,000 tonnes of CO₂ in 2019¹. The biggest sources of emissions are from the transport and industry sectors, followed by the domestic and commercial sectors, with the public sector making up the smallest proportion of emissions. Transport emissions in the County have remained largely static whilst emissions from industry, domestic and commercial buildings have steadily decreased.



Reaching our net zero 2050 target

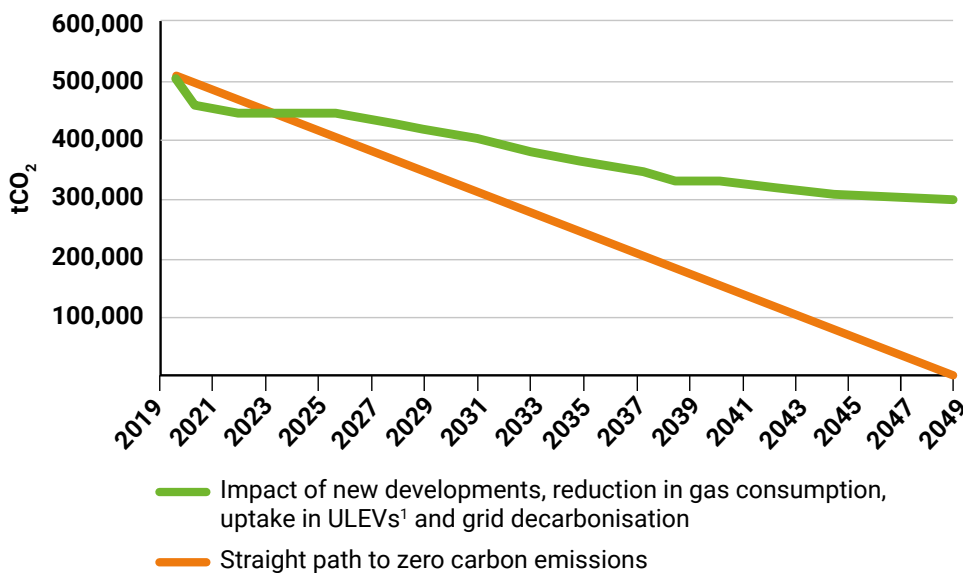
Our County-wide target to be net zero by 2050 is aligned with the UK's legal commitment to deliver net zero by 2050. We will need to accelerate our emissions reductions if we are to achieve this. We have currently mapped the impact on the County's emissions of:

- Grid electricity decarbonising as projected by the Department for Business, Energy and Industrial Strategy (BEIS) – this will reduce emissions.

¹ www.gov.uk/government/collections/uk-local-authority-and-regional-greenhouse-gas-emissions-national-statistics

- New housing and non-domestic developments currently planned to be built under the District and Borough Local Plans by 2050 – this will increase emissions.
- Heating technology projections for new housing and non-domestic developments, based on the National Grid’s Future Energy Scenarios (FESs), where the natural gas demand for heating in homes decreases by 18% by 2030 and 99% by 2050, and for heating in commercial and industrial buildings decreases by 11% by 2030 and 95% by 2050 (assuming a 2020 baseline) – this will reduce emissions.
- Likely decarbonisation of the transport sector as a result of national policies to ban the sale of new petrol and diesel cars, vans and HGVs – this will reduce emissions.

When this is compared to a straight-line pathway to zero emissions by 2050, it highlights there is still a need for the County to take greater, more ambitious action.



We will achieve net zero across the County through reducing emissions directly. However, it is anticipated that there will be a small percentage of residual emissions remaining in 2050 which we will look to balance through nature-based or other forms of greenhouse gas removals. We will explore and identify these as we progress towards 2050.

¹ Ultra Low Emission Vehicles

Warwickshire County Council Emissions

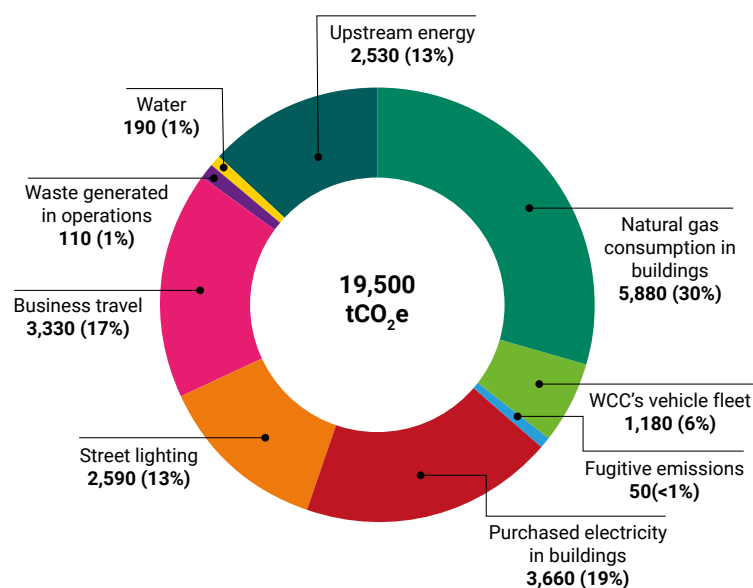
Where we are now

Since 2014, we have reported on our emissions related to natural gas and electricity use in our buildings, electricity use for streetlighting and fuel use for our own vehicle fleet. We have seen a 63% reduction in these emissions between 2014 and 2020. This has primarily been due to the decarbonisation of grid electricity and the replacing of sodium bulbs in streetlights with LEDs.

We have committed to achieve carbon net zero by 2030 for the following emissions sources:

- **Scope 1** – Direct emissions from assets we control: building gas/oil use, fuel use from vehicles we own
- **Scope 2** – Emissions from purchased electricity in our buildings and streetlighting
- **Scope 3** – Indirect emissions from the waste we generate, the water we consume, business travel and upstream energy

In 2019, these emissions sources equated to 19,500 tonnes of CO₂e. We have set this as our baseline from which to measure future progress towards our 2030 target. At present, some of these emissions are estimated using industry benchmarks, so we will also continue to improve the quality of primary data we gather.

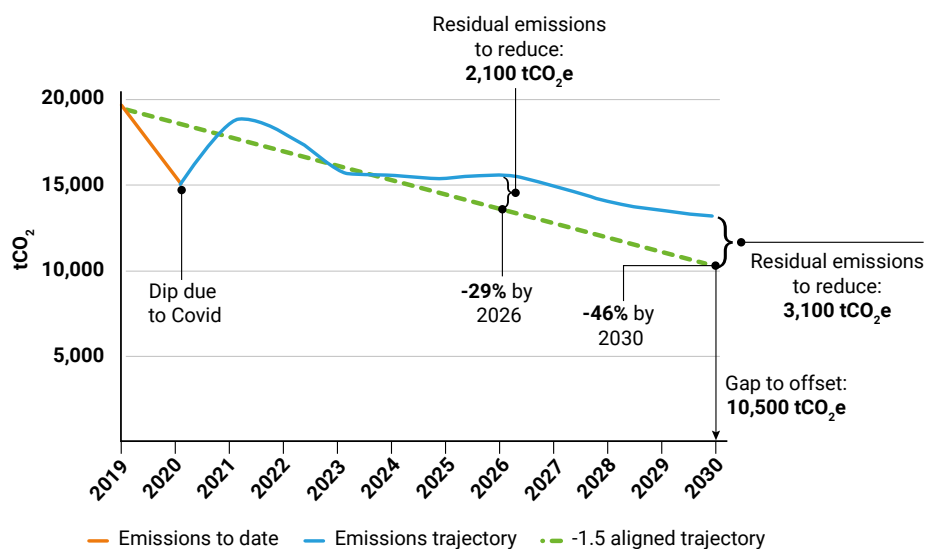


Reaching our net zero 2030 target

To better understand the gap to meet carbon net zero by 2030, we have mapped the likely trajectory of the emissions in scope. This considers externalities including the projected impact of grid electricity decarbonisation and national policy banning the sale of new petrol and diesel cars, vans and HGVs.

Using the 1.5°C Sectoral Decarbonisation Approach (SDA) pathway from the SBTi Target Setting tool¹, we have set targets to reduce emissions in scope of our 2030² target by 29% by 2026 and 46% by 2030. This SDA is a scientifically informed method for companies to set greenhouse gas reduction targets necessary to stay within a 1.5°C temperature rise above preindustrial levels.

To meet these targets, we will need to lower any residual emissions not reduced through externalities through the initiatives and actions outlined within this Strategy and the accompanying action plan. Whilst we will work to reduce emissions as far as feasibly possible by 2030, based on a target of 46% reduction, 10,500 tonnes of CO₂e annually would be required to be offset.



¹www.sciencebasedtargets.org

²Note, these targets have not been verified by SBTi.

Iterative updates to our targets

During the life of this Strategy, we will need to ensure we are using improved data as it becomes available.

We will also need to continually review the scope of the Council's net zero target to include our full Scope 3 footprint. This includes other sources of indirect emissions; for example, from the goods and services that we purchase and from our leased buildings.

We have already started initial work on our Scope 3 to understand where our target areas for reductions will be and plan to continue building upon this. As we have less control over these emissions, we will need to work with our contractors, suppliers and other partners to deliver reductions in these areas.

Strategy Aims

The aim of this Strategy is to set out a framework, key action areas and principles for delivering on the Council's strategic priority of *being a County with a sustainable future, which means adapting to and mitigating climate change and meeting net zero commitments.*

This is a draft Strategy. Public engagement is planned from November 2022 into early 2023 to capture views on our approach.

The scale and pace required to meet the 2030, 2050 and beyond 2050 targets is ambitious; business-as-usual activities within the Council and across the County are not going to be sufficient. This Strategy recognises that we need to do more and faster; it also challenges us to think outside the box, be innovative and to consider what powers of devolution we might need to enable us to deliver our objectives.

Whilst mitigating carbon emissions to keep the global temperature increase below 1.5°C, we must recognise that the effects of climate change are already being felt. As such our Climate Adaptation Plan, which is soon to be released, considers the impacts of higher emissions scenarios which would result in greater temperature increases.

