

Basingstoke and Deane Borough Council

Home Energy Conservation Act Report - March 2017

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 2016 - 2020](#) - which highlights the ambition 'to reduce energy costs and invest in community energy projects'; and the Portfolio Holder Plans 2016 - 2020 - which includes the priorities to 'promote grants available to low income households to improve energy efficiency and minimise the risk of fuel poverty' and to 'promote the low carbon loan scheme and other energy efficiency schemes to improve the standard of residents home'
- 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 council 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
- Our Sustainable Community Strategy 2001 - 2026- 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 therefore this document replaces our HECA report from March 2015.

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 72,895 dwellings in the borough 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 Certificate¹ data on a sample of 6,931 residential units, show the average SAP² 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 property². 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 highlights that a typical dwelling in the borough has an annual carbon footprint of 3.4 tonnes of CO₂, which compares to a UK average of 4.1 tonnes. Despite this,

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

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

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.

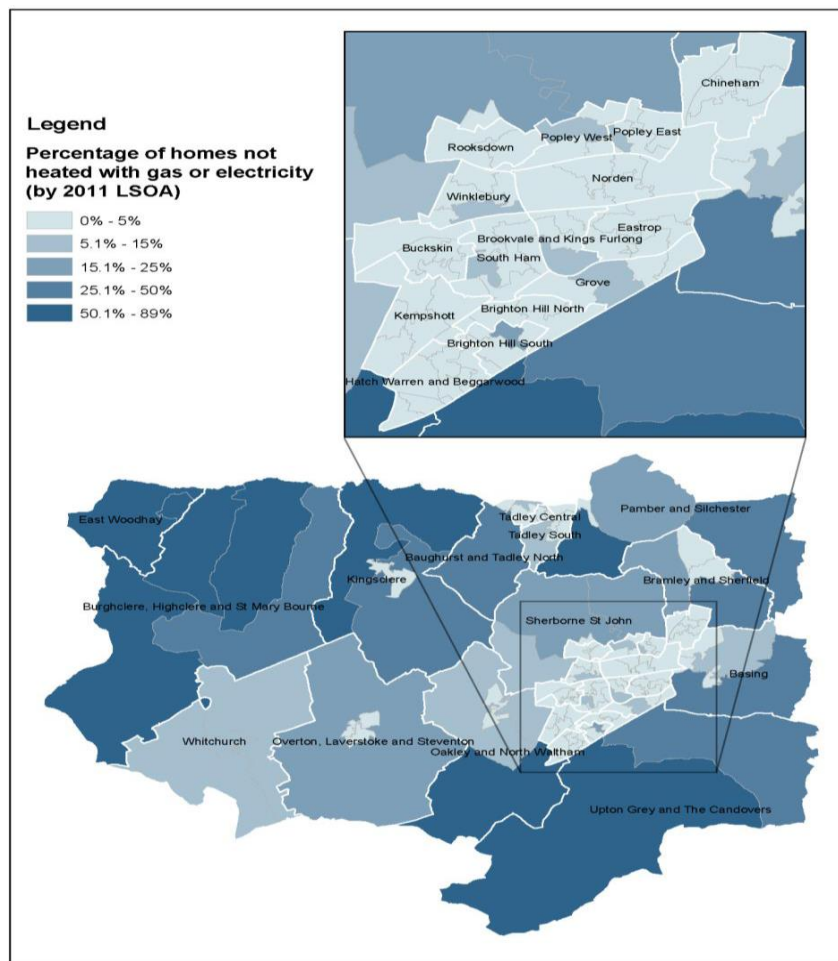


Figure 1: Percentage of homes not heated with gas or electricity

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.

