

# **Basingstoke and Deane Borough Council**

## **Home Energy Conservation Act Report – March 2015**

### **Introduction**

The Home Energy Conservation Act (HECA) 1995 acknowledges that local authorities are in a good position to work to improve the energy efficiency of all residential accommodation in their area. The Secretary of State for Energy and Climate Change requires that all English local authorities prepare reports setting out the energy conservation measures they will undertake that are practical, cost effective and likely to result in significant improvement in the energy efficiency of residential accommodation.

### **Basingstoke and Deane Borough Council's Ambitions and Priorities**

The Borough Council has a range of corporate documents and strategies that set out our approach to improving the efficiency of homes in the borough and, more generally, on climate change. This includes:

- Our Council Plan 2013 – 2017 – which highlights the ambition to ‘take action to reduce energy use and introduce renewable energy, both for our own premises and the borough’;
- Our Carbon Management Strategy – which sets out how the Borough Council will reduce its carbon footprint, including a commitment to a 15% reduction in carbon emissions in the council's own buildings and operations by 2016;
- Our Climate Change Strategy which sets out how the Council will work towards the delivery of our shared Vision and the Council Plan in respect of climate change, including three pledges focussed around reducing carbon emissions, encouraging and supporting residents and businesses to reduce emissions and help them plan for the impacts of climate change.
- Our Sustainability Policy – which sets out the Borough Council's aims and objectives to encourage sustainable objectives, including using resources carefully and minimising waste and
- Sustainable Community Strategy – which establishes a joint vision for the future of Borough, including protecting the environment and responding to the challenges of climate change.

In addition, we have developed a Green Investment Fund, with a budget of £1 million, which will be used to provide low interest loans to households and community groups in the borough to undertake improvements to their homes or village halls. The scope of this includes improved insulation, energy efficient heating and lighting and renewable energy technologies.

Our HECA Report builds upon the framework provided by these documents and sets out the strategic and partnership context for our energy conservation and fuel poverty work. It contains:

1. Understanding our Borough, including its housing stock, energy consumption characteristics and carbon emissions;
2. Overall aims and objectives; and
3. Actions to deliver our aims and objectives

The Government requires that we publish a HECA report every two years. However, given that this is an area that is rapidly evolving, with new initiatives and schemes, we will update this on an annual basis. This helps to ensure that the document and actions contained within it remain relevant to tackle these issues.

This document replaces our HECA report from March 2014 and since that time there have been significant changes to the availability of funding for the government's Energy Company Obligation (ECO). Such changes have resulted in schemes being developed by the borough council becoming undeliverable during the course of 2014.

## **1. Understanding our Borough**

### **The Borough and its Housing Stock**

The Borough of Basingstoke and Deane covers an area of over 245 square miles within northern Hampshire, over 75% of which is agricultural or land in other non-wooded greenfield use. A further 15% of the borough is covered by woodland or forest. Less than 8% of the borough is built up, supporting the majority of the borough's population of approximately 168,000 people with a focus of residents living in Basingstoke. It is expected that the population and the dwelling stock of the borough will continue to increase in the future, a theme which is common across the rest of the South East of England.

There are around 72,000 dwellings in the borough at present, which provides a mixture of house types, with the greatest proportion built between 1930-1982, reflecting the expansion of the town in the 1960s and 1970s. Data collated on behalf of the Borough Council using Energy Performance Certificate<sup>1</sup> data on a sample of 6,931 residential units, show the average SAP<sup>2</sup> rating at 64.4 is slightly higher than the national average of 60. This information also highlights that a concentration of homes in the borough have a SAP of around 82. SAP is graded so that the higher the score, the better the energy efficiency of the property<sup>2</sup>. This is likely to reflect the relative age of the housing stock, and shows that overall energy efficiency in dwellings across the borough is generally good, particularly for homes completed more recently, which produced a higher SAP level. The data also

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<sup>1</sup> Energy Performance Certificates give home buyers and sellers A to G ratings for their home's energy efficiency and carbon emissions

<sup>2</sup> Standard Assessment Procedure; methodology used by The Department of Energy and Climate Change to assess and compare the energy and environmental performance of dwellings

highlights that a typical dwelling in the borough has an annual carbon footprint of 3.4 tonnes of CO<sub>2</sub>, which compares to a UK average of 4.1 tonnes. Despite this, there is still much work to do to improve the performance of the borough's housing stock, including addressing the barriers linked to:

- Rural locations that do not have access to a mains gas supply,
- Properties currently with electric heating; and
- Areas where residents living on low incomes fall into the fuel poor category.