This Strategy is based on current evidence and data. Areas such as technology and UK policy are constantly evolving; as new information emerges, we will adapt our actions appropriately.

2030
Council carbon
net zero

2050
Warwickshire
carbon net zero

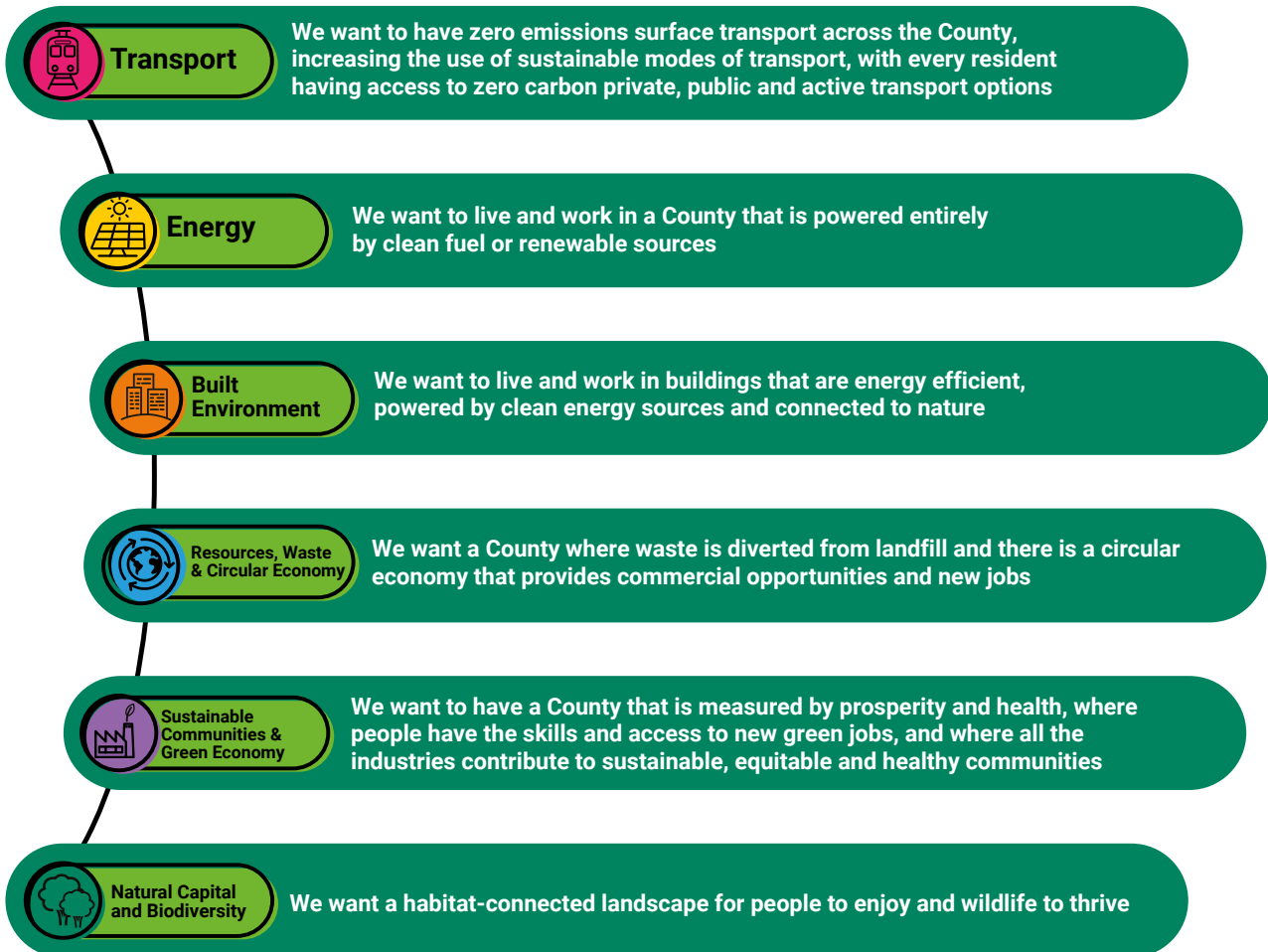
2050+
Carbon
surplus

“
We want to make
Warwickshire the best
it can be, sustainable
now and for future
generations.”

Warwickshire County
Council, Council Plan
2022-27

Where do we want to be – the future

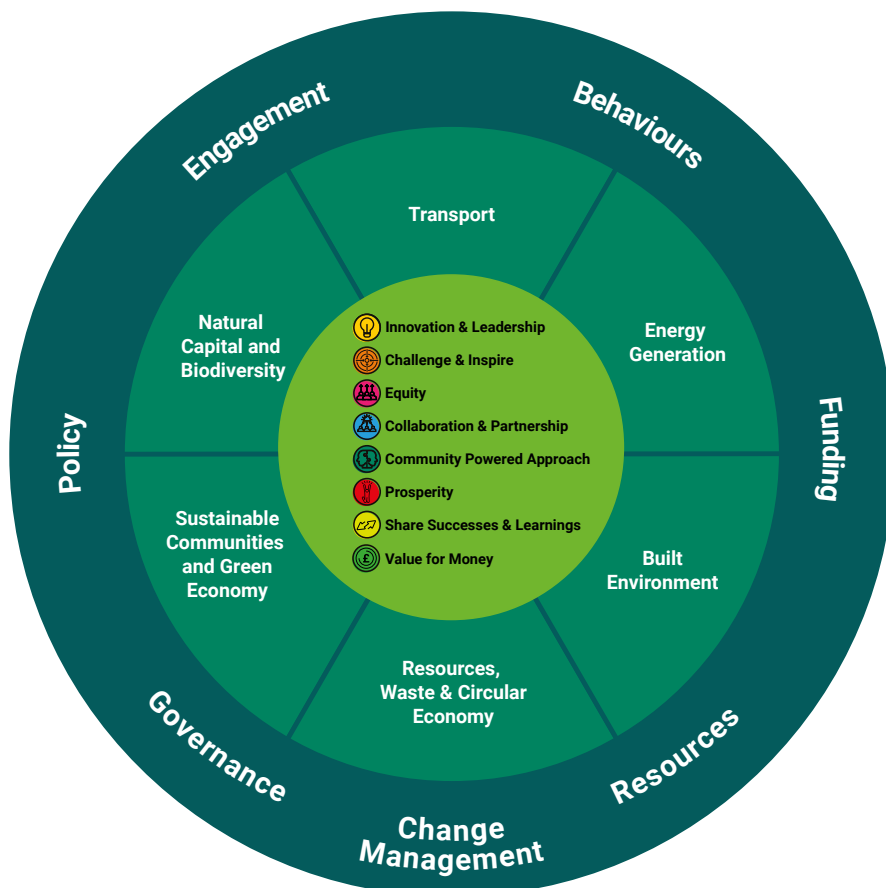
We are ambitious about what we want our future to look like. Within the next few decades, we want our County to be reimagined – low in carbon with vastly reduced energy bills, landscapes with plenty of wildlife that people can enjoy and farms which provide us with local food, a thriving sustainable economy and communities that are happier, healthier and more engaged. Our vision of the future is outlined below:



Delivering Success

This Strategy uses six delivery themes to focus the Council's efforts and assign objectives and actions for both 2030 and 2050 targets. Critical to our success in delivering our ambitions across these themes are our eight delivery principles and seven strategic enablers. The need to engage communities and deliver actions through community powered action is critical and complex; therefore, this is addressed through both the delivery theme of 'Sustainable Communities and Green Economy', and the delivery principle 'Community Powered Approach'.

This Strategy is based on current evidence and data and is supported by comprehensive action plans. We recognise that technology and UK policy are constantly evolving and as such, we expect our action plans to be adapted as new information emerges. We will be using key performance indicators to track our progress against each of our six themes, and will continue to share this on our www.warwickshireclimateemergency.org.uk website.



Strategic Enablers:

-  **Effective change management**
-  **Changed behaviours**
-  **Adequate resource management**
-  **Adequate funding**
-  **Accountable governance**
-  **Appropriate engagement**
-  **The right policies**

Delivery Principles

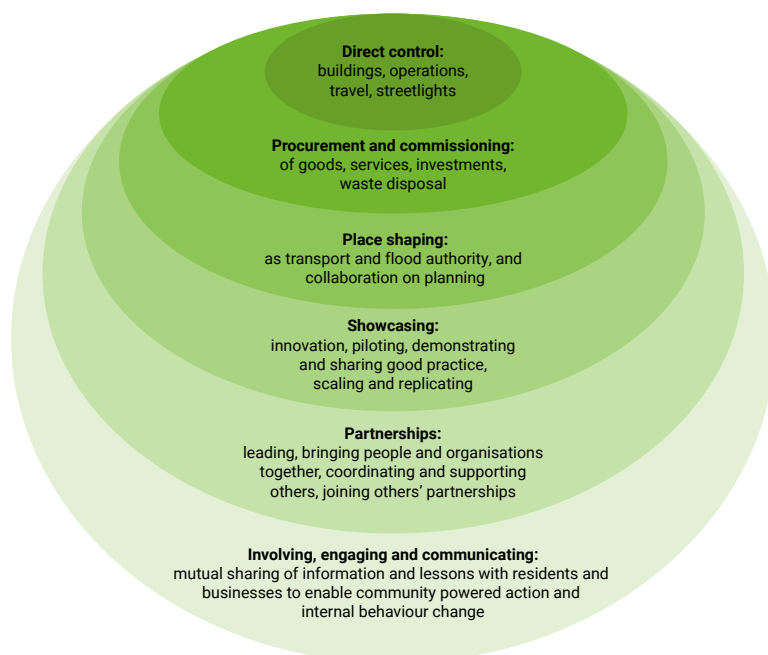
We will:

-  **Be innovative in our thinking and lead others on the journey**
-  **Not accept the status quo; we will challenge and inspire**
-  **Address climate change and biodiversity justly and equitably**
-  **Be collaborative and work in partnerships**
-  **Take a community powered approach**
-  **Emphasise prosperity as a focus for sustainable growth**
-  **Share our successes and learnings**
-  **Deliver a strategy that is value for money**

A green economy is broader than a low carbon economy; it aligns to the wider context of the UN SDGs. A green economy is an approach to sustainable economic growth with a central focus on reducing societal and environmental risks and ecological scarcities. It embeds climate adaptation into its construct. It transitions from the current 'growth-based' approach to investments, employment, and skills towards growth without degrading the environment, and the wellbeing and prosperity of citizens.

