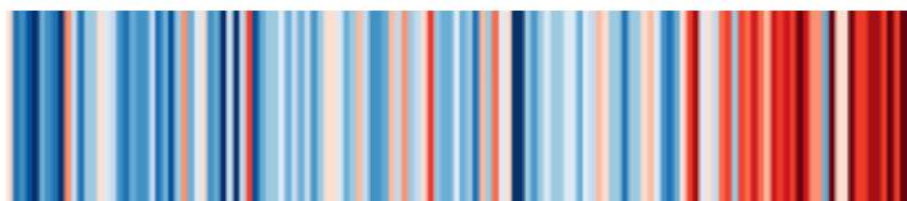


Walsall Net Zero 2041 Strategy

Our plan for the Green Industrial Revolution and a Just
Transition to a Net Zero Borough



Foreword

In 2019 our council declared a climate emergency, recognising the serious and accelerating environmental, social, and economic challenges we face due to consequences of climate change. In 2022 we followed this by adopting a target date for reaching Net Zero carbon emissions across our borough no later than 2041. This ambitious target is underpinned by science and aligns with that set by the West Midlands Combined Authority. To succeed we need to work together with our partners in Walsall and the wider region to develop and implement policies that reduce carbon emissions and enable a just transition to a cleaner greener future.

This strategy builds on the climate change pledges in our recently approved We Are Walsall 2040 Borough Plan, which commits the council to work in partnership with businesses, communities, and public bodies to deliver our climate change ambitions and ensure Walsall will be a clean and green borough fit for future generations.

Much has already been achieved, with our partners capitalising on opportunities for energy efficiency and investment in low carbon technologies. Walsall Council has an ongoing programme to reduce energy usage in buildings and infrastructure. This has included the installation of renewable energy and heat pumps in public buildings, an extensive programme to upgrade our borough's housing stock, and the conversion to streetlights to utilise LED lamps. However, there is much work still to do if we are to make significant reductions in emissions as we face the challenges of climate change. This Net Zero 2041 strategy sets out our priorities in a long-term pathway to a transition to a Net Zero future in Walsall. It builds on the considerable work achieved by our public, private and, community sector partners as we continue to shape our energy future by developing clean, low-cost solutions to reducing the borough's carbon footprint.

The transition to net zero economy will require unprecedented change in how we all do things. It is vital that we work hard to ensure this is a just transition, we must ensure greening the economy is undertaken in a way that is as fair and inclusive by creating decent opportunities for all our residents. This can only be achieved with everyone's input. We need government, businesses, public sector, community organisations, and residents to play their part. It is also essential that carbon management and energy efficiency become core values throughout the borough and that everyone takes responsibility for reducing greenhouse gas emissions.

By working together to ensure that this strategy is supported and implemented, we can make Walsall a leader in low carbon skills, innovation, and investment to strengthen our businesses and communities.

Councillor xxxxx

Walsall Council

Contents

| | | |
|---|---|----|
| 1 | Introduction | 1 |
| 2 | A local approach to a global issue | 3 |
| 3 | A Just Transition | 4 |
| 4 | A Green Industrial Revolution | 5 |
| 5 | Current regional greenhouse gas emissions | 6 |
| 6 | The partnership approach..... | 8 |
| 7 | Net Zero delivery themes..... | 10 |
| 8 | Delivering the Walsall Net Zero 2041 Strategy | 33 |
| 9 | Communications Strategy | 35 |

1 Introduction

Climate risk for Walsall

In the coming decade, Walsall will very likely encounter more extreme weather events as a result of climate change caused by the burning of fossil fuels. According to the UK Met Office, 2024 was the warmest year on record, with 2023 the second warmest year. Increased rainfall in winter, will make flooding will be more frequent, affecting homes, businesses and infrastructure. In summer a higher chance of extreme heat events will pose health risks, particularly to vulnerable populations.

Our Net Zero target

To limit the consequences of climate change Walsall Council has declared a climate emergency and set a target to become a Net Zero Borough by 2041. Achieving this target will be a huge challenge. However, the urgency of the situation means we need to use our best endeavours to achieve our goal. The 2041 target is a science-based target derived from the UK carbon budget (a legally binding requirement of the Climate Change Act 2008), and the nationally determined contributions resulting from the Paris Agreement.

Our vision

While climate change is a serious reality, Walsall Council believes transitioning to a Net Zero economy is a huge opportunity for our borough. Our vision is to become a healthier, clean & green, carbon neutral, climate resilient borough, with a thriving natural environment and a circular economy where:

- We will eliminate greenhouse gas emissions by leading the green industrial revolution to increase prosperity and ensure a just transition to a green economy.
- Our transport infrastructure will be smart and fit for the future, we will have an integrated clean and affordable public transport system, and our communities will have access to safe active travel networks.
- Our buildings will be carbon neutral in their operations, with new homes Net Zero ready, residents will be able to smoothly transition from fossil fuel consumption to low carbon heating.
- We are a clean and green borough where all our residents have access to clean air, green space, healthy and ecologically rich neighbourhoods.
- We have the necessary infrastructure to enable residents, business, and communities to adapt to climate change and be resilient to challenges such as extreme weather events.

Co - benefits

The actions we need to take to reduce greenhouse gas emissions will not only enable us to meet national and global emission reduction targets, but they are also an opportunity to create a prosperous, healthy borough for all, with potentially significant co-benefits. Some examples of which are:

- **Economic Growth:** Investments to insulate homes and swap gas boilers for low-carbon heating sources, such as heat pumps, will create economic growth and job opportunities through a green industrial revolution.
- **Health Benefits:** Climate change has a range of health impacts linked to extremes of weather, changes in infectious disease patterns, poor air quality, as well as those linked with the economic and international impact of climate change. Moving to net zero and mitigating the impact of climate change will have significant health benefits. For example, a reduction in air pollution resulting from eliminating the burning of fossil fuels will lead to fewer health issues like asthma and other respiratory diseases. Increased active travel and access to green spaces will promote physical and mental health and reduce NHS costs.

- **A Just Transition:** Targeting low-carbon investments in ways to reduce fuel poverty and provide job opportunities to disadvantaged communities will reduce poverty and inequality.
- **Ecological Emergency:** The actions to reduce carbon emissions will contribute to the preservation of natural habitats, biodiversity and the ecosystems on which we all depend.

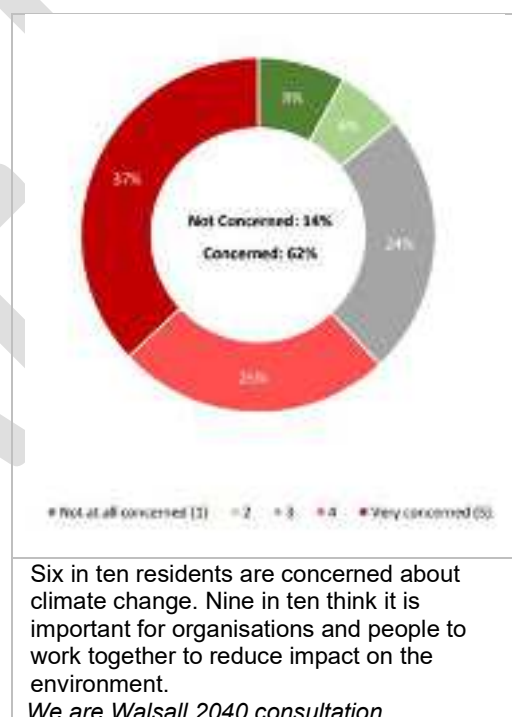
Why do we need a Net Zero strategy?

Following the declaration of a climate emergency in 2019, tackling the causes and consequences of climate change has become a key objective of Walsall Council. This Net Zero 2041 strategy establishes a framework for how Walsall Council will work as a local authority, and alongside its partners, to eliminate the burning of fossil fuels for energy, meet sustainability objectives, and adapt to the inevitable changes resulting from a warmer wetter climate in Walsall.

Climate change resulting from global greenhouse gas emissions will have a significant impact on the day to day lives of Walsall residents by 2041. Increased rainfall and extreme temperatures will become a lived reality. To prepare our borough, we must not only work to eliminate greenhouse gas emissions, but we must also work to ensure our communities are resilient and prepared for the consequences of climate change.

Why have we developed a Net Zero strategy?

Climate change is a concern for the majority of residents in Walsall, particularly younger people. In 2023 the council and partners collected the views of over 8300 residents and established that 6 in 10 were concerned about climate change, and 9 in 10 believed it was important for organisations and people to work together to reduce our impact on the environment. The impacts of climate change are wide-ranging, from extremes of heat and cold, droughts, wildfires, increased risk of flooding, poor air quality, changes in infectious diseases, food supply disruption, and international displacement of people.



We Are Walsall 2040 Borough Plan

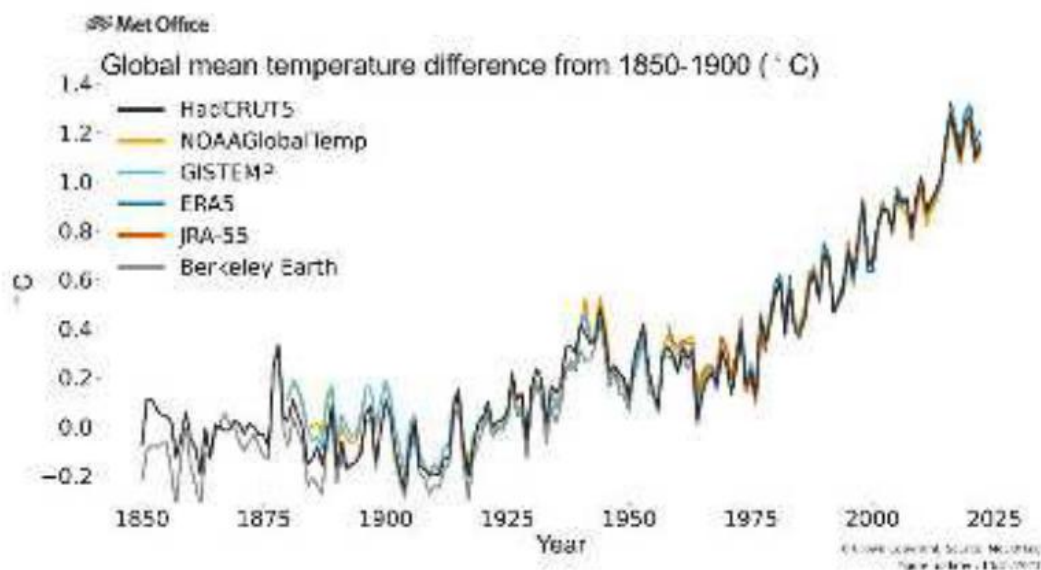
Following this consultation, the council and partners developed our We Are Walsall 2040 Borough Plan which sets a long-term vision for a thriving sustainable borough by 2040. The 2041 target for reaching net zero carbon emissions aligns closely with the timelines and objective set out in We Are Walsall 2040 Borough Plan. Our Net Zero 2041 strategy is integral to its vision for a thriving, cleaner greener Walsall.

