

# Brighton & Hove City Climate Change Strategy

**2011-2015**

Brighton & Hove City Sustainability Partnership

This document sets out Brighton & Hove's approach to tackling climate change, providing a framework for action, with a clear path towards a low carbon city, adapting well to climate change.

It is for information, and is a reference document which will feed in to publication on the Brighton & Hove Strategic Partnership and city council website.

A summary document will also be produced.

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## FOREWORD

### **Working together - Roger French – Chair, Brighton & Hove Strategic Partnership**

The City Climate Change Strategy has been led by Brighton & Hove Strategic Partnership through the City Sustainability Partnership and endorsed by the Public Service Board. It focuses effort, informed by the city's Sustainable Community Strategy, towards reducing our greenhouse gas emissions and adapting to the challenges and opportunities of a changing climate.

Climate change is with us here and now and will get significantly worse before it gets better due to the greenhouse gas emissions already in the atmosphere and their delayed impact. Many of our buildings, businesses and services could be far more energy efficient and make more use of renewable energy. Achieving sustainable development is a major objective of our planning system.

The Sustainable Community Strategy commits us to reducing the city's carbon emissions by 42% by 2020 and by 80% by 2050 from the 2005 baseline of 5.7 tonnes per person. We are making progress, and some of this, such as the impact of national economic recession, is outside our direct influence. But there is significant scope in the city to influence positive change; to stop wasting energy in buildings and transport, develop more sustainable energy solutions and promote a successful, lower carbon economy.

People look to cities like Brighton & Hove to lead the way on cutting emissions and pioneering the drive towards a low carbon economy. We have a long way to go before the dramatic reductions required can be achieved, but we're making progress and the [Brighton & Hove Strategic Partnership](#) is committed to working together across the city to achieve innovative solutions.

## City Vision - Bill Randall – Leader, Brighton & Hove City Council

Climate change is one of the biggest challenges we face.

Globally, risks are increasing to food and water supplies, people's homes, human health and habitats and wildlife. The City Council is taking a leadership role in recognising these wider issues, and doing whatever it can to help, working together with our partners across the city.

This strategy complements the council's three main priorities:

- Tackling inequality;
- Creating a more sustainable city
- Engaging people who live and work in the city

The City Climate Change Strategy is a call to action. Our previous track record has been slow, and we now want to have plans in place to achieve challenging targets. This strategy provides us with a really good start and sets the framework for future action.

By tackling CO<sub>2</sub> emissions, we will achieve future benefits across the city: reduce fuel poverty, tackle traffic congestion, help residents and businesses deal with rising fuel costs through energy and transport efficiency; and build innovative solutions for the city through sustainable energy generation in the face of peak oil, energy security concerns and sharp energy price rises.

The economic benefits of early mobilisation in tackling climate change – reducing emissions and adapting to the risks and opportunities of a changing climate – are well documented. The competitive advantages of a low carbon economy and our growing Environmental Industries Sector will help with jobs and skills, stimulate inward investment and make the most of our city's reputation for entrepreneurship and environmental innovation.

The city is a signatory to the Nottingham declaration on Climate Change, a standard for councils. By signing the Declaration local authorities and their partners pledge to systematically address the causes of climate change and to prepare their communities for its impacts.

This strategy provides a way forward in promoting a collaborative approach across the city. Through it we aim to build a common understanding of the issues around climate change, and to make a real step change in our joint efforts to meet the city's targets.

## BRIGHTON & HOVE CLIMATE CHANGE STRATEGY - SUMMARY

Brighton & Hove has a wide range of commitments and activities in place to address climate change, including the Sustainable Community Strategy and other city and council plans, policies and programmes.

The city has signed up to the Nottingham Declaration and by doing this, councils and their partners pledge to address the causes of climate change and to prepare their community for its impacts.

During 2010/11 the council looked in depth at the opportunities for the Environmental Industries sector in the city, our approach in Adapting to Climate Change and Renewable Energy Potential, and recommendations from these three overview and scrutiny panels feed directly into this strategy.

Brighton & Hove's City Climate Change Strategy is designed to draw all this together, make sure they are helping us to meet our targets and focus effort in reducing the city's carbon dioxide emissions (CO<sub>2</sub>) and preparing for the effects of climate change in the city.

It forms the approach towards the 'Zero Carbon' principle from the city's One Planet Framework, while recognising links with other relevant principles (Local and Sustainable Food, Sustainable Transport, Zero Waste, and Local and Sustainable Materials).

### **Why do we need this strategy?**

While latest data (DECC, 2009) indicates a reduction in direct carbon dioxide emissions in the city, future trends are likely to be more difficult to influence and we need greater confidence in prioritising and demonstrating the value of our interventions and actions in the city.

The Resources and Energy Analysis Programme ([REAP](#)) data which is a more comprehensive, consumption-based measure suggests that Brighton & Hove's ecological footprint has reduced from 5.72 global hectares (gha) per person to 5.14 gha per person, however our city's ecological footprint remains slightly higher than the South East's (at 5.09) and the UK's (at 4.64).

A policy review undertaken on behalf of the City Sustainability Partnership in March 2011 suggests that the current range of policies in Brighton & Hove will not achieve the target set in the Sustainable Community Strategy for the city's ecological footprint. While these are different measures, carbon represents over half of this breakdown and there is a strong correlation with our carbon footprint.

There is a lack of consistent evidence to demonstrate the effectiveness of existing policies in reducing carbon emissions in the city, and greater understanding – and policy alignment – needs to be developed to be able to do this so that we can keep the city on the right lines to achieve longer term local, UK and international targets.

While it doesn't provide all the answers, this strategy provides the structure to enable this, and it is designed to provide focus and promote collaborative work across the city, building knowledge and making the most of the significant capacity Brighton & Hove has to meet this challenge: to become a low carbon city adapting well to climate change.

## Background

This strategy updates the Climate Change Action Plan, published in 2006. Its revision was required by the City Sustainability Partnership, and agreed by the Brighton & Hove Strategic Partnership and the council's former Sustainability Cabinet Committee. The work is being led by the City Sustainability Partnership on behalf of the Brighton & Hove Strategic Partnership.

This strategy has been developed in consultation with city partnership members, as well as council members and officers involved in implementing the 2006 Action Plan.

It was agreed that its scope would extend to cover the wider city - in line with other UK Climate Change Strategies, rather than the council's own operations, and that it would encompass adaptation - helping the city to become more resilient to the impacts of climate change.

Brighton & Hove City Council's role is significant: in city service provision, its statutory responsibilities, contribution to emissions from its own operations, its sphere of influence and desire to set a positive example. The council's policy and systems and relevant programmes such as the Carbon Management Programme are referred to in the strategy.

In 2010 the Brighton & Hove Strategic Partnership published its revised sustainable community strategy "[Creating the City of Opportunities – A sustainable community strategy for the City of Brighton & Hove](#)" in which it sets out eight priority themes, including "living within environmental limits and enhancing the environment."

The council's Corporate Plan [2011] makes a commitment to produce the city's Climate Change Strategy.

A number of actions relating to climate change exist, mainly in the city's Sustainable Community Strategy, three city council overview & scrutiny panels and within other legal and policy requirements.

The Sustainable Community Strategy contains around 68 relevant actions and activities, as well as specific targets to reduce carbon emissions and the city's ecological footprint.

There are 47 relevant overview & scrutiny recommendations, all of which have been formally agreed through Cabinet:

- Environmental Industries ( 21)
- Renewable Energy Potential (13)
- Climate Change Adaptation (13)

The City Sustainability Partnership has been developing a [One Planet Living](#) approach to sustainability which includes an aspiration to work towards a zero carbon city by 2050.

This strategy provides the opportunity to draw together policy and actions from different sources to produce a focused plan of action.

## Approach

The strategy uses an approach based on outcomes (see Figure 1) to promote understanding of the issue, to provide a structure for actions and to inform the commissioning of services in the city. It is designed to provide a clear but flexible framework, with city leadership in place to steer a pathway towards reducing carbon emissions and adapting to climate change.

