

# Climate Change Strategy for Coventry



## Foreword

Coventry will not be prone to some of the most acute impacts of climate change; however the issue still touches the lives of people in the city through rising energy costs, energy security concerns and legislation requiring us to reduce carbon dioxide emissions.

Tackling climate change and moving the city towards a low carbon future are actions that require concerted activity but which could also potentially bring great benefits to the people and economy of the city and wider sub-region.

One of the real strengths of the Partnership is its ability to engage organisations from the public, private and third sectors so that large scale issues can be addressed effectively. This can-do approach is demonstrated through the enthusiastic involvement of many partner organisations in setting a vision for how Coventry can become a low carbon city by 2020.

I am pleased to endorse this strategy and I hope it will inform and inspire you to take an active role in helping us to make Coventry a resilient, sustainable and low carbon city.

Coventry has always been a city of innovation with a skilled and adaptable workforce capable of making the most of the economic opportunities and challenges that present themselves. It is this spirit of adaptability and resilience that we must harness to ensure the city seizes the opportunities a low carbon future now presents.

There are also wider possibilities than just improved economic prosperity and the potential investment this can bring to the city; we can also improve the wellbeing of our residents. Tackling climate change effectively means ensuring that more houses are well insulated and cheaper to heat. We can also really begin to tackle fuel poverty and ensure that fewer vulnerable people suffer ill health through living in inadequately heated homes.

The City Council wants Coventry to be a city that works for jobs and growth, and to protect our most vulnerable residents. These are the priorities that have also come back from the public consultation we have undertaken on the strategy. I would encourage you to look at how you can help deliver the strategy so we can secure sustainable prosperity and health for everyone in the city.



**Dave Walton**  
Chair of Coventry Partnership  
A/Assistant Chief Fire Officer  
Technical & Operational Support Directorate  
West Midlands Fire Service



**Councillor Abdul Salam Khan**  
Cabinet Member for Sustainability and Local  
Infrastructure, Coventry City Council

## Contents

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1. Executive Summary	4
2. Vision, aims and objectives	6
3. Context	8
4. Drivers for change	12
5. How we will deliver the Strategy	15
6. Reducing our Carbon emissions	16
7. Adapting to a changing climate	25
8. Ensuring it happens	29
9. Glossary of Terms	38

## 1. Executive Summary

The Climate Change Strategy sets out the framework of how the Coventry Partnership and Coventry City Council plan to tackle climate change in Coventry.

### Background

The evidence that human activities are having a profound effect on our climate is overwhelming. Globally, extreme weather is predicted to become more common and to have a negative impact on humans, animals and plants at a local level.

The first Climate Change Strategy for the city was developed in 2008 and has resulted in the Council and Coventry Partnership making good progress in reducing the city's carbon dioxide emissions.

### Why a new strategy

Since the publication of the last strategy we have seen many changes including increased regulation, the rising cost of energy, concerns over the security of our energy supplies, the rise of the environmental business sector and reputational considerations.

One of the key drivers is legislation. The Climate Change Act 2008 sets legally binding targets on the UK to reduce greenhouse gas emissions by at least 80 per cent by 2050, based on 1990 levels.

### Our vision for the city

To ensure that by 2020 Coventry is a world leading low carbon, and sustainable city, resilient to extreme weather events and to long term climate change.

By 2020 we want:

1. To reduce carbon dioxide emissions by 27.5 per cent (based on N186 2005 data).
2. To increase the city's GDP by £1.9bn compared to a 2010 baseline, creating 26,000 low carbon jobs.
3. To ensure that every school is an Eco-School and 50% have "Green Flag" status.
4. To improve home energy efficiency and reduce fuel poverty.
5. To implement a climate change community engagement plan to build a sustainable city.
6. To define the necessary requirements to achieve a waste recycling rate of 50 per cent for the city.
7. To develop a procurement code for the city.
8. To increase green space, protect habitats; and encourage locally grown food.
9. To improve the city's resilience and raise awareness of climate change risks; and encourage infrastructure improvements.

## How are we going to tackle climate change?

We plan to tackle climate change in two ways; firstly by reducing our carbon dioxide emissions to avoid making the problem worse (mitigation) and, secondly by preparing the city for the inevitable changes in the climate (adaptation).

### 1. Reducing our Carbon emissions

Using fuel and energy more wisely in our homes, workplaces & schools and in how we travel will reduce carbon emissions and lessen the impact of climate change in the future. For this approach to be effective it requires action on three main fronts:

- modifying our behaviour so we use energy less wastefully
- improving buildings and infrastructure so that energy is used more efficiently
- investigating how we can generate our own energy from renewable sources

### 2. Adapting to a changing climate

We need to adapt to our changing climate and this means planning to avoid the risks associated with these changes before they happen. Every organisation in Coventry needs to understand and manage these risks, to ensure that their assets, services and infrastructure continue to function appropriately and that the city is resilient to unexpected weather events.

## Ensuring it happens

The action plan seeks to draw together a range of strategic activities being undertaken by the Council and the Coventry Partnership to deliver this strategy which can be found in section eight.

The Environment Theme Group of the Coventry Partnership will monitor the effectiveness of the strategy and its actions and report annually to the Local Public Service Board on its progress. Within the City Council the appropriate Cabinet Member will be kept regularly updated.



## 2. Vision, aims and objectives

The Climate Change Strategy for the city published in March 2008 was one of the first such strategies in the UK to be produced in conjunction with the Local Strategic Partnership, in our case; Coventry Partnership. It recognised that tackling climate change was a significant task which would require the involvement of all agencies in the city as well as individual residents.

In this section we set out how we intend to deliver the high level vision for the city through a series of aims and specific objectives which then lead on to a number of actions in section eight.

### Vision

To ensure that by 2020 Coventry is a world-leading low carbon, resilient and sustainable city.

That Coventry:-

- will have a thriving low carbon economy providing economic growth and employment, building on our foundations as a centre for developing new technologies
- will have the lowest carbon footprint compared to similar cities in the UK
- will have adapted to become resilient to extreme weather events and to long term climate change
- will have reduced fuel poverty in line with Government targets

### Aims

- To fully inform and educate all stakeholders of the city on climate change
- To influence the people of Coventry to reduce their carbon emissions and improve energy efficiency at home and at work
- To ensure climate change is considered in every aspect of operations, services and informs decision making in the city
- To support and encourage economic growth in low carbon industries
- To protect the most vulnerable people in Coventry by ensuring they can afford to heat (and cool) their homes
- To reduce the city's reliance on carbon intensive fuels through low carbon energy generation
- To ensure all new buildings, developments and infrastructure are sustainable
- To be at the forefront of design, development and management of low carbon technologies
- To be a resource efficient city, using energy wisely and reducing/recycling waste
- To prepare the city for a changing climate and consequent impacts

## Objectives

1. To have a joint programme, working with other organisations in the city, to reduce carbon dioxide emissions by 27.5 per cent (based N186 2005 data) by 2020. The 27.5 per cent target is based upon a 2005 baseline and is equivalent to the national carbon dioxide emissions target of 34 per cent by 2020 which has a 1990 baseline leading to the difference in percentages
2. To achieve an increase in the city's gross domestic product (GDP) of £1.9bn by 2020 compared to a 2010 baseline, and in so doing create 26,000 jobs within the low carbon and environmental sectors
3. To ensure that every school in Coventry is registered to the Eco-Schools programme and that 50 percent achieve and maintain the Eco-Schools "Green Flag" status by 2020
4. To improve home energy efficiency and reduce the number of people living in fuel poverty in line with Government targets
5. To systematically implement a dynamic climate change community engagement plan that engages, informs and empowers over 20 per cent of the population of the city by 2020 to build a sustainable city
6. To define the necessary requirements to achieve a waste recycling rate of 50 per cent for the city
7. To use the influence of public sector organisations to improve the environmental performance of their suppliers by developing a procurement code for the city
8. To increase green space and protect the habitats of plants and animals; and encourage the production of locally grown food
9. To improve the city's resilience to a changing climate by working with partners to raise awareness of the risks resulting from climate change and encouraging infrastructure improvements

### 3. Context

The impacts of climate change will be large scale and global in nature – these can sometimes seem remote and difficult to relate to conditions in Coventry and the potential effects on our homes and businesses. An understanding of how these global issues affect the UK, and how they impact on the city is valuable in helping us to appreciate the underlying reasons for the actions we propose in this document.

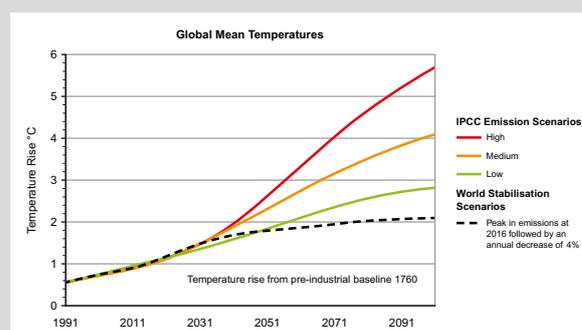
#### Global perspective

The evidence that human activities are having a profound effect on our climate is overwhelming. Avoiding the most serious consequences of climate change will require all of us to make changes to how we live our lives. One of the most respected reports on the challenges our planet faces from climate change was the Stern Review published in 2006.

The Stern Review assessed a wide range of evidence on the impacts of climate change and on the economic costs and concluded that:

- Climate change will affect the basic elements of life for people around the world – access to water, food production, health, wellbeing, and the environment. Hundreds of millions of people could suffer hunger, water shortages and coastal flooding as the world warms.
- If we do not act, the overall costs and risks of climate change will be equivalent to losing at least 5 per cent of global gross domestic product (GDP) each year, now and forever. If a wider range of risks and impacts are taken into account, the estimates of damage could rise to 20 per cent of global GDP or more.
- In contrast, the costs of action – reducing greenhouse gas emissions to avoid the worst impacts of climate change – can be limited to around 1 per cent of global GDP.