Opportunities

This Strategy identifies opportunities for change in accordance with the Climate Change Committee's six 'spheres of influence'¹ that Councils have over carbon emissions, adaptation and wider sustainability objectives:



Broadly within WCC these can be split into three main action types:

Direct Actions: actions WCC can take that will directly reduce emissions, particularly significant in areas where we have direct control such as Council buildings

Enabling and Showcasing Actions: actions that WCC can take that will allow others to directly reduce emissions that they have control over and actions that show others what can be done

Partnering and Engaging Actions: actions WCC can take to promote collaboration and support regional delivery of ambitions through partnerships

¹The Local Pathway to Net Zero, Local Government Association (2021)

Engagement and partnership

Engagement and partnership are central to how this Strategy and associated action plans will work and are integrated into our Delivery Principles. The actions that will have the biggest impact on enhancing biodiversity, reducing emissions in Warwickshire and providing equity across our communities are not always within the gift of the County Council to enact.

Many of them will be the responsibility of the District and Borough Councils, Town and Parish Councils, Central Government, other public service providers or with businesses, landowners and residents. Providing a partnership, supporting and coordinating role between the District, Borough, Town and Parish Councils, and a central forum for businesses and residents is going to be key for the County Council and we will commit whole-heartedly to this role. To this end, following on from the Warwickshire and Coventry Climate Conference in March 2022, we have set up a Warwickshire Public Sector Net Zero Group. This group is a space for all of Warwickshire's public sector organisations to share best practice, collaborate to realise efficiencies, and build a sense of common ownership and shared responsibility, helping to turn the challenge into practicable, deliverable activities. We will also continue to engage and strengthen partnership working with local climate and community groups, with our neighbouring Councils, NHS, the West Midlands Combined Authority and with Central Government.

Governance

Once this Strategy has been endorsed, we will establish relevant governance structures to monitor our progress and provide clear and transparent reporting mechanisms. Reporting will be incorporated into our Integrated Delivery Plan with named Assistant Directors responsible for the actions. We expect to review this Strategy every three years.

We recognise we may need to make some changes within our Directorates and services to align roles and responsibilities with the priorities of this Strategy, and to set ourselves up for delivery of the actions.

Funding the Strategy

Local authorities play an essential role in driving local climate action. WCC has significant influence over the key sectors, including energy and transport, which will need reform if we are to achieve net zero.

Funding is a key aspect of our ability to deliver the Sustainable Futures Strategy and substantial financial investment will be required in the next decades for decarbonisation, with funding critical to enable actions. In addition to potentially borrowing from sources such as the UK Infrastructure Bank and Public Works Loan Board, we will be investigating and seeking to use a number of areas of funding available to us such as:

- Dedicated grant funding for work related to net zero, which is open to bids from local authorities. Key sources include Public Sector Decarbonisation Scheme, Active Travel Fund, Green Homes Grant, Local Authority Delivery Scheme and All Electric Bus Town or City Scheme. Wider funding is also available that is targeted at other or more general outcomes, such as social or economic growth, but which require, encourage or allow the delivery of net zero objectives. Examples include the Towns Fund, Levelling Up Fund and the UK Shared Prosperity Fund which include criteria or statements designed to encourage local authorities to invest in projects that support the achievement of net zero.
- Additional funding opportunities linked to a potential devolution deal, allowing investment to be channelled towards our net zero and green economy ambitions.
- Funding leveraged from the commercial sector. This could be through developer contributions such as the Community Infrastructure Levy (CIL), or embedding net zero and circular economy requirements into public procurement. Furthermore, certain net zero investment opportunities have the potential to generate revenue for the Council which can be reinvested.
- Voluntary, Community and Social Enterprise organisations can derive funding for local projects from sources that would otherwise be unavailable to the private sector and businesses. This includes lottery and trust funding.

- Innovative funding solutions, such as Community Municipal Bonds (CMBs), which offer local people an opportunity to invest in net zero projects in a way similar to crowdfunding and to make a return from doing so. CMBs offer the potential of providing low-cost capital for Councils to deliver socially and environmentally positive outcomes. We will work with District and Borough Councils to understand the most effective way CMBs would work.
- For biodiversity, a natural capital investment approach coupled with grant funding will be required. The biodiversity net gain planning contributions capital already accrued through planning may be used. If public and private investment is directed towards habitat enhancements in strategic locations, they can also achieve other multifunctional nature-based solution benefits that are marketable, through programmes such as the Woodland Carbon Code.

In utilising these sources of funding, we have the opportunity to progress shared investments with partners and combined schemes. These have the potential to reduce overall funding requirements through economies of scale, affording us greater efficiency and buying power.

However, despite this range of funding sources, we recognise that there are a number of challenges. A combination of a funding squeeze following the 2008 financial crisis, the Covid-19 pandemic, inflationary pressures and a growth in demand for services has resulted in many local authorities' finances, including ours, being placed under pressure, which will limit our ability to invest in sustainable interventions.

The private sector will therefore have a key role to play with this transition, not only by reducing their own emissions, but through providing the funding for green and circular infrastructure at a local level, with investors being a source of long-term capital that can complement public funds. It will be imperative to support capacity building in the supply chain to ensure investments to support our net zero ambitions can be delivered.

Partnership working between us, other local authorities, central government, and private businesses will be vital to delivering this strategy, realising the net zero vision, contributing to Levelling Up across Warwickshire and enhancing prosperity.

Key Themes

We have identified six key themes that are fundamental for achieving our strategic aims and aspirations. The following section looks at each theme and summarises what we have done, where we are going, and the gaps that need to be bridged to meet our objectives. The themes are presented separately but there is inherent overlap and synergy between them all.

We have identified in detail our first phase actions to deliver those objectives that relate to our goal of reducing carbon emissions to net zero across the Council by 2030. These are outlined in our **Draft Action Plan**.

It is important to track and share our progress against these objectives and we will do so by using key performance indicators selected from the list of indicators shown for each delivery theme.



Transport

Context

Transport is the largest source of carbon emissions in the County, accounting for 44% of emissions in 2019¹ (our baseline year). Whilst total emissions from the transport sector in Warwickshire have remained relatively static over recent decades, the proportion of emissions generated has steadily increased, due to a fall in emissions from other sectors.

As the Transport Authority, we have a key role in enabling the County to reduce transport emissions. Not only will we need to lead the way by reducing the emissions from the Council's vehicle fleet, but we will need to prioritise options for more sustainable travel that can reduce private car use and inspire behaviour change across the County. In selecting options, we will need to reflect the different challenges and barriers for rural areas versus towns.

Where we are now

Council

To date, we have reduced our own Council transport-related emissions by:

- Investing in two electric cars for Warwickshire Fire and Rescue Service and 10 new school buses with solar panel arrays and battery storage to power ancillary services.
- Initiating a trial to pilot HVO (hydrotreated vegetable oil) in non-operational fire appliances.

County

At a County level, we have supported the decarbonisation of the transport sector by:

- Under the SAfER Schools Award (Sustainable Active Focussing on Environment and Road safety) we work with over 80 schools resulting in air quality and carbon benefits.
- Funding four active travel projects and four projects to implement EV charging points through the first round of the Green Shoots Community Climate Change Fund.

“
85.5% of respondents ranked climate change/carbon emissions as a top three priority when thinking about transport and the environment.”

(Local Transport Plan consultation)

¹ www.gov.uk/government/collections/uk-local-authority-and-regional-greenhouse-gas-emissions-national-statistics

- Commissioning a study to understand the scale of the decarbonisation challenge for the transport sector in Warwickshire and key priority areas.
- Committing funding towards on-street EV charging infrastructure.
- Exploring the potential use of hydrogen. Warwick District Council is establishing a Hydrogen Hub which will fuel Warwick and Stratford District Councils' refuse collection vehicles and may be used to fuel other heavier vehicles such as buses.

What we have planned

Council

- We are retaining our flexible agile working policy so that our commuting emissions remain low and we will continue to encourage staff to travel to and from work via more sustainable modes of travel where possible e.g., public transport, walking or cycling.

County

- Continue to engage with the Government's strategy for EV charging and seek funding through government schemes for EV developments.
- Implement a pilot to assess the suitability of delivering on street, residential EV charging points using existing street lighting connections as part of a trial in 2022/23.
- Continue to investigate the development and implementation of rural charging hubs in Warwickshire.
- We are currently drafting our Local Transport Plan 4 (LTP4) which prioritises a shift in travel behaviours. As part of this, we are developing strategies on active travel, public transport, motor vehicles and managing space.