Locations with the greatest scope to improve home energy consumption

Data has been compiled on behalf of the Borough Council in relation to the types of fuel used to heat homes in the Borough, this is a useful guide to where there is the greatest scope to concentrate efforts through this HECA report. The following information highlights such areas to provide a baseline position, which goes on to identify which actions should be taken forward to address these issues.

Figure 1, below, shows the areas in the Borough where domestic heating is by fuels other than gas or electricity, and which fall predominantly within rural locations, which do not tend to be connected to the mains gas supply.

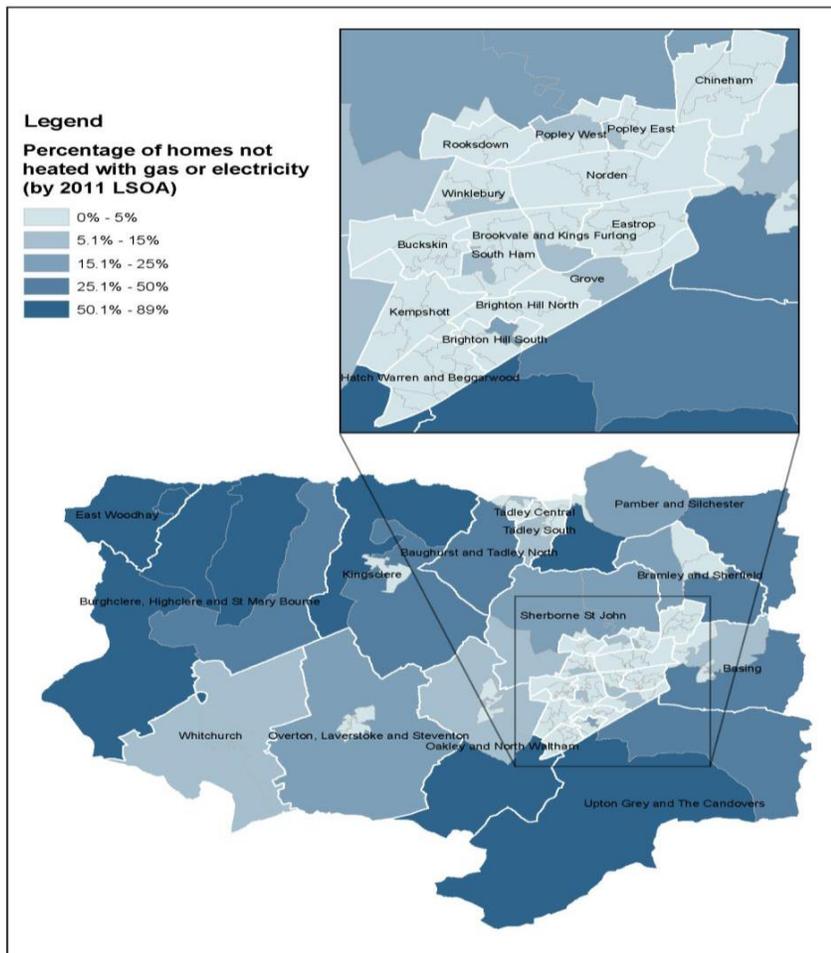
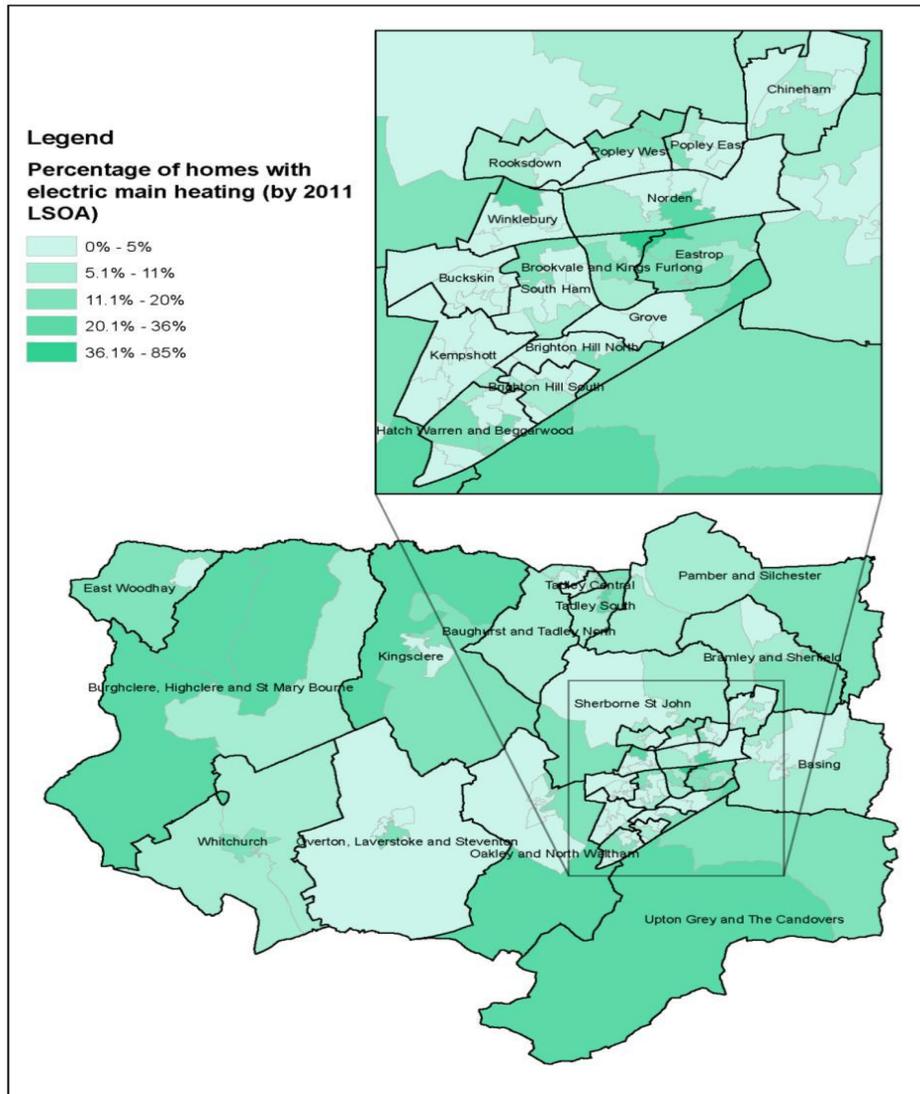