The main focus of efforts in response to climate change has centred upon reducing greenhouse gasses and our ‘carbon footprints’. At the same time, climate scientists have warned that as well as reducing carbon emissions to minimise long-term climate change, we need to adapt to the inevitable consequences of a changing climate. The latest research on climate change predicts that even if we were to make significant reductions in greenhouse gas emissions tomorrow, the inertia in climate systems means that we will need to cope with a changing climate for the next 40 plus years, due to emissions we have already put into the atmosphere.



Global average temperatures are on an upward trend as a result of carbon dioxide emissions to the atmosphere. The Intergovernmental Panel on Climate Change (IPCC) has modelled a number of scenarios with the worst case scenario leading to a predicted 5.7C rise which could bring dramatic changes in global weather patterns. Cutting carbon dioxide emissions to limit the rise to 2C would avoid the worst of the predicted effects.

## National perspective

Recent climate change projections published by the UK Climate Impacts Programme (UKCP09) indicate that during this century most of the UK can expect to see hotter drier summers, warmer wetter winters, rising sea levels and more frequent and extreme weather events such as heat waves, storms and heavy downpours.

The UK has, therefore, positioned itself to take a lead in responding to the threat from climate change. The seriousness of the situation has resulted in the UK being the first country to set legally binding targets to reduce its carbon emissions through the Climate Change Act 2008.

These targets will be achieved through a succession of five-year carbon budgets set well in advance to provide a clear, credible, long-term framework for the move to a low carbon UK economy, and give businesses and individuals the direction and certainty they need to play their part. The first three carbon budgets were set in Spring 2009, and covers the period from 2008 to 2022; the fourth, running from 2023 – 2027, was set in law at the end of June 2011.

## Flooding

The Flood and Water Management Act (FWMA) came into effect in April 2010 and implemented a number of recommendations from the Pitt Review into the widespread flooding which occurred throughout the UK in 2007. It clarified the responsibilities for tackling flooding in an area and placed new responsibilities on the Environment Agency, local councils and property developers (among others) to manage the risk of flooding.

It is important to plan developments so that the risk of flooding is reduced from the start. National planning guidance on flood and risk development is provided through Planning Policy Statement PPS25. This document makes the Environment Agency a statutory consultee on all planning developments in flood risk areas with critical drainage problems, and for any developments on land exceeding 1 hectare outside flood risk areas.

## Drought

Under the Water Act 2003, all water companies must prepare Water Resources Management Plans which detail the current supply-demand balance and include water efficiency measures. The Environment Agency is responsible for ensuring the proper and efficient use of water resources.

## Heat waves

The Heatwave Plan for England produced by the Department of Health in 2010 outlines the action to be taken by health and social care services and other bodies to raise awareness of the risks relating to severe hot weather and the necessary preparations both individuals and organisations should make to reduce those risks.

## The Coventry story

The Council and Coventry Partnership first committed to reducing the city's carbon dioxide emissions in 2008 by agreeing the first Climate Change Strategy which set targets for reductions in carbon dioxide by 2025 and 2050.

There is now clear evidence that a good start has been made in reducing the city's carbon dioxide emissions. This is confirmed by data from DECC (Department of Energy and Climate Change) which has collected detailed information on emissions from domestic, industrial/commercial and transport sources since 2005 (the data excludes emissions from motorways and air travel). The graph below shows that overall emissions in the city fell by nearly 21 per cent from 2005 to 2009.

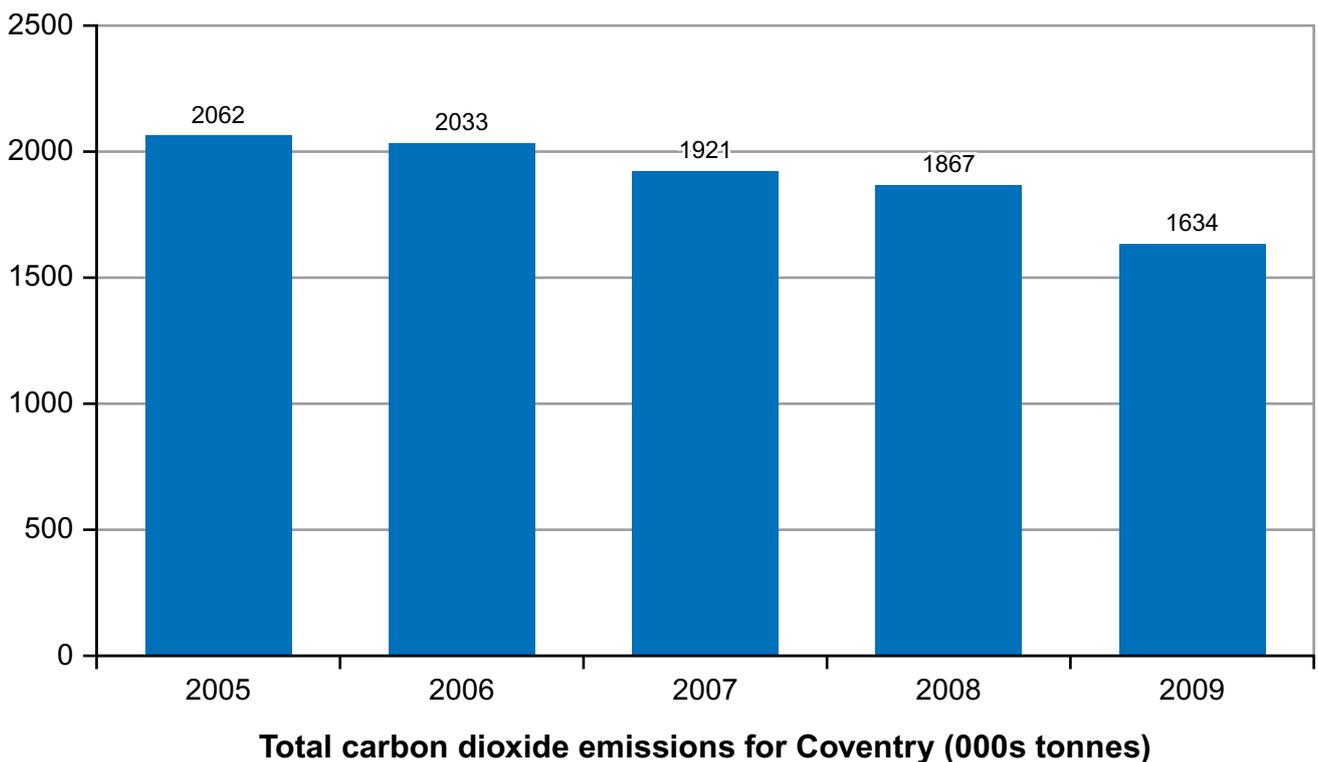
Inevitably the 2008/09 recession had an impact on the city's emissions as industrial and commercial activities reduced markedly with this also affecting the level of activity in the transport sector. However, even before

the recession a clear downward trend was apparent with overall city emissions dropping by more than 3 per cent each year on average.

Despite the recession the business sector remains the largest single contributor of carbon dioxide at 40 per cent of the city's total with homes and transport having emissions of 36 per cent and 24 per cent respectively.

The City Council is only directly responsible for less than 3 per cent of Coventry's carbon dioxide emissions, addressing the remaining 97 per cent and making the most of the opportunities presented by a low carbon economy will require everybody to play their part. This means we will need to create new alliances and structures that go beyond our city boundaries.

In order to take this forward, in 2010, the Coventry Partnership Environment Theme Group organised a series of themed seminars. The purpose was to create a vision for how



Coventry might look in 2020 if we capitalised on the opportunities to create a low carbon, resilient city with a high quality of life for its residents. Over 100 experts and partners participated in seven themed seminars to produce a vision for 2020 and also to recommend key action areas on the transformation journey.

The key themes explored during the inquiries included:

- Transport
- Energy Use
- Employment
- Local Food Economy
- Climate Change Adaptation
- Buildings, Houses and City Centre
- Resource Recovery

This strategy builds upon the outcomes of the Low Carbon Task Group seminars and the recommendations made by the participants.



## 4. Drivers for change

Since the publication of the last strategy there have been many developments in how we tackle climate change with changes in regulation, the cost of energy, the security of our energy supplies, the environmental business sector and the importance of a city or an organisation being perceived as sustainable. This section outlines some of the significant drivers that have an influence on how we propose to reduce our carbon emissions and address climate change.