Net Zero 2041 strategic themes

Our Net Zero 2041 strategy divides our priorities for tackling climate change into six strategic themes. Each theme reflects an aspect of our economy and lifestyles that contribute or where there is the need to mitigate or adapt to the consequences of climate change. Our six themes are:

- **Energy**
- **Circular and Green Economy**
- **Homes, Workplaces, and Public Buildings**
- **Transport and Travel**
- **Natural Capital and Land Use**
- **Resilience and Adaptation**

2 A local approach to a global issue



Global temperature change from 1850 to 2022, compared to an estimated 1850-1900 baseline average temperature. [Met Office](#)

The Paris agreement

To tackle climate change and its negative impacts, world leaders at the 2015 UN Climate Change Conference (COP21) in Paris reached the historic Paris Agreement. The Agreement is a legally binding international treaty and came into force on 4 November 2016. The UK is one of the 195 different countries and states that have joined the Paris Agreement. Its overarching goal is to limit the increase in the global average temperature to 1.5°C and ideally to keep it below 2°C to avoid the most catastrophic effects of climate change.

The [World Meteorological Organization](#) has confirmed that 2023 is the warmest year on record with annual average global temperature 1.45°C above pre-industrial levels.

The UK Climate Change Act

The Climate Change Act 2008 (2050 Target Amendment) Order 2019 introduced a long-term, economy-wide target for the United Kingdom to achieve Net Zero greenhouse gas emissions by 2050.

The [Climate Change Committee](#) monitors progress in the Climate Change Act on behalf of parliament. Its report in June 2023 identified a lack of urgency in implementing Net Zero Policies and emphasised the need to empower and inform households and communities to make low-carbon choices.

Walsall Council's climate emergency declaration

In 2019 Walsall Council declared a climate emergency, recognising the serious and accelerating environmental, social, and economic challenges we face due to consequences of climate change.

In 2022 we updated the scope and target date to achieve carbon neutrality. Walsall Council committed to work with all relevant partners and stakeholders to make the whole borough Net Zero by 2041. Our 2041 target is aligned with the ambitions of our partners in the West Midlands Combined Authority.

3 A Just Transition

The United Nations Sustainable Development Goals

In 2015, the United Nations 17 Sustainable Development Goals (SDGs) were adopted by all UN members, including the UK. The SDGs aim to mobilise efforts to end all forms of poverty, fight inequalities and tackle climate change, while ensuring that no one is left behind. They address a range of needs including education, health, social protection, and job opportunities, while tackling climate change and environmental protection.



What is a Just Transition?

The potential of Net Zero policies to exacerbate inequalities has long been recognised. Achieving a fair and equitable transition to a net zero future is described as a 'just transition'. This concept aligns with the UN Sustainable Development Goals particularly focusing on decent work for all (goal 8), clean energy for all (goal 7), climate protection (goal 13), and poverty eradication (goal 1).

To achieve a just transition we must ensure the costs and benefits of the energy transition are shared equitably, and that support is provided to those who are most affected by the changes to ensure no one is left behind. Climate change will affect all sections of society, however, both the consequences of climate change, and the measures required to achieve net zero will disproportionately affect those who are more socio-economically disadvantaged. For example:

Cost of Inaction: The potential economic, environmental, and health costs of not acting on climate change are substantial. [The London School of Economics](#) estimates under current policies, the total cost of climate change damages to the UK are projected to increase from 1.1% of GDP at present to 3.3% by 2050 and 7.4% by 2100.

Energy Costs: Net zero policies often involve a shift to renewable energy sources, which can initially be more expensive due to high upfront costs. This could lead to increased energy costs and increase rates of fuel poverty.

Health Benefits: Achieving Net Zero emissions can result in significant benefits to human health linked to the range of health impacts that climate change has. These benefits can be particularly significant for more disadvantaged communities as they will be disproportionately affected by climate change.

Job Opportunities: The greening of the economy can result in the loss of well-paid jobs in traditional high carbon industries. However, the transition to a net zero economy can create new job opportunities in green industries. These new jobs can benefit our less affluent communities, if they are able to access these opportunities. Developing 'green skills' and reskilling those workers leaving legacy high carbon industries is a key priority of our Net Zero 2041 strategy.

Whilst there are challenges associated with the transition to a net zero future, there are also significant opportunities. Our Net Zero 2041 strategy seeks to embrace the opportunities of a green economy to bring about a just transition for all.

4 A Green Industrial Revolution

Walsall is proud of its industrial heritage. Its buildings and other landmarks are testament to those who worked the leather and manufactured, chains and buckles. Our canal network was built to transport the coal that powered the industrial revolution. It was the abundance of coal and other resources such as limestone and iron that enabled Walsall's growth.

The age of coal, oil and gas is now coming to an end and once again we find ourselves at an economic turning point. The transition to a net zero economy is a huge opportunity for Walsall to lead the green industrial revolution. It is a once in a generation opportunity to improve the lives of the people of Walsall. Our challenge is to decouple economic growth from carbon emissions and seize this opportunity to create a future that is healthier, more prosperous and sustainable.

The Walsall Council Economic Strategy and Action Plan identifies net zero as a priority action needed to create the jobs and prosperity that will provide growth opportunities in multiple sectors:

Housing

Housing stock will need to be designed or retrofitted to emit less carbon, providing opportunities in offsite construction and housing retrofit. With 80% of the buildings that will be occupied in 2050 already existing, there will be a significant long-term requirement for insulation installers, heat pump engineers and other retrofit professionals.

Transport

The future of both public and private transport in the borough will be increasingly electric. There will be new opportunities for companies providing vehicle charging infrastructure. The transition to electric vehicles will however mean significant changes for companies in the automotive supply chain and require retraining for those servicing vehicles.

It is also likely that private car ownership will decline, creating opportunities for those offering transport as a service (e.g. taxi and private hire operators).

Manufacturing:

Walsall is a key manufacturing hub. The decarbonisation of the economy will present many new opportunities for our manufacturers. There will be long term requirements for low carbon heating solutions, renewable energy generation, insulation materials and the technologies needed for low carbon transportation. However, the transition also poses a threat to those companies manufacturing products for the carbon economy (e.g. internal combustion engines, mechanical drive trains and fossil fuelled boilers).

Circular Economy

The circular economy will encourage the development of new business models focused on reuse, repair, remanufacturing. Transitioning to a circular economy will create numerous opportunities in areas such as recycling and innovation-driven sectors.

Green Jobs and Skills

The Council Economic Strategy and Action Plan recognises that we face a massive shortfall in the skills required to deliver the transition to a net zero economy. Including shortages of housing insulation and retrofit specialists, ground and air source heat engineers, EV charging installers, commercial building energy efficiency specialists.

To unlock the opportunities provided by the green industrial revolution it will be necessary for the council and businesses to work closely with skills providers. It will be important to reskill those working in legacy, high carbon industries, to create high quality jobs and ensure a just transition.

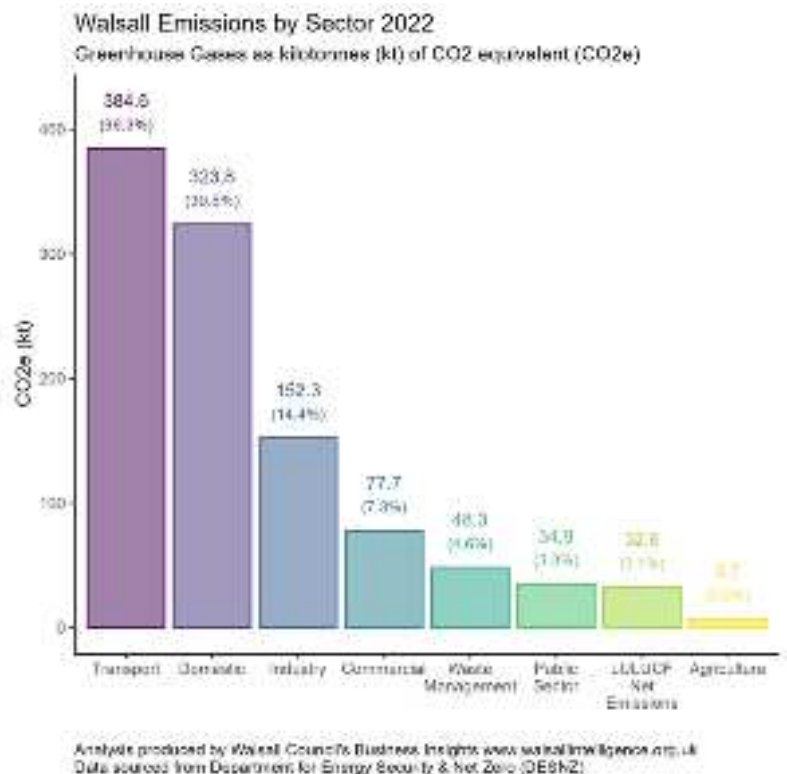
5 Current regional greenhouse gas emissions

Greenhouse gas emissions from Walsall

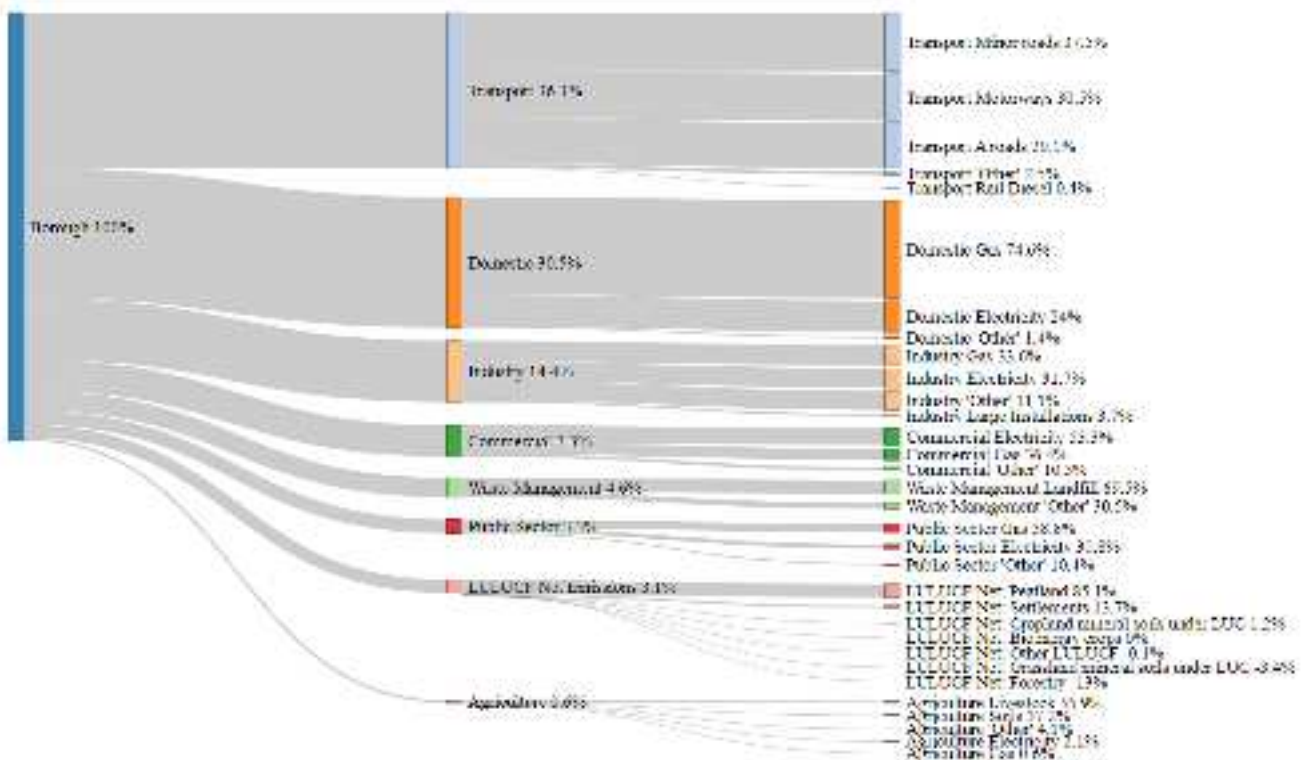
The Department for Energy Security and Net Zero (DESNZ) produces annual estimates for greenhouse gas (GHG) emissions by local authority and sector.