Figure 2, below, shows the areas of the borough where domestic heating is provided solely by electricity. As might be expected, electric heating is generally concentrated in rural areas of the borough, with large rural wards typically having a high proportion of this type of heating. Although a few notable exceptions exist such as Overton and Laverstoke ward, where there are low levels of electric heating in addition to pockets with high proportions of electric heating within the more urban areas.



These areas with the greatest level of homes heated by electricity are of particular concern in respect of home energy, given the findings of Government research. This highlights that Government and energy company initiatives to fund home energy improvements are paid for mainly through electricity bills, including those households that primarily use electric heating, but do not benefit from the various schemes will bear a greater share of these overall costs.

Information from research undertaken in 2013 indicates that:

- There are around 2,100 un-insulated lofts in the borough;
- Around 24,000 homes have loft insulation of less than 100mm and would benefit from additional insulation; and
- Around 13,000 homes have cavity walls that are not insulated.

In light of the locations identified and characteristics of the dwelling stock, the Borough Council will focus on these areas in respect of future actions.. It will also provide information and advice in terms of:

- Community energy projects and The Rural Community Energy Fund<sup>3</sup>,
- The Renewable Heat Incentive<sup>4</sup>; and
- Other schemes and funding sources as they arise.

In addition, it will target these locations in delivering the Green Investment Fund, to provide the means for homeowners to implement improved energy efficiency measures in their homes. This initiative will be focussed on owner occupied dwellings, whilst other measures will also target those on low incomes and properties that are not on the main gas network. Further detail on these actions is set out in the Action Plan at the back of this document.

### Fuel Poverty

Until recently fuel poverty was defined as a household that spends more than 10% of its income to maintain a satisfactory heating regime. However, Central Government has announced that The Department of Energy and Climate Change will be adopting a new indicator that will define a household as fuel poor if:

- Their income is below the poverty line (taking into account energy costs)
- Their energy costs are higher than is typical for the household type.

In order to provide a comparison to the figures set out previously, this report presents the figures calculated with both methodologies.

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<sup>3</sup><http://www.wrap.org.uk/content/rural-community-energy-fund>

<sup>4</sup> <http://www.energysavingtrust.org.uk/renewable-heat-incentive>

Table 1 – Calculated on the 10% of income methodology

YEAR		Households in fuel poverty	%
2010	Basingstoke and Deane	5,740	8.4
	Hampshire	76,132	10.7
	South East Region	402,054	11.5
2012	Basingstoke and Deane	4,547	6.6
	Hampshire	41,219	7.6
	South East Region	315,568	7.6

Table 1 highlights that the number of homes in fuel poverty has reduced significantly over the two year period from 2010 to 2012 and the Basingstoke and Deane percentage of homes in fuel poverty is still well below those for Hampshire and the South East region<sup>5</sup>.

Table 2 – Calculated on the new methodology of low income/high energy cost.

YEAR		Households in fuel poverty	%
2012	Basingstoke and Deane	3,920	5.7
	Hampshire	34,481	6.3
	South East Region	276,860	7.8

Using the updated methodology, Table 2 highlights a similar trend, that proportionately, there are fewer households in the borough in fuel poverty than in Hampshire or the rest of the South East region.

### Our Energy Consumption

Understanding average household energy consumption is useful in order to highlight any relationship with the age or condition of the housing stock, in addition to the availability of gas as a means of heating. It can also be useful to compare this to local or regional data sets to consider if there are any specific local issues. Set out below are details of energy consumption by energy type, based on the most up-to-date information available:

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<sup>5</sup> <https://www.gov.uk/government/collections/interactive-maps-trends-in-fuel-poverty-energy-use-and-energy-efficiency-measures>

- Average domestic electricity usage in the borough in 2011 stood at 4,586 kWh per household compared to the South East England average of 4,413 kWh per household.
- Average domestic gas consumption in the borough in 2011 stood at 13,519 kWh per consumer which is less than the Hampshire average of 13,792KWh and the national average of 14,206KWh.<sup>6</sup>

Whilst the specific reasons for these levels of energy consumption are not known, possible explanations include:

- Households in the Borough benefit from the generally milder temperatures experienced in the South of England and therefore consume less gas than the national average; and
- In general terms, household incomes are higher in the Borough, than many other parts of the region, which may mean that there is less concern around household income being used to pay for electricity consumption.

In respect of energy emissions arising from households in the Borough, the chart below shows emissions from domestic energy use per capita. This shows a decrease in the period 2005 to 2010, with a specific fall in emissions during 2009. This reflects global carbon emission trends during this period, which also correspond with a global economic recession. During 2010, levels again increased with a reduction in 2011 followed by a slight increase in 2012. It is likely that these small fluctuations are linked with specific periods of cold weather, which result in increased consumption of energy for heating.