### Legal

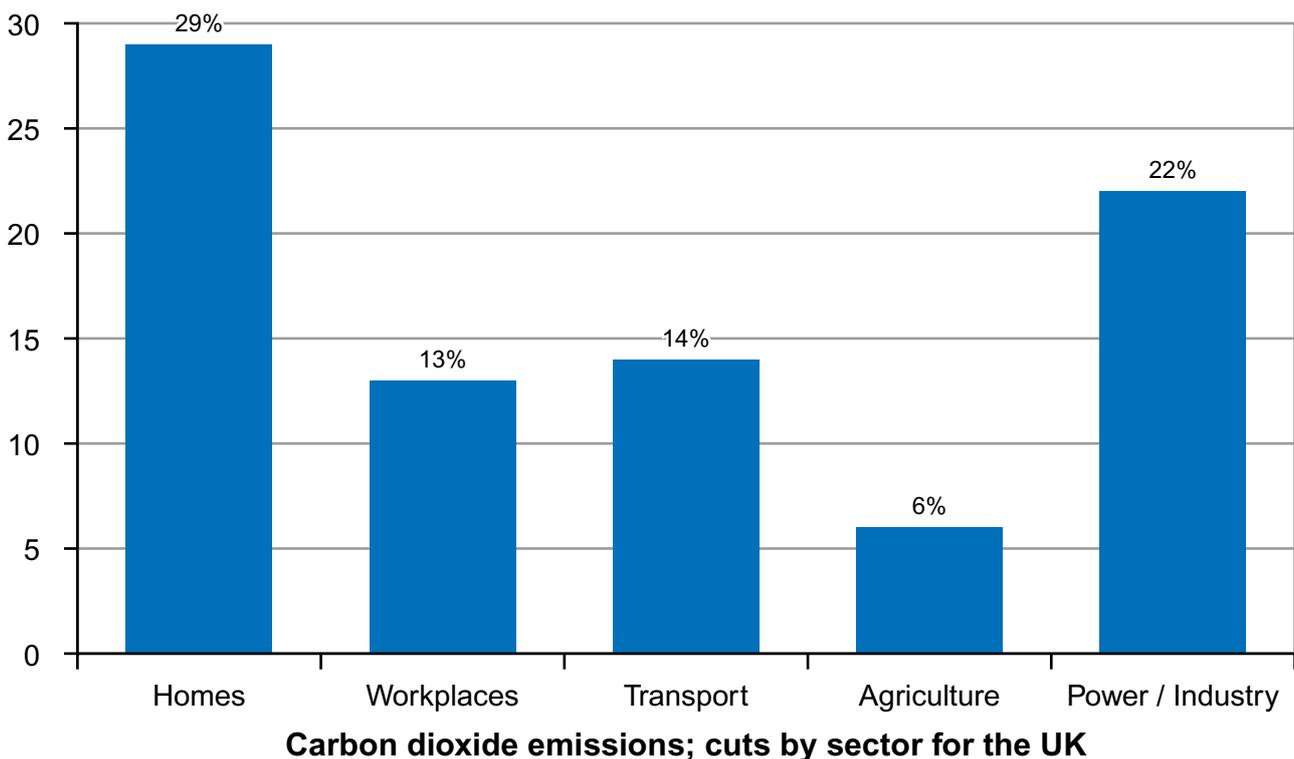
Driving the carbon reduction agenda is the Climate Change Act 2008, which set legally binding targets on the UK to reduce greenhouse gas emissions by at least 34 per cent by 2020 and by at least 80 per cent by 2050, compared with 1990 levels. This will be achieved through setting a series of five-year carbon budgets.

Building on this commitment, 2009 saw the publication of the UK Low Carbon Transition Plan, which outlined how the UK would meet the carbon budgets to 2020. The plan sets out by

how much emissions from the following sources will be cut by 2020 based on 2008 levels:

The success of the Transition Plan relies on multiple strategies that work towards the achievement of the low carbon targets. The key strategies and plans are:

- **The Renewable Energy Strategy:** sets out how Government will achieve the target of generating 15 per cent of energy from renewable sources, e.g. wind, wave, solar and geothermal, by 2020
- **Low Carbon Transport:** A Greener Future – details how emissions from transport will be reduced up to 2022
- **Low Carbon Industrial Strategy:** outlines how the Government will support industries in tackling climate change
- **Green Deal:** a ‘pay as you save’ scheme for householders due to start in 2012
- **Feed in Tariffs and Renewable Heat Incentive:** financially rewards those who generate their own energy through renewable technologies



- **Smart Meters:** provide users with real-time energy measurements which will be installed in all households by 2020
- **The Energy Act 2008:** has three principal objectives – tackling barriers to investment in energy efficiency; enhancing energy security; and enabling investment in low carbon energy supplies
- **The Carbon Reduction Commitment Energy Efficiency Scheme:** aims to significantly reduce UK carbon emissions not covered by other pieces of legislation. The primary focus is to reduce emissions in large public and private sector organisations
- **Display Energy Certificates:** from October 2008 there was a legal requirement for all public sector buildings with a total useful floor area of over 1,000 square metres to make public a Display Energy Certificate (DEC)
- **Towards Zero Carbon Development:** under the Government’s consultation paper, Building a Greener Future, it is proposed that all newly built houses will have to be operating as carbon neutral by 2016

## Energy Security

A quarter of the UK’s generating capacity is planned to shut down over the next ten years as old coal and nuclear power stations close. The UK faces a huge investment challenge to meet targets for electricity decarbonisation while ensuring security of supply. Ofgem estimates that at least £200 billion of new investment in energy infrastructure is needed up to 2020. The UK needs to build the equivalent of 20 large power stations and upgrade the grid.

In the longer term, by 2050, electricity demand is set to double, as we shift more transport and heating onto the electricity grid.

## Energy costs

The cost of energy has been increasing around 7 per cent per year in recent years such that in late 2011 the average household dual fuel bill was just over £1,300. There is nothing to indicate these energy prices rises will not continue.

Businesses are faced with ongoing increases in their operating costs due to rising energy costs that risk undermining their profitability and growth. Particularly badly affected are those industries that are heavy users of energy or those that rely on transport.

### Fuel poverty

Fuel poverty and the consequent effects it can have upon health and wellbeing is a significant challenge for the city. A home is defined as being in fuel poverty if the occupants spend more than 10 per cent of their income on heating. The last year for which the Department of Energy and Climate Change provided fuel poverty figures was 2009 - these showed that 25.9 per cent of Coventry households are in fuel poverty - up from 21.9 per cent in 2008. This compares to an average of 18.4 per cent for England in 2009 (15.6 per cent in 2008).

### Jobs

The new low carbon society creates many opportunities for the growth of the low carbon sector. By 2020 it is estimated that this sector alone could employ over one million people in the UK. A study by Coventry University showed that in Coventry this sector could be worth £2bn per year in investment equating to around 26,000 new jobs.

### Reputational

The city has a proven track record of innovation and achievement. We need to build upon our existing profile as a city that takes the lead adding to our current list of achievements which include:

- One of the first cities to have a comprehensive Climate Change Strategy
- One of the first UK cities to produce electricity and high pressure hot water for heating from burning municipal refuse
- Being one of the first cities in the UK to install dimming street lighting
- Leading the rest of the country in the research into and implementation of electric vehicle charging infrastructure
- One of the first to provide a hydrogen filling station for vehicles in the region outside of a university campus
- Being recognised as the seventh most sustainable city out of the top 20 cities in Britain
- Having the fastest falling carbon dioxide emissions, per capita, of the top 20 cities in the UK. The emissions, per capita, currently stand at 5.2 tonnes
- Having 89 per cent of schools registered to the Eco-Schools programme



## 5. How we will deliver the Strategy

We plan to tackle climate change in two ways; firstly by reducing our carbon dioxide emissions to avoid making the problem worse (mitigation) and, secondly by preparing the city for the inevitable changes in the climate (adaptation). This strategy incorporates both mitigation and adaptation to deliver our objectives and relies on and supports many other citywide plans and strategies. The main ones are listed below.

**Sustainable Community Strategy:** produced by Coventry Partnership, this sets out the strategy to deliver a vision for Coventry to be a growing, accessible city where people choose to live, work and be educated and where businesses choose to invest. It aims to achieve this vision through eight key themes plus two cross-cutting themes, of which one is making a positive environmental contribution and the other is tackling climate change.

**Innovative Coventry:** a strategy for growth and transformation which outlines how Coventry will build on its success to grow into a larger community and attract investment into the city. Coventry plans to transform itself over the next twenty years so that it becomes a more vibrant and attractive place to live and work. Also to become a destination of choice for people who want to live in a successful, stimulating, safe and sustainable urban environment.

**Local Enterprise Partnership:** the LEP brings together private and public sectors along with academic representatives to grow the economy, create jobs and grow wealth in the region. The strategy's main aims fall into two categories: local deliverable benefits for Coventry and Warwickshire and influencing national policy.

**Core Strategy:** currently under preparation the core strategy will contain strategic planning policies to guide the future development of the city up to 2026; it is essential that any new developments, infrastructure projects and building refurbishments are built with the need to minimise carbon dioxide emissions and to cope with future weather patterns in mind.

**Local Transport Plan (LTP 2011 – 2026):** this West Midlands strategy highlights the important connection between reducing carbon emissions, the health and well being agenda and projected creation of new jobs and economic prosperity within the transport sector.

**Coventry Transport Strategy:** this will set out clear policies relating to the long term development of the transport network in Coventry. It will include strong policies relating to the provision of cycling, walking, bus, rail and rapid transit schemes, and details of how the transport network will be managed. Many of the actions will have beneficial impacts on carbon dioxide emissions such as the promotion of sustainable transport alongside new technologies, such as electric cars, and Smarter Choices such as car sharing. The Coventry Transport Strategy is closely linked to the Core Strategy and the local priorities of LTP3.

**Housing Strategy:** a fundamental service review of the housing function in the city is currently underway with a revised housing strategy expected in mid 2012. The strategy will address the issues of domestic energy efficiency, fuel poverty, homelessness, improving the private rented sector, and identifying funding opportunities.

**A Jobs Strategy for Coventry:** outlines the council's strategy for creating new job opportunities in the city through three key objectives; securing job opportunities through investment, helping people get jobs and helping people improve their skills. The environmental technologies and low carbon sector is identified as potentially the biggest growth sector in the local economy, based on Coventry University research carried out in 2010.