The latest data (2022) shows the sectors in Walsall with the highest emissions are Transport 36.3%, Domestic Sources 30.5% and with Industry contributing 14.4%. Waste Management 4.6%, Public Sector and Commercial operations contribute approximately 3% each. As Walsall is a predominantly urban borough, Agriculture and LULUCF (Land Use, Land Use Changes and Forestry) contribute the least, approximately 4% combined.

The chart below shows that three quarters of domestic emissions come from the burning of gas to provide heat and hot water for our homes. Industrial gas usage accounts for a third of the industry sector total and two thirds of the public sector emissions come from gas used to provide heat.



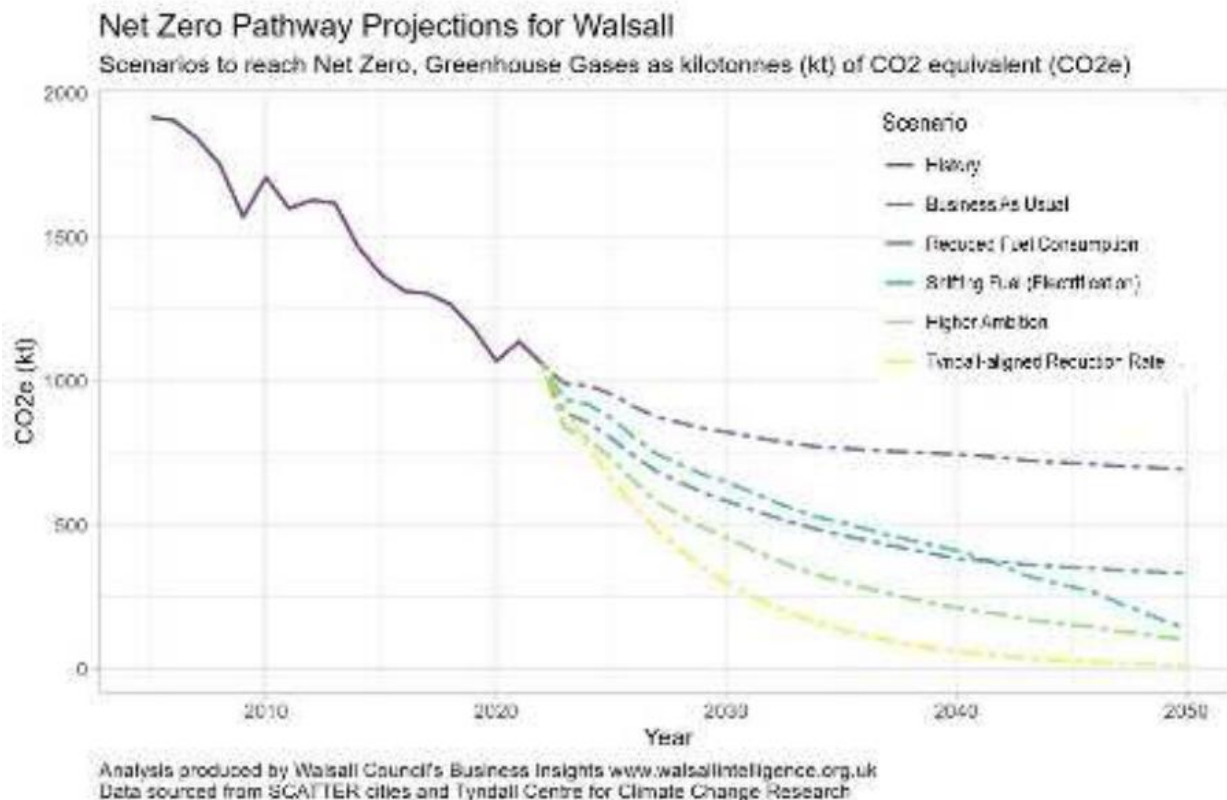
Walsall Greenhouse Gas Emissions by Sector 2022
Proportion of estimated emissions by Sector and Sub-Sector



Net Zero pathway projections for Walsall

The chart below illustrates potential future greenhouse gas emissions projections, based upon a series of scenarios. The scenarios cover a range of measures: from Business as Usual (if there was no substantial change), through to a steady reduction in fuel consumption, or shifting fuel consumption (i.e. the electrification of heat and transport).

The [Tyndall Centre for Climate Change](#) assesses the maximum cumulative greenhouse gas emissions allowable in Walsall if we are to make a fair contribution to the global and national decarbonisation effort. This 'carbon budget (2020 to 2100) was deemed to be 6900kt(CO₂e)) for Walsall and forms the basis of our Net Zero 2041 target. At current rates of emissions our carbon budget will be spent in less than seven years.



The historic data illustrates the link between greenhouse gas emissions and economic activity. The financial crash of 2008-2009 and the Covid-19 pandemic (2020 – 2022) both had significant impacts on carbon emissions due to the decline in economic activity. The hike in gas prices following the Russian invasion of Ukraine also depressed demand and carbon emissions. However, these effects were not lasting, and emissions rebounded quickly after the initial shocks.

Long-term emissions decreased by over 40.0% from 2005 to 2022. This was mainly due to the decarbonisation of the electricity grid, with improvement in household energy efficiency and improvement in vehicle fuel efficiency also contributing. Structural changes in the UK economy (e.g., the decline in heavy industry) have also reduced emissions.

Pathways to net zero 2041 will be extremely challenging. We will need to pursue all the interventions in the 'higher ambition' scenario whilst accepting that innovation will also be required to accelerate future emissions reductions if we are to realise our vision for a thriving, clean and green Walsall.

6 The partnership approach

Achieving our Net Zero 2041 vision is a challenging and complex undertaking that will require the collective effort of everyone. We all contribute to greenhouse gas (GHG) emissions, either directly or indirectly in our daily lives, work, or business activities. We therefore all have a role to play in reducing GHG emissions.

The role of Walsall Council

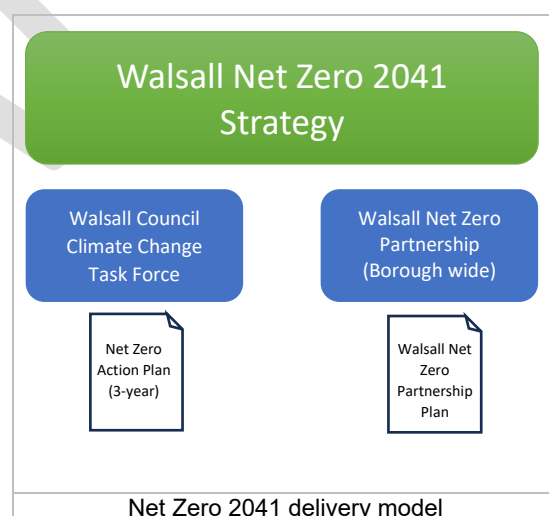
Whilst Walsall Council has a critical leadership role to play, achieving our borough's Net Zero 2041 ambitions will require all of us: the council, public agencies, private sector organisations, voluntary and community groups, as well as residents to do our part. Success depends on using our combined skills, assets, knowledge, powers, and effort to effect change. We must be honest about what is achievable, be inclusive in our plans and think sustainability and regeneratively in all that we do. We must be local, and resident focussed, so the delivery is meaningful for people in Walsall and becomes an integral part of their everyday lives. It is for this reason that our Net Zero 2041 strategy focuses, not only on direct emissions of the council (e.g., heating our buildings and operating our fleet of vehicles), but emissions from the borough as a whole.

The council can use its policies to shape future development. It can make use of regulatory and enforcement powers to promote energy efficiency. It can incentivise and steer sustainable behaviour change amongst residents. As a service provider, it can use its purchasing power to decarbonise the supply chain and encourage green growth. As an enabler and an influencer, it can lobby for national change and by working in partnership with others, it can show the vital local leadership required to build a green economy in Walsall.

Our climate change action plan

This strategy divides the actions we need to take to achieve our net zero ambitions into those the council can take a lead in implementing 'our priorities' and those where our partners across the borough will need to take a lead 'borough wide priorities'.

The elements of this strategy where the council will lead delivery, have been incorporated into an accompanying three-year net zero action plan. These actions include enabling actions (e.g. embedding climate change considerations in all council decision-making) and direct actions which will be implemented by the relevant council service (e.g. decarbonising the council fleet).



The Walsall Net Zero Partnership

To deliver the elements of this strategy identified as 'borough wide priorities', a Walsall Net Zero Partnership will be established. The partnership will include key stakeholders ranging from the NHS, Environment Agency, UK Health Security Agency, local business, utility companies, education providers, social housing providers, and the voluntary and community sector, as well as our local communities. It will have a remit to:

- Enable collaborative working and engagement with government, utilities, businesses, community groups and other partners in Walsall.
- Investigate steps that may be taken by the partnership to achieve net zero and the adaption measures required to provide climate change resilience.
- Produce a Walsall Net Zero Partnership Plan that is realistic, measurable, and deliverable and progress with delivery of targets within the plan.