Recognising the need for flexibility, it sets priority outcomes to allow people to work together across all sectors and backgrounds, taking a broader view of the issue to decide the best way to achieve these using the city's expertise:

- A low carbon economy
- Low carbon homes and buildings
- Low carbon transport
- Renewable and sustainable energy resources; and
- A city adapting well to climate change

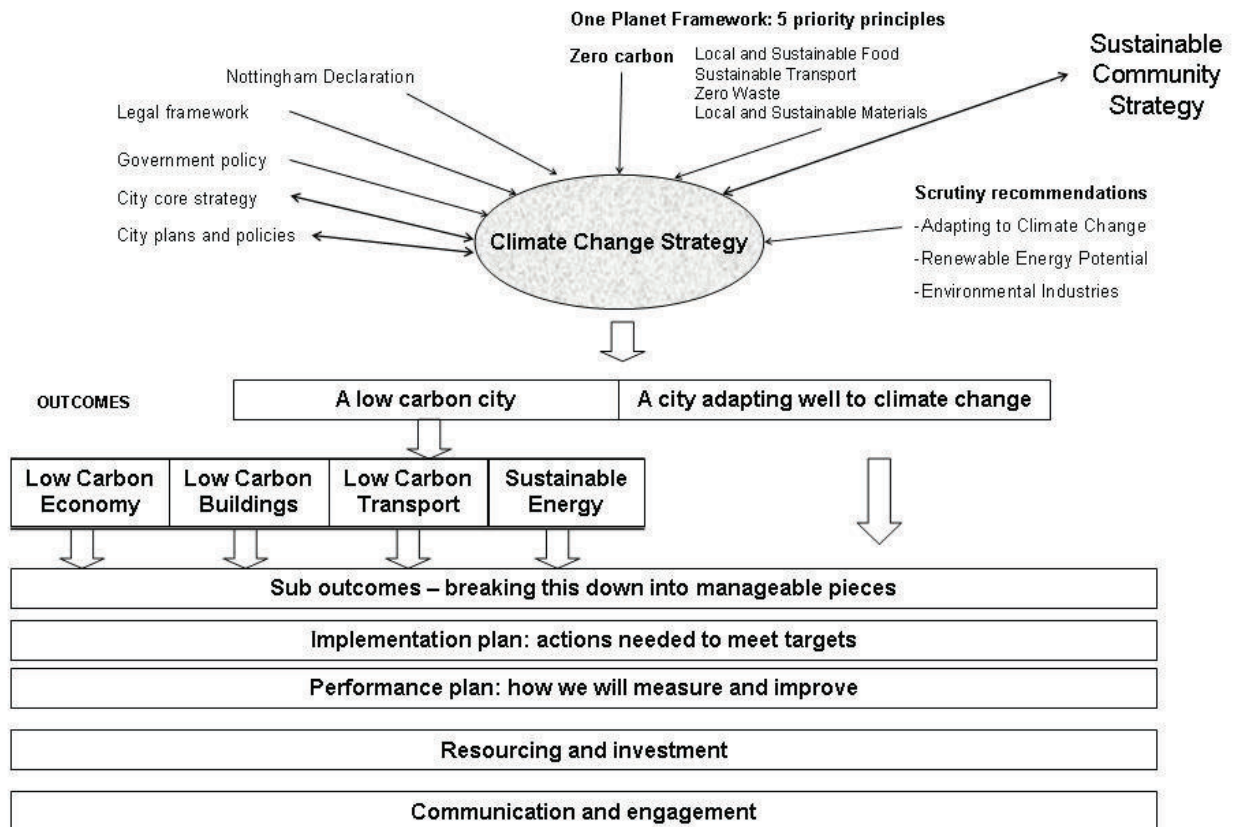


Figure 1: Outcomes based planning chart showing positioning of climate change strategy

This strategy is designed to bring together work that is already being done, and to inform future commissioning for the city. No new additional resources have been immediately identified, and it provides the framework to help draw from existing and planned work programmes including the Local Transport Plan, the Food Strategy, the City Plan (former Core Strategy) and the Economic Strategy. Specific resource implications are to be factored in as this work progresses; and will provide focus for developing targeted projects.

The strategy is broken down into two sections, and is linked to a separate implementation plan. Section 1 provides the background including policy links and influences, existing data and targets and how the overall strategy will be managed and reported. The implementation plan will be updated in line with the reporting requirements set out in this section. Section 2 provides focus for each of the five priority outcomes, bringing together existing actions and next steps, and feeding in to the implementation plan.

## SECTION 1

Background, why the strategy is needed, policy influences, existing data and targets and how the overall strategy will be implemented and monitored



## WHY IS THIS STRATEGY NEEDED

### The global picture

Climate is the average weather experienced over a long period of time, which includes temperature, wind and precipitation (rainfall, hail, sleet and snow). The Earth's climate is not fixed and in the past has changed many times in response to a variety of natural causes. Climate change refers to an identifiable change in the climate that persists for an extended period, typically decades or longer, and is often taken to mean man-made changes that have occurred since the onset of the industrial revolution [DECC]

The earth's surface has warmed by about 0.75°C since the 1900s and about 0.4°C since the 1970s. More than 30 billion tonnes of CO<sub>2</sub> are emitted globally each year by burning fossil fuels. Average global temperatures may rise between 1.1°C and 6.4°C above 1990 levels by the end of this century. [Climate Change Committee]

Climate Change is one of the most serious environmental threats we face. Its impacts are likely to be felt globally as temperatures increase, sea levels rise and patterns of drought and flooding change.

The costs of climate change are likely to be significant, as the [Stern Review](#) on The Economics of Climate Change made clear in 2006. The report estimated that not taking action could cost from 5 to 20% of global gross domestic product (GDP) every year. In comparison, reducing emissions to avoid the worst impacts of climate change [could cost around 2% of global GDP each year](#). Costs will depend on the ability of nations to adapt, and on the level of future greenhouse gas emissions.

### The national picture

The Climate Change Committee's [3rd Progress report](#) to Parliament was published on 30 June 2011. The analysis in the report showed that UK Emissions increased by 3% in 2010, mainly as a result of the colder winter months, and suggest that "[A significant acceleration in the pace of emissions reductions is therefore required](#)".

This is likely to present a considerable challenge to the city.

### The local picture

In Brighton & Hove, our carbon dioxide emissions have been reducing in line with national and regional trends up to 2008, but not meeting targets until 2009 where a 15.6% reduction was reported. Indications suggest that the national trend is likely to rise, and we now need to make sure there are plans in place to manage progress towards achieving the UK's 2020 and 2050 targets and our own ambitions towards a low carbon city.

While this data (DECC, 2009) indicates a reduction in direct carbon dioxide emissions in the city, future trends are likely be more difficult to influence and we need greater confidence in prioritising and demonstrating the value of our actions in the city.

[REAP](#) data, which is a more comprehensive, consumption-based measure suggests that Brighton & Hove's ecological footprint has reduced from 5.72 global hectares (gha) per person to 5.14 gha per person, however our city's ecological footprint remains slightly higher than the South East's (at 5.09 ) and the UK's (at 4.64).

The current definition of fuel poverty is where a household has to spend more than 10% of income on heating. The number of households living in fuel poverty (11.3%) has increased in

Brighton & Hove over the last three years. This is in line with national level (11.5%), and is largely a result of the price of domestic energy almost doubling.

In terms of how the city is preparing for the impacts of climate change that are already happening, an initial review suggests that further work needs to be undertaken in Brighton & Hove to ensure the city is well prepared for the risks and opportunities of a changing climate. This is based on an initial review against Defra's former Assessment Methodology (NI188).

### **What are the benefits of taking action now?**

The business case for early action was set out in 2006 by Nicholas Stern [[Stern Review on the Economics of Climate Change in 2006](#)].

Five years later, there is an even stronger case for action, including:

- Meeting emissions reduction targets (UK and local)
- Mitigating rising fuel and energy costs
- Increasing resource efficiency, reducing utility costs, preventing wasted energy, water and materials
- Reducing the use of non-renewable sources of energy, including fossil fuels.
- Proactive cost planning, rather than reactive expenditure to resolve problems
- Energy supply certainty, developing local sustainable supply solutions to reduce the risks of the UK's reliance on foreign fuel suppliers; and
- City and organisational resilience.

The main risks and opportunities include:

- o City reputation;
- o Organisational compliance with increasing legal and policy requirements;
- o Environmental impact; and
- o Costs.

In addition there is scope to increase business and city competitive advantage; attract national and international funding and investment; and the opportunity to develop valuable intelligence, knowledge and skills for a more sustainable city

## POLICY CONTEXT

### Key legislation and policy

There is a range of national and international legislation and policy designed to help reduce greenhouse gas emissions.

### International

The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change. The major feature of the Kyoto Protocol is that it sets targets for 37 industrialised countries and the European community (including the UK) for reducing greenhouse gas (GHG) emissions. These are taken into account in our national legislation.