## 6. Reducing our Carbon emissions

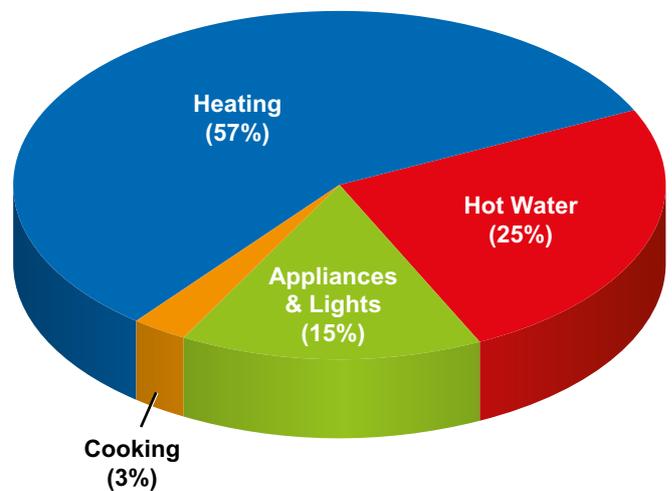
Using fuel and energy more wisely in our homes, workplaces & schools and in how we travel will reduce carbon emissions and lessen the impact of climate change in the future. This will help to ensure that global temperatures rise by no more than 2C, which is thought to be the maximum before severe weather effects which will affect millions of people around the world become likely. This approach is called mitigation and to be effective it requires action on three main fronts:

- modifying our behaviour so we use energy less wastefully
- improving buildings and infrastructure so that energy is used more efficiently
- investigating how we can generate our own energy from renewable sources

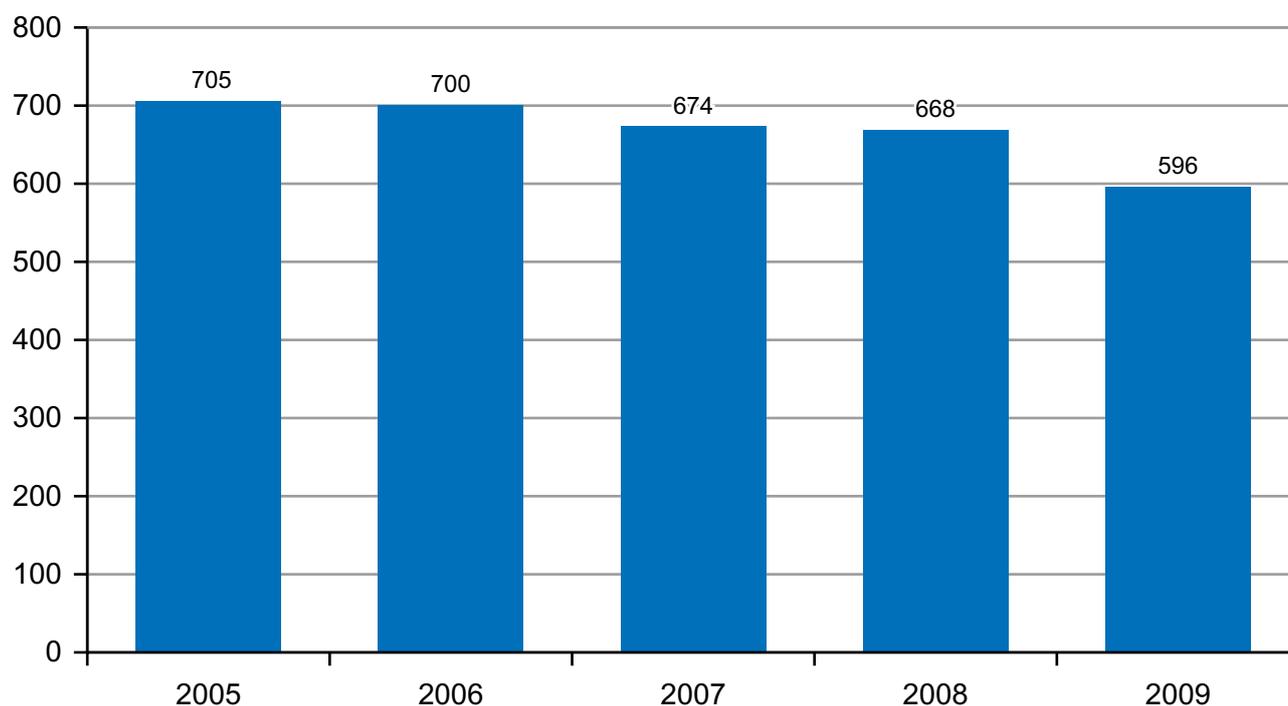
In the following sections we outline the general approach to reducing carbon dioxide emissions arising from our homes, our workplaces and schools, and transport.

### Our homes

We all use energy from different sources in our homes for heating, lighting, cooking, to provide hot water as well as to run appliances such as white goods, to provide entertainment and in some cases to enable us to work from home. The Department of Energy and Climate Change (DECC) estimates that fuel use in homes breaks down approximately as follows:



DECC further estimates that heating our homes and providing hot water accounts for 13 per cent of the UK's carbon dioxide emissions. There are 131,692 domestic dwellings of all tenures in the city. Of these, 81.7 per cent are either privately rented or owner occupied, with the remaining 18.3 per cent being in the social rented sector.



**Carbon dioxide emissions from housing for Coventry (000s tonnes)**

Coventry is unusual in having over half of its housing stock classified as hard to treat, meaning that the way in which the house was constructed makes it difficult to insulate because of walls being solid and not of cavity construction. This mix of tenure type and building archetypes makes reducing carbon dioxide emissions from the city's housing stock more challenging, making it crucial that the City Council, homeowners, private landlords and Registered Social Landlords (RSLs) all work together effectively.

Fuel poverty, which is defined as where a household spends more than 10 per cent of its disposable income on energy costs, is currently at high levels within the city. Since 2004 the number of homes in fuel poverty has been increasing such that 21.9 per cent of homes in Coventry are now classified as being in fuel

poverty. When people are unable to properly heat their homes there is a risk that their health may suffer and in the extreme case this can lead to people's life expectancy being reduced. Where more people pass away in the winter than the same period in the summer this is known as excess seasonal deaths. The Hills Report suggests that around 2,700 people each year fall victim to excess seasonal deaths. For Coventry, the West Midlands Public Health Observatory reports that 149 excess seasonal deaths occurred each year between 2006 and 2009.

The Government's Low Carbon Transition Plan aims to reduce emissions from homes by 29 per cent by 2020 based on a 2008 baseline in order to achieve the overall 2050 target. In Coventry we plan to achieve this goal through working through four main strands:

## Measure and assess use of energy in homes

Many people are unsure of the energy consumption of their household appliances or do not realise the amount of energy used by appliances on standby. Energy meters can help assess the use of energy by individual items or the home as a whole but smart meters are expected to have a greater impact as they are progressively introduced into all 26 million homes in the UK by 2020.

Smart meters will provide real-time information on energy use, allow for more accurate billing, make switching suppliers easier and be able to cope with the impact of energy generation at home – they can also help reduce energy use by 5 to 10 per cent through raising awareness of energy use patterns. Through this strategy and its actions we will help raise householders' awareness of their energy use and advise them on how to manage and reduce it.

## Insulate homes to retain heat effectively

Schemes such as Warm Front, the Carbon Emissions Reduction Target (CERT) and Community Energy Saving Programme (CESP) provide support to insulate homes through measures such as loft and cavity wall insulation, boiler replacement, draught proofing and swapping to cleaner fuel. Green Deal is a pay as you save scheme which begins in Autumn 2012 and will enable householders to access help to insulate their homes by borrowing the money then repaying it through the savings on their fuel bills.

New homes are required to conform to increasingly stringent energy efficiency standards and it is expected that all new homes built after 2016 will need to be carbon neutral. We will work to ensure that the maximum number of homes in the city benefit from insulation measures under national and local schemes and ensure that our planning guidance provides clear advice to developers when building or refurbishing homes.

## Energy meter loan scheme

Coventry residents are able to borrow meters to help them assess where they can save money in the home. These meters give a real-time indication of energy use to allow identification of inefficient appliances or items left on standby. Meters can be borrowed from a number of libraries in the city using the normal library card.



## Moderate the use of energy through behavioural means

Energy meters and smart meters in particular are expected to be a valuable tool in raising people's awareness of how much energy homes appliances use. With clear and straightforward guidance provided to householders it is possible to reduce energy use at home by turning off lights, not leaving items on standby, using timers and not over-heating homes. We will encourage householders to adopt low carbon ways of living from turning off lights to local food growing and alternative means of travel.

## Generate energy at home through renewable sources

Energy bills and carbon emissions can be reduced significantly through the use of solar photovoltaic (solar pv) panels producing electricity, or solar thermal panels that provide domestic hot water. The Feed in Tariff (FIT) and the Renewable Heat Incentive (RHI) are both Government Clean Energy Cashback Schemes that reward householders who are able to invest in this technology.

It is likely that we will increasingly see equipment such as ground source heat pumps and air source heat pumps (which take heat from the ground or from the air) in common use as they become more financially attractive due to continued rises in the cost of energy. Through the actions contained in this strategy we will promote the appropriate use of renewables, providing clear and locally focussed advice and by demonstrating clear leadership through our own activities.

## Passivhaus construction and retrofit

Orbit Housing Association, a major RSL in Coventry, has built 23 super-insulated homes to the Passivhaus standard. The homes incorporate mechanical heat recovery systems and very high levels of insulation which reduce fuel bills to around £50 per year. A Coventry University study is assessing how tenants adapt to living in such efficient homes. In addition, Orbit has refurbished a traditional terraced house in Foleshill to Passivhaus standard.