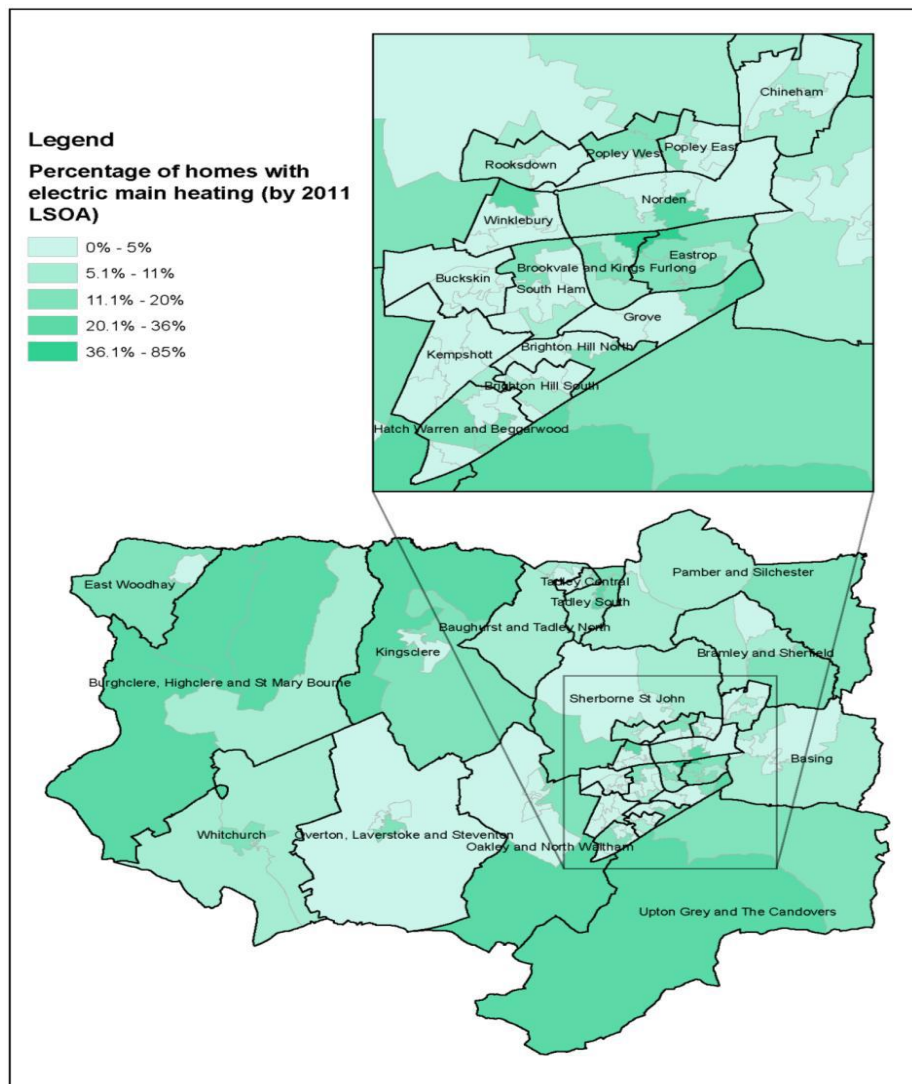


Figure 2: Percentage of homes with electric main heating

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 Fund³,
- The Renewable Heat Incentive⁴;
- The council-subsidised Low Carbon Loan
- Small grants for landlords and for homeowners who meet certain eligibility
- Other schemes and funding sources as they arise.

In addition, it will target locations in the borough that are not on mains gas and are poorly insulated in developing ECO funded projects.

Fuel Poverty

A household is defined as being fuel poor if a household has fuel costs that are above the national median level and when these costs have been covered the household's residual income falls below the official poverty line.

Table 1: Fuel poverty statistics calculated on low income/high energy cost⁵

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
2013	Basingstoke and Deane	4,232	5.9
	Hampshire	37,517	6.7
	South East Region	297,153	8.1
2014	Basingstoke and Deane	4,963	6.9
	Hampshire	39, 529	7.0
	South East Region	305, 289	8.3

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

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

⁵ <https://www.gov.uk/government/statistics/2013-sub-regional-fuel-poverty-data-low-income-high-costs-indicator>

This follows a national trend in slight increase in fuel poverty since 2012⁶. The Annual Fuel Poverty Statistics Report, 2016⁷ offers reasons for the change as follows:

- Lower increase in disposable income pushing households over the threshold into fuel poverty
- Fuel price increasing more than savings from energy efficiency resulting in higher energy costs.

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:

- Average domestic electricity usage in the borough in 2015 stood at 4,297 kWh per household compared to the South East England average of 4,315 kWh per household⁸.
- Average domestic gas consumption in the borough in 2015 stood at 12, 861kWh per consumer which is less than the South East England average of 13,722KWh and the national average of 13,202KWh⁹.

⁶https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/557400/Annual_Fuel_Poverty_Statistics_Report_2016_-_revised_30.09.2016.PDF

⁷ <https://www.gov.uk/government/statistics/annual-fuel-poverty-statistics-report-2016>

⁸ <https://www.gov.uk/government/statistical-data-sets/regional-and-local-authority-electricity-consumption-statistics-2005-to-2011>

⁹ <https://www.gov.uk/government/collections/sub-national-gas-consumption-data>

Basingstoke and Deane Borough emissions

Table 2: Carbon emissions per capita and in the domestic sector¹⁰

YEAR	PER CAPITA (tCO ₂ e)	DOMESTIC TOTAL (kt CO ₂ e)
2005	9.8	388.4
2006	9.7	400.0
2007	9.4	388.2
2008	9.2	392.3
2009	8.4	357.4
2010	8.6	384.8
2011	7.9	338.8
2012	8.0	364.0
2013	7.7	354.7
2014	6.9	298.2

Table 2 shows a decrease in emissions with a specific fall in emissions during 2009. This reflects global carbon emission trends during this period, corresponding with a global economic recession. Other small fluctuations are likely to be linked to weather patterns.