### National

The Climate Change Act 2008 set legally binding emission reduction targets for 2020 (reduction of 34 percent in greenhouse gas emissions) and for 2050 (reduction of at least 80 percent in greenhouse gas emissions), and introduced five-yearly carbon budgets to help ensure those targets are met. [\[DECC\]](#). Both targets are based on 1990 levels.

This data (1990 greenhouse gas emissions) is not available for Brighton and Hove, so CO<sub>2</sub> is used as an indicator, and the baseline year is set to 2005, which is consistent with other local authority areas.

### The Nottingham Declaration

The city has signed up to the Nottingham Declaration commitment to “*develop plans with our partners and local communities to progressively address the causes and the impacts of climate change.*”

### Local

The city’s main policy driver for the climate change strategy is the Sustainable Community Strategy “[Creating the City of Opportunities – A sustainable community strategy for the City of Brighton & Hove](#)”, published in 2010 by Brighton & Hove Strategic Partnership. This sets out eight priority themes, including “living within environmental limits and enhancing the environment.”

Further city plans and policies are referenced throughout this strategy, including the City Plan (former Core Strategy), the Food Strategy, the Local Transport Plan, the Economic Development Strategy, the Housing Strategy and relevant Planning Policy Guidance.

## DATA AND TRENDS

### Greenhouse gases

Carbon dioxide (CO<sub>2</sub>) is the most widely known of the greenhouse gases contributing to global warming. It accounts for 85% of all greenhouse gas emissions in the UK. The other greenhouse gases, as defined by the [Kyoto Protocol](#), are methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride. [DECC, [UK greenhouse gas inventory - methods and compilation](#)]

Brighton & Hove's latest annual CO<sub>2</sub> emissions are 1,230 kilo tonnes (1.2m tonnes) for 2009, broken down by industrial & commercial (32%), domestic (housing) (42%) and transport (26%). The overall trend has been decreasing at a slow rate over the past four years measured to 2008, in line with national and regional trends with a greater decrease in 2009. Our per capita, or tonnes per person, emissions (4.8 tonnes) have fallen by 15.6 per cent over the same period.

This reduction was no greater than regional or national reductions and does not take account of the bigger picture embodied emissions in the goods and services the city buys. The city has lower per head emissions overall than other parts of the UK due perhaps to higher living densities and – in common with other south coast cities – a warmer climate and (usually) milder winters.

The domestic housing sector makes up about 42% of total direct CO<sub>2</sub> emissions, significantly higher than 31% regionally and 30% nationally. Transport makes up around 26%, compared to 33% regionally and 28% nationally; while Industrial and Commercial contributes 32%, compared to 35% regionally and 42% nationally. [DECC]

It's difficult to distinguish between general trends in data, for example due to:

- Reduced commercial and industrial activity as a result of national or regional economic recession, changes in population, or
- Improvements in results due to targeted actions and interventions.

**Table 1: CO<sub>2</sub> emissions for Brighton & Hove (total and per head) against targets**

Brighton & Hove	2005	2006	2007	2008	2009
Kilo tonnes	1,329	1,324	1,301	1,286	1,230
Tonnes per head	5.7	5.65	5.4	5.3	4.8
Target		-4%	-8%	-12%	-16%
Actual		0.07%	3.5%	6.5%	15.6%

[Data source: DECC **Carbon dioxide emissions within the scope of influence of local authorities (previously NI 186) estimates Sep 2011** [DECC]

Further data is available to track electricity consumption, gas consumption and road transport. Data on sustainable energy is under development, and current sources are through the AEA Technology Microgeneration Index.

### Consumption-based data

This provides a more comprehensive picture by analysing the impact of all products and services people use, rather than just looking at direct CO<sub>2</sub> emissions. Data can be found at The Resources and Energy Analysis Programme (REAP), which is the research area of the [Stockholm Environment Institute](#) and was set up to focus on Sustainable Consumption and Production. It shows ecological footprint, carbon footprint and greenhouse gas footprint and Table 2 shows this relationship for Brighton & Hove, together with regional and national comparisons.

**Ecological footprint is measured in** global hectares per person, and is the land required per resident to sustain their current lifestyle.

The city's Sustainable Community Strategy commits us to reducing the city's ecological footprint from 5.72 global hectares (gha) per person, to 2.5 gha per person by 2020; and 1.25 gha per person by 2050. The 2006 data suggest a decrease to 5.14 gha per person; our city's ecological footprint remains higher than the South East's (at 5.09) and the UK's (at 4.64).

**Table 2: Relationship between ecological footprint, carbon footprint and greenhouse gas footprint**

	Ecological Footprint (gha/capita)	Carbon Footprint (tonnes CO <sub>2</sub> /capita)	GHG Footprint (tonnes CO <sub>2</sub> eq/capita)
<b>Brighton &amp; Hove</b>			
2004	5.72	12.83	17.44
<b>2006</b>	<b>5.14</b>	<b>13.18</b>	<b>17.81</b>
<b>South East</b>			
2004	5.63	12.76	17.28
<b>2006</b>	<b>5.09</b>	<b>13.17</b>	<b>17.73</b>
<b>UK</b>			
2004	5.30	12.08	16.34
<b>2006</b>	<b>4.64</b>	<b>12.10</b>	<b>16.24</b>

[SEI 2006]

<http://www.resource-accounting.org.uk/downloads/general-footprint-report.pdf>

<http://www.resource-accounting.org.uk/downloads/south-east/brighton-and-hove>

### Data development

While the range of data that tracks longer term trends helps to provide a bigger picture relating to greenhouse gases and consumption-based impacts, direct CO<sub>2</sub> emissions data is used throughout this strategy as the main indicator, and it is recognised that there is a need to develop more sensitive indicators that help to prioritise action for the key outcomes.

The REAP data provides an understanding of the broader range of greenhouse gas and ecological footprint, as well as demonstrating CO<sub>2</sub> emissions based on consumption are higher. Latest REAP data relates to 2006, so this is helpful in providing understanding and direction, but not suitable for tracking performance.

Data available (NI186 and REAP data) indicates trends and relativity, and doesn't provide up-to-date information around the impact of associated trends in population, recession and consumer behaviour (although the REAP data is consumption-based).

This strategy is designed to make best use of existing data, and until more up-to date data is available, CO<sub>2</sub> emissions will continue to be the main indicator for this strategy, using NI 186 and DECC gas, electricity and transport data as longer term tracking indicators, while developing proxy indicators to help prioritise actions and demonstrate the value of interventions.

We will continue to keep up to date with REAP and other data to provide broader understanding of behaviour.

Data development is included as an action in each section.

## CURRENT TARGETS

### National targets

The UK [Climate Change Act 2008](#) set legally binding targets for 2020 (a reduction of 34 percent in greenhouse gas emissions) and for 2050 (a reduction of at least 80 percent in greenhouse gas emissions), and introduced five-yearly [carbon budgets](#) to help ensure these targets are met. [\[DECC\]](#)

### Local targets

The baseline year for UK targets is 1990. This data (1990 greenhouse gas emissions) is not available for Brighton & Hove, so CO<sub>2</sub> is used as an indicator, and the baseline year is set to 2005, which is consistent with the approach adopted other local authority areas.

Local carbon footprint and ecological footprint targets have been set by the Brighton & Hove Strategic Partnership in the city's Sustainable Community Strategy [p 55] on this basis. These are:

#### *Carbon footprint*

"Achieve, from a 2005 baseline of 5.69\* tonnes per capita:

- A 12% reduction in city CO<sub>2</sub> 'direct' emissions by 2008/09
- A 42% reduction in carbon dioxide emissions by 2020
- An 80% reduction in carbon dioxide emissions by 2050".

[\*Note that the 2005 baseline changed in the 2009 NI186 estimates [\[DECC\]](#) from 5.53 tonnes to 5.69 due to data improvements. All references in this strategy relate to the new baseline]

#### *Ecological footprint*

"From a starting point of no increase in 2012/13 on the 2006 per capita City Ecological Footprint baseline of 5.72 global hectares (gha) per person, achieve a reduction to:

- 2.5 gha per person by 2020; and
- 1.25 gha per person by 2050.

[Sustainable Community Strategy (p64)]

## HOW THIS STRATEGY HAS BEEN DEVELOPED

In developing this strategy, early consultation has taken place with members of the Brighton & Hove Strategic Partnership (B&HSP) and with council members and officers, many of whom had been involved in the previous Climate Change Action Plan.