## Actions

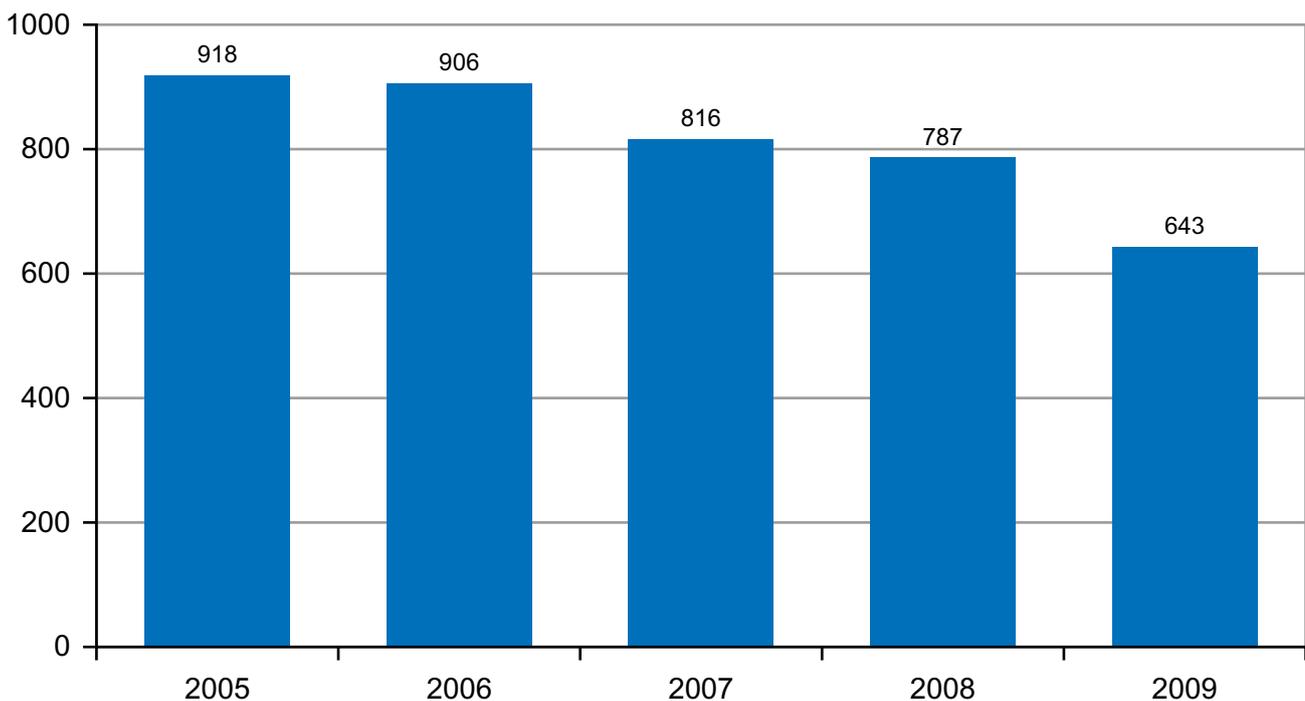
The actions proposed in this strategy to reduce carbon dioxide emissions from homes in the city are collaborative in nature and recognise that no one organisation has all of the answers. Although perceptions of the importance of energy efficiency are changing, in part due to the volatility of energy costs, there is much still to be done to encourage householders and landlords to tackle the problem from a whole-house perspective so that appropriate and cost-effective measures are installed in homes across the city.

Nudges to encourage people to make informed decisions are required but also actions to remove blockages such as loft clearance facilities to allow people to properly insulate their homes or financial assistance to help owner occupiers in predominantly tenanted streets to also benefit from measures such as external wall insulation schemes.

## Our workplaces and schools

In 2009, workplaces and schools in Coventry were responsible for around 40 per cent of the entire city's emissions of carbon dioxide, around 642,000 tonnes. But even before the recession there was a clear trend of reductions from this sector with a 14 per cent reduction between 2005 and 2008. The Government estimates that workplaces are responsible for around 12 per cent of all the greenhouse gas emissions in the UK and are clearly an area where improvements are necessary.

As well as reducing emissions from workplaces there is a real prospect of helping businesses grasp the opportunities presented by the low carbon sector. It's estimated that this could employ over one million people in the UK by 2020 and in Coventry a study by Coventry University showed that this sector could be worth £1.9bn per year in investment equating to around 26,000 new jobs. Over the past thirty years the mix of industry in the city has changed from being predominantly



**Carbon dioxide emissions from workplaces and schools for Coventry (000s tonnes)**

manufacturing to more service orientated and high tech industries – it is very likely that the skills and expertise in the city are easily up to the job of moving into a new low carbon future.

The Government plans to reduce carbon dioxide emissions by 13 per cent by 2020 based on a 2008 baseline, in Coventry this has already been achieved but mainly as a result of the recession. Our challenge is to ensure that as economic activity picks up carbon dioxide emissions do not rise to the same extent. This decoupling of growth from carbon dioxide emissions must be achieved in the next few years for Coventry to be a prosperous, low carbon city. There are two main ways in which this will be achieved:

### Reducing emissions from workplaces

This has often not been perceived as a priority by organisations apart from larger firms with clear corporate social responsibility (CSR) commitments or public sector organisations complying with national best practice guidance. Small and medium sized enterprises (SMEs) are far more concerned with fulfilling orders and maintaining healthy cashflow than reporting and managing their carbon dioxide emissions. However, the high cost of energy as well as price volatility means that many organisations are seeking ways to reduce a major operating cost to their organisation through process improvement, heating and lighting changes and even by sourcing renewable energy.

Financial incentives such as the Clean Energy Cashback scheme which rewards organisations for generating renewable energy, and the Carbon Reduction Commitment Energy Efficiency scheme which taxes larger organisations on their carbon dioxide emissions are already moving this issue up the corporate agenda.

For some organisations this is not easy as the condition and age of their premises varies widely and they are often not the owners of the property – their landlords may be indifferent to the energy performance of their buildings. In Coventry we have been active in helping schools reduce their carbon dioxide emissions and commissioning research to enable district heating to be installed in a commercially viable way. We also provide direct support to businesses through City Council activities and through partners such as the universities and the Chamber of Commerce, using EU funding where available. We will continue to work with partners in the city to support organisations wishing to reduce their emissions through helping them access funding or loans, promoting collaborative working and providing clear advice on appropriate measures.

#### Energy Warden scheme

The City Council has over 100 trained Energy Wardens who take responsibility for reducing energy use in their teams. An active Energy Warden network has been established and it's estimated that each Warden can save over 2 tonnes of carbon dioxide and £500 in energy costs each year.



### Encouraging low carbon jobs

This has been clearly identified as a long term aim for the city through the Jobs Strategy and has been highlighted as a real prospect for the city to build upon its reputation for manufacturing expertise and as a centre for low carbon vehicles. Globally the low carbon and environmental goods and services market was worth £3 trillion in 2007/08 with the UK's share estimated to be around £106 billion employing nearly 900,000 people. This is expected to increase by up to 50 per cent by 2015 and Coventry is well-placed to capitalise on this through organisations such as RETA (Renewable Energy Technology Association), the Enviro-Skills Forum and the influence of the Coventry and Warwickshire Local Economic Partnership (LEP). The LEP has recently identified low carbon mobility as one of its strategic priorities and this is complemented by a low carbon focus group which is concentrating on the built environment and future implications for the distribution network.

The enlargement of the low carbon economy will be chiefly private sector led with the public sector and Coventry Partnership playing a role in creating and facilitating market opportunities by specifying low carbon goods and services through procurement processes and by identifying funding opportunities. The action plan to achieve the aims of this strategy comprises our understanding of the ways in which the local carbon economy may be taken forward within the current constraints of a fragile economic recovery with small firms still encountering difficulties in accessing finance.

### District Heating Scheme

As part of the City's aspiration for developing renewable energy sources, the development of a district heating scheme, using energy from the incineration of household waste to heat buildings in the city centre is being pursued. The scheme would deliver significant carbon savings over the next 25 years and improve energy security across the City.



## Transport

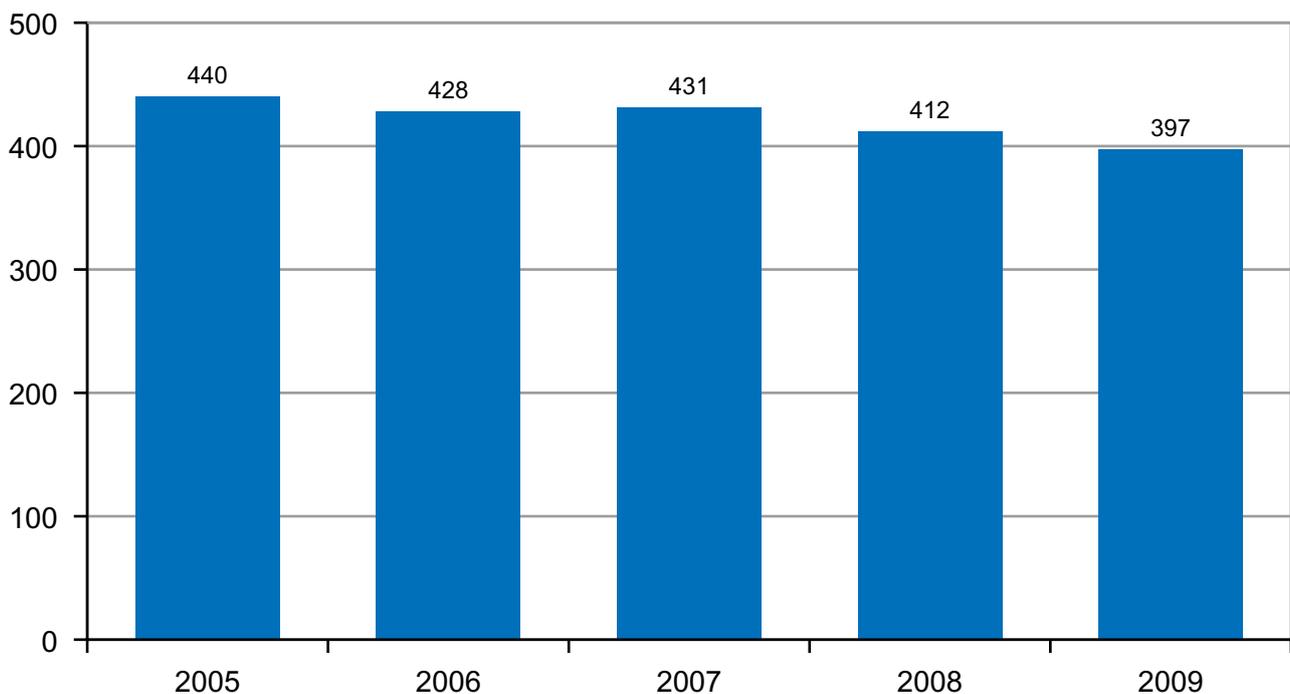
Carbon dioxide emissions from the use of transport in Coventry were responsible for about a quarter of the entire city's emissions, around 397,000 tonnes in 2008. Until the recession, transport emissions were reducing by around 2 per cent per year – relatively slowly compared to the reductions observed in the domestic and industrial sectors. Part of the reason for this is that our way of life is very strongly linked to the existing transport infrastructure in the city such as road, rail and bus, our vehicles and the fuels we use in them. Our means of travel is seen as a lifestyle choice but moving to greener and active forms of travel such as walking and cycling can have positive benefits in terms of improving peoples' health and Coventry's air quality.