Objectives

Objective	Potential Key Performance Indicator (KPI)
Reduce Council emissions from business travel	<ul style="list-style-type: none"> • % total electric/low carbon Council vehicles • % of total journeys completed by green travel
Reduce carbon emissions from Council fleet	<ul style="list-style-type: none"> • % total electric/low carbon vehicles
Improve capacity of EV charging, across the County	<ul style="list-style-type: none"> • £ million Government funding secured • Number of chargers installed by type • Area coverage of charging points • % total electric/low carbon vehicles
Encourage residents in Warwickshire to make green travel choices, through engagement and communication schemes	<ul style="list-style-type: none"> • Number of campaign engagements • Number of people engaged with for their views and schemes
Provide low emission public transport options to serve sustainable communities	<ul style="list-style-type: none"> • % of bus fleet Euro 6 • % of bus fleet low emissions • % of all trips made by bus and rail • Average time to a bus stop/ train station by active travel methods
Reduce emissions relating to school transport	<ul style="list-style-type: none"> • Number of partnership projects completed
Engage with key stakeholders, including District and Borough Councils and highways contractors, to reduce emissions in their areas of responsibility	<ul style="list-style-type: none"> • Number of partnership projects completed • % emissions reductions in District and Boroughs and third-party contractors through WCC support/partnership
Support residents in Warwickshire to shift from cars to walking and cycling	<ul style="list-style-type: none"> • £ of Council funding invested in walking and cycling projects • £ spent by Council in administering incentives • Number of joint projects implemented • Number of people completing cycling training

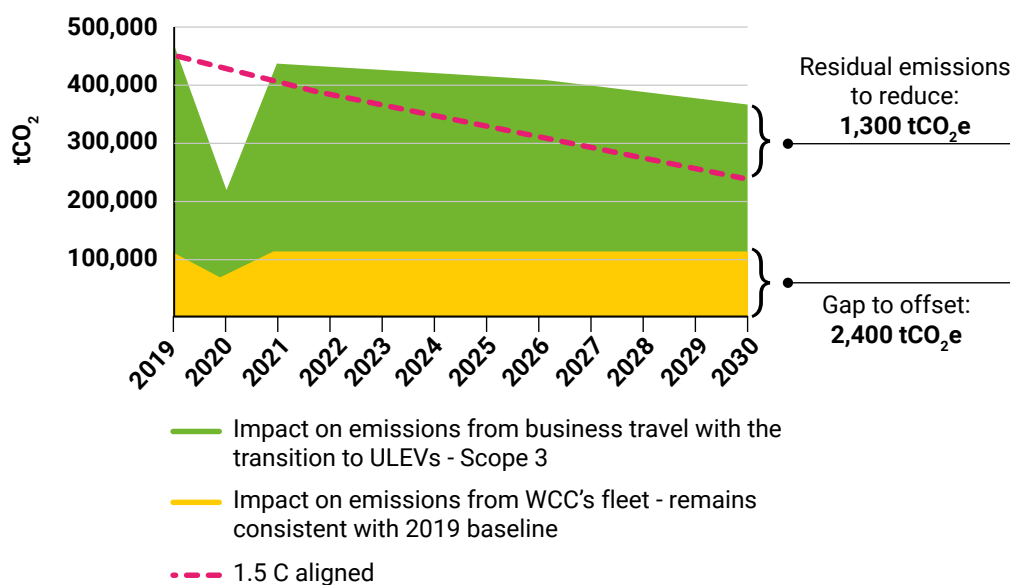
Where are the gaps?

Council

We have mapped how national policies banning the sale of new petrol and diesel car and van sales from 2030 and HGV sales from 2035/2040 will likely impact our business travel emissions. It has been assumed that emissions from the Council's fleet remain consistent with the 2019 baseline. As a minimum by 2030 we will need to reduce our fleet and business travel emissions by approximately 1,300 tonnes of CO₂e in line with a science-based 1.5°C warming trajectory¹, but where possible we will reduce emissions further and faster.

To close this gap, we will need to focus on a combination of the following:

- Upgrading our car and van fleet to EVs and continuing to investigate alternative fuels for our other vehicles, including fire engines.
- Implementing a staff travel plan to reduce business travel emissions.
- Assessing emissions related to the care sector and how we can support our staff and contractors to reduce those associated with travel for care work.



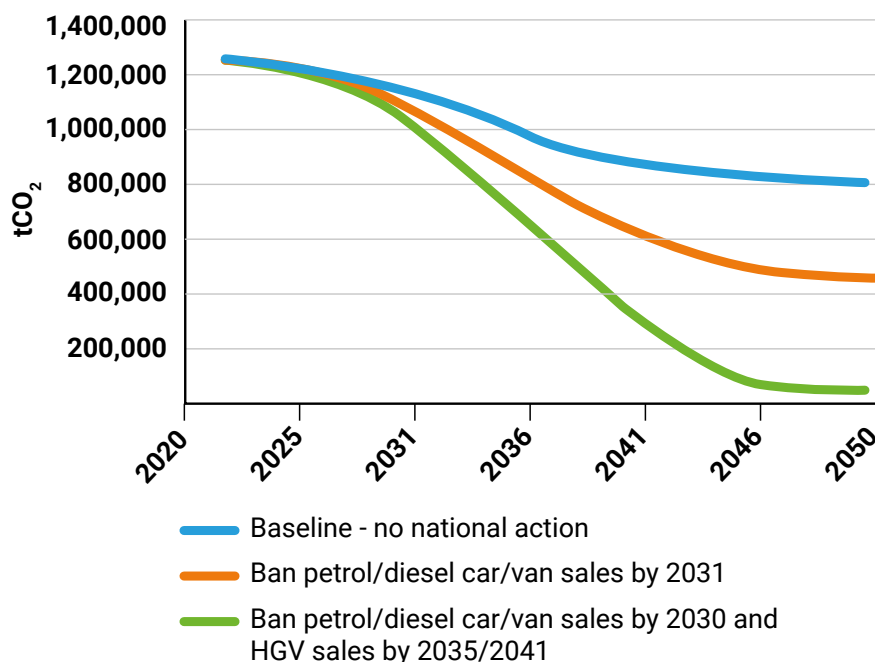
¹Refers to emissions reduction targets developed to limit global average temperature increase to 1.5°C above pre-industrial levels

County

The national Government policies of banning petrol and diesel vehicles have been mapped to understand the gap to net zero associated with County-wide transport emissions. No other scenarios, such as modal shift, have been mapped at this stage. The graph indicates that a gap of 43,400 tonnes of CO₂e remains for the County to reach net-zero by 2050.

To close this gap, we will need to build on what is already outlined within Local Transport Plan 4 and link strategies to focus on:

- Promoting integrated and place-based transport planning and development.
- Supporting actions to increase the uptake of active travel by our residents.
- Continuing to support the increase of low and zero emissions vehicle ownership by investing in affordable and accessible public charging infrastructure.
- Investigating the use of alternative and future fuels to reduce emissions from commercial and freight transport. This includes the use of hydrogen as a transport fuel and working with industry to see what further opportunities are available, especially in the north east of the County where there are logistics and distribution headquarters.



You can help by choosing to travel by more sustainable modes of transport where possible e.g., using cycling or walking (especially for short distances), public transport or EVs.



Energy Generation

Context

The UK Government has predicted that the electricity grid will decarbonise by 95% within the next 30 years. This means the electricity will be generated by sources other than fossil fuels such as wind, solar, and potentially nuclear.

Right now the UK is experiencing a fuel crisis. In 2020, 14.3% of Warwickshire households were experiencing fuel poverty and this is predicted to rise over the coming months, bringing concerns that residents and businesses in Warwickshire will have to make extremely difficult choices.

As such, we not only need to move away from fossil fuels for the climate but also to provide ourselves with affordable energy and to improve energy security within our own borders.

Core to the UK Government's Net Zero Strategy is delivering zero carbon energy. So, to support the national grid decarbonisation ambition and to be a County that is powered by clean fuel, we must play our part in generating our own electricity, clean heat and provide more District heat networks. To assist in this goal, we will contribute by supporting clean energy and heat generation projects developed by the Districts and Boroughs Councils.

Where we are now

Electricity

- The County uses approximately 2,333,000 MWh of electricity per year. To support renewable energy generation across Warwickshire we launched the Solar Together Warwickshire Programme which planned for 509 installations of high-quality solar photovoltaic (PV) panels and battery storage. As of June 2022, 21% of these have been completed. We will continue to seek funding to maintain this programme. Through the first round of our Green Shoots Community Climate Change Fund, we have funded six PV projects.
- Additional Solar PV has also been installed at Elliot Park Innovation Centre, which has saved 36 tonnes of CO₂e between December 2021 and September 2022.

“

84% of respondents said they were aware that renewable or zero carbon electricity can be purchased from energy providers.

”

(Voice of Warwickshire panel)

Heat

- Heat decarbonisation is another critical part of our route to net zero. It is early days in this area across the County, but heat pumps have been successfully installed at one of our fire stations and one of our care homes as alternatives to gas fired heating.
- At the County level, the Warm and Well in Warwickshire programme, delivered by Act on Energy, has been in place as a tool to support with private energy change queries and opportunities for change within homes and businesses.

What we have planned

Council

- We are currently planning to develop an Energy Policy and Energy Strategy for the Council and identify funding by the end of 2022 for the delivery of our first renewable targets anticipated from 2023 onwards.

County

- We will continue to increase energy flexibility within the County and support the remaining 80% of installations under Solar Together.

You can help by, where possible, purchasing energy from renewable sources and taking opportunities for renewable energy installations on owned buildings. Act on Energy can be used as a resource to provide advice on potential options.

Objectives

Objective	Potential Key Performance Indicator (KPI)
Reduce carbon emissions from the Council's existing buildings	<ul style="list-style-type: none"> • Agree a revised Energy Policy and Strategy • MWh heat delivered through heat network • Number of buildings connected to heat network • tCO₂e saved by heat networks • Total kilowatts peak (kWp) installed
Identify and implement opportunities for District heat networks Countywide	<ul style="list-style-type: none"> • MWh heat delivered through heat network • Number of buildings connected to heat network • tCO₂e saved by heat networks
Identify opportunities for hydrogen production	<ul style="list-style-type: none"> • % energy replacement by hydrogen (as a comparison against total energy demand)
Identify and implement community schemes	<ul style="list-style-type: none"> • Total kilowatts peak (kWp) installed • tCO₂e/year saved compared to grid electricity • MWh of renewable heat installed • Number of installations • £ funding secured to allow delivery of first renewable energy scheme
Engage with stakeholders (e.g. Energy Innovation Zones, Midlands Energy Hub, Energy Systems Catapult) for lessons learnt and joint partnership opportunities	<ul style="list-style-type: none"> • Number of partnership projects identified
Identify and implement opportunities for battery storage technologies	<ul style="list-style-type: none"> • MWh installed storage capacity • tCO₂e/year saved compared to grid electricity
Facilitate the expansion of electrification of heating and transport by working with partners and accelerate take-up of smart energy systems and storage where feasible.	<ul style="list-style-type: none"> • Negative impacts have a mitigation plan

Where are the gaps?