Further joint work has been undertaken with members of the City Sustainability Partnership (CSP) in the form of a working group to develop the scope and content of this strategy. Progress on its development has been reported on a regular basis to the CSP, and recommendations incorporated.

A self assessment exercise was undertaken in June 2010 to provide a snapshot of actions and activities across the city based on a sample of B&HSP members. Results suggested that while there are many pockets of good practice, and most respondents showed commitment to establishing policies and practices to reduce their carbon footprints, most did not have well-established processes for measuring their emissions. Only one respondent reported plans for adapting to climate change.

Feedback suggested:

- Fewer, clearer actions should be identified to deliver tangible benefits, and that a citywide approach should be adopted
- Successful identification and engagement of partners is important, with a long-term, co-ordinated approach and the ability to recognise where work programmes can be effectively linked to achieve outcomes.
- Clear leadership and governance will be critical, without losing the ability to act less formally to achieve the same or better results.

The approach adopted in refining this strategy has been to develop a shared vision through the City Sustainability Partnership; to promote engagement and ownership, with agreed roles and responsibilities; to use the strategy to enhance existing work programmes where possible and to develop a clear set of outcomes.

## STRATEGY MANAGEMENT AND REPORTING

This section sets out overall city leadership and identifies the people who have key responsibilities in the city, encouraging people and partnerships to work together.

This strategy is designed to make the most of links with other work going on in the city. Responsibilities have been formally agreed, to promote strong leadership and direction to make sure we stay on the right track to meet our targets.

### **Overall city leadership**

The Public Service Board, chaired by the Leader of the council, is responsible for the overall delivery of this strategy, supported by the Brighton and Hove Strategic Partnership chair.

### **Performance and exception reporting**

Progress will be reported to the Brighton & Hove Strategic Partnership through the Cabinet Member for Environment and Sustainability and the Strategic Director, Place through the Environment and Sustainability Programme Delivery Group. Reporting will be aligned to meet the requirements of the Nottingham Declaration and the City Performance Plan.

Regular updates will be reported on Brighton & Hove Strategic Partnership's and the Council's website; with annual reports against Nottingham Declaration to the Brighton and Hove Strategic Partnership and Cabinet.

Table 3 sets out the agreed management structure for implementing the strategy.



**Table 3 Responsibility for implementation**

	Lead member	Lead Partnerships	Lead officer	City partnership champion
Low carbon economy	Cabinet Member for Planning, Economic Development and Regeneration	Brighton & Hove Economic Partnership  Food Partnership	Strategic Director, Place	Business representative
Low carbon homes and buildings	Cabinet Member for Planning, Economic Development and Regeneration; Cabinet Member for Housing	Housing Partnership	Strategic Director, Place	TBA
Low carbon transport	Cabinet Member for Transport and Public Realm	Transport Partnership	Strategic Director, Place	Transport representative
Renewable and sustainable energy resources	Cabinet Member for Environment and Sustainability;  Cabinet Member for Finance and Central Services	City Sustainability Partnership	Strategic Director, Place;	TBA
Adapting to climate change	Cabinet Member for Environment and Sustainability	City Sustainability Partnership  Food Partnership	Strategic Director, Place	Environment Agency representative (Vice chair)

## RESOURCE IMPLICATIONS

### The economics of climate change.

The economic benefits of early action were set out in the [Stern Review of the Economics of Climate Change in 2006](#). Some action has been taken in Brighton & Hove, and this is an opportunity to mobilise the city, taking a strong, leadership role in cutting emissions and ensuring the city is well-placed to manage the risks of climate change.

It is thought that the costs of adapting to climate change have been underestimated <http://www.independent.co.uk/environment/climate-change/annual-cost-of-climate-change-will-be-163190bn-1778391.html> [Independent, 2009]

There is currently no information about the financial cost of climate change in the city.

Huhne, June 2011 to the Corporate Leaders' Group, London  
 'The economics of climate change'  
[http://www.decc.gov.uk/en/content/cms/news/ec\\_cc\\_ch/ec\\_cc\\_ch.aspx](http://www.decc.gov.uk/en/content/cms/news/ec_cc_ch/ec_cc_ch.aspx)

*Sets out three key arguments about the economics of climate change:*

- *"First, we must get off the oil hook – and onto clean, green growth. The science demands it. Our survival requires it. And our living standards will benefit from it.*
- *Second, this low-carbon revolution can offset fiscal tightening and turbo-charge jobs. It is a large part of the answer to the question of where the jobs and growth are coming from.*
- *And third, our economy will be more stable and secure as energy imports wane. Every business will benefit from moderating boom and bust.*

*Together, these arguments make up the case for 'green growth': investment in the infrastructure, industries and technologies that can change our economic future for the better."*

### Budget constraints and opportunities

This strategy is designed to bring together work that is already being done in the city; and to inform future commissioning. No new additional resources have been identified and this strategy is designed to influence existing and planned work programmes, with further resource implications to be factored in as this work progresses.

There is scope for work to be integrated into 'business as usual' making sure that the strategy influences and adds value to existing and developing strategies, such as the third Local Transport Plan, the emerging City Plan (formerly the core strategy) and the review of the city's Economic Strategy.

Government and European funding opportunities will be explored to support the delivery of key pieces of work towards city carbon reduction and adaptation.

## SECTION 2

This section provides focus for each of the five high level outcomes, which are broken down to promote understanding of the issue and provide a framework for the development of actions.

The outcomes for this strategy are:

- A low carbon economy
- Low carbon homes and buildings
- Low carbon transport
- Renewable and sustainable energy resources; and
- A city adapting well to climate change

Framework for developing actions:

- Background
- What we are doing already
- Next steps
- Measuring progress

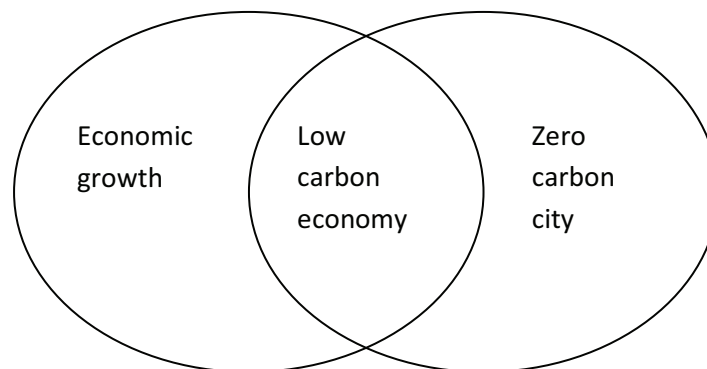
## A LOW CARBON ECONOMY

### Background

Industry and commerce contributes around 32% to Brighton & Hove's carbon footprint, or nearly 400,000 tonnes per year. [NI 186, 2009]

A low carbon economy can deliver opportunities across a wide range of business sectors, not just to those seen as being in the 'traditionally' environmental technologies sector. Businesses can benefit from the low carbon economy in two ways: diversify into new low carbon products or become more efficient in their current processes.

The value of a healthy and growing economy for people and businesses in the city is clear. There is significant scope in Brighton & Hove to develop the low carbon sector, developing and facilitating investment in environmental industries - including business support in resource efficiency - while working towards a low carbon city over the longer term.



The city has a vibrant economy; many businesses have already recognised the need to reduce carbon emissions and are already improving resource efficiency and cutting costs. This helps build their own and the city's competitive advantage and – for larger organisations – to meet the requirements of the Carbon Reduction Commitment. Many smaller businesses have signed up to 10:10 and made commitments through their environmental policy to reduce energy use. At the same time, the city is keen to develop the environmental industries sector, including supporting local green businesses and jobs. New skills are needed to support the growing renewables and environmental industries sector, and the city is well-placed with its two universities and City College to meet this need.

The economic risks and opportunities of climate change are included in the Adaptation section.

### What we are doing already

The Sustainable Community Strategy (2010) says that “There is a unique opportunity for Brighton & Hove to pioneer the development of a Low Carbon Economy, which is essential if it is to achieve the medium and long term CO<sub>2</sub> cuts it is committed to. This can be achieved through exploiting our established strengths in decarbonised industries (such as supporting development of secondary food processing businesses within the city in order to reduce food miles), exploiting the growth potential of sustainable/environmental industries in the city ensuring sustainable resource management by Brighton & Hove businesses, and by building on widespread interest and commitment in business and wider communities.”