The Government has set a target of reducing transport emissions by 14 per cent by 2020 based on a 2008 baseline and is pursuing national level initiatives to decarbonise the transport system through measures such as gradually

reducing new car emissions to an average of 130 g/km by 2015 and down to an average of 95 g/km by 2020. This represents a 40 per cent reduction in emissions from 2007 levels. Reducing emissions from transport in Coventry will be taken forward through two main routes:

### Infrastructure and planning

Due to the high cost and potentially disruptive nature of changing transport infrastructure, it is necessary to influence long term plans such as Local Transport Plan 3 (LTP3) which covers the period 2011 to 2026. The vision for LTP3 includes offering sustainable travel and transport choices whilst supporting economic growth within a low carbon environment. During the consultation period for the Plan environmental issues including emissions and the need for carbon reduction were identified as a priority by two-thirds of respondents. Large scale changes to infrastructure such as the proposed rail link from Nuneaton through Coventry and Kenilworth to Leamington (NUCKLE) are also being taken forward on a sub-regional basis.



**Carbon dioxide emissions from transport sources in Coventry excluding air travel and motorways (000s tonnes)**

On a smaller scale the bus showcase routes continue to be expanded as well as Park and Ride schemes using electric buses. The CABLED programme is currently trialling over 100 electric and low carbon vehicles on the roads of Coventry and Birmingham and has allowed around 20 public electric car charging points to be installed around the city centre as well as two high power charging units for buses at the Park and Ride site at the Memorial Park. The Plugged in Places scheme is expected to allow many more charging points in homes and businesses to be installed in the coming year or so.

### Improving local infrastructure

NUCKLE is a scheme to upgrade the existing rail link between Coventry and Nuneaton. Improvements will include a new bay platform at Coventry Railway Station, a new station at Coventry (Ricoh) Arena, a longer platform at Bedworth and a new station at Bermuda Park. The scheme will provide high quality, sustainable, public transport and works towards reducing congestion and carbon emissions by offering a greater range of travel options.



The City Council and Coventry University are also demonstrating their commitment to electric vehicles by purchasing an increasing number for their fleets such that 10 per cent of the City Council's fleet is low carbon electric or hybrid vans and cars.

We will continue to influence planning considerations to ensure low carbon mobility is encouraged in the city and to develop and secure funding for infrastructure changes to make it a reality and a real option for people to use.

### Behavioural

To properly support the opportunities being developed by long term infrastructure changes it is necessary to continue to encourage people to consider sustainable and active transport choices such as walking, cycling and using public transport. As part of the LTP3 and as an ongoing element of sustainability campaigns we will encourage adoption of more sustainable and active transport options through a number of channels. A key element of this is to demonstrate and promote good practice on the part of partners across the city such as promoting eco-driver training and clearly communicating the benefits of making low carbon vehicle choices.

Through this strategy we will raise awareness of the sustainable transport choices available to people and to showcase these schemes in order to encourage increased uptake in the future.

## 7. Adapting to a changing climate

The emissions of carbon dioxide made over the past two hundred years mean that some changes to the earth's climate are inevitable. We need to adapt to this changing climate and this means planning to avoid the risks associated with these changes before they happen. Every organisation in Coventry needs to understand and manage these changing climate risks, to ensure that their assets, services and infrastructure continue to function appropriately and that the city is resilient to unexpected events.

### What will it mean for Coventry?

The table below outlines the projected changes in the climate for the West Midlands over the coming decades.

The table shows that the climate change projections for Coventry predict that mean temperatures in both summer and winter will increase throughout this century and that heat waves will become more common and more severe. Patterns of rainfall are likely to be altered: summer rainfall amounts may decrease significantly; whereas during the winter a large increase in precipitation is likely which will result in a heightened risk of flooding.

Weather variable	Projected Change in Weather Variable			Impacts
	2020	2040	2080	
Summer temperatures	1.5C	2.2C	3.7C <small>Temperature on hottest day could increase by up to 10C</small>	<ul style="list-style-type: none"> <li>Increased tourism</li> <li>Increased heat stress</li> <li>Infrastructure risks</li> <li>Risks to biodiversity</li> <li>Heat related deaths</li> <li>Risk to food security</li> </ul>
Summer rainfall	6%	11%	20%	<ul style="list-style-type: none"> <li>Reduced stream flow and water quality</li> <li>Increased drought</li> <li>Subsidence</li> <li>Decreased crop yields</li> <li>Serious water stress</li> </ul>
Winter rainfall	5%	11%	18% <small>Rainfall on the wettest day could increase up to 30%</small>	<ul style="list-style-type: none"> <li>Increased winter flooding</li> <li>Increased subsidence</li> <li>Risks to urban drainage</li> <li>Severe transport disruption</li> <li>Risk to national infrastructure</li> </ul>

## Flooding

Flooding can occur in two ways; from rivers bursting their banks or from surface water where the ground is so saturated that rainfall cannot effectively drain away. Coventry is particularly vulnerable to surface water flooding which occurs when heavy rainfall overwhelms the local drainage systems. Increases in winter precipitation and in the frequency, duration and intensity of heavy downpours will mean sewer systems and carriageway drainage may be unable to cope, resulting in flash flood events.

The risk of surface water flooding is exacerbated by replacing green space (parks, grass verges and front gardens) with impermeable surfaces which prevent rainwater from naturally draining away into the ground. Coventry has a low risk of

river flooding, it has two rivers flowing through its boundaries, the River Sherbourne and River Sowe, which have not historically been subject to significant flooding. The flood map below was produced by the Environment Agency and indicates areas susceptible to river flooding.

Dark blue shows the area that could be affected by a river flood that has a 1 per cent (1 in 100) or greater chance of happening each year, if there were no flood defences.

Light blue shows the additional extent of an extreme flood from rivers. These outlying areas are likely to be affected by a major flood, with up to a 0.1 per cent (1 in 1000) chance of occurring each year.



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## Green roofs and rain water harvesting

Moseley Primary School, rebuilt in 2006, benefits from a green roof and rain water harvesting. The green roof slows down rainwater runoff from the roof to reduce the risk of flooding while the collected rainwater is used to flush the toilets. Both Universities have also incorporated green roofs and rainwater harvesting into their newest buildings.



## Drought

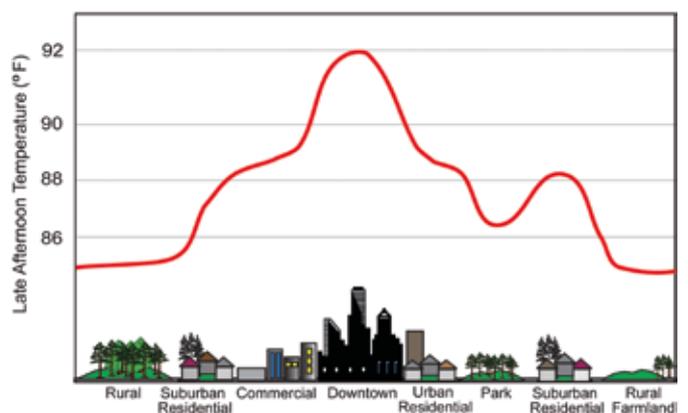
Changing patterns of precipitation will have significant implications for water resources and availability. In the summer, higher temperatures will mean that demand for water grows just as supply declines due to lower rainfall – unless we can capture and store the extra winter rainfall, we run the risk of our demands for water exceeding supplies.

Quite simply we need to use less water while also increasing the amount of water in supply. For those receiving their water through a water meter using less water also means saving money.

## Heatwaves

Climate change means that heatwaves are likely to become more common. By the 2080s, it is predicted that an event similar to that experienced in the UK in 2003, which killed more than 2,000 people, could happen every year. The urban environment can also exacerbate heatwaves and buildings, streets and squares absorb energy from the sun during the day and radiate it as heat during the night. This is known as the Urban Heat Island effect (UHI) and is the reason why cities are significantly warmer than surrounding rural areas. The UHI can add 5-6C to the night-time temperatures experienced.

The figure below shows a stylised heat island profile for a city, showing temperatures rising from the rural fringe and peaking in the city centre. The profile also demonstrates that temperatures can vary across a city depending on the nature of the land cover. This highlights the importance of urban parks and lakes to provide cooler areas to reduce the UHI effect. In recognition of the beneficial effect of trees and green spaces the City Council maintains a total tree population of approximately 125,000. This stock will be maintained as a minimum to combat the UHI effect.