Council

Going forward, it will be key to identify opportunities and undertake feasibility studies for the installation of renewable technologies on Council owned buildings and land, to help decarbonise the electricity the Council consumes. Furthermore, identifying funding and financing options, including crowdfunding and community energy funds, will play a key role in this decarbonisation goal.

County

To help meet national grid electricity decarbonisation targets and support the decarbonisation of heating, we will need to continue to increase the volume of in-County renewable energy generation, encourage change to alternative heating networks, and understand and exploit the opportunities presented by the hydrogen economy. We will address this gap through studies and investigations into the opportunities available to us, particularly in addressing the objectives we have set out above.



Built Environment

Context

Emissions associated with the built environment are a significant contributor to the County's emissions and make up 72% of our own scope 1 and 2 carbon footprint. The main challenge for the built environment, both domestic and non-domestic, is tackling emissions from heating and cooling, particularly in the use of natural gas. Constructing new and retrofitting existing buildings to minimise energy consumption and shift to renewable sources is vital to support the built environment to become net zero by 2050 and for us to meet our Council target to be carbon net zero by 2030.

Addressing energy consumption and efficiency within domestic buildings will help to also tackle fuel poverty. Decreasing electricity demand will also provide energy security for the commercial and industrial sectors while reducing business costs.

Where we are now

Council

- We currently purchase 100% green electricity for our own buildings and have already undertaken some initial investigations to understand how we can reduce energy consumption by improving the energy efficiency of our buildings.

County

- Through the first round of our Green Shoots Community Climate Change Fund, we funded nine projects to improve energy efficiency
- In 2021, we also launched the Warwickshire Property and Development Group (WPDG) to deliver new affordable and market priced homes and a range of commercial, mixed use and renewable energy opportunities across the County to support the County's decarbonisation journey.
- We have been replacing sodium bulbs with LEDs in our streetlights.

What we have planned

Council

- Continue the replacement of sodium bulbs in streetlights with LEDs.
- Whilst we have made a start on understanding the requirements of our buildings and what needs to be done, we will continue to refine and implement findings from studies already undertaken.
- Include emissions and energy performance as a potential consideration when deciding which surplus buildings to divest.

County

- At the County level, more effort will be placed in developing partnerships, especially with the District and Borough Councils over the role of the planning and development process. The reality is that the biggest carbon reductions are going to occur by decarbonising existing and new houses, and as the Local Housing Authorities, the District and Borough Councils will play the lead role on this. It is expected that households most vulnerable to fuel poverty will be prioritised.

Objectives

Objective	Potential Key Performance Indicator (KPI)
Reduce carbon emissions from the Council's existing buildings	<ul style="list-style-type: none"> • kWh/m²/year energy consumption of Council buildings • Reduction in natural gas consumption in Council buildings • tCO₂e/year from Council buildings • £ million Government funding secured • Number of completed net zero audits • % of staff trained in energy efficiency, capability/ knowledge in fitting new technologies and retrofitting • % of total energy consumption covered by green tariffs
Develop programme to reduce water wastage	<ul style="list-style-type: none"> • Behavioural and maintenance programme established to reduce wasted water
Minimise carbon emissions in any new WCC building	<ul style="list-style-type: none"> • % of new developments/buildings achieving net zero standards
Support local private businesses to meet the net zero target	<ul style="list-style-type: none"> • £ grants provided to businesses • kWh/m²/year energy consumption from commercial sector • Number of businesses participating • Number of partnership projects completed • % of new developments achieving net zero standards
Support residential care to reduce carbon	<ul style="list-style-type: none"> • £ grants provided to businesses • kWh/m²/year energy consumption from care sector • Number of training events delivered
Work in partnership with our Districts and Boroughs to minimise carbon emissions in existing housing and net zero in new housing	<ul style="list-style-type: none"> • % compliance amongst landlords reviewed • Number of homes retrofitted • Number of homes in each EPC band • Number of partnership projects completed • % of new homes achieving net zero standards
Engage with partners to overcome current barriers	<ul style="list-style-type: none"> • Number of changes, decisions, ideas taken forward through engagement

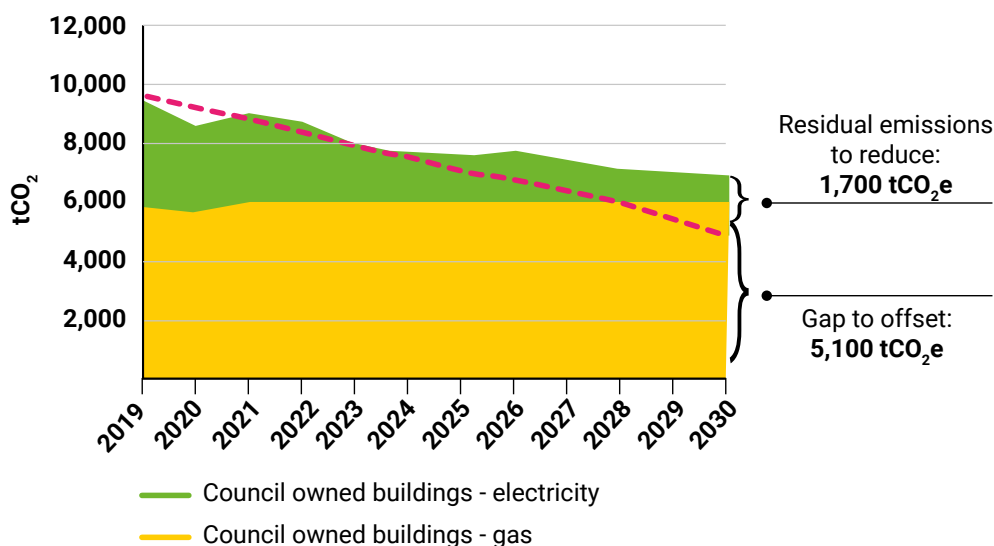
Where are the gaps?

Council

To remain in line with the 1.5°C science-based climate change trajectory, we must reduce our emissions from Council buildings' energy use by a minimum of 1,700 tonnes of CO₂e by 2030. To close this gap, we will need to focus on:

- Addressing the current gap in our knowledge of energy use within our decentralised assets. This will enable us to develop a priority list of assets to be decarbonised.
- Post-2030 emissions associated with electricity use will continue to decrease as the grid electricity decarbonises. Whilst we must still have a focus on operating buildings efficiently, our main challenge will be decarbonising our natural gas heat supply.
- Undertaking further property decarbonisation feasibility studies to identify the best options for retrofit and building decarbonisation across our portfolio.
- Completing a review of all our owned or leased buildings with service areas to identify future needs, how this might impact energy use and our carbon footprint.
- Identifying increased opportunities to co-locate with partners.
- Using our estate to support renewable energy schemes.

County

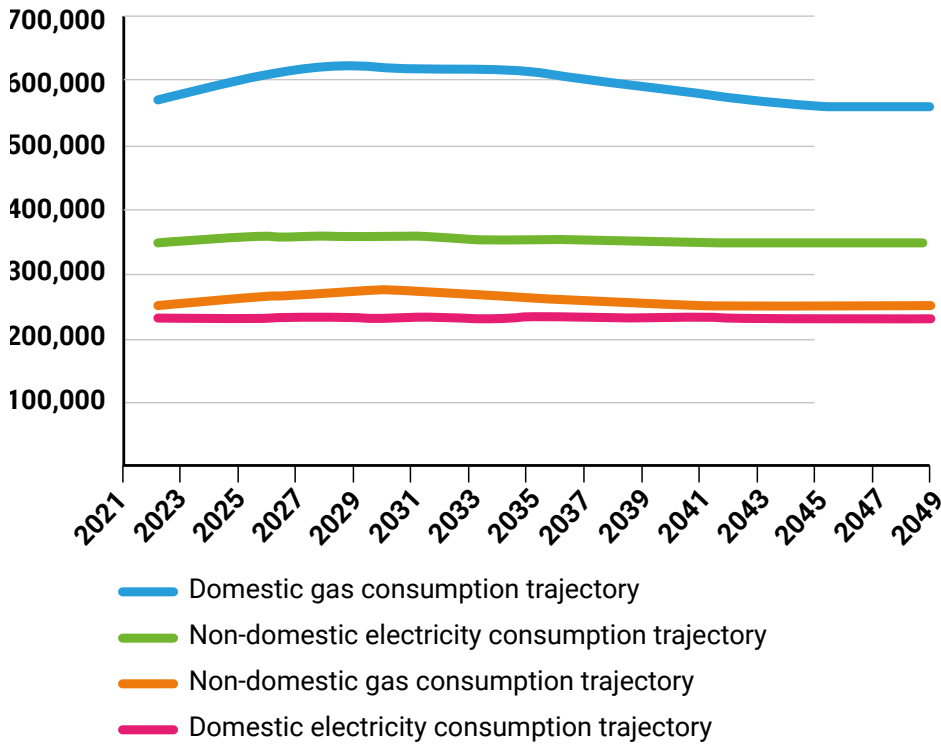


Scenario analysis has helped us understand our future energy use and associated carbon emissions based on national policies and our existing plans. Decarbonising heat (i.e., a replacement for natural gas) is a key priority.

To close the gap, we will need to focus on:

- Prioritising retrofit options e.g., fabric first approach, energy control and monitoring system, energy efficiency measures followed by heat and electricity changes.
- Encouraging behaviour change across the County, including working with District and Borough Councils, landlords and homeowners to support property retrofits that improve energy efficiency, with a particular focus on homes with high energy costs and households vulnerable to fuel poverty.
- Investigating setting up a task force of experts from local and national government, academia and infrastructure to drive the decarbonisation of heat.
- Working with planning authorities to create sustainable developments (such as 15-minute neighbourhoods) and setting ambitious net zero carbon policies and standards¹ for new builds that exceed Part L Building Regulations.
- Working with, supporting and encouraging local businesses to retrofit and implement new technologies which reduce reliance on natural gas.
- Continuing to liaise with District and Borough Councils to discuss how planning considerations can include options for climate change mitigation.