Our Partners

The council will have a vital leadership role in achieving our vision of a clean and green Walsall. However, businesses, residents, voluntary and community organisations, health trusts, colleges, universities, social housing providers, each bring with them unique local knowledge, expertise, and resources. To deliver our Net Zero 2041 strategy we will work closely with all stakeholders to ensure policies are aligned and mobilise the resources required to transition to a green economy. Key partners include, but are not limited to:

- **National Government:** National government leadership is crucial to the delivery of our Net Zero 2041 strategy. It is responsible for making key regulatory decisions (e.g., the phasing out of gas boilers). Regulatory certainty, with clear long-term strategic priorities will be required to attract private sector investment needed for the transition to a green economy. Government funding is also essential if we are to deliver decarbonisation projects at the scale required, to achieve not only our 2041 target, but also the legally binding target of a net zero UK by 2050 set out in the Climate Change Act 2008 (2050 Target Amendment) Order 2019.
- **West Midlands Combined Authority (WMCA):** The regional WM2041 net zero target is aligned with the Walsall target and will be an important partner in delivering our vision. The trailblazer devolution deal will have a significant impact on the delivery of net zero projects in the Walsall. For example, it aims to give more local control over funding and increased local control of housing and public building retrofit initiatives.
- **Transport for West Midlands (TfWM):** As the regional transport authority for the West Midlands TfWM is responsible for coordinating transport services. With a budget of £363 million, TfWM is a significant funder of transport projects in Walsall. It has committed to use this budget to deliver schemes that improve connectivity, drive economic growth, and help cut carbon emissions by making it easier and more attractive for people to switch to public transport, and encourage more cycling and walking.
- **Businesses:** The business community will be a key partner in the energy transition. They have a vital role to play both in reducing their own emissions and seizing the opportunities resulting from the transition to a green economy.
- **Schools, colleges, and universities:** The opportunities arising from the transition to net zero economy are substantial. To unlock these however we will need to work closely with providers to develop green skills in key areas such as construction, housing and transport.
- **Social housing providers:** With control over 20,000 homes in Walsall, our social housing providers are key partners in decarbonisation. Their experience in energy efficiency, access to funding for retrofitting homes for improved energy efficiency is an opportunity to develop local green skills and supply chains.
- **Other Public Sector Organisations:** Public sector organisations need to provide leadership by developing their own robust decarbonisation plans and promoting behaviour change amongst their employees and service users.
- **Voluntary and Community Organisations:** Resident-led organisations are uniquely placed to educate, inform, and promote individual behaviour change in our communities required for green healthy lifestyles.

7 Net Zero delivery themes

Our Net Zero 2041 strategy focuses on six themes to address the different aspects of our economy and lifestyles that contribute to climate change. Each theme represents a sector where significant greenhouse gas emissions occur or where there are opportunities for reducing emissions (mitigating) or improving resilience (adapting) to climate change. We will need to address all six themes simultaneously if we are to make significant progress towards carbon emissions and limiting the consequences of climate change.

Our six themes are:

- **Energy:** Energy production and use, particularly from fossil fuels, is our largest sources of carbon emissions. Improving energy efficiency and increasing the use of renewable energy sources are key achieving our Net Zero 2041 target.
- **Circular and Green Economy:** A circular economy aims to reduce waste and make the most efficient use of resources. This includes actions such as recycling, reusing materials, reducing food waste, and designing products to be more durable and recyclable. The green economy refers to a transformative shift that aims to reconcile economic growth with environmental sustainability.
- **Homes, workplaces, and public buildings:** Buildings are responsible for the majority of carbon emissions from Walsall. These emissions are primarily from the fossil fuels we use for heating but also come from the energy we use for cooling and operating appliances. Improving the energy efficiency of our buildings and using cleaner sources of energy will significantly reduce carbon emissions.
- **Transport and Travel:** Transport and travel is currently the largest single source carbon emissions in Walsall. Actions to reduce carbon emissions in this sector include improving fuel efficiency, promoting the use of public transport, cycling, walking, and transitioning to electric vehicles.
- **Natural Capital and Land Use:** How we manage our natural capital (e.g., forests, heathlands, and wetlands) and use our land, can have a significant impact on climate change. Walsall does not have enough available land to offset our emissions by carbon sequestration but how we use our land is important to maintain the carbon reserves we have in this natural capital, restore biodiversity, create healthy green spaces, and avoid flooding.
- **Resilience and Adaptation:** Even with mitigation efforts, the consequences of climate change in Walsall are unavoidable. This theme focuses on actions required to adapt to climate change and build resilient infrastructure and communities. Actions include things such as considering adaptation of our housing/building, flood protection measures, and behaviour change.

Energy

Background

The UK government has committed to decarbonising our electricity grid by 2030. The decarbonisation of heat and transport will be achieved primarily by replacing fossil fuels with electricity.

The majority of greenhouse gas emissions come from energy use, specifically the release of carbon dioxide from burning of fossil fuels in boilers and internal combustion engines. carbon dioxide

The energy used, and the related emissions in our borough, depend on a wide variety of factors, from economic activity, building quality, industry practices, available transport options and residents' individual behaviour and their attitude toward climate change.

The timescales needed to reduce consumption across all these sectors will vary. In the short-term, behavioural change can decrease consumption by encouraging more energy efficient practices. Improving the energy performance of buildings, decarbonising industrial process, and decarbonising transport will take longer.

Power Down to Power Up - The Energy Hierarchy

The Energy Hierarchy is a prioritised classification of energy options designed to promote a more sustainable energy system.

The first step is to minimise energy use. This not only reduces carbon emissions but also reduces energy bills.

The second step is to ensure energy is produced and consumed efficiently by using more efficient technologies (e.g. insulation, LEDs, low carbon heating systems, energy management systems).

The third step is to adopt renewable, low carbon energy sources.

Whole life costing

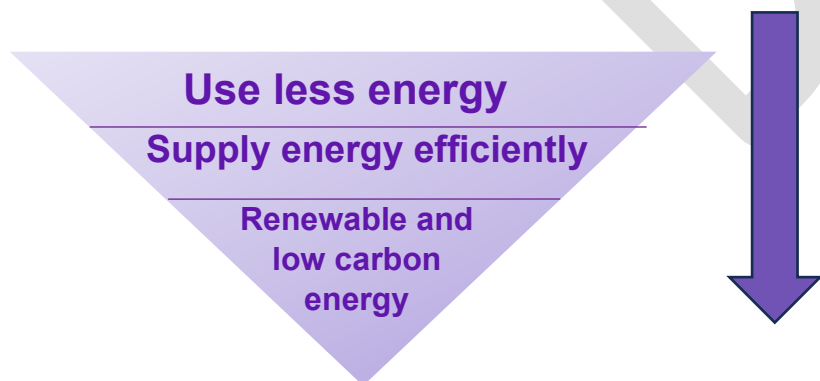
The shift towards low-carbon technologies sources comes with a risk of price rises due to the cost of deploying the infrastructure. It is important to consider whole-life costs when retrofitting or investing in new buildings and transport technologies.

Whole-life costing refers to the total costs and benefits of ownership of an asset building, or electric vehicle, and allows resource efficiency to be appropriately considered during the assessment of the actual cost of design, construction, and operation. This approach promotes the adoption of solutions such as solar panels in new housing developments, and the deployment electric fleets.

Solar

Over the last decade, solar photovoltaics have improved in efficiency and due to economies of scale have made generating renewable electricity more affordable.

In recent years the council has installed solar photovoltaics on a number of its properties, such as the Civic Centre and Darlaston Leisure Centre. We



will continue to invest and establish business cases for the installation of more solar across our estate. We will encourage and support the adoption of solar energy across the borough.

Heat Pumps

The energy used to heat our homes, business and public buildings is responsible for around one third of UK of GHG emissions. Changing how we heat our buildings is essential to achieve net zero.

Heat pumps are a key technology for decarbonising heat. The Climate Change Committee projects that, to reach net zero, domestic heat pumps will be needed in at least half, and more likely up to 80%, of homes by 2050. Heat pumps are widely used in countries, such as Norway (60%) and Sweden (43%) but are in only installed 1% of UK homes. The UK Government has a target of 600,000 installations per year by 2028.

Heat Networks

Heat networks (also known as district heating schemes) supply heat from a central source to consumers, via a network of underground pipes carrying hot water. They can cover a large area or even an entire city or be local supplying a small cluster of buildings. This avoids the need for individual boilers or electric heaters in every building. Heat networks are sometimes described as “central heating for cities”.

The Energy Act 2023 provides the powers for government to implement Heat Network Zoning in England through regulations. These new regulations have the potential to transform the economic case for the development of heat networks in towns and cities in England.

Case Study: Walsall Energy Action Project

Funded by The National Lottery Community Fund's Climate Action Fund the Walsall Energy Action Partnership (WEAP) is a community partnership.

The aim of the WEAP project is to build a sustainable, climate-resilient and Net Zero Walsall together, in a fair and inclusive way. The project will drive community led action to reduce carbon emissions and climate inequalities among some of the most vulnerable in the community.



Behaviour Change

While national action is the most significant factor determining how fast we decarbonise our economy, individuals can also play a part in reducing carbon emissions.

This can be achieved by simple measures such as turning down thermostats, washing clothes at lower temperatures, insulating lofts, choosing energy efficient appliances, switching off appliances when not in use, changing to LED bulbs. Despite their cost-saving benefits, these simple actions are often not carried out.

We will encourage and enable energy saving behaviour, deliver a borough-wide awareness campaign, and support community outreach projects.

Case Study: LED street light improvements

Walsall Council's plan to convert 23,000 streetlights to low energy LED lighting is due to reach completion this April. The initiative began in April 2022 and is projected to deliver significant reductions in energy consumption and carbon emissions by around 70%.

Alongside the lantern conversion, the council have installed remote monitoring which can identify issues and control lighting levels.

With the ongoing upgrade scheduled for completion by April 2024, further savings are anticipated through dimming trials approved by the council in February 2024.



Energy – Our priorities:

| Challenges and opportunities | Priorities | We will: |
|--|--|---|
| <p>Most greenhouse gas emissions are directly related to energy use, specifically the burning of fossil fuels in boilers and internal combustion engines (ICE).</p> <p>To achieve our Net Zero 2041 target, we need to reduce the CO₂ emissions that are released by the energy we use for transport and powering our factories and buildings.</p> | <p>Priority 1: Decarbonising our power supply.</p> | <ul style="list-style-type: none"> • We will work with utility companies, regional and national government to ensure electricity grid reinforcement is undertaken to provide sufficient grid capacity to enable the electrification of heat and transport and deploy renewable electricity generation |
| <p>The UK government has committed to decarbonising our electricity grid by 2030. The decarbonisation of heat and transport will be achieved primarily by replacing fossil fuels with electricity.</p> <p>To lessen the demand on the electricity grid it will be necessary for residents and businesses to install solar photovoltaic (PV) panels to generate power locally wherever practicable.</p> <p>Other low carbon energy sources of energy such as, biofuels, solar thermal and the use of waste heat via heat networks will also need to be considered.</p> <p>Hydrogen produced from low carbon sources may also be needed for industrial processes where high temperatures are required.</p> <p>The first step to reducing GHG emissions from energy is to reduce demand. This will be achieved by using more efficient vehicles, industrial processes, and buildings.</p> | <p>Priority 2: Promote adoption of clean energy alternatives to fossil fuels.</p> | <ul style="list-style-type: none"> • We will phase out gas boilers in all our buildings and replace these with heat pumps, connect to heat networks or use other low carbon sources of heat. • We will install solar arrays on our buildings wherever practicable (i.e., those buildings with suitable roofs). • We will encourage the deployment of solar PV on commercial buildings and homes. |

Energy – Borough wide priorities

Businesses and other organisations:

- Undertake comprehensive energy audits to identify where energy is being consumed in the businesses and where efficiency measures can be applied.
- Optimise industrial process to reduce energy consumption and explore alternatives to fossil fuels.
- Install up to date building management systems (BMS) to actively manage heating and cooling in their buildings.
- Install renewable energy generation at their premises wherever possible.
- Large energy consumers should investigate technologies such as carbon capture utilisation and storage (CCUS) to capture carbon emissions from the energy they use.