Urban heat island effect, source: The Met Office

### Climate change adaptation, new development and the role of planning

New buildings usually have an expected life span of well in excess of 50 years with designs and layouts in urban areas usually having even longer life spans. It is therefore crucial that new developments are not only able to withstand current climatic conditions and meet minimum performance standards in the short-to-medium term, but will also remain fit for purpose over their entire life span. This means that buildings need to be designed and constructed so that they are capable of adapting or being adapted to deal with the likely impacts of climate change. The role of the planning system in bringing this about is extremely important.

### Designing buildings to reduce overheating

Severn Trent Water's operations centre opened in 2010 and was built to a very high environmental standard; BREEAM excellent. It incorporates a number of features to prevent overheating, for example the west elevation of the building is shielded from solar gain by vertical glass louvres which track the afternoon sun.



## 8. Ensuring it happens

Many different actions involving a large number of partner organisations will be needed to deliver this strategy, this section seeks to outline the governance arrangements which will be put in place as well as outlining the many actions required.

### Governance and performance management

This strategy seeks to draw together a range of strategic activity being undertaken by many partners in many different areas of influence in order to collaboratively reduce carbon dioxide emissions in the city. To assess the overall impact of these activities in moving Coventry to become a low carbon city it is proposed that the Environment Theme Group of the Coventry Partnership will monitor the effectiveness of the actions and report annually to the Local Public Service Board.

It is further proposed that the Cabinet Member for Sustainability and Local Infrastructure will also be updated on an annual basis through the Cabinet Member reporting process.

All of the existing activities set out in this strategy are being reported and managed through reporting mechanisms at the local level.

### Actions

The following section details the actions proposed to meet the objectives outlined in section two. In each case the actions are packaged into themes but with each action clearly referenced back to the original nine objectives.

An indication is made of the organisation or team who might lead each action as well as the partners required to make it work. Indicative short, medium and long timescales are covered as well as possible indicators of success.

Gain a clear understanding of the sustainable energy demand and supply for the city by producing a Sustainable Energy Action Plan (SEAP).

Beneficiary	Description	Indicator	Status	Responsibility	Leader	Timescale*	Obj. Ref.
Homes & Workplaces	Produce a Sustainable Energy Action Plan (SEAP) for the city	Reduction of carbon emissions by 2020	Requiring approval	Coventry City Council	Sustainability Services	Short	1
Homes & Workplaces	Produce citywide energy demand map to investigate the potential for district heating and decentralised energy networks	Energy Demand Map	Requiring approval	Coventry Partnership	Environment Theme Group	Medium	1
Homes & Workplaces	Investigate the feasibility of recovering waste heat from the crematorium to use for building heating/cooling	Feasibility study	Requiring approval	Coventry City Council	Strategic Property Asset Management	Medium	1
Homes & Workplaces	Investigate the potential for the use of anaerobic digestion plant in the city	Feasibility study	Requiring approval	Coventry City Council and partners	Waste Services	Short	6
Homes & Workplaces	Identify and evaluate potential volumes of biomass in the city including waste from grounds maintenance	Completed assessment	Requiring approval	Coventry City Council	Sustainability Services	Medium	6
Homes & Workplaces	Evaluate feasibility of small scale hydro and geothermal renewables schemes	Feasibility report	Aspirational	Local Universities	Lead University	Medium	1
City-wide	Set five year long term carbon budgets for the city reflecting the national carbon budgets	Set, monitored and reviewed targets	Requiring approval	Coventry Partnership	Environment Theme Group	Medium	1
Homes & Workplaces	Develop district heating network: to provide heat to the city centre and potentially expanding the network to include new business districts, domestic properties and other areas of the city	Heatline in operation.	In Progress expansion needs approval	Energy Service Company	Special Projects Sustainability Services	Long	1

\* **Short:** 1-2 years; **Medium:** 3-5 years; **Long:** more than 6 years.

Ensure future developments are sustainable and able to cope with changing weather patterns as a result of climate change.

Beneficiary	Description	Indicator	Status	Responsibility	Leader	Timescale*	Obj. Ref.
Homes & Workplaces	Incorporate climate change mitigation and adaptation policies into local development framework (LDF) and Core Strategy	Objectives set in LDF and Core Strategy. Evidence of climate change adaptation in 100% of relevant planning applications	Requiring approval	Coventry City Council	Planning	Short	1
Homes & Workplaces	Core Strategy to specify that all new developments and major refurbishments must include water efficiency and water reuse measures	Action adopted in Core Strategy	Requiring approval	Coventry City Council	Planning	Short	9
Community	Complete the Surface Water Management Plan for Coventry	Operational Plan	In Progress	Coventry City Council	Highways	Short	9
Community	Complete a Flood Risk Management Plan for Coventry	Operational Plan	In Progress	Coventry City Council	Highways	Short	9
Workplaces	Conduct an educational and awareness-raising programme relating to climate change adaptation for planning applicants	Guidance included in all planning application packs	Aspirational	Coventry City Council	Planning	Medium	9
Workplaces	Research climate change impacts associated with medium and high emission scenarios and use this knowledge to underpin future infrastructure developments	Report with recommendations	Aspirational	Coventry City Council	Sustainability Services Local University	Medium	9
Homes & Workplaces	Work with developers to encourage them to install Sustainable Urban Drainage Systems where required and encourage the use of green roofs for new developments or major refurbishments	Number of SUDS schemes and area of green roof	Requiring approval	Coventry City Council	Planning	Medium	9
Community	Encourage developers to retain or create green space within new developments	Green space area in city	Requiring approval	Coventry City Council	Development Management	Long	8

\* **Short:** 1-2 years; **Medium:** 3-5 years; **Long:** more than 6 years.

## Embed a culture of a carbon awareness and responsibility amongst pupils and staff and reduce the carbon footprint of the education sector.

Beneficiary	Description	Indicator	Status	Responsibility	Leader	Timescale*	Obj. Ref.
Workplaces	Roll out Low Carbon Schools Service tools and learning to all schools in the city to assist them to reduce their carbon footprint	Number of schools engaged. Reduction in carbon emissions.	Requiring approval	Coventry City Council	CLYP & Sustainability Services	Short	3
Homes & Workplaces	Embed the annual Education for Sustainable Development (ESD) event, as part of Coventry's sustainability curriculum	Number of students attending	Requiring approval	City & District Councils	ESD Steering Group	Short	3
Workplaces	Allocate a designated specialist sustainability advisor to be available to each school in the city in order to increase uptake of Eco-Schools Green Flag Award	Number of Green Flags Achieved	In Progress	Coventry City Council	CLYP & Sustainability Services	Short	3
Workplaces	Develop a placement scheme to complement the climate change courses offered by Coventry University	Number of placements	In progress	Coventry City Council	Sustainability Services	Short	5
Workplaces	Facilitate local employer engagement with Coventry school pupils on the sustainability curriculum within schools	Number of local employer engaged in schools	Planned	Coventry City Council	CLYP & Sustainability Services	Short	3
Homes & Workplaces	Raise awareness and coordinate provision of teaching materials and online tools to help schools deliver the sustainability curriculum	Number accessing teaching materials	Planned	Coventry City Council	CLYP & Sustainability Services	Short	3
Workplaces	Run regular workshops and seminars for teachers on specific topics such as energy efficiency.	Number of workshops delivered Staff trained	In Progress	Coventry City Council	CLYP & Sustainability Services	Short	3
Homes & Workplaces	Provide information to vulnerable groups (children, disabled, older people) on how to cope with heat waves, cold weather and power cuts	Number of residents advised.	Planned	Coventry Partnership	Coventry, Solihull and Warwickshire Resilience Team	Short	9
Homes & Workplaces	Develop a sustainability training log for school pupils to demonstrate learning and competence to prospective employers	Students on scheme	Requiring approval	Coventry City Council	Sustainability Services	Short-Medium	3
Workplaces	Recognise and promote good sustainable practice through a league table and an annual celebration event for all Coventry Schools	Number of participating schools. Improved league table performance	Requiring approval	Coventry City Council	CLYP & Sustainability Services	Medium	3

\* **Short:** 1-2 years; **Medium:** 3-5 years; **Long:** more than 6 years.

## Encourage the business community to reduce its carbon emissions.

Beneficiary	Description	Indicator	Status	Responsibility	Leader	Timescale*	Obj. Ref.
Workplaces	Produce low carbon business support strategy and encourage uptake of ISO 14001, Carbon Trust Standard or similar standard, including a Green Godiva Scheme	Organisations committed to carbon reduction targets.	Planned	Coventry City Council	Sustainability Services	Short	1
Workplaces	Produce guide for organisations on practical cost effective energy reduction measures	Number of organisations accessing guide	Planned	Coventry Partnership	Sustainability Services	Short	1
Workplaces	Roll out an energy warden scheme to Coventry Partnership organisations	Number of organisations enrolled in energy warden network	Requires Approval	Coventry City Council	Sustainability Services	Short	1
Workplaces	Implement and monitor the actions within the Local Authority Carbon Management Plan to secure required carbon reductions	Carbon emissions saved by City Council	In Progress	Coventry City Council	Strategic Property Asset Management	Short	1
Workplaces	Achieve the actions set out in the Coventry Waste Strategy	Achievement of strategy milestones	In progress	Coventry City Council	Waste Services	Long	6

\* **Short:** 1-2 years; **Medium:** 3-5 years; **Long:** more than 6 years.