¹A cross industry initiative has been activated to develop a UK Net Zero Building Standard. www.nzbuildings.co.uk



You can help by improving the energy efficiency of your house through using energy responsibly and prioritising retrofit options where available.



Resources, Waste & Circular Economy

Context

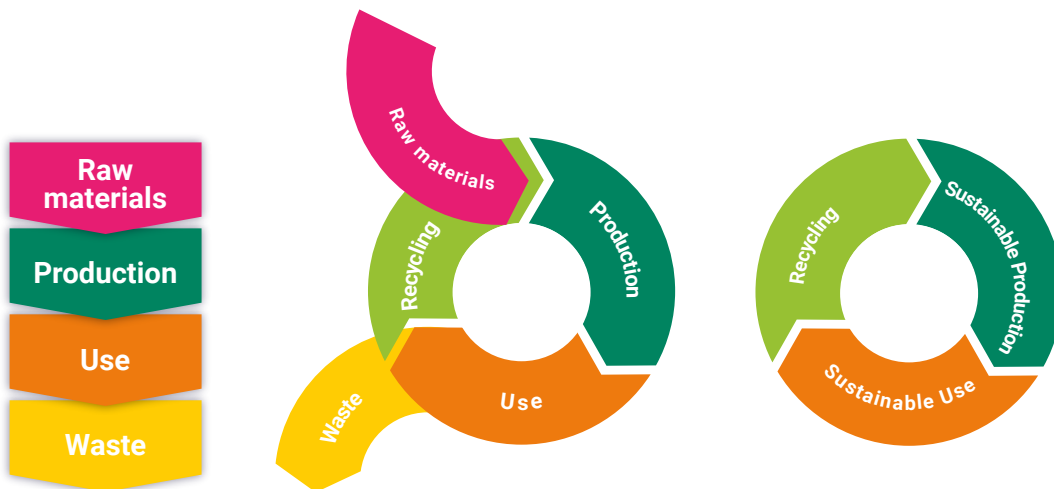
We are the waste disposal and planning authority within Warwickshire. We adopt the waste hierarchy to prevent, reduce, reuse, recover and only then, dispose of our waste. But we want to go much further and adopt the principles of a circular economy.

Circular economy principles move away from a linear *take, make, consume and throw-away* society, towards one that minimises waste and pollution, keeps products and materials in use for as long as possible and supports the regeneration and protection of natural resources.

The linear economy results in the production of cheap products that wear down easily and lead to a higher rate of disposal. This places consumers in a vicious cycle of continuously replacing cheap items. A circular economy looks to address this imbalance with a focus on better quality products that last longer and repair and return services for items that break or are worn out.

The circular economy considers the whole cycle of resources - design, manufacture, use, (e.g., repair cafes, resource exchange and second-hand shops), followed by operations for retaining resource value (such as recycling) at the end of life.

Combining waste management with economic design and innovation and by working in partnership with partners and businesses, we can also add social value across the County.



Traditional linear approach

Approach with feedback loops
(where we are heading)

Circular economy approach
(where we need to be)

Where we are now

Much of the work we have done has focused on waste reduction. Actions we have already taken include:

- Considered the environmental and carbon impact of our waste services e.g., haulage services when awarding contracts.
- Procured a food waste recycling service at a facility that is dedicated to treating food waste.
- Given residents three options for green garden waste (pay for green bin kerbside collection; Council subsidised hot and cold composting bins; take to recycling centre) .
- Used energy recovery facilities to recover value from residual waste by producing electricity and heat, whilst aiming to send less than 10% of our total household waste to landfill.
- Holding quarterly meetings with Districts and Borough Councils on waste – the Warwickshire Waste Partnership.
- Establishing reuse shops or collection points at all our recycling centres.

What we have planned

In the next two years we will be implementing the following emissions and waste reduction activities:

- Warwick and Stratford District Councils have moved to general waste collection every three weeks, with weekly separate food waste collection. We expect recycling within those Districts to subsequently increase and for residual waste to be minimised. Once the new collection arrangements have been evaluated, other Districts and Boroughs may consider a similar approach.
- Responding to the National Resources and Waste Strategy consultation to help central government shape the future of waste. The three core pillars are likely to be extended to producer responsibility, deposit return scheme and consistency in collections.
- Preparing and implementing a new Local Resources and Waste Strategy following publication of the National Strategy.

You can help by reducing overall consumption and repairing your items rather than buying new. Consider where you purchase your items. Reduce single use plastic and buy local.

Objectives

Objective	Potential Key Performance Indicator (KPI)
Reduce amount of waste per head to near zero to landfill by 2050	<ul style="list-style-type: none"> • Total waste (kg) per household • Total waste (kg) per business • kgs of residual household waste per household • % household waste sent to landfill • Number of households receiving Waste Education • % of household waste re-used, recycled and composted • % of household waste re-used, recycled and composted at the household waste recycling centres
Reduce Council building waste	<ul style="list-style-type: none"> • Weight of waste (kg) reduced against previous year • % waste to landfill • % waste recycled
Reduce emissions from collected waste	<ul style="list-style-type: none"> • Tonnes of carbon emitted by the Council as a waste disposal authority • Tonnes of carbon emitted by the District and Borough Councils
Drive ambition for circular economy approaches and reduction of waste	<ul style="list-style-type: none"> • Number of engagements with other Councils • 100% Circular Economy Roadmap delivered
Support communities and residents to adopt circular economy approaches	<ul style="list-style-type: none"> • Number of events per year and number of attendees at events • Number of training events • £ from grants delivered for circular economy initiatives (via community grants programmes)
Support businesses to adopt circular economy principles	<ul style="list-style-type: none"> • £ from grants delivered for circular economy initiatives (via business grants programmes) • Number of events/hubs per year and number of attendees at events
Council adopting circular approaches in procurement	<ul style="list-style-type: none"> • % contracts which include circular economy specifications • % recycled content on new roads • % of Council spend on circular products and services
Drive circular construction and maintenance	<ul style="list-style-type: none"> • % projects/developments delivered with reclaimed and/or recycled materials

Where are the gaps?

Our future Local Resources and Waste Strategy, which will follow on from the National Resources and Waste Strategy, will provide details on how our circular economy objectives will be developed and implemented.

To fill the gaps, we will need to:

- Improve education campaigns to encourage behaviour change on reducing consumption.
- Work with our manufacturing businesses to change the approach to design, so that within our County we are using sustainable materials in the first instance; reducing the use of materials; remanufacturing products during use; designing for disassembly at end of life; and recycling where there is no preferred option.
- Work across all sectors to extend product life. As a Council we need to support reuse, sharing, redistributing, donating, repairing, and remanufacturing within our County. We will need to work with shops and businesses, as well as community projects, to provide the infrastructure and tooling to allow this to happen.
- Explore new business models. We will look at our business grants, loans and funding mechanisms to encourage new and innovative products e.g.: 'as a service' offerings, product renting, sharing, re-selling, or leasing.
- Treat waste as a resource. We will look for opportunities to use waste of any kind as a source for a new product.
- Encourage the prioritisation of resources that are renewable, non-hazardous, compostable and have minimal packaging.

We need to do all this whilst recognising that the population is growing and under current trends waste is predicted to increase.



Sustainable Communities & Green Economy

Context

A sustainable community is one where people are supported to live healthy, happy, equitable and independent lives. A green economy supports sustainable economic growth with a central focus on reducing societal and environmental risks and embedding climate adaptation into its construct. This theme is based on the following principles:

- All people are supported to create and enjoy prosperity. There is a focus on growing wealth for wellbeing (not just financial wealth but the full range of human, social, physical and natural capitals). People are supported to live active lifestyles with access to healthy, local, affordable food that is grown sustainably and with regenerative methods.
- Equity is promoted. It has a community powered approach – conditions are created for communities to help themselves and lessen the gap between the most and least capable. Equitable distribution of opportunity and outcome is promoted.
- Nature is safeguarded, restored and supported by an economy which invests in protecting, growing and restoring biodiversity, soil, water, air, climate and other natural systems.
- Sustainable consumption and production are supported, resulting in a low-carbon, resource-conserving, diverse and circular economy with local access to goods and services. Economic development enables economic growth without raising resource consumption.
- Communities are connected physically, digitally and with a sense of community spirit. No one is left in isolation, loneliness or in poverty.
- Accountable and resilient institutions are the cornerstone. This means institutions that are collaborative and coherent. It requires a joined up collaborative approach to amplify and maximise impact. In doing so, communities will feel a sense of democratic empowerment.

We want to see the development of new green jobs and technology, whilst supporting the 'greening' of our key priority sectors – automotive, manufacturing and engineering; tourism; and digital creative. We recognise the important role played by our farming community and want to encourage local, sustainable enterprise that supports healthy lifestyles¹ and diets.

This is a change from the status quo and will involve a shift in priorities.

¹Healthy lifestyles support economic growth through less premature death which increases the working age population. When people are healthy, absences in sickness decline and workers are less distracted by managing their conditions or those of loved ones.

Where we are now

- We have been delivering industry-based support across different programmes and finance schemes as part of the process for long-term business growth in Warwickshire (e.g. through the Warwickshire Recovery Investment Fund). Some of this support prioritises investment to energy efficiency and low carbon innovation.
- Our partnerships are vital in helping create regional change and expanding the boundaries and capabilities of Warwickshire businesses. For example, we have worked with Coventry City Council through the Innovation Programme to help businesses become more innovative and efficient. Additional work with Coventry is delivered through the Coventry and Warwickshire Green Business Programme, which promotes and supports energy efficiency measures.
- In addition to these partnership efforts, we have delivered a series of webinars to Warwickshire's small and medium enterprise businesses, to provide inspiration and practical support in their journey to net zero.
- The Community Powered Warwickshire programme, initiated in 2021, is being used as a pathway for harnessing the power of our communities to tackle inequality and social inclusion. This is being funded through the Warwickshire Social Impact Fund. A notable strength of Warwickshire is the ability for community action to make a positive contribution, especially noting the role of our active voluntary community and social enterprise (VCSE) sector. Community Power has been identified as a place shaping approach to help deliver on the Council Plan priorities of Vibrant Economy and Places, Best Lives and Sustainable Futures. We are taking forward the learnings from this to longer term community-led approaches.
- We are increasing resilience, adaptability, and mitigating climate change whilst using community powered initiatives in Warwickshire such as the Green Shoots Community Climate Change Fund.