Walsall Council:

- Show leadership by retrofitting and decarbonising our estate.
- Show leadership by converting our fleet to ultra-low emissions vehicles.
- Provide local energy advice to support residents.
- Rigorously enforce Minimum Energy Efficiency Standards (MEES) for domestic private rented properties.
- Implement a business support programme to support energy efficiency.

Residents:

- Install renewable energy such as solar panels or solar thermal in their homes.
- Switch to a renewable energy supplier.
- Plan to install a low carbon heating system for when they next need to replace their current heating system.

Government, regulators (Ofgem) and utilities:

- Ensure new renewable generation such as solar photovoltaic and new demand from electric vehicles and heat pumps receive timely and affordable connections to the network.
- Develop a resilient and smart electricity network to minimise the cost and delays caused by grid reinforcement.
- Use regulation to make sure networks are cost effective, competitive, and smart.
- Provide funding and regulatory certainty to encourage investment in alternative low carbon energy solutions (e.g., heat networks)

Regional Partners and Policy:

- Energy Act 2023
- WMCA: West Midlands Combined Authority Trailblazer deeper devolution deal.
- WMCA: WM 2041 Five Year Plan 2021 – 26.
- Department for Energy Security and Net Zero: Energy Act 2023; Industrial Decarbonisation Strategy 2021.

Circular and Green Economy

Background

UK Government and private sector funding is increasingly focused on net zero and sustainability. Whilst Walsall has some key business and assets relevant to the transition to a low carbon economy, there is a pressing need for a step change in investment and support in the borough's business and skills base if Walsall is to be a leader in the green industrial revolution.

Walsall has the opportunity to capitalise on the growth of the low carbon construction, retrofit and transport sectors. There are national shortages of housing retrofit specialists, heat pump engineers, electric vehicle technicians, commercial building energy efficiency specialists and manufacturing capacity for low carbon technologies. Our industrial and engineering heritage make Walsall uniquely placed to become a leader regionally and nationally to deliver these services.

The Walsall Economic Strategy and Action Plan (2022) will support the growth of low carbon exemplar innovation and skills hubs. The council will provide these hubs with pilot test sites to enable practical demonstrators that can be used to attract new investment and to establish Walsall as an emerging low carbon exemplar that is serious about leading the green industrial revolution.

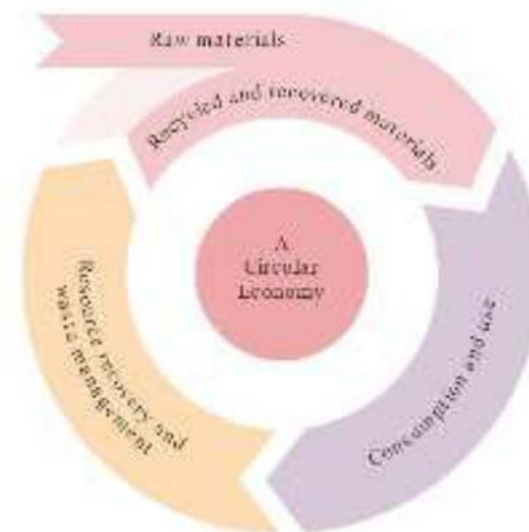
Circular Economy

The circular economy is a model of resource production and consumption that emphasises sustainability and waste reduction.

In this system, existing materials and products are shared, leased, reused, repaired, refurbished, and recycled for as long as possible.

It is about keeping materials in circulation through practices like maintenance, remanufacturing, and composting, rather than allowing these resources to become waste.

By adopting circular economy principles, Walsall can minimise resource use and create a more sustainable future. Developing recycling technologies is a green growth opportunity for the borough.



[Resources and waste strategy. Policy paper UK GOV. 2018](#)

Green Economy

We will continue to forge partnerships and collaborate with local educational providers to give the residents of Walsall the best available opportunities to gain experience, gain green skills and qualifications for the developing green economy.

We will continue to support local businesses to become more efficient and invest in low carbon and renewable technologies to enable Walsall to be leader in green technologies, innovation, and services.

Recycle and Reuse

In line with the wider circular economy approach, we will improve reuse and recycling rates.

Household recycling rates in Walsall are approximately 40%. The Government has set a target to recycle 65% of household waste by 2035, with no more than 10% going to landfill.

Environment Act 2021 stipulates that recyclable household waste, including food waste, must be collected separately from other household waste for recycling or composting (target date of March 2026).

The council will modernise, enhance and future-proof Household Waste Recycling Centres (HWRCs) and waste disposal facilities across the borough to enable residents to effectively reuse and recycle.

Composting and anaerobic digestion.

Composting is a cheap, natural process that transforms food and garden waste into a valuable and nutrient rich food for gardens and green spaces. We will investigate the potential for increase composting of suitable waste from council buildings and local schools. Anaerobic digestion is the preferred technology for processing food waste.

Behavioural Change

Residents will be equipped to make better decisions if they are provided with the relevant information. The council will support and promote community initiatives to reduce waste and fly-tipping across the borough.

Plastic Waste

Plastic pollution is a huge global environmental challenge. It is predicted that unless action is taken there will be a threefold increase in the amount of plastic flowing into our oceans by 2040.

The council will work to phase out the use of single use plastics within council offices and buildings.

Case Study: Middlemore Lane facility

The redevelopment of the Middlemore Lane HWRC will provide capacity to deal with our waste as our population grows. It will increase the range of items that can be recycled and reused. We will partner with charitable partners in re-use schemes with the addition of a reuse facility on site. The facility will have solar panels to generate renewable energy, and the proposed plan will include green landscaping and green roofs where practicable.



Circular and Green Economy – Our priorities:

| Challenges and opportunities | Priorities | We will: |
|---|---|--|
| <p>As part of building a thriving, clean and green Walsall, we need to promote economic and resource productivity, eliminate waste, and increase business opportunities by leading the green industrial revolution. We need to ensure the transition to a green economy is a 'just transition' that will stimulate skills development and jobs for all.</p> <p>The damage done to our environment by waste products can be avoided if more sustainable decisions are made at the production stage. The UK Government's waste management hierarchy places emphasis on preventing waste and re-use wherever possible.</p> <p>To eliminate the environmental impact of the products we buy, we need to change the way that we behave as consumers. We also need to change the way we treat end-of-life products. We will achieve this by adopting the principles of the circular economy (i.e., maintain-reuse-recycle-refurbish-remanufacture-recycle-compost).</p> <p>We also need to work to identify green business opportunities to encourage more circular, sustainable and resource-efficient business models. This will be achieved by using more sustainable materials to ensure manufacturing processes maximise resource and energy efficiency.</p> | <p>Priority 1: Produce goods and services more sustainably and transition to a circular economy.</p> | <ul style="list-style-type: none"> • We will embed net zero commitments across all our council strategies and policies, ensuring that we use our powers and influence to stimulate the demand for low carbon products and services. |
| | <p>Priority 2: Support local businesses to seize green growth opportunities and establish net zero supply chains to make Walsall an international centre of excellence for advanced manufacturing, modern construction methods, logistics and low carbon innovation.</p> | <ul style="list-style-type: none"> • We will align our economic development plan to recognising the potential of green growth to boost our local economy and competitiveness. • We will use our purchasing power to support localism, social value and the decarbonisation of the supply chain. • We will ensure that any national or regional funding initiatives that are managed by the council (e.g. Levelling Up funding) align with our Net Zero 2041 objectives. |
| | <p>Priority 3: Support green skills</p> | <ul style="list-style-type: none"> • We will work with local colleges and schools to provide good quality training and make Walsall a leading centre for green and sustainable technologies, products, and services. |
| | <p>Priority 4: To make Walsall a leader in waste technology, close the gap in our recycling rate, and be known as a high performer regionally.</p> | <ul style="list-style-type: none"> • We will develop a circular waste management system, where we reduce the amount of waste generated, increase the separation and collection of recyclable materials, and promote the recovery of energy and nutrients from organic waste. |
| | <p>Priority 5 Reducing unnecessary food waste.</p> | <ul style="list-style-type: none"> • We will develop a food waste action plan, which will set out our vision, objectives, and actions to tackle food waste in our area. • We will monitor and report on our progress and impact, using the Food Waste Reduction Roadmap as a framework. |

Circular and green economy - Borough wide priorities.

Businesses and other organisations:

- Explore green business opportunities in the retrofit, automotive and sustainable transport sectors.
- Review processes to look where efficiencies in design and production can be achieved.
- Conduct carbon audits to monitor the carbon content on the goods and services they deliver.
- Decarbonise their supply chains by making sustainability part of their procurement policy.
- Support the green skills and the reskilling of the region's workforce.
- Work with the Walsall Economic Forum, Walsall Net Zero Partnership, Midlands Engine, WMCA and other bodies to make the region a leader in the green industrial revolution.

Walsall Council:

- Make sustainability central to procurement policy to ensure the goods and services we buy on behalf of our residents have the lowest possible carbon content and encourage the supply chain to decarbonise.
- Support low carbon supply chains to foster innovation and skills development in key sectors such as energy, transport, and waste.
- Support local business to access finance to transition to sustainable business practices and the production of sustainable goods and services.
- Ensure that Walsall has the right infrastructure and technology to process waste and recycling.
- Support residents to reduce waste, reuse and recycle.

Residents:

- Reduce the amount of waste by using reusable products.
- Repair rather than replace to extend the life of the things they own.
- Recycle as much as possible and segregate waste for collection.
- Minimise food waste and where not possible compost or segregate for collection.
- Buy products and services from local business whenever possible.
- Cut down the number of plastics they use and buy sustainable products.

Schools, Colleges, Universities, and training organisations:

- Provide courses and apprenticeships for young people to enable them to thrive in the green economy.
- Provide training to reskill those working in legacy high carbon industries.
- Embed carbon literacy in all academic and vocational training courses.
- Work with Voluntarily, Community and Faith Organisations, and our communities, to reduce waste and increase reuse and recycling.

Regional Partners and Policy

- We Are Walsall 2040 vision: By 2040/41 Walsall will be a regional leader in sustainability with a leading Net Zero economy. All public sector partners will be carbon neutral in their operations with sustainable public buildings and new homes will be carbon neutral.
- Environment Act 2021
- Walsall Council Economic Strategy and Action Plan
- Walsall MBC: Walsall Council Sustainable Procurement Policy.
- HM Government: Public Services (Social Value) Act (2013).
- HM Government: The Ten Point Plan for a Green Industrial Revolution.

Homes, Workplaces and Public Buildings

Background

Buildings are responsible for over 40% of GHG emissions in our borough. To achieve our Net Zero 2041 target, we need to reduce the use of energy in building, particularly the energy used to heat our homes, commercial and public buildings.