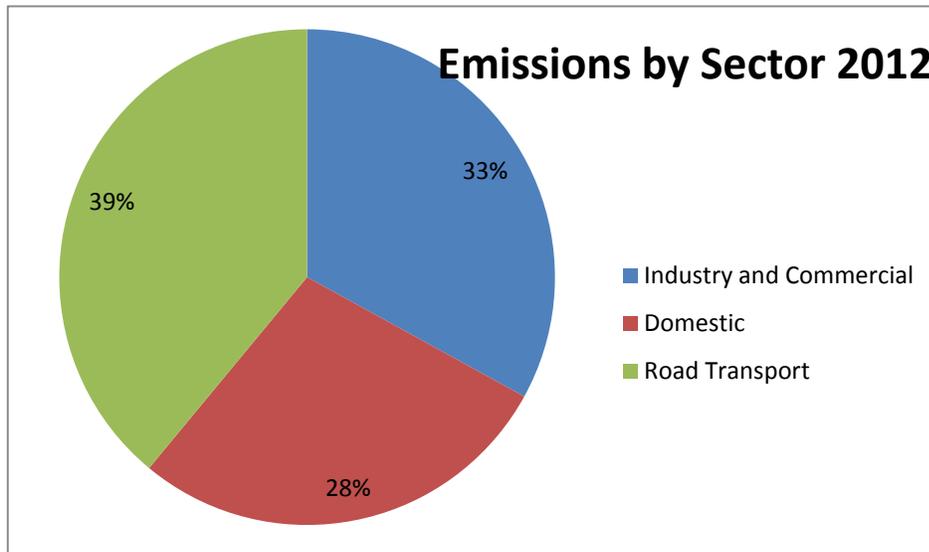
Basingstoke and Deane borough emissions from domestic energy consumption (tCO<sub>2</sub>) – per capita

YEAR	2005	2.5
	2006	2.6
	2007	2.5
	2008	2.4
	2009	2.2
	2010	2.3
	2011	2.0
	2012	2.2

It should be noted that domestic energy consumption represents only 28% of the borough’s carbon footprint, with the remaining industrial and commercial operations making up 33%, and road transport 39% as set out in the following chart.<sup>6</sup>

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<sup>6</sup> <https://www.gov.uk/government/statistics/local-authority-emissions-estimates>



## 2. Overall, Aims, Objectives and Targets

The Climate Change Act 2008 sets out a legal requirement for the UK to reduce carbon emissions and this is backed up by the government's Carbon Plan (2011). Reduction targets related to the housing sector are:

- To reduce CO<sub>2</sub> emissions by 34% by 2020 and 80% by 2050, from a 1990 baseline;
- To insulate all cavities and lofts, where practical, by 2020; and
- By 2050 emissions from UK buildings to be 'close to zero'.

The Borough Council has adopted these CO<sub>2</sub> emissions targets in the recently adopted Climate Change Strategy.

The council works hard to reduce emissions in areas that are within its scope of influence and the [Carbon Management Study](#) sets out the council's actions to reduce carbon emissions in its own buildings, services and operations. A target of a 15% reduction (from a 2011/12 baseline) has been agreed and progress will be published annually. To date, this has achieved a reduction of 11%.

In terms of home energy, Basingstoke and Deane Borough Council is committed through its Climate Change Strategy and The Home Energy Conservation Act Action Plan to work across the borough to help improve the energy efficiency of residents' homes in order to:

- Reduce residents' energy bills
- Reduce fuel poverty levels
- Help residents avoid conditions that create health risks in cold weather

- Promote the use of renewable energy systems for long term sustainable energy solutions

### **3. Actions to Date**

To date, the Council has been successful in promoting a number of initiatives to improve energy efficiency and insulation for individual householders and through helping and supporting community groups to improve insulation and promote energy efficiency measures in the borough's housing stock. This has included:

- Financially supporting and promoting the Insulate Hampshire scheme to provide free insulation to nearly 1,750 households in the borough;
- Supporting and assisting the actions of the Greening Campaigns for Chineham and Sherborne St John and working with the Overton Sustainability Forum, Basingstoke Transition Network and Smart Future Centre;
- Making available a thermal imaging camera for community groups in the borough to detect heat loss from homes;
- Providing energy efficiency information on the council's website
- Providing 50 free Green Deal Assessments to residents
- Supporting the Switch Hampshire collective energy switching scheme to identify potential savings, both for residents and business. In Basingstoke and Deane, this resulted in just under 500 households registering, with 10% of these actively switching suppliers.
- Providing free Energy Performance Certificate assessments to residents at Attwood Close, a mobile home site in Basingstoke
- Promote energy efficiency ideas and advice during the annual Basingstoke Green Week
- Promoting the Hampshire wide Hitting the Cold Spots initiative with 19 Basingstoke and Deane residents helped with heating and hot water improvements during 2012 to 2014

### **4. Actions to Deliver our Aims and Objectives**

The following table details the main actions that we are taking to improve domestic energy efficiency and reduce fuel poverty. A key component of this work is based on an assessment of the relevant characteristics of the borough, as shown in figures 1 and 2, including the type of domestic heating and levels of insulation. This assists in identifying those which are most likely to be in need within the borough. This will allow us to establish a targeted approach to improving the energy efficiency of these properties and supporting vulnerable residents. This will be particularly important in delivering the Green Investment Fund.