What we have planned

- We are and will continue to participate in the EcoSchools programme which empowers and motivates pupils to drive change and improve environmental awareness in their school, local community and beyond.
- Following the publication of our Countywide approach to Levelling Up, written in response to the Government's Levelling Up White Paper we will be supporting the most vulnerable communities and promoting regeneration in the right places. Partnering with District and Borough, and Town and Parish Councils is key to this.
- Under our current business support programmes, we will continue working with local businesses to promote and support a low-carbon County, and further support businesses to change their supply chains to more sustainable options.
- As the Adminstrating Authority of the Warwickshire Pension Fund, we will be implementing our Investment Strategy for our over 50,000 members, having regard to environmental factors in the operation of the Fund as expressed in Responsible Investment and Climate Risk Strategies. The Fund will consider divestment where engagement does not or cannot work. We have also recently updated our Procurement Strategy which through the Social Value strategic pillar seeks to secure wider benefits for communities, the economy and the environment and support our vision to strengthen communities across the County. The Fund will engage with our 206 active employers to influence and promote responsible investment, carbon reduction and other activities to fight climate change and to mitigate exposure to climate risk and its resultant impact on asset liability.

You can help by being engaged with us, by supporting businesses with a green ethos, and by being innovative to reduce consumption.

Objectives

Objective	Potential Key Performance Indicator (KPI)
Lead by example, procuring sustainably and supporting new green markets	<ul style="list-style-type: none"> • % contracts which include green economy specifications • % of Council spend on circular products and services • Number of of main contractors providing carbon emission data e.g., highways, property and social services
Support businesses and communities to adopt a green economy	<ul style="list-style-type: none"> • Number of of public resources shared • Increase take-up of the Coventry and Warwickshire Green Business programme from 56% to 65% by 2023 • £ from grants delivered for green economy initiatives (via community and business grants programmes) • Value of loans and grants funded by WCC
Target business support for low carbon development, as well as minority and socially responsible businesses	<ul style="list-style-type: none"> • % of support provided to target groups
Support economic growth of key sectors and help them transition to a low carbon economic model	<ul style="list-style-type: none"> • £ of funding secured to advance transition to low carbon economic models • % growth of key business sectors
Increase engagement (two-way) and partnership with community groups	<ul style="list-style-type: none"> • Number of of engagements increased • Number of of changes, decisions, ideas taken forward made through engagement • £ spent on supporting EcoSchools
Encourage increase in sustainable food production and access to local markets	<ul style="list-style-type: none"> • Number of of markets selling locally produced sustainable food • Number of of Council-owned farms producing sustainable food
Integrate healthy diets into The Healthy Lifestyles Programmes	<ul style="list-style-type: none"> • Number of of programmes delivered • Number of of people receiving programmes
Increase direct access to Council support	<ul style="list-style-type: none"> • Number of of people making contact with Council

Where are the gaps?

We have begun supporting a low carbon economy, but we recognise we need to do more. We will:

- Define a strategy and roadmap for adopting the sustainable communities and green economy principles aligning with the circular economy principles.
- Change the conditions by which we invest in, and support businesses, so that a green economy principles are prioritised, along with ensuring skills and training reflect the skills gap. We will engage with partners and educators to deliver specific skills and training opportunities to alleviate stress from technological unemployment.
- Convene stakeholders to scope transition pathways, and to generate shared commitment and effective partnerships. We need to engage more fully with community and interest groups.
- Leading by example by changing our procurement processes and priorities to support a green economy including low carbon, social equity, and increased biodiversity.
- Lead by example through ensuring our own companies take action to support green economy including the Warwickshire Property and Development Group, Educaterers and others.



Natural Capital and Biodiversity

Context

Global threats to biodiversity and the climate emergency are two of the largest threats to humanity that require both local and global action. Biodiversity should be protected and enhanced because it provides the foundations for life on earth, supporting the provision of ecosystem services and socio-ecological resilience for humans. This was evidenced by The Dasgupta review on the 'Economics of Biodiversity' (2021) which recognised that the solution to the biodiversity emergency starts with recognising that economies are embedded within the natural environment, rather than being external to it. The review calls for transformative change in the way we think, act and measure success.

More broadly, a natural capital approach is increasingly recognised as a way of viewing nature as an asset that should be protected given its critical importance to our own survival. The approach highlights the range of goods and services which make human life possible. Some of these are tangible – like water and food – while others are intangible, like clean air, a stable climate, and biodiversity. A natural capital approach focuses on these benefits and attempts to factor them into more balanced and sustainable decisions.

A natural capital approach underpins the UK Government's 25-Year Environment Plan and its underlying objectives. It also helps with monitoring the environment and ensuring the delivery of nature positive outcomes, including those required by environmental markets such as voluntary carbon markets. The UK Government has made continued efforts to promote the use of a natural capital approach by developing national accounts and disseminating evidence that can be used in decision-making.

Where we are now

We have undertaken a number of initiatives related to natural capital and biodiversity including:

- In 2008 we published our Biodiversity Strategy "Working for Warwickshire's Wildlife".
- Our 2013 Sub-regional Green Infrastructure (GI) Strategy set out evidence for the preparations of plans, policies and programmes to protect and enhance GI, while recognising the importance of GI in delivering multiple ecosystem services that contribute to our environmental, social and economic wellbeing.

- In 2014 we participated in Defra's Biodiversity Offsetting trial. Since then, we have set up the first Local Planning Authority-led mandatory Biodiversity Net Gain (BNG) market and rolled-out the Warwickshire BNG metric . This has generated over £5 million of funding for the protection and enhancement of our natural assets.
- In 2016, an Ecosystem Service Mapping project was undertaken for Warwickshire, Coventry and Solihull.
- We set up the initiative to plant a tree for every resident in Warwickshire alongside partners, amounting to around 566,000 trees by 2030.
- Published a Natural Environment Investment Readiness Fund (NEIRF) report which explores potential funding mechanisms to support our environmental ambitions.

What we have planned

A key focus of our Strategy is to develop our philosophy for using our Biodiversity Investment Fund and for furthering recommendations in the NEIRF. Two key components of this investment philosophy will be:

- New sites within Warwickshire should be chosen strategically to maximise habitat connectivity and benefit to wildlife, where long-term management can be secured.
- Using a small proportion of the fund to finance competitive prizes that incentivise emerging environmental pilots and markets that deliver multi-functional benefits.
- Our current biodiversity strategy (2008) should be updated to reflect new environmental legislation and enable us to remain agile in the face of future legislation.
- With clear timescales and targets for tree planting, we have committed to plant 566,000 trees by 2030. We are focused on delivering at scale by directly planting at least 20,000 trees by 2023, reaching a total of 352,000 by 2030, with the remainder planted in partnership with the District and Borough Councils and landowners. It should be noted that the target to deliver 566,000 trees may be increased due to incoming policy updates within the new Local Plan. We are also exploring the development of a Warwickshire-based carbon offset market, to support tree planting and alignment with the Woodland Carbon Code.

- The NEIRF strategy explored the potential for the development of further ecosystem services markets beyond biodiversity and carbon. It highlighted that an air quality market would be required, subject to significant research in appropriate mitigation measures and their estimated costs. The strategy also identified significant potential to develop a voluntary nutrient balancing market linked to agriculture. We are planning to explore the potential for mandatory or voluntary markets relating to these ecosystem services.
- We will continue to monitor and manage our GI assets and expect that the national BNG metric and market will supersede our current approach. Furthermore, we will be working with Natural England to develop a Local Nature Recovery Strategy.
- We are planning to establish a tree nursery, enabling and ensuring the supply of trees to meet Warwickshire's 2030 tree planting pledges and replacement stock. This will include the added benefit of the ability to grow specific varieties of flora that thrive in Warwickshire and are resistant to pests and disease, have a low carbon footprint from reduced transport and the potential for the development of arboriculturist apprentices.

Objectives

Objective	Potential Key Performance Indicator (KPI)
Support District and Borough Councils to become leading local planning authorities in embedding natural capital into decision making	<ul style="list-style-type: none"> • Number of of WCC landholdings with natural capital accounts • County wide metrics for key ecosystem services
Establish innovative environmental markets to achieve Environmental Net Gain and fund nature recovery and enhancements across the County by 2050	<ul style="list-style-type: none"> • Number of of pilot Payment for Ecosystem Services (PES) schemes undertaken by 2030 • £ secured for the provision and enhancement of ecosystem services • % increase in key ecosystem service provision by 2050
Further develop plans and strategies in response to the enhanced 'Biodiversity Duty' on public bodies. Support people to understand the value of the natural environment	<ul style="list-style-type: none"> • Plans are updated by 2024. • Number of of engagements increased - engaging with people to understand value of natural environment • Number of of changes, decisions, ideas taken forward made through engagement • Number of officers identified as formal biodiversity champions within each WCC department
Provide strategies and plans for key sectors across the County to deliver measurable enhancement, increases, and protection of target habitats and species, as well as their connectivity, abundance, quality, and diversity by 2050	<ul style="list-style-type: none"> • % increase in coverage and connectivity of habitats in Warwickshire • Area of additional land purchased for habitat connectivity
Manage, enhance and restore habitats across the County to increase land-based sequestration and contribute to net zero targets by 2030	<ul style="list-style-type: none"> • % increase in green space • Number of trees planted • Number of tonnes of CO₂e sequestered through habitats per year by 2030 • of carbon credits created through the Woodland Carbon Code per year until 2030

Where are the gaps?