Making our buildings more energy efficient will not only reduce GHG emissions, but it will also reduce costs for building operators. For homes, it will reduce energy bills and contribute to efforts to reduce fuel poverty and improve the health of residents.

Making buildings net zero will require owners of existing homes and buildings to make improvements to current levels of insulation to reduce heat loss through the building fabric well beyond the basic measures they might already have in place. It will also require fossil fuelled heating systems to be replaced with low carbon alternatives such as heat pumps. On-site energy generation will need to be installed wherever practicable. All new buildings will need to be net zero ready.

Decarbonisation of our buildings will be a colossal undertaking but also a huge opportunity for our region's construction, industrial and business sectors as we grow our green economy.

Domestic Energy Efficiency

80% of the homes we will be living in by 2050 have already been built. A nationwide programme of deep retrofits and refurbishment of existing housing is the only way to deliver the necessary carbon savings. Retrofitting homes will have significant co-benefits, making them cheaper to run and healthier to live in.

The [Institute of Engineering and Technology and Nottingham Trent University](#), have quantified the co-benefits improving the quality of homes. They estimate that a deep retrofit programme could reduce social care costs by between £1,700 and £4,500 per person per annum and cut GP visits by almost 50%.

Deep retrofit measures include external wall insulation, high quality glazing, mechanical heat recovery and the adoption of renewable energy technologies such as solar power and heat pumps.



Public Sector Energy Efficiency

In order to accelerate the transition to low-carbon and renewable technologies in the public sector, the Department for Energy Security and Net Zero (DESNZ), introduced the Public Sector Decarbonisation Scheme (PSDS) with the aim to reduced emissions from public sector buildings by 75% by 2037.

Walsall Council has received funding from the PSDS towards the installation of heat pumps and solar panels at the Civic Centre and Town Hall.

The installation is due to be completed by April 2025 with large emission reductions and lower operational costs expected.

The council will continue to evaluate the potential for the introduction of energy efficiency measures and technologies within its estate. We will conduct feasibility studies and develop business cases for their adoption wherever practicable.

Case Study: Darlaston Leisure Centre

In 2022, Walsall Council was awarded £2.6 million funding from the government's Public Sector Decarbonisation Scheme.

As a result of the funding, the council has been able to upgrade energy equipment within the facility and install a new, greener heating system with air source heat pumps, replacing fossil fuelled boilers. The work has involved the installation of 288 photo voltaic solar panels on the roof to generate electricity to power the heat pumps and help meet the leisure centre's electrical requirements. Internally, low energy LED lighting has been installed to improve efficiency.



Homes, workplaces, and public buildings - Our priorities:

| Challenges and opportunities | Priorities | We will: |
|--|--|--|
| <p>Buildings are responsible for over 40% of CO₂ emissions in our borough. We need to reduce the excessive use of energy, particularly that used for heating homes, commercial and public buildings, to achieve our Net Zero objectives.</p> <p>Making our homes more energy efficient will not only reduce CO₂ emissions, but it will also help residents to live in warm homes which are cheaper to run and healthier to live in. It will contribute to efforts to reduce fuel poverty which at 19.7% in Walsall is the 9th highest for all English local authorities (<i>based on 2021 data released in April 2023</i>).</p> <p>Owners of existing homes and buildings will need to make improvements to current levels of insulation well beyond the basic measures they might already have in place (e.g., by retrofitting buildings with external wall insulation, and upgraded glazing).</p> <p>Making our homes net zero will also require fossil fuelled heating systems (e.g., gas boilers) to be replaced with low carbon alternatives such as heat pumps or by connection to a low carbon heat network.</p> <p>All new buildings will need to be net zero ready.</p> <p>Decarbonisation of our buildings will be a huge opportunity for our region's construction, industrial and business sectors as we grow our green economy.</p> | <p>Priority 1: Reduce carbon emissions and eliminate fuel poverty by reducing the heat demand of existing homes.</p> <p>Priority 2: Reduce the energy demand from existing commercial and public buildings.</p> <p>Priority 3: Reduce the heat demand of new buildings.</p> | <ul style="list-style-type: none"> • We will continue to implement of the Council's Home Energy Conservation Act (HECA) Plan to tackle fuel poverty. This will include advice to help households access retrofit funds (e.g., ECO 4, ECO Flex) • We will work to secure funding for the retrofitting of domestic properties across our borough to improve their energy performance ratings Energy Performance Certificate (EPC) rating to at least a C. • We will ensure that landlords and agents, are aware of their legal obligation to provide and make available EPCs and take appropriate action against those who fail in this obligation. • We will retrofit the buildings we own to operate more efficiently and install low carbon heating systems as current systems become due for replacement. • As active members of the One Public Estate programme, we will work closely with other public sector organisations to explore opportunities to better utilise our buildings. • Where practicable we will use our planning powers and the Walsall Local Plan to strengthen energy policy and to provide a clear framework for new builds to adopt significantly higher standards of energy efficiency than at present. • For regeneration projects overseen by the council we will ensure energy efficiency and sustainability are embedded into the design and delivery of projects. |

Homes, workplaces, and public buildings - Borough wide priorities

Businesses:

- Be prepared to seize the opportunities available in the energy efficiency, retrofit and low carbon heating market.
- Conduct energy audits of their premises.
- Consider greener, more energy efficient premisses when current or future contracts require renewal.
- Engage with landlords for cost sharing arrangements for the installation of energy efficiency measures and renewable energy systems.

Walsall Council:

- Show leadership by retrofitting and decarbonising our own estate and encourage partner organisations to follow.
- Provide energy advice to support residents.
- Access available funding to support retrofit programmes.
- Work with property owners to encourage high quality private rental properties across the borough and tackle rogue landlords.

Residents:

- Get the basics right – including LED lighting and draught-proofing.
- Upgrade home insulation – loft, cavity wall, double glazing.
- Think about whole house retrofit, particularly if conducting a home renovation.
- Install low carbon heating systems such as heat pumps.

Other key partners:

- Voluntary, Community and Social Enterprise Organisations will need to work with partners providing advice on energy efficiency to alleviate fuel poverty.
- Social housing providers will need to access available funding to retrofit their housing stock.
- Private landlords will need to comply with the Minimum Energy Efficiency Standards (MEES) for the homes they let.
- Colleges and other training providers will need to provide courses to upskill installers give them the skillsets required for low carbon technologies.

Regional Partners and Policy:

- We Are Walsall 2040 Vision - By 2040 homes in Walsall, whether new or existing dwellings, will be energy efficient and sustainable and Walsall will be on track towards all homes being carbon neutral by 2050.
- Walsall Council: Housing Strategy 2020 – 2025; Strategic Asset Plan 2022 – 2027.
- Department for Energy Security and Net Zero: Heat and Buildings Strategy 2021.

Transport and Travel

Background

Transport and travel account for a third of GHG emissions in Walsall, primarily from the use of fossil fuelled vehicles. The emissions from vehicles are also the main contributor towards air pollution in Walsall. To reduce emissions and achieve our net zero ambitions, we need to eliminate the use of internal combustion engines, develop a mix of alternative transport solutions for people and freight to move around [and through](#) our borough.

Many journeys are short and very local, so we need to encourage a mode shift in how we move and promote active travel. We need to develop the right cycling, walking and wheeling infrastructure, so residents feel safe using these modes of transport.

We also need to ensure we provide convenient, clean, efficient public transport services. It is also important that we continue to invest and encourage the deployment of ultra-low emission vehicles (ULEVs), by ensuring the appropriate charging infrastructure is in place.

Active Travel

Walking, wheeling, and cycling.

The shift towards more active travel is essential in meeting our net zero targets. We will adopt and implement the [West Midlands](#) Local Transport Plan and the Black Country Walking and Wheeling Plan to improve public transport and active travel routes.

Safety

Providing safe, traffic-free cycling and walking infrastructure is key in encouraging its use. We will continue to invest in active travel routes, assessing suitable locations for pedestrianisation and off-road / segregated active travel networks throughout the borough.

Case Study: Walsall Canal Network Improvements

It is quite well known regionally that Birmingham has more canals than Venice (35 miles to 26 miles). What is less well known is that so does Walsall. Our industrial legacy has left Walsall with approximately 26.4 miles of inland waterways.

This canal network provides a safe, traffic free route, not only connecting many areas across the borough, but also the surrounding West Midlands region.

Walsall Council is working in partnership with the charity, Canal & River Trust, to resurface the towpaths, improve access points and add solar lighting to around eight miles of towpath in the borough.

The first section of towpath, from Sneyd Wharf has now been reopened to the public with a tarmac surface.



Electric Vehicles

The UK Government has committed to phase out of fossil fuelled cars and vans from 2035. The leading vehicle manufacturers have committed to a future propelled by electricity meaning the majority of vehicles sold will be battery electric vehicles.

To ensure our borough is prepared for the transition from fossil fuel powered vehicles to electric vehicles, the council will implement its electric vehicle charge point strategy, which provides a roadmap for delivering electric vehicle chargepoints across the borough.

Public Transport

Walsall Council is working in partnership with Transport for West Midlands (TfWM), the West Midlands Rail Executive, West Midlands Railways, Network Rail, and the Department for Transport to deliver new train stations at Willenhall and Darlaston.

When complete the new stations will give the communities direct access to the rail network for the first time since the 1960s, offering services to Walsall, Wolverhampton, and Birmingham.

Plans to build a train station at Aldridge ~~have also been agreed~~ are also in development.

Case Study: Willenhall Framework Plan

The Willenhall Framework Plan aims to have a firm focus on the future of Willenhall, to have the aspiration to become a more vibrant, healthy, and prosperous community.

Connectivity is a key pillar within the Framework Plan, maximising the benefits of the new train station and promoting active travel and healthy living through high quality public realm which links streets, public spaces and community facilities.