The Council does not own any local housing stock the focus will be on owner-occupied homes as well private rentals and social housing.

## Actions

Objective	Actions	Outcome	Timescale
<b>STRATEGIC COMMITMENT</b>			
Demonstrate the council's commitment to reducing carbon emissions across the borough and setting a good example by its own actions	Recently signed up to the Climate Local Commitment – future delivery of actions	To obtain a high-level commitment within the Council to consider climate change. To set out a Climate Local Commitment and Climate Local Framework to deliver actions addressing climate change across the borough and to assist in guiding the Council's on-going work on climate change	Commitment published 2014 and Action Plan submitted to LGA in Feb. 2015  <a href="#">Climate Local</a>
Demonstrate continuing commitment to reducing emissions in the council's buildings, services and operations and to work with the local community to support actions to reduce emissions across the borough.	Deliver the pledges set out in the council's Climate Change Strategy	To set out the Council's commitment to addressing climate change, including the actions of the Council, its partners and the community	Now adopted <a href="#">Climate Change Strategy</a>

## HOUSING

Provide information on the Green Deal	Continue to raise awareness and understanding of the Green Deal, based on experience from a trial of 50 households in the Borough.	To ensure that residents are aware of the initiative and understand how the initiative works	Information provided on the council's website
Utilise government funding to improve the homes of those in fuel poverty	Work with energy companies and other Hampshire local authorities to target specific areas and communities to identify and implement measures to improve home efficiency as and when opportunities arise.	Overall improvements in home insulation (increased SAP ratings) and reductions in households in fuel poverty	BDBC has recently been working with the Mark Group to deliver free home insulation in the borough. New opportunities will be considered as and when they arise Take advantage of Green Deal Home Improvement Fund money when available.
Explore the possibility of accessing funding for insulation works at mobile home sites	Working with Yorkshire Energy Services and Southern Gas Networks on the feasibility and costs of gas connection and insulation	To provide improved insulation and heating method for residents of mobile homes.	May 2015

	improvements at Attwood Close		
Look at policies and approach of the emerging Local Plan to deliver improved energy efficiency in new buildings	Work to be delivered by the Planning Policy Team	To ensure that new residential development responds to the need to consider home energy consumption and energy efficiency.	Anticipated adoption Spring 2016.
Gain greater understanding of housing condition in the borough	Engage with local housing associations to learn about the home improvement works they have or will be undertaking. Inform private landlords of any schemes available to encourage them to make energy efficiency improvements to their properties	Understand housing condition across the borough to gauge where future support is needed	Some information already provided in 2014 and further engagement required to deliver additional improvements to the stock of homes in the borough
Help householders make energy efficiency improvements to their properties and benefit from renewable energy systems	Using the Green Investment Fund to create a low interest loan scheme for energy efficiency measures and renewable energy. Develop a scheme to provide grants in certain circumstances	Work started with Parity Trust who will deliver the loan scheme	Soft launch March 2015. Publicise widely post elections Re-publicise in September 2015 during Basingstoke Green Week

Support resident to make reductions in their energy bills, have warmer homes, switch suppliers and make behaviour change	Find an external company with experience in engaging with the general public and providing this support Bring in CAB and other agencies to work together	Reduce fuel poverty levels in the borough Help households reduce their energy bills	Throughout 2015 Review 2016 and develop new approach if necessary
Provide energy efficiency advice and information on renewable energy systems	Work with Basingstoke Transition Network to man a pop-up shop in the town centre during Green Week 2015	Provide support and information to residents	September 2015