There is a strong link with the ‘Local and Sustainable Food’ element of the One Planet Framework and the Sustainable Community Strategy, the city's Food Strategy work, in

particular with respect to food production and processing, supply chains, the retail and hospitality sector, land use and food waste disposal.

One of the overall Environmental Industries Scrutiny Panel recommendations was for a Champion for Environmental Industries on the Economic Partnership Board (the council leader), and for a lead officer for environmental industries to be a key point of contact for those in this sector seeking information and support.

Other progress includes:

- The council provides sustainable business information on its [website](#), including:
  - [Low Carbon Business Guide](#)
  - Sustainable business advice (BETRE)
  - Low carbon business reviews
  - Further advice: Carbon reduction for businesses - [Business Link](#)
- The [Brighton & Hove 10:10](#) campaign has a business strand, encouraging businesses to sign up and cut their carbon and has developed a comprehensive set of case studies.
- Brighton & Hove Chamber of Commerce has set up a Green Group with the aim of promoting the benefits of green business.
- The Brighton Peace and Environment Centre has published a [Green Guide](#) to local suppliers and services
- Brighton & Hove's events are managed through a [Sustainable events and venues](#) management system.
- The city's "[Be local Buy local](#)" scheme promotes participation in local supply chains

### Next steps

The main mechanisms for taking forward the Low Carbon Economy work will be the review of the City Economic Strategy and the implementation of the Environmental Industries Scrutiny recommendations. The Council's Corporate Plan [2011] includes growth of the Environmental Industries Sector as a measure towards achieving 'A strong and low carbon economy'.

This strategy is designed to inform further work. The concept of a low carbon economy for Brighton and Hove has been explored through informal stakeholder workshops, informed by the One Planet Principles, the Sustainable Community Strategy (SCS), the Council's Corporate Plan and the Environmental Industries Scrutiny Panel (EISP) recommendations. Recognising that further validation will be undertaken as the city's Economic Strategy is reviewed, the components of a low carbon economy for Brighton & Hove were discussed, and possible sub-outcomes have been suggested:

- Globally competitive environmental industries sector
- Energy efficient private, public & third sector organisations
- Sustainable tourism
- Well-developed environmental knowledge and skills
- A reduced need to travel
- Low carbon supply chains.

These are aligned here with existing commitments to inform further work:

### **Globally competitive environmental industries sector**

The Sustainable Community Strategy makes a commitment to: "Promote the city's businesses and strengths in supporting a low carbon economy for the UK, Europe and the world, and explore the potential of sustainable/environmental industries in the city as a key growth sector." Other relevant commitments include:

- Business Retention and Inward Investment Strategy and Action Plan, linked with other relevant strategies/ plans [2.EISP]
- Provide affordable work space to retain growing companies in this sector [3.EISP]

- Use planning policies, for example the emerging City Plan (former Core Strategy) to support the growth of EI [10. EISP]
- Encourage businesses in the city that offer environmental, technical or management solutions.

#### *Innovation*

- Develop an Environmental Innovation Network [4.EISP]
- Establish an innovation centre to develop new technologies in the sector & support emerging and expanding companies [12. EISP]

#### *Regional links*

- Work with local organisations and authorities, regional and sub regional bodies to help the development of the EI sector; promoting collaboration e.g. manufacturing space [14 EISP]

#### *Funding support*

- Investigate the full range of funding opportunities and schemes to support low carbon investment & create local jobs (e.g. Community Energy Saving Programme) – link with buildings [16. EISP]
- Produce an SME funding map for environmental industries [20. EISP]

#### *City branding development*

- Increasing the profile of this sector in the city [19. EISP]
- Become a pilot authority to attract innovative companies and products [18. EISP]

### **Energy efficient private, public & third sector organisations**

- Make optimum use of space and good facilities management
- Substantially increase the environmental / sustainability auditing and practical advice services to businesses across the city. Enabling widespread environmental management would allow Brighton & Hove businesses to become more resource efficient and to reduce waste [SCS]
- Social enterprise development [15. EISP]
- Directory – produce a comprehensive directory of environmental management and technology businesses in the city

### **Sustainable tourism**

The council's Corporate Plan [2011] makes a commitment to launch the city's first eco-tourism strategy.

- Establish Green Tourism awards for local businesses with a Green Code of Practice for the city tourist industry [Corporate Plan]
- Further promote the use of sustainable events standard BS8901 events for events in the city
- Access: promote ecotourism in the city for cyclists and walkers, taking advantage of our location on the national cycle network and the South Downs National park; and our role as a cycle demonstration city [Corporate Plan]

### **Well-developed environmental knowledge and skills**

- Create a 'centre of expertise' to develop low carbon city intelligence and inform the ongoing development, continuous improvement and implementation of the Climate Change Strategy, and to maximise the potential of funding and innovation opportunities.
- Build strong skills, knowledge and employment opportunities for the city's workforce, including:
  - o Leadership and management skills in strategic planning, decision-making, project management and effecting practical implementation of solutions
  - o Sustainable energy, design and environmental technology skills
  - o Trade skills to support energy efficient buildings and renewables installations
- Apprenticeships [5.EISP]
- Inter-college partnerships (address skills gaps in EI and retrofitting) [6.EISP]
- 17. Assess how to help graduates gain employment in EI or contribute knowledge to the Council [EISP]
- City Employment and Skills Steering Group: proposal to develop an energy and renewables training centre. [September 2011]

### **A reduced need to travel**

Road congestion is recognised as a barrier to economic success as well as contributing to CO<sub>2</sub> and other emissions, and is strongly linked to the 'Low Carbon Transport' outcome of this strategy. This was explored in informal workshops [July/August 2011]. Suggestions for further development included:

- Logistics and route planning to optimise delivery mileage and business travel
- The use of digital solutions, e.g. Skype and videoconferencing where appropriate for meetings and flexible working options.

### Low carbon supply chains

- Council procurement policy to promote growth and development of EI & promote innovative/environmental companies to tender [7.EISP]
- Develop low carbon supply chain management capability through the South-East 7 procurement consortium.

### Measuring progress

The NI 186 indicator incorporates the contribution of Industry & Commerce to the city's carbon footprint. This is a high-level indicator, and isn't sensitive enough to demonstrate immediate direct influence of any action taken.

Suggestions for further data development will be taken forward through the strategy's implementation, and considerations will include:

- CO2 emissions per capita (former NI 186) and total emissions for Industry and Commerce component
- Establish simple business carbon reporting scheme, using common recognised footprint methodology
- Tracking the number of businesses with
  - o An Environmental Management System
  - o Business support annual take-up and outcomes
  - o Procurement code of practice
- Number of businesses and organisations signed up to 10:10; carbon saved; case studies
- Environmental Industries Sector breakdown and potential (note that BHCC Economic Development is developing an indicator to measure the growth of the environmental industries sector).
- Number of businesses subject to Carbon Reduction Commitment Energy Efficiency Scheme; reports on carbon reduction from this
- Number of organisations with a recognised Carbon Trust Carbon Management Programme; reports from this.

## LOW CARBON HOMES AND BUILDINGS

### Background

Buildings contribute around 42% to Brighton & Hove's carbon footprint, or 514,000 tonnes per year.

To keep up the momentum in emissions reduction we need to increase the energy efficiency of buildings. By using low and zero carbon energy technologies and district heat and power systems we can reduce greenhouse gas emissions even further. Becoming more aware of energy use and adapting our behaviour can deliver significant carbon reductions. Planning for the risks and opportunities of climate change is also important, ensuring planning policies and decisions reflect this to help build city resilience.

### Characteristics of buildings in Brighton & Hove

Brighton & Hove has around 253,000 residents, living in some 123,000 homes.

The age profile of the total private housing stock of 104,100 dwellings in Brighton & Hove differs from the average for England in that there is a substantially higher proportion of pre-1919 housing at 39.8% compared to the national average of 24.9%. These are almost all solid wall properties that have no cavity that can be easily filled, so heat loss is harder to reduce. There are also slightly higher levels in the 1919 to 1945 age group (25.9% compared to 18.5%). There are however, significantly fewer numbers in the post 1944 age groups. This shows a housing profile that is older than the national picture with 65.7% built before 1945 compared to 43.4% in England as a whole.

The building type profile in Brighton & Hove again differs from the national pattern with a much higher level of converted flats - over seven times that found nationally. Low rise purpose built flats (five or fewer storeys) and high rise purpose built flats (defined as having six or more storeys) are more prevalent as are medium/large terraced houses. There are consequently lower numbers of bungalows, detached, semi-detached and small terraced houses.