Transport and Travel - Our priorities:

| Challenges and opportunities | Priorities | We will: |
|--|---|--|
| <p>Transport and travel account for 34.2% of CO₂ emissions in Walsall, primarily from the tailpipes of fossil fuelled vehicles.</p> <p>To eliminate these emissions, we need to develop a mix of alternative transport solutions for people and freight.</p> <p>Many journeys are short and very local, so we need to encourage active travel by developing the right cycling and walking infrastructure, to enable residents feel safe using these modes of transport.</p> <p>Where active transport is not an option, we need to ensure convenient clean efficient public transport services, such as buses, taxis, trams, and trains are available. These modes of transport currently have lower CO₂ emissions per mile than private cars, but it is important that we encourage the operators of these public transport services to adopt ultra-low emission vehicles (ULEVs).</p> <p>For freight, and journeys where cars are necessary, we need to encourage the deployment of ULEVs by ensuring the appropriate electric vehicle charging infrastructure is in place.</p> <p>There are multiple co-benefits that will result from the adoption of sustainable transport. The adoption of ULEVs will not only reduce CO₂ emissions it will also eliminate other harmful pollutants (e.g., nitrogen dioxide, particulate matter) and will reduce traffic noise. Active travel is proven to result in better personal health and well-being.</p> | <p>Priority 1: Increase the use of public transport and active travel modes.</p> | <ul style="list-style-type: none"> • We will invest in cycling and walking routes to help people feel safe travelling by bicycle, on foot or by wheeling. • We will promote behaviour change to encourage active travel and the use of public transport. |
| | <p>Priority 2: Encourage the phasing out of fossil-fuelled private vehicles and their replacement with zero emission alternatives.</p> | <ul style="list-style-type: none"> • We will promote behaviour change and establish a programme to inform and encourage businesses and residents to switch to ultra-low emission vehicles. • We will use planning policy to encourage the deployment of charge points in retail and business car parks. • Secure funding to install 1000 public electric vehicle (EV) chargers by 2041. |
| | <p>Priority 3: Establish a zero-emissions council fleet.</p> | <ul style="list-style-type: none"> • We will transition of the council's fleet to zero emissions by 2035. |
| | <p>Priority 4: Establish a zero-emissions bus <u>and taxi</u> fleet in Walsall.</p> | <ul style="list-style-type: none"> • We will work with regional bodies (e.g., TfWM, Black Country Transport, <u>bus companies, taxi operators and owner drivers</u>) to promote the deployment of ULEV buses and taxis. |

Transport and Travel – Borough wide priorities:

Businesses and other organisations:

- Monitor the environmental impacts associated of suppliers' transport and logistics and work with them to find ways to minimise supply chain transport GHG emissions.
- Provide destination EV chargers for customers (e.g., in supermarket car parks).
- Switch company fleets to electric vehicles and install charging infrastructure wherever possible. When replacing other vehicles, purchase the most efficient models.
- Support employees by encouraging flexible working, the use of public transport, cycling, walking, and car-sharing.
- Install EV chargers at workplaces to enable employees to charge their vehicles whilst at work.

Walsall Council:

- Work with regional and national transport bodies to develop a sustainable transport strategy.
- Develop public transport initiatives which enable a rapid shift towards active and sustainable travel modes.
- Procure ULEVs where suitable and cost effective when replacing existing vehicles.
- Ensure that adequate infrastructure is in place to facilitate the greening of the council and contractors' fleets by equipping all council offices, depots, car parks and sports facilities with charge points.
- Review off-street electric vehicle charging in council owned car parks.
- Promote active travel modes, such as walking and cycling, and improve public transport connectivity

Residents:

- Walk and cycle for short journeys.
- Use public transport for longer journeys.
- Use mobility services such as taxis rather than own their own vehicles.
- Cut costs, congestion, parking problems and pollution by car sharing wherever possible.
- When replacing a vehicle, buy an ultra-low emission vehicle (ULEV) (e.g., electric car).

Freight companies, public transport operators, and taxi companies:

- All transport operators need to transition to electric vehicles (EVs) or other zero-emission vehicles. This includes buses for public transport, electric trucks for freight companies, and electric cars for taxi companies.
- Retrofit existing vehicles where this is more cost effective than replacing vehicles.
- Develop strategic plans to ensure the necessary charging infrastructure is in place for when EVs are procured.
- Collaborate closely with transport suppliers and other stakeholders to develop a comprehensive regional mobility as a service (MaaS) offering.

Regional Partners and Policy:

- We Are Walsall 2040 vision: To make Walsall one of the most connected boroughs in England by rail and road with faster, quieter, and more reliable connections to new and existing destinations. To make Walsall a cycling borough with a network of cycling routes and facilities that are safe and secure.
- Black Country Transport: Black Country Ultra Low Emission Vehicle Strategy. Black Country Local Cycling and Walking Infrastructure Plan & Delivery Plan (Draft)
- Transport for West Midlands (TfWM): Movement for Growth - Local Transport Plan (currently being updated – Reimagining Transport in the West Midlands)
- Walsall Council: Electric Vehicle Chargepoint Strategy, [Walsall Local Plan](#)

Natural Capital and Land Use

Background

Ecosystems cannot adapt as fast as the climate is changing so we must do all we can to protect these valuable assets. Natural capital and changes in land use also play a significant role in mitigating the consequences of climate change.

The UK government has pledged to protecting 30% of the UK's land and sea by 2030 (30by30) in England. Protecting existing natural areas from deforestation and degradation, and restoring degraded lands, prevents the release of stored carbon and helps to maintain biodiversity. This not only aids climate change mitigation but also enhances resilience to the consequences of climate change. Enhancing biodiversity and nature is key to providing a sustainable future for all.

Biodiversity and Green spaces

Walsall is perhaps best known for its industrial heritage; however, the borough is also home to some outstanding green spaces. A recent report for the Ancient Tree Inventory has revealed that Walsall Arboretum boasts the highest concentration of ancient and veteran trees in the region. Over 1/3 of the borough is green space.

We will protect and enhance the borough's parks and green spaces. We aim to promote biodiversity, meadowland, wetland, and the availability of green spaces for all.

Planning

Strategic land use planning helps minimise the carbon footprint of urban development and maximise the benefits of green spaces for carbon sequestration and biodiversity net gain. The Walsall Borough Local Plan currently being developed provides the opportunity to ensure all new development prioritise the preservation and promotion of Natural Capital.

Case Study: Purple Horizons



Purple Horizons is a partnership project extending across up to 12,000 hectares on the fringes of the West Midlands conurbation and focusing on restoring and connecting fragmented heathlands to create a mosaic of heathlands, wetlands, woodlands and grasslands.

It will link up existing protected areas, work with local landowners to deliver habitat creation and carbon storage and is developing a plan for connecting with communities in Walsall to deliver green areas where they will have the greatest health benefits.

Earlier this year 60 volunteers took part in the planting at Pelsall Common, Heath End and who helped to plant 400 plug plants of the Tormentil, Harebell and Cat's Ear species. These attract the Tormentil Mining Bee and provide a source of food for the bees and their young.

Natural Capital and Land Use - Our priorities:

| Challenges and opportunities | Priorities | We will: |
|---|---|--|
| <p>Ecosystems cannot adapt as fast as the climate is changing so we must do all we can to protect these valuable assets. Natural capital and changes in land use also play a significant role in mitigating the consequences of climate change.</p> <p>Forests, grasslands, and wetlands can function as carbon sinks, absorbing carbon dioxide (CO₂) from the atmosphere and storing it in plants and soil in a process known as carbon sequestration.</p> <p>Protecting existing natural areas from deforestation and degradation, and restoring degraded lands, prevents the release of stored carbon and helps to maintain biodiversity. This not only aids in climate change mitigation but also enhances resilience to the consequences of climate change.</p> <p>Strategic land use planning helps minimise the carbon footprint of urban development and maximise the benefits of green spaces for carbon sequestration and biodiversity net gain.</p> <p>Most land management related actions to mitigate and adapt to climate change have significant co-benefits, including improved air and water quality, enhanced biodiversity, improved recreational opportunities, and health benefits.</p> <p>We need to prioritise actions to protect, maintain and enhance our natural capital and the multiple benefits it provides.</p> | <p>Priority 1: Achieve a net gain in biodiversity for new developments</p> <p>Priority 2: Create green and blue spaces that increase biodiversity, reduce air pollution, and mitigate the effects of climate change.</p> <p>Priority 3: Increase investment into our natural environment</p> <p>Priority 4: Increase engagement with our natural environment.</p> | <ul style="list-style-type: none"> • We will use our planning powers to ensure the requirements of the Environment Act 2021 to achieve a biodiversity net gain of 10% for new developments is rigorously enforced. • We will make preserving and creating Natural Capital an objective of the Walsall Local Plan. • We will enhance the borough's parks, green and blue spaces to increase meadow, wetland, and green areas through rewilding. • We will develop a Walsall Natural Health Strategy and identify land to offset carbon through increased tree planting and creating wildlife-friendly corridors. • We will integrate the management of green and blue spaces with town centre master planning and regeneration strategies to allow the mitigation and adaptation benefits to be realised. • We will plant one tree for every household in our borough by 2030, 11,000 trees per year for 10 years. • We will work with community and voluntary organisations, health partners, schools and others to promote the public health benefits for all residents. |

Natural Capital and Land Use - Borough wide priorities:

Businesses and landowners:

- Incorporate natural capital into decision making.
- Use their purchasing power to promote good practice in their supply chains (e.g. by using only certified sustainable timber).
- Where they own green or blue space, manage this to promote natural capital.
- Promote environmental volunteering amongst their employees.
- Farmers and landowners will need to adopt agriculture and land practices that enhances the natural capital of their assets (e.g., create or restore ponds and woodland).

Walsall Council:

- Work with other stakeholders to ensure effective measurement of natural capital.
- Ensure the Walsall Local Plan embeds preserving and creating natural capital into development strategy.
- Support and use its planning powers to ensure all development projects achieve Biodiversity Net Gain.
- Take action to promote the health benefits of a clean and green Walsall and maximise the opportunities to enable all residents to benefit.
- Build natural capital into projects to maximise the value that the environment brings (e.g., develop wildlife corridors).

Residents:

- Manage green space they control (e.g. gardens and allotments) to encourage wildlife.
- Visit, spend time and be active in local green and blue spaces.
- Volunteer for projects that protect or improve the environment in your local area.

Schools, Colleges, Universities, NHS trusts and other public sector organisations:

- Universities and colleges will need to ensure all the graduates they train have an in-depth understanding of climate change, planetary boundaries, sustainability, and regeneration, so the next generation of professionals are equipped to tackle the climate emergency.
- Conduct meaningful research by engaging with stakeholders at the local, and regional level.
- Promote the importance of the natural environment to public health.
- Enhance the natural capital of their own estates.

Regional Partners and Policy:

- We Are Walsall 2040 vision: Walsall will be a clean and green borough with highly regarded parks and open spaces and be known as a place where nature is respected and protected. We will maintain our parks and green spaces for your enjoyment and safeguard our nature and biodiversity.
- WMCA: West Midlands Natural Environment Plan: 2021 - 2026
- Environment Agency and Sustainability West Midlands: West Midlands Climate Change Risk Assessment and Adaptation Plan 2021 - 2026.
- DEFRA: Environment Act 2021 & 30by30 sustainability target.

Resilience and Adaption

Background

Climate change will significantly impact on the day to day lives and wellbeing of Walsall residents by 2041 with increased rainfall and more frequent extreme temperature events. We are already experiencing the impact of some of the impacts of climate change.

Climate resilience is about how our borough can meet its broader ambitions whilst ensuring it stays safe and secure. It means addressing key vulnerabilities and being prepared to meet expected or unexpected disruptive challenges (e.g., heatwaves, flooding, water stress). We need to consider how we build climate resilience into the work of our partners and communities. We must plan now for a more hostile climate from 2041 and beyond.

Climate adaptation, like resilience, is about preparing for the negative consequences of climate change. According to the United Nations, climate adaptation means making adjustments in ecological, social or economic systems in response to the challenges and opportunities resulting from climate change. Appropriate climate adaptation actions will help to strengthen the resilience of Walsall's communities and infrastructure.