It is recognised that we still have a long journey ahead. We aim to be an example to other local authorities by delivering BNG, net zero, and environmental net gain, via the following objectives:

- Develop a natural capital investment strategy, including a roadmap in terms of how we manage our natural assets. It will outline our approach to investing in nature and biodiversity.
- Work with the District and Borough Councils to encourage policies into Local Plans that embed the idea of environmental net gain through maintaining and enhancing the provision of ecosystem services.
- Explore further funding opportunities to support tree planting initiatives and the development of further County-wide Payment for Ecosystem Services markets.
- Scope and design a pilot scheme for the high priority potential environmental markets identified in the NEIRF report.
- Develop and regularly update a County wide baseline natural capital account to monitor and manage our natural assets.
- Develop a robust plan for use by local developers, consultants and planners to transition from our BNG metric to the national mandatory BNG metric.
- Develop an offsetting strategy for our tree planting targets to determine their spatial scope and ensure they contribute to our 2030 net zero targets.

You can help by taking an active role in the protection and enhancement of natural environments and habitats when visiting natural spaces.

Appendix A

Terminology

Absolute reduction	Generally, 90% reduction from the baseline across Scope 1, 2 and 3.
Biodiversity Net Gain	A concept for development and/or land management that aims to increase biodiversity, using quantitative and qualitative approaches.
Carbon Neutral	Balance between carbon emitted and carbon removed from the atmosphere through investment in carbon offsets.
Carbon Offset	A reduction in GHG emissions – or an increase in carbon storage (e.g., through land restoration or the planting of trees) – that is used to compensate for emissions that occur elsewhere.
Circular Economy	A model of production and consumption which minimises waste through sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products for as long as possible. This aims to reach maximum efficiency in the use of finite resources as part of creating a sustainable, productive economy.
Green Economy	Broader than a low carbon economy; it aligns to the wider context of the UN SDGs. An approach to sustainable economic growth with a central focus on reducing societal and environmental risks and ecological scarcities. It embeds climate adaptation into its construct. It transitions from the current ‘growth-based’ approach to investments, employment, and skills towards growth without degrading the environment, and the wellbeing and prosperity of citizens.
ISO14001 Environmental Management System	Sets out the criteria for an environmental management system that can be certified to. This helps us as an organisation to make sure we are setting up and following an effective system for managing environmental factors.
Natural Capital	Stocks of the elements of nature, such as forests, fisheries, rivers, biodiversity, land and minerals. Stocks of natural capital provide flows of ecosystem services over time which produce a wide range of benefits.
Natural Capital approach	Framing nature as an asset, or set of assets, that society benefits from and attempts to assess, in qualitative, quantitative and monetary terms, the ability of natural assets to provide ecosystem services, in order to make them more visible in decision making. It enables a much clearer picture of what we stand to gain or lose when we make decisions about how to manage or consume natural resources.
Net Zero	Balance of carbon emissions and removals, focusing on ‘absolute reductions’ in operational boundaries prior to investments in external carbon removals.
Sustainable	Meeting the needs of current generations without compromising the needs of future generations.
Prosperity	Growing wealth for wellbeing (not just financial wealth but the full range of human, social, physical and natural capitals).
Zero Carbon	No emissions are produced from a product or service.

Appendix B

Key Trends

We have assessed the key trends within sustainability and climate change (including changes in demographics, technology, behaviours, and factors such as the Covid-19 pandemic) across the short, medium and long term and how they may impact the Council and the wider County. The assessment has provided input into our themes and actions as impacts to the Council and County.



People Changes

Changes in Behaviour
During the pandemic there has been an increase in active travel and sense of 'local' work and shopping

Green Technology Jobs
Influence of climate change on the economy

Changing Population Demographics
Risks of technological unemployment, impact to food supply and others



Technology Changes

Changes in Energy
The Energy White Paper (December 2020) provides an indication about how the government will address energy related climate change challenges

Transport
Move towards electric vehicles

Automation
Risks of technological unemployment, impact to food supply and others

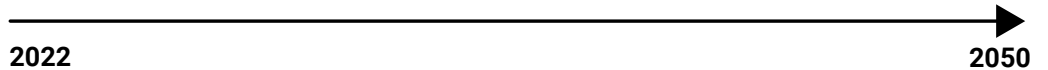


Policy Changes

Changes in Energy
New policy and strategic intents to influence response to medium-term challenges e.g. Climate Change Committee 6th Carbon Budget

Waste Management
Encourage residents and businesses to participate in a circular economy, minimise waste, and maximise recycling and reuse

Net Zero Carbon Target
Influence of climate change on the economy



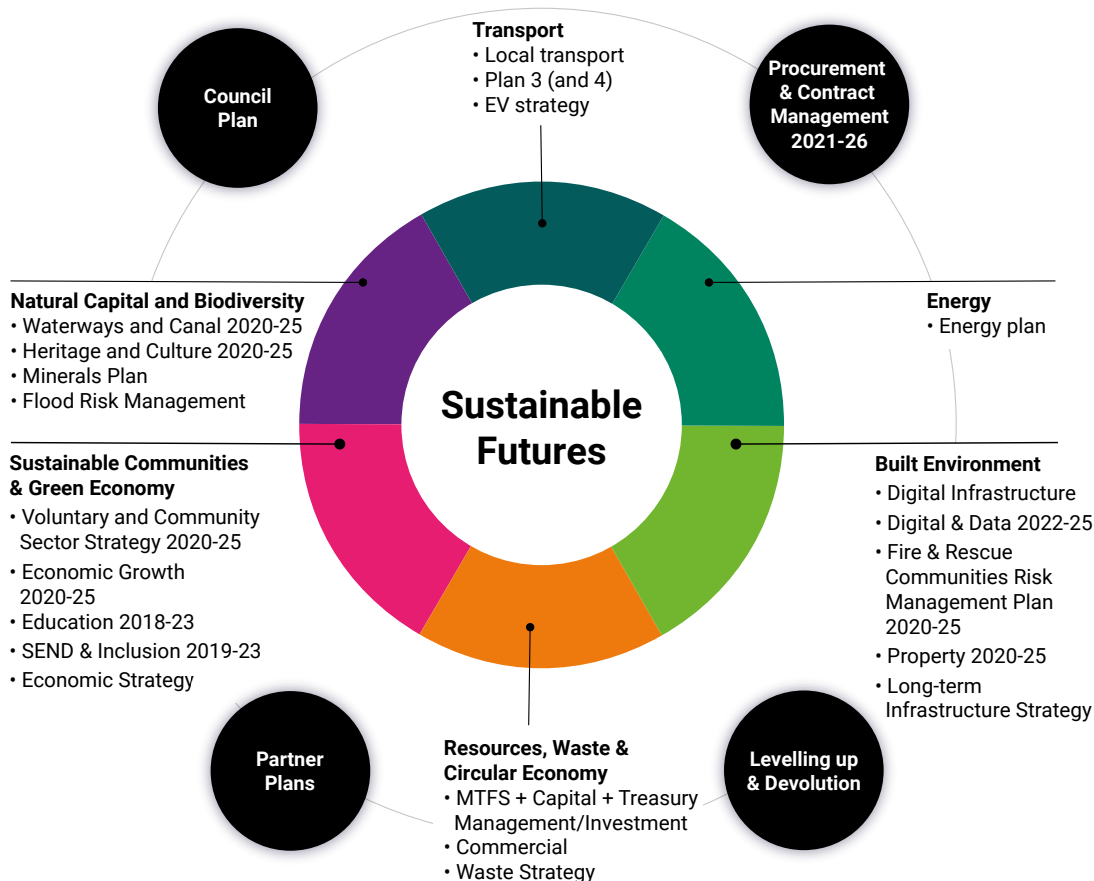
Appendix C

Strategy Alignment

Warwickshire County Council policies, plans and strategies

This strategy combines our ambitions related to climate change, biodiversity and creating a sustainable County while aligning with other key Council plans and strategies to support delivery.

There is clear alignment between our Sustainable Futures Strategy and the Council's overall strategic framework and our delivery approach. Sustainable Futures is a key priority in the Council Plan (2022-2027) and we are committed to make Warwickshire the best it can be, sustainable now and for future generations. Both set out the strategic aims and aspirations to achieving net zero and tackling the global biodiversity crisis. This strategy is relevant to every part of the Council, and we are clear that we need to integrate sustainable thinking in all that we do. There is a natural link to the UN Sustainable Development Goals, and we are committed to actions in support of these goals where they are relevant to our locality.



Alignment with UK Legislation

This Strategy is comprehensively aligned with UK policies and strategies.

Levelling up approach

In July 2022 WCC's Cabinet approved the Countywide approach to Levelling Up in Warwickshire. The intention of Levelling Up is to support communities and places, helping those that need it most to improve life outcomes across all aspects of life, including health, education and employment. The approach translates the national agenda for the County, creating a local definition that complements the 12 national missions set out in the Levelling Up White Paper. Sustainable Futures is one of the four core elements, defining what Levelling Up in Warwickshire means at County, place and community level.

This Sustainable Futures Strategy, and plans being developed by the District and Borough Councils, are critical to making this happen. We have built the Levelling Up approach into this Strategy by considering how we will work with communities and partners, in prioritising actions within the County and our access to funding.

Local Councils and Partners

Working with Warwickshire District, Borough and Town and Parish Councils and our health partners is essential to becoming a net zero county by 2050. This Strategy aims to align their objectives and strategies with our own, so we are all moving in the same direction within Warwickshire. This Strategy identifies the importance of directing sustainable actions where there is more appropriate control. Therefore, in some themes, actions are about supporting and partnering with other Councils and organisations to deliver their ambitions through effective collaboration and sharing best practice.

Wider regional alignment

Our County is well placed to work with wider regional partners including Coventry City Council and Solihull Metropolitan Borough Council, the West Midlands Combined Authority, local universities, the NHS and the Coventry and Warwickshire Integrated Care System, Warwickshire Police and others. To enable effective partnership working and use our collective powers, this Strategy reflects lessons learnt and opportunities from regional partners' strategies.