The tenure profile in Brighton & Hove also differs from the national average in that there are lower proportions of owner occupied dwellings (62% compared to 71% for England) but with a significantly higher privately rented sector at 23% compared to 11% in England.

Due to the housing stock characteristics many of the private sector properties could be labelled as 'hard to treat' in relation to standard energy efficiency measures. This may also be exacerbated by the number of heritage buildings in the city.

In the council housing stock the current [Standard Assessment Procedure for energy rating of dwellings \(SAP\)](#) rating of 76.4 puts the city in the top quartile of performance in this indicator.

Much of this information is taken from the [Private Sector House Condition Survey](#) carried out in 2008.

The city council has a strong role in delivering home energy efficiency improvements across both the council housing stock and the private sector. Across private sector housing the BEST programme has funded the Brighton & Hove Energy Action Partnership (BHEAP) which has delivered home energy efficiency measures to some of the most vulnerable residents in Private Sector Housing, including:

- Over 1400 loft insulations; Over 1100 cavity wall insulation
- Over 1500 heating measures; Over 150 solar water heating systems.



Historically across the council housing stock there has been significant investment in insulation & heating, including:

- £3.5 million investment in boiler & heating replacements and upgrades, installing high efficiency condensing boilers
- Two insulated overcladding projects (in 2010) to Wiltshire House and Somerset Point and a communal solar hot water system at Hazelholt sheltered scheme, partly funded by utility company grant monies.

## What we are doing already

### Sustainable buildings:

- The council has developed a Supplementary Planning Document – [Sustainable Building Design SPD08](#) to provide detailed, up to date, clear advice to various user-groups on relevant sustainable design policies. This is currently (2011) being updated, and aims to
  - Improve the environmental performance of the city’s new build and existing buildings; and
  - Make sure all developments in Brighton & Hove achieve the highest possible standards of sustainable building design.
  - This SPD will incorporate current guidance on Energy Efficiency & Renewable Energy (SPGBH 16) and the Brighton & Hove Sustainability Checklist (SPGBH21).
- All residential planning applications involving new builds and conversions within the city require a completed Brighton & Hove [Sustainability checklist](#). Planning applications without a completed sustainability checklist cannot be registered. The checklist also now requires low carbon design in terms of energy use in occupation, and an [Embodied carbon emissions calculator](#) is now part of the checklist. This tool facilitates a more dynamic approach by estimating the total amount of CO<sub>2</sub> emitted during the manufacture of key materials.
- [Eco open houses](#) is an award winning annual event in Brighton and Hove run by Brighton & Hove City Council, Brighton Permaculture Trust and Low Carbon Trust that aims to inspire the uptake of energy efficiency measure by opening up houses that demonstrate best practice in the area. People are either given a tour of the houses by a householder or a professional that worked on the project, or they ‘drop-in’ for an informal look around.
- One of the key aims of the [Brighton & Hove Housing Strategy 2011-14](#) is Improving Housing Quality in the city. Private Sector Housing Renewal Assistance Programme supports this aim - focusing on improving conditions in the private rented and owner occupied sectors. Key areas of private sector housing renewal assistance focus on: home energy efficiency; decent homes; bringing empty private sector homes back into use; housing adaptations and assistance to enable those with a disability to continue to live independently in their home.
- There are a number of [grants or discounts](#) available to people of all ages and incomes which can help improve energy efficiency in the home.
- The Community Energy Saving Programme ([CESP](#)) provides funding towards energy efficiency measures in council housing stock (CESP targets households across Great Britain, in areas of low income, to improve energy efficiency standards, and reduce fuel bills).
- CERT funding for energy efficiency measures council housing stock. The Carbon Emissions Reduction Target ([CERT](#)) requires all domestic energy suppliers with a customer base in excess of 50,000 customers to make savings in the amount of CO<sub>2</sub> emitted by householders. Suppliers meet this target by promoting the uptake of low carbon energy solutions to household energy consumers, helping them to reduce the carbon footprint of their homes.
- Warm Homes is a CERT funded scheme for free or discounted loft and cavity wall insulation for owner occupiers, leaseholders and tenants.
- An Energy Efficiency Working Group trains Council housing tenants to become energy efficiency champions.

## Next steps

Sub outcomes have been proposed, and are set out here together with suggested next steps.

### *Existing Buildings*

#### **Energy efficiency of homes and buildings: refurbishment (retrofit) of energy efficiency measures**

- Maximise funding of measures through existing programmes
- Exploring options for Green Deal projects – with the potential to generate significant investment in the local housing stock on energy efficiency measures
- Delivery of Green Deal and Energy Company's Obligation (ECO) in the city to ensure choice and coverage to all residents in all tenures

#### **Improved energy efficiency in the private rented sector**

- Continued advice and support
- Explore availability of funding for grants and consider affordable loans option

#### **Address fuel poverty, and impacts of excess cold and poor housing on health**

- Continue to work with GP and Health professionals to improve health
- Provision of training to relevant groups of 'front-line' staff to increase awareness of fuel poverty and its impacts

### *Existing and new buildings*

#### **Increased use of renewable energy**

- Procurement and installation of solar photovoltaics for council housing (1600 roofs) and corporate buildings [2011/12]
- Explore renewable heat technologies appropriate in housing linked to the Renewable Heat Incentive

### *New buildings*

#### **Planning policy and guidance**

- Review SPD08 (2012), which sets specific standards by building size, type and use.
- Develop City Plan, which sets overall environmental performance standards for planned development
- Develop Site Allocations Development Plan Document (DPD), which sets performance standards for particular development sites in the city.

## Measuring progress

The NI 186 indicator incorporates the contribution of domestic buildings to the city's carbon footprint. This is a high-level indicator, and isn't sensitive enough to demonstrate immediate direct influence of any action taken.

Suggestions for further data development include:

- CO<sub>2</sub> emissions per capita (former NI 186) and total emissions for domestic component
- Council Carbon Footprint (Carbon Management Programme/Carbon Reduction Commitment)
- Planning data:
  1. Additional kW capacity renewable heat generating infrastructure installed in city (sustainability checklist data) R&SER
  2. Additional kWh capacity renewable electricity generating infrastructure installed.
  3. New built homes delivered at Code for Sustainable Homes level 3, 4, 5 or 6
  4. Number of new build non residential developments built to BREEAM very good/excellent/outstanding
  5. Average kgCO<sub>2</sub>/m<sup>2</sup>/year (energy and carbon) performance of new built residential development
- Energy performance of council housing and corporate building PV project
- A reduction in the number of people living in fuel poverty (Indicator currently under review by National Government) is included as a measure in the Council's Corporate Plan [2011].

## LOW CARBON TRANSPORT

### Background

It is estimated that transport contributes around 26% to Brighton & Hove's carbon footprint, or 317,000 tonnes per year (2009). Although transport CO<sub>2</sub> emissions have been reducing since 2005, these emissions mainly come from road transport. If car use continues to increase and planned development comes forward, higher levels of congestion and the associated carbon emissions will need to be mitigated in the city if targets are to be met.

Transport technology will play an important role in reducing carbon. Local measures can also make a difference, including:

- Greater use of public transport – bus and rail
- Greater use of zero carbon transport options – walking and cycling
- Changes in travel patterns and behaviour – such as car sharing or flexible working
- Reducing the need to travel – such as videoconferences, use of the internet or mobile services

By informing and influencing journey patterns, promoting and encouraging the use of more sustainable transport options, and providing measures that increase people's travel options, the council can help tackle climate change and reduce carbon emissions.

The council's Corporate Plan commits the council to offer greater choice in how people move around the city, prioritising action in the new Local Transport Plan to support a fairer balance between all road users.