## Reduce the carbon footprint emissions from our use of transport.

Beneficiary	Description	Indicator	Status	Responsibility	Leader	Timescale*	Obj. Ref.
Transport	Support low carbon objectives of the Coventry Transport Strategy	Coventry Transport Strategy Milestones	Planned	Coventry City Council	Transportation	Short	1
Transport	Revise and update Coventry City Council Travel Plan	Percentage change in modal shift	Requiring approval	Coventry City Council	Transportation and Sustainability Services	Medium	1
Transport	Co-ordinated workplace travel plans for all major employers in the city	Employers with completed travel plans. Percentage change in modal shift	Aspirational	Coventry Partnership	Transportation	Long	1
Transport	Devise mechanism to monitor and advice upon Workplace Travel Plans	Completed travel plans. Percentage change in modal shift.	In Progress	Coventry City Council	Transportation	Short	1
Transport	Devise a procurement policy for fleet operators in the city to encourage purchase of low carbon vehicles	Number of vehicles procured	Requiring approval	Coventry Partnership	Transport Theme Group	Short	7
Transport	Investigate the feasibility of using biofuel in city council fleet vehicles	Feasibility report	Requiring approval	Coventry City Council	Fleet Management	Short	7
Transport	Expand network of electric vehicle charging points in places of work and homes in the city	Number of installed charging points	In Progress	Coventry City Council	Sector Skills Development Team	Short-med	1
Transport	Living Lab in the city to explore intelligent transport systems	Delivered projects	In Progress	Coventry University	Projects Officer	Long	1

\* **Short:** 1-2 years; **Medium:** 3-5 years; **Long:** more than 6 years.

## Realise the potential economic benefits of moving to a low carbon economy.

Beneficiary	Description	Indicator	Status	Responsibility	Leader	Timescale*	Obj. Ref.
Workplaces	Develop criteria for organisations to obtain Environmental Employer of Choice status	Number of applications	Aspirational	Coventry Partnership	Sustainability Services	Short	2
Workplaces	Develop a Low Carbon Enterprise to ensure the local economy fully benefits from low carbon initiatives in the city and sub region	Number and size of contracts awarded	In Progress	Coventry City Council	Sector Skills Development Team	Short	2
Homes	Maximise uptake of renewable energy technology for social housing properties in the city	Number of RSL properties	Requiring approval	Registered Social Landlords	Asset Managers within RSLs.	Short-Medium	2
Workplaces	Develop a Corporate Social Responsibility package of support for city employers	Number of organisations engaged	Requiring approval	Coventry Partnership	Sustainability Services	Medium	2
Workplaces	Enhance sustainability of Coventry & Warwickshire suppliers through supply chain development and a city-wide low carbon procurement code	Number of organisations adopting code and benchmark scores	Requiring approval	Coventry City Council	Procurement	Medium	7
Workplaces	To deliver the Jobs Strategy for Coventry	Strategy outputs	In Progress	Coventry City Council	Employment Team	Long	2

\* **Short:** 1-2 years; **Medium:** 3-5 years; **Long:** more than 6 years.

## Reduce the carbon footprint from our homes and reduce fuel poverty.

Beneficiary	Action	Indicator	Status	Responsibility	Leader	Timescale*	Obj. Ref.
Homes	Maximise the uptake of insulation measures for all properties available through the Community Energy Saving Programme (CESP) and the Green Deal	Number of measures	Planned	Coventry Partnership	Housing Theme Group	Short	4
Homes	Plan and implement the Pay Less £ and Save Energy (PL£ASE) campaign	Launch of campaign	In progress	Coventry City Council	Sustainability Services	Short	5
Homes	Raise the profile of Energy Performance Certificates (EPCs) as indicators of likely energy costs when considering rental or purchase of a new home	Customer feedback results	In progress	Coventry Partnership	Housing Theme Group	Short	4
Homes	Provide clear advice to homeowners on tariff switching, energy efficiency and insulation measures	Number of residents advised	Planned	Coventry City Council	Sustainability Services	Short	4
Homes & Workplaces	Carry out a detailed appraisal of the effectiveness of the initial aerial thermal survey and commission follow on survey for 2013	Evaluation report and detailed proposal	Requiring approval	Coventry Partnership	Housing Theme Group	Short	4
Homes	Work with partners to help identify vulnerable households who may be in fuel poverty to assist in the delivery of appropriate measures and eligible benefits.	Number of residents assisted	In progress	Coventry Partnership	Housing Theme Group	Short	4
Homes	Engage with private landlords to advise upon the improvements in energy efficiency of their housing stock	Number of landlords advised	Aspirational	Coventry Partnership	Housing Theme Group	Medium	4

\* **Short:** 1-2 years; **Medium:** 3-5 years; **Long:** more than 6 years.

## Improve the resilience of communities to changes in the climate.

Beneficiary	Action	Indicator	Status	Responsibility	Leader	Timescale*	Obj. Ref.
Workplaces	Conduct a water audit for council premises and departments	Report of findings	Requiring approval	Coventry City Council	Sustainability Services	Short	9
Workplaces	Investigate potential for installing rain water harvesting, Sustainable Urban Drainage Systems, green roofs and green walls within council properties, parks and schools.	Presentation of a business case	Requiring approval	Coventry City Council	Sustainability Services	Medium	9
Workplaces	Engage with businesses to promote business continuity planning which incorporates climate change risks	Number of businesses engaged	Planned	Coventry Partnership	Coventry, Solihull and Warwickshire Resilience Team	Short – Medium	9
Community	Retain existing Green Flags for parks and raise five additional parks to Green Flag standard equivalent.	Number of green flags	In progress	Coventry City Council	Parks and Open Spaces	Long	8
Community	Investigate the impact of climate change on biodiversity and produce action plan to address if required	Assessment report	Aspirational	Coventry City Council Coventry University	Sustainability Services	Medium	8
Community	Survey unused land for use as pocket parks or for local food growing	Completed survey	Requiring approval	Coventry City Council	Sustainability Services	Medium	8
Community	Promote allotment use and investigate options for increasing their numbers in the city	Awareness campaign	Requiring approval	Coventry City Council	Parks and Open Spaces	Medium	8
Workplaces	Investigate the feasibility of establishing a social enterprise to grow and trade locally grown food and fuel	Feasibility report	Aspirational	Coventry City Council	Garden Organic & Neighbourhood Action	Medium	8
Homes & Workplaces	Monitor, record and communicate the impacts of extreme weather events in the city to develop an evidence base for climate change.	Annual report of findings	Planned	Coventry Partnership	Environmental Theme Group Sustainability Services	Medium	9 & 5
Community	Produce a urban vegetation strategy to ensure increased tree planting and introduction of plants that are resilient to extremes of climate	Number of trees Number of new species introduced	Requiring approval	Coventry Partnership	Sustainability Services	Long	8

\* **Short:** 1-2 years; **Medium:** 3-5 years; **Long:** more than 6 years.

## 9. Glossary of Terms

**BREEAM:** Building Research Establishment Energy Assessment Method is the most comprehensive and widely recognised means to assess the energy efficiency and sustainability of buildings.

**CERT:** the Carbon Emissions Reduction Target requires UK energy suppliers with over 50,000 customers to help reduce carbon dioxide emissions through a variety of means including low energy devices, energy monitors and loft and cavity wall insulation.

**CESP:** Community Energy Saving Programme is a scheme to install energy efficiency measures in homes in the UK funded by the energy companies through an energy company legal obligation imposed by Government.

**CSR:** Corporate Social Responsibility is the continuing commitment by businesses to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large.

**DEC:** Display Energy Certificates must be displayed in public buildings to provide a visible energy rating of a building from A to G, where A is very efficient and G is the least efficient.

**DECC:** Department for Energy and Climate Change (DECC) is a department of the Government which is responsible for energy and climate change issues in the UK.

**FIT:** the Feed In Tariff is a scheme in which energy suppliers must pay householders or businesses for energy they generate from renewable or low-carbon sources such as solar panels or wind turbines. The tariff is usually fixed for a long period so that long term investment decisions can be taken with confidence.

**GDP:** Gross Domestic Product is the market value of all goods and services produced within a country over a given period – normally annually.

**IPCC:** the Intergovernmental Panel on Climate Change represents the authoritative scientific consensus on climate change, considering the impacts of climate change and the options for tackling it.

**LDF:** Local Development Framework is a folder of local development documents prepared by a local authority which outlines the spatial planning strategy for the area.

**LEP:** a Local Enterprise Partnership is a partnership between public and private sectors and plays a central role in determining local economic priorities and undertaking activities to drive economic growth and the creation of local jobs.

**LTP3:** the third West Midlands Metropolitan Area Local Transport Plan is a statutory document setting out the transport strategy and policies for the West Midlands area up to 2026.

**Modal shift:** the change from one preferred means of transport, such as travelling by car, to another such as walking, cycling or using public transport.

**NI 186:** this is a National Indicator (number 186) used to measure the per capita carbon dioxide emissions in a local authority's area over the course of a year.

**PPS:** Planning Policy Statements contain policies on land-use and other planning matters and set out the main planning considerations that must be considered when assessing proposals for various developments.

**RETA:** the Renewable Energy Technology Alliance is an alliance of Coventry and Warwickshire businesses leading the way in affordable, renewable and sustainable energy products and solutions

**RHI:** The Renewable Heat Incentive is designed to provide financial support to encourage individuals, communities and businesses to switch from using fossil fuel for heating to renewables such as wood and other bio mass fuels.

**RSL:** Registered Social Landlords are partially government-funded not-for-profit organisations that provide affordable housing and include housing associations, trusts and cooperatives.

**SEAP:** Sustainable Energy Action Plan – is a document which outlines how a local authority and its partners will achieve a stated carbon dioxide emissions reduction target through reducing the use of energy and by generating energy locally.

**SME:** small or medium sized enterprise – usually a business with less than 250 employees.

**UKCP:** United Kingdom Climate Projections – a Government run initiative that provides projected climate information for future years to help individuals and organisations plan how they will adapt to a changing climate



**Sustainable Communities & Climate Change Team**

City Services and Development Directorate

Coventry City Council

Floor 1, Civic Centre 4

Much Park Street

Coventry CV1 2PY

Telephone: (024) 7683 2628

E-mail: [climatechange@coventry.gov.uk](mailto:climatechange@coventry.gov.uk)

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**Telephone: (024) 7683 2628**