Partnerships

We will work with communities and businesses to increase resilience to future changes in climate including the development of an engagement programme to support Walsall businesses and community groups with continuity planning.

We will develop a Walsall Resilience Risk Register in partnership with the NHS to help identify members of the community vulnerable to interruptions in supply of power, heating, water and other essential services and regular testing and review of Local Resilience Partnership plans and NHS Winter/Heatwave Plans to prioritise services.

We will also consider how we need to adapt buildings/infrastructure to adapt to extremes of weather.

Plan and Prepare

It is our duty to make sure that residents, businesses and infrastructure is safe and protected. We will be developing risks from climate change and continually review the Walsall Resilience Strategy.

We will review the Walsall Local Plan with further regard to sustainable development and the government's emerging proposals in the Environment Bill and other planning regulations.

We will ensure plans are in place for emergencies - issuing alerts in for severe weather events: heatwaves, droughts, and flooding.

Resilience and Adaptation - Our Priorities:

| Challenges and opportunities | Priorities | We will: |
|---|--|--|
| <p>Climate change will significantly impact on the day to day lives and wellbeing of Walsall residents by 2041. The UK Met Office is projecting increased rainfall and more frequent extreme temperature events. We are already experiencing the impact of some of the impacts of climate change.</p> <p>Climate resilience is about how our borough can meet its broader ambitions whilst ensuring it is safe and secure. It means addressing key vulnerabilities and being prepared to meet expected or unexpected disruptive challenges (e.g., heatwaves, flooding, water stress). We need to consider how we build climate resilience into the work of partners and communities. We must plan now for a more hostile climate from 2041 and beyond.</p> <p>We need to build resilience to the impacts of climate change on infrastructure, health, vulnerable communities, businesses, and new and existing development. Resilience needs to be embedded in all areas of decision making.</p> <p>Climate adaptation, like resilience is about preparing for the negative consequences of climate change.</p> | Priority 1: Build Climate Resilient Communities | <ul style="list-style-type: none"> • We will develop a Walsall Climate Change Adaptation Plan. • We will work with communities, businesses and education and health/social care providers to increase resilience to climate change. • We will embed climate change resilience and adaptation into all council strategies. |
| | Priority 2: Integrate climate change into council strategies to promote resilience and sustainability | <ul style="list-style-type: none"> • We will review the Walsall Local Plan with further regard to the National Planning Policy Framework goals for sustainable development and other emerging planning regulations. • We will promote sustainable design in buildings & review planning policies to reflect changes in national planning guidance including support for new homes built to Net Zero carbon standards. • We will promote Sustainable Urban Drainage systems (SUDs), (e.g. swales, rain gardens, permeable paving). |
| | Priority 3: Increase the resilience of our critical infrastructure. | <ul style="list-style-type: none"> • We will plan for emergencies - issuing alerts in the event of severe weather (e.g., extreme temperatures and flooding). • We will review and update the Walsall Flood Management Plan 2020-23. • We will work with our partners to understand the current and future risks of flooding and review plans with the West Midlands Local Resilience Forum & Black Country Local Resilience Forum. |

Resilience and Adaptation - Borough wide priorities:

Businesses:

- Use water, energy, and other resources efficiently.
- Check if they are at risk of flooding and sign up for flood warnings.
- If in a flood risk area, make their premises more resilient and link up with neighbouring properties.
- Check if they have the right level of insurance.
- Invest in natural capital.

Walsall Council:

- Develop the appropriate indicators to monitor and evaluate how prepared we are for the current and future impacts of climate change.
- Develop a Walsall Climate Change Adaptation Plan.
- Show leadership by retrofitting its own estate to encourage partner organisations to follow.
- Plant trees.
- Implement proposals to manage flood risk for existing developments.
- Ensure Sustainable Urban Drainage systems (SUDs) are an integral element of all new developments.

Residents:

- Check if they are at risk of flooding and sign up for flood warnings.
- If in a flood risk area, make their homes more flood resistant.
- Check if they have the right level of insurance.
- In extremely hot and cold weather, look after themselves and their neighbours.
- Work with voluntary and community groups to protect the more vulnerable.
- Use water efficiently, install a water meter and consider rainwater harvesting.

Other Key Partners:

- Utility companies will need to invest in infrastructure to provide secure energy and water supplies.
- Environment Agency will need to provide funding for flood protection.
- All will need to consider how to adapt their buildings/infrastructure to cope with extremes of weather

Regional Partners and Policy:

- Walsall MBC: Walsall Local Plan
- WMCA: West Midlands Natural Environment Plan: 2021 - 2026
- Environment Agency and Sustainability West Midlands: West Midlands Climate Change Risk Assessment and Adaptation Plan 2021 - 2026
- Department for Levelling up Housing & Communities: National Planning Policy Framework
- UK Government: Resilience Framework

8 Delivering the Walsall Net Zero 2041 Strategy

Next Steps

To deliver the Net Zero 2041 vision set out in this strategy, we need to close the gap between what is needed and where we are now. We need to take different approaches to supporting innovation in technology, and new approaches to finance and funding. We must show leadership and build on existing partnerships between the public, private, community and voluntary sector organisations. We need to develop priorities for engaging and educating residents, communities and businesses and upskilling our workforce.

This strategy divides the actions we need to take into six strategic themes. Energy, Circular & Green Economy, Homes, workplaces & public buildings, Transport & Travel, Natural Capital & Land Use and Resilience & Adaptation. These strategic themes are in turn divided into:

Our priorities: Actions the council can directly influence via its purchasing, regulatory and convening powers.

Borough wide priorities: Those actions that will require the active engagement of stakeholders across the borough.

The actions identified as 'our priorities' will be incorporated into a council three-year action plan and will be implemented by the relevant council service and reviewed annually.

For the actions identified as 'borough wide priorities' a Walsall Net Zero Partnership will be established in 2025 with a remit to produce a Walsall Net Zero Partnership Plan to progress delivery of these ambitions.

Governance

The council Climate Change Task Force, comprising of senior service managers, will meet quarterly to provide oversight of delivery of the Walsall Net Zero 2041 strategy and Walsall Council Net Zero Action Plan and to consider any additional interventions required to achieve our vision. A performance review will be submitted to Cabinet and full Council annually to report on progress.

The Walsall Net Zero Partnership will develop its own governance mechanisms.

Funding and resourcing

The successful delivery of our Net Zero 2041 strategy will be dependent on appropriate levels of funding and resources being in place. The actions necessary represent a mix of committed and desired interventions by multiple partners. Some actions, such as retrofit programmes, already have funding committed while other programmes will require feasibility studies or business cases to be developed to determine their viability and funding will need to be secured to make them happen. This is particularly relevant for some of the larger projects. Significant additional investment will be needed for our vision for a clean and green Walsall to be realised. We therefore need to explore potential sources of funding through existing avenues as well as develop innovative approaches to ensure projects can be delivered. Partners will need to develop financial business cases which consider the whole-life costs of interventions. They will also need to appreciate the consequences and costs of delay in delivering the necessary changes which are likely to be greater on the economy and society in the long-term.

UK Government and private sector funding is increasingly focused on net zero and sustainability. Our challenge is to present a compelling argument for Walsall receiving some of that investment in what is an increasingly noisy and competitive marketplace, supporting the borough's business and skills base to realise the benefits of a low carbon future and seize the opportunities available in the green industrial revolution.

Measuring and evaluating our impact and effectiveness

The primary measure of the effectiveness of climate change interventions is the effect they have reducing regional greenhouse gas (GHG) emissions. The Department of Energy Security and Net Zero (DESNZ) collates GHG emissions statistics for each local government area. However, there is typically a two-year lag from the time when the emissions occur and when the data is published. It is also often difficult to establish which organisation or part of the supply chain is responsible for these emissions (e.g., who is responsible for the emissions of a beef burger consumed in Birmingham, by someone who lives in Bloxwich?). To resolve this issue carbon accounting methodologies, categorise GHG emissions as either Scope 1, 2, or 3.

For example, for Walsall Council:

- **Scope 1:** These are the GHG emissions released directly by the council from the fossil fuels we burn.
- **Scope 2:** These are the indirect GHGs emissions that are released from the electricity we buy.
- **Scope 3:** These are the GHG emissions embodied in the goods and services the council buy for its own use, and on behalf of our residents.

To monitor GHG emissions for which the council is responsible, we will use the well-established Local Government Partnerships - Greenhouse Gas reporting tool to estimate council Scope 1 and Scope 2 emissions.

We will use the Oxygen Finance Insights Tool to estimate council Scope 3 emissions. This methodology uses industry benchmarks to estimate the carbon footprint of goods procured by the council based on their value.

We will use the data generated by these tools to report to the internationally recognised Carbon Disclosure Project (CDP) to evaluate our progress and compare our performance with other localities.

In addition to assessing GHG direct emissions our climate change action plan will have performance indicators (e.g., number and capacity of fossil fuel boilers replaced, number of ULEVs in operation, recycling and landfill rates) to ensure they have such that they have measurable outcomes. We will also use the services of the council's Business Intelligence Unit and Black Country Economic Intelligence to collate relevant socio-economic data (e.g., green jobs, fuel poverty rates) and report progress on these indicators annually.

9 Communications Strategy

Background Approach

The Net Zero 2041 strategy is an important initiative of Walsall Council to tackle climate change and its consequences. Aligned with the We Are Walsall 2040 Borough Plan, the strategy aims to decarbonise, meet sustainability objectives, and adapt to climate change. Recognising the community's concern for climate change, especially among younger residents, Walsall Council acknowledges its responsibility in reducing greenhouse gas emissions and leading businesses, stakeholders, and residents towards a Net Zero future.

Communications Objectives

The communications objectives of the Net Zero 2041 strategy are:

- To lobby for national and regional ongoing policy change.
- To change behaviours, educate and create awareness among businesses.
- To engage with educational establishments in order to positively impact future generations.
- To raise the awareness of residents in regard to importance of reducing carbon emissions, developing climate change conscious habits, and working together for Walsall to have cleaner air.
- To encourage the public to advocate for sustainable and regenerative practices within businesses.

Focuses (Key Messages)

- The Council is committed to achieve net zero carbon emissions by 2041.
- Transitioning to a green economy and creating green jobs provides economic benefits (e.g. green jobs and business opportunities).
- Addressing climate change will also tackle health inequalities (e.g. air quality and cold homes) and be a 'Just Transition' providing economic opportunities for all.
- We can all take simple, everyday actions to make a difference which will also save money and improve and maintain our health and wellbeing.
- The importance of addressing climate change and its consequences in Walsall.
- The Council's commitment to achieving Net Zero carbon emissions by 2041.
- The need for collective effort and collaboration from residents, businesses, and organisations to achieve the strategy's goals.
- The economic benefits of transitioning to a green economy and creating green jobs.
- The focus on a 'just transition' that tackles inequalities and provides economic opportunities for all.
- The aim to build climate resilience and adapt to the challenges of a changing climate.
- Making climate actions relatable to everyday people by linking actions to cost savings and health benefits.
- Introducing a clear vision to the public, outlining the project and encouraging public participation.