### What we are doing already

- The rate of traffic growth in the morning peak hour has been decreasing over the last few years but there is still room for improvement. Parts of the road network are reaching capacity and it is estimated that around 27,000 car trips per day in the city are less than 3 miles.
- The council's third Local Transport Plan was approved in May 2011 and is based on achieving five high level goals which include 'reducing carbon emissions'. Two key local transport objectives have been identified. These are:
  - Increase the use of low emission forms of transport and support the use of associated technologies
  - Reduce the need to travel for some journeys and enable people to travel more sustainably.
- Rail: there are eight stations in the city, all are well-served by the local bus network. Over 19 million people used the city's train stations. Brighton & Hove Bus and Coach Company have been proactive in timetabling to integrate buses with train arrivals and departures. All the stations in the city have secure cycle parking and the council is working with Southern Railways to enhance these facilities.
- Bus: The city has an extensive network of buses, most of which are operated commercially. Bus usage has increased year on year from 30.2 million journeys in 2001 to 41.1 million in 2009/10. Opportunities exist for further expansion of the bus network – both services and infrastructure.
- The council is keen to encourage walking; many of the city's key sites are within 15 minutes walk of each other. Brighton & Hove is a major tourist destination resulting in a 100% increase in pedestrians between winter and summer. Visitor maps and signs have been introduced to ensure that the main central attractions have been highlighted. Improvements to streets and public areas also help to improve the public spaces for people travelling through an area, or to use the space to enjoy, meet or rest.

- Cycling in Brighton & Hove has increased substantially over recent years (27% increase recorded in the 2006-2008 period). There are cycle lanes across the city, including the seafront, Grand Avenue and The Drive, Hove to Hangleton and Lewes Road. A further segregated cycle lane is proposed for part of Old Shoreham Road providing safer cycle to schools and colleges along the route. The council is increasing cycle parking and other cycling facilities across the city; including on-street cycle parking in “cluster blocks”. A council Bike-It officer works with local schools to promote cycling for children and families.
- There is travel and transport information on the council website for all modes and the JourneyOn website gives travel information for Brighton & Hove. It includes real time bus and traffic information plus a unique journey planner to plan a route across the city and work out the time, cost, carbon emissions and even the number of calories burned.
- Car Clubs: two “pay as you drive” car club operators provide over 80 vehicles in the city. The council also promotes lift-share schemes.
- Brighton & Hove was the first local authority outside London to install on-street electric vehicle charging points: there are now six on-street charging points installed and another two planned.
- Travel Behaviour change: A programme of personal travel planning has been carried out in areas of Brighton & Hove since 2006 and has achieved successes in reducing the proportion of car journeys and raising the profile of sustainable transport options. 60,000 households have been contacted so far and since 2008 more innovative approaches have been developed and funded through the European CIVITAS programme, including the use of social marketing.
- School Travel planning: The council has an active school travel planning programme and all but one local authority school now has a travel plan in place. We are now working towards achieving this level of cover in the local/ independent schools sector.
- The council also has a Business Travel Plan Partnership to raise awareness of sustainable travel and to reduce the impact of car use in the city. Funding has been provided from LTP2 to match fund organisations wishing to encourage cycle parking provision and to encourage employees to travel more sustainably.
- Accessibility : All of the Brighton & Hove Bus and Coach Company’s bus fleet have low floor access for people with mobility problems, 98% of the bus fleet is wheelchair accessible and there are plans to reach 100% this year. 20% of the city’s bus stops have raised access kerbs enabling easier access. There are now 161 Real Time Information (RTI) signs at bus stops across the city (and a further 7 planned for this year), giving assurance to passengers as to when the next bus is due. Linked into the RTI system are 42 Talking Bus Stops, giving audible bus information to people with sight impairment. Large print timetables are also available on demand.

### Next steps

The main mechanism for taking this work forward will be through the Local Transport Plan (LTP3). Based on this, sub outcomes have been proposed, and are set out here together with suggested next steps:

#### **Well-maintained and more efficient transport network/infrastructure**

- Improved pavement and road surfaces
- Better street lighting
- Co-ordination of roadworks

#### **Better management of movement and more efficient transport use**

- Use of technology
- Priority for public transport
- Co-ordinated/efficient freight and goods distribution and deliveries
- Promote and provide for use of alternative fuels
- Application of integrated transport and planning policies

### **Improvements to the transport network**

- Change travel behaviour
  - o awareness and publicity campaigns
  - o travel planning – schools, businesses, communities, individuals
- Deliver sustainable and accessible travel options
  - o improved walking and cycling facilities and routes
  - o improved Rights of Way and access to open spaces
  - o better citywide public transport services
  - o increase availability of car club vehicles
- Provide a safer environment
  - o manage driver speeds

### **Reduced carbon emissions**

- Increase the use of low emission forms of transport and support the use of associated technologies
- Reduce the need to travel for some journeys and enable people to travel more sustainably

### **Measuring progress**

Suggestions for further data development to assist in understanding progress in carbon reduction include:

- CO<sub>2</sub> emissions per capita (former NI 186) and total emissions for transport component
- average journey times
- peak period traffic flows
- accessibility to services by walking, cycling and public transport
- bus patronage
- cycling trips
- walking trips
- air quality

### **Communication and engagement**

Inclusive, healthy, and affordable transport options are also needed which help to reduce the social gap across the city so no one is seriously disadvantaged. Involving people and communities can be particularly valuable as part of initiatives that help to encourage sustainable travel choices and promote urban realm and street improvements such as cycling and walking, or providing travel information, like personalised travel planning. Consultation has helped to shape and develop this LTP3 and more direct or focused consultation will take place on a more local basis as ideas or schemes are developed

### **Reporting**

We are reviewing the progress made against LTP2 targets to allow better measuring and funding. We plan to develop a framework to help measure success against targets and timescales.

## RENEWABLE AND SUSTAINABLE ENERGY RESOURCES

### Background

This section focuses on the renewable and sustainable energy potential for the city. In particular it looks at how the city and its partners could develop renewable and sustainable energy resources, taking best advantage of incentives on offer and working to grow emerging renewable energy business in the city. It draws mainly from work undertaken through the council's Overview and Scrutiny Commission on Renewable Energy Potential in the City and the Environmental Industries sector. It also links strongly to other outcomes in the climate change strategy, including Low Carbon Economy and Low Carbon Buildings.

### What we are doing already

The Scrutiny Panel on the city's Renewable Energy Potential made 13 recommendations, and provides a valuable evidence base for this issue and mechanism for tracking progress. The Panel's main themes included reviewing the national and regional policies and opportunities for renewable energy, investigating other authorities' good practice, considering the successes and barriers that had been experienced by renewable energy installers in Brighton and Hove, and how the council could encourage the growth of renewable energy.

A report to the [Scrutiny Panel on Renewable Energy Potential](#) in April 2011 set out the following update on sustainable energy progress in the city to date:

- In 2010-11 the Private Sector Housing Renewal programme in Brighton & Hove included 25 renewable energy solar thermal hot water systems
- Assessment of the benefits of the Feed in Tariff scheme is being explored, together with other options to increase investment in home energy efficiency across the city.
- The council's solar photovoltaic (PV) programme is planned to start in April 2012
- An improved monitoring system through planning for renewables in new developments
- Mapping of council buildings with ageing oil-fired boilers in areas of the city with energy and heat demand - lending themselves to potential combined heat and power networks
- Work to explore council investment in a community energy fund which finances hard-to-fund feasibility and start up for community energy projects
- Work to explore development of a large scale solar photovoltaic (PV) project and in the potential for wind energy projects
- The council website includes information for residents and businesses on its [Renewable energy pages](#), including
  - o Feed-in Tariffs,
  - o Renewable Heat Incentive
  - o Renewable energy and planning
  - o Community Energy,
  - o Rampion off-shore windfarm.

### Next steps

The main mechanism for taking this work forward will be through implementing recommendations from the scrutiny work, and aligning this work closely with the Low Carbon Economy work.

Suggested next steps include the development of a comprehensive sustainable energy strategy for the city, including:

- Developing city intelligence, benchmarking identified innovative projects and cities, building up best practice and consistent information sources;
- Developing local sustainable energy generation capacity (skills, business support);
- A sustainable energy advice agency;

- Mapping opportunities for large-scale and small-scale sustainable energy development;
- Maximising the city's ability to access funding opportunities, and establishing a process for revenue and investment management;
- Developing an Investment plan to secure commitment from a range of stakeholders and investors

### **Measuring progress**

The Sustainable Community Strategy does not set a local target, but states the national target for 20% of UK energy to come from renewable energy by 2020.

The council has set a target of 30% of its energy to come from renewable sources in public buildings energy by 2015.

Progress against the Scrutiny recommendations is reported through the council's Overview and Scrutiny Panel and Cabinet.

Current microgeneration data can be found through the AEA Microgeneration Index. This data can be used to help track progress.

## A CITY ADAPTING WELL TO CLIMATE CHANGE

### Background

This section is about making sure the city is able to plan for the risks and opportunities that climate change brings. It draws mainly from work undertaken through the council's Overview and Scrutiny Commission on Adapting to Climate Change, and links across the whole strategy in its focus.

Our climate is changing. Across the country, winter rainfall has increased in recent years and summer rainfall has decreased. There has been an increase in average temperatures and mean sea level has risen. Climate projections are telling us that we will experience hotter drier summers, warmer wetter winters, disruption in usual weather patterns and more frequent or intense weather events (e.g. heat waves, droughts, and flooding) and continued rising sea level. This is likely to have an adverse impact on people, agriculture, water quality and availability, biodiversity, human health, buildings and infrastructure, public spaces, soils and the economy. [B&HCC OSC report "Monitoring Outcomes of the Scrutiny Review of Climate Change Adaptation" 19/7/11]

Altering our behaviour to respond to the impacts of climate change is known as 'adaptation'. It means not only protecting the city, its residents and businesses against negative impacts, but also making us better able to take advantage of any benefits.

It is important to make the distinction between emergency planning and adaptation planning. Emergency planning relates to a reactive response to situations, whereas adaptation planning is about developing a proactive approach and looks to save money in the long term through building resilience. The aim of adapting to climate change is to minimise impacts, and therefore reduce the requirements for an emergency response.

The Sustainable Community Strategy set out the background and intention for adaptation in the city, and showed progress to 2010. Building on this, the council's Scrutiny Review of Climate Change Adaptation, established in March 2010 has investigated what work needs to be done to make good progress in the city in planning for a changing local climate. The scrutiny review provides an effective platform to encourage progress in building the city's resilience; and this strategy provides the city with the opportunity to address climate change as a whole, including adaptation.

### What we are doing already

- A [Local Climate Impact Profile](#) study using a nationally recognised approach has been undertaken. This tool is designed to enable local authorities to understand how their council services are affected by historical climate events and how they can learn from such experience to adapt to a future climate.
- Basic analysis of [Climate Projections](#) has been undertaken but further work is required.
- Adaptation is currently being considered in the council's Strategic Risk Register and Management Action Plan to give a more prominent role to managing the risks of climate change and preparing for the effects of severe weather. Severe weather risks are included in the Sussex Community Risk Register and the City Resilience Plan
- Phase 1 (of 4) of the Surface Water Management Plan has been completed and the information produced used to inform the preparation of the Preliminary Flood Risk Assessment.
- Key adaptation considerations are being developed for integration into tools and guidance for commissioners and report writers within the council.
- Monitoring: An early warning system has been developed for groundwater flooding and trialled in the Patcham area.



## Next steps

The adaptation scrutiny panel emphasised the importance of tracking progress against the NI188 framework, the former National Indicator on adaptation planning. A review of the city's performance suggests that Brighton & Hove remain at 'Level 0' of NI 188 until further analyses of climate projections are undertaken, but is heading towards Level '1' on this framework with a number of actions achieved at this level.

Although steps are being taken, the city, with a focus on residents, businesses and the community/voluntary sector would benefit from a co-ordinated long-term approach to adaptation, following the framework set out in the former National Indicator 188.

### Former National Indicator 188 criteria

#### Level 0: Baseline

The authority has begun the process of assessing the potential threats and opportunities across its estate and services (for example, flood and coastal resilience plans, emergency planning, community risk registers/strategies etc) and has identified and agreed the next steps to build on that assessment in a systematic and coordinated way

#### Level 1: Public commitment and prioritised risk-based assessment

The authority has made a public commitment to identify and manage climate related risk. It has undertaken a local risk-based assessment of significant vulnerabilities and opportunities to weather and climate, both now and in the future. It can demonstrate a sound understanding of those not yet addressed in existing strategies and actions (e.g. in land use planning documents, service delivery plans, flood and coastal resilience plans, emergency planning, community risk registers/strategies etc). It has communicated these potential vulnerabilities and opportunities to department/service heads and other local partners and has set out the next steps in addressing them.

#### Level 2: Comprehensive risk-based assessment and prioritised action in some areas

The Authority has undertaken a comprehensive risk based assessment of vulnerabilities to weather and climate, both now and in the future, and has identified priority risks for its services. It has identified the most effective adaptive responses and has started incorporating these in council strategies, plans, partnerships and operations (such as planning, flood management, economic development, social care, services for children, transport etc). It has begun implementing appropriate adaptive responses in some priority areas. In its role as a community leader the council has started working with its LSP encouraging identification of major weather and climate vulnerabilities and opportunities that affect the delivery of the LSP's objectives.

#### Level 3: Comprehensive action plan and prioritised action in all priority areas

The Authority has embedded climate impacts and risks across council decision making. It has developed a comprehensive adaptation action plan to deliver the necessary steps to achieve the existing objectives set out in council strategies, plans, investment decisions and partnership arrangements in light of projected climate change and is implementing appropriate adaptive responses in all priority areas. This includes leadership and support for LSPs in taking a risk based approach to managing major weather and climate vulnerabilities/opportunities across the wider local authority area.

#### Level 4: Implementation, monitoring and continuous review

Authority and LSP are implementing the comprehensive adaptation action plan across the local authority area, and there is a robust process for regular and continual monitoring and review to ensure progress with each measure and updating of objectives. The Authority and LSP are taking appropriate adaptive responses.

Ref: Self Assessment guidance and matrix for National Indicator NI 188 - Planning to adapt to climate change (Defra) <http://www.lga.gov.uk/lga/aio/1821951>

The Local Climate Impact Profile work made steps towards raising awareness of climate change adaptation across the organisation (the council). Much more could be done across the city to improve resilience and preparedness, including detailed analysis of the local climate projections, a comprehensive assessment of risks and opportunities of our changing climate and a community engagement programme to increase resilience in severe weather.

Options for further work include:

- Integration into existing work programmes: the development of the City Plan, emergency planning, Surface Water Management Plan, the Biosphere Reserve bid, the review of the city Economic Strategy;
- Explore funding bids to build on this work, following the NI188 framework
- Joint programmes with Local Authorities, Universities, the Community and Voluntary Sector and other partnerships
- Strategic Partnership to broaden the scope of work (Public Service Board and Economic Partnership).

### **Measuring progress**

Progress against the Scrutiny recommendations is reported through the council's Overview and Scrutiny Panel and Cabinet.

Recommendations to measure progress include the number of organisations in the city with adaptation plans, and progress towards next levels of the former NI188 Indicator, which sets out clear criteria that could be used for this outcome: 'a city adapting well to climate change'.

### **Groups and partnerships**

Relevant groups with a role in adaptation work include the Environment Agency and the Sussex Resilience Forum; and the work links closely with the City Resilience Plan and the Sussex Community Risk Register.

### **Further Links**

- [UK Climate Impacts Programme](#)
- [Climate South East](#)

## COMMUNICATING PROGRESS

### Background

This section is designed to support the whole strategy by building and sharing climate change intelligence in the city. The purpose is to continue to raise awareness, build understanding and promote a step change towards reducing CO<sub>2</sub> emissions and adapting to climate change – both in behaviour and by developing innovative solutions and engaging communities in a collaborative approach to both carbon reduction and adaptation.

There is scope to develop a shared approach to this across the city, coordinating and building city intelligence and establishing a recognised and respected information hub for its development.

Case studies and success stories are a recognised way of showing people the benefits of changing their behaviour – as well as painting a very practical picture of how things could be.

### What we are doing already

There is a wealth of knowledge, skills and projects across the city: within organisations, in the universities and schools, among climate change specialists and within community groups, including:

- Brighton & Hove 10:10
- Hanover1010 (HASL)
- Brighton Peace and Environment Centre
- Climate Connections
- The Low Carbon Trust
- Eco Open Houses
- Brighton Permaculture Trust
- The Green Centre
- The Tidy Street project, (Jon Bird University of Sussex and the Open University)
- City Community and Voluntary Sector Forum
- Eco Energy Fair
- Brighton & Hove Chamber of Commerce Green Group

### Next steps

Ideas for the development of next steps include:

- Develop intelligence (linking to all high-level outcomes) and city expertise, including an intelligence hub to help co-ordinate information and innovation
- Build understanding of issues across wide community, demonstrating the benefits of change
- Work with community groups, schools and other organisations to raise awareness and understanding of the issue of climate change, developing strong, simple messages that are attractive to a range of audiences to promote change.
- Develop easy-to-use tools to help people measure and understand changes they could make to reduce their carbon emissions
- Use existing outlets and channels, such as [my1010](#) - supporting the local 10:10 campaign
- Publish progress made.