It should be noted that domestic energy consumption represents only part of total borough emissions, see figure 3.

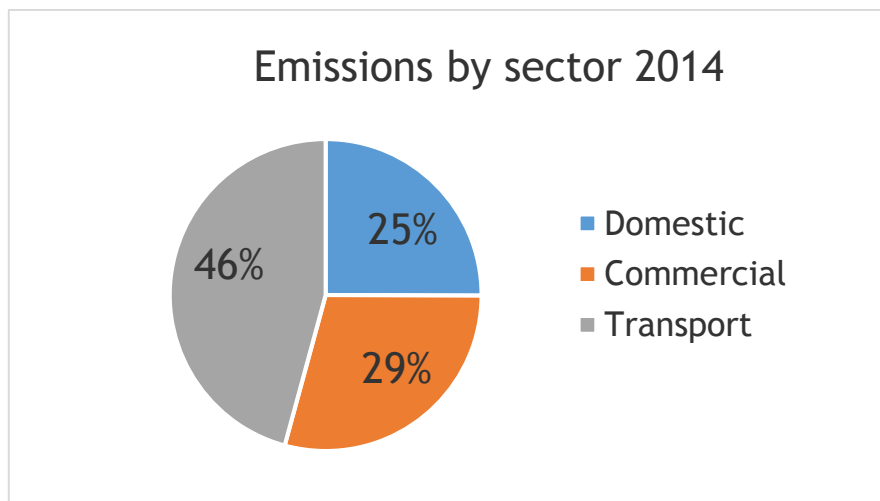


Figure 3: Proportion of CO₂ emissions by sector¹⁰

¹⁰ <https://www.gov.uk/government/statistics/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-2014>

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 CO₂ 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 CO₂ emissions targets in the Climate Change Strategy. The council monitors progress in carbon emission reduction in its own operations and services and publishes the results annually.

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
- Reduce borough carbon emissions in the domestic sector

3. Actions to Date

The Council has been successful in promoting a number of initiatives to improve energy efficiency 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	2011-
Free insulation provided to 1, 747 households	2012
Working with the Basingstoke Transition Network to hold events during Basingstoke Green Week	Annually since 2013
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	2013
Supporting the Switch Hampshire collective energy switching scheme	2013 -
Just under 500 households registered, 10% of these actively switched suppliers saving an average of £61pa on energy bills.	2014
Providing free Energy Performance Certificate assessments to residents at Attwood Close, a mobile home site in Basingstoke	2015
Promoting the Hampshire wide Hitting the Cold Spots initiative	
19 Basingstoke and Deane residents helped with heating and hot water improvements during 2012 to 2014	2014
62 received advice &/or home visit support, 5 households assisted with heating and hot water repairs or replacements and 4 assisted with first time central heating during 2014 - 2016	2016
Installing air-source heat pumps at 27 park homes at Attwood Close through a scheme run with YES Energy Services and NEA	2016
Installing new boilers in 29 households through a scheme run with British Gas	2016

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, including off mains gas areas 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

STRATEGIC COMMITMENT

DEMONSTRATE THE COUNCIL'S COMMITMENT TO REDUCING CARBON EMISSIONS ACROSS THE BOROUGH AND SETTING A GOOD EXAMPLE BY ITS OWN ACTIONS

Monitoring emissions in own operations and services
Set up a Single Issue Panel to review the Climate Change Strategy
Work with the local community to support emission reduction actions
Deliver pledges set out in the climate change strategy

To obtain a high-level commitment within the council to consider climate change.
Report annually on carbon emissions
To achieve the target of a year on year reduction in emissions in council operations and services.

HOUSING

UTILISE ECO FUNDING TO IMPROVE THE HOMES OF THOSE IN FUEL POVERTY AS AND WHEN OPPORTUNITIES ARISE

Work with energy companies and other Hampshire local authorities to target specific areas and communities to identify and implement measures to improve home energy efficiency

Overall improvements in home insulation and reductions in households in fuel poverty.
Particular focus on homes that would benefit from external wall, loft, and cavity wall insulation

<p>TARGET IMPROVEMENTS IN OFF-MAINS GAS AREAS OF THE BOROUGH</p>	<p>Explore scope for promoting air source heat pumps in off mains gas area of the borough</p>	<p>Reduce energy costs for homeowners in rural areas and reliance on oil and coal heating systems Work with heat pump manufacturer to raise of awareness of this technology and the renewable heat incentive</p>
<p>PROMOTE THE BENEFITS OF SMART METERS</p>	<p>Explore opportunities for promoting the benefits of smart meters to residents</p>	<p>Residents more aware of the benefits of a smart meter so they can take it up when their energy company offers it</p>
<p>GAIN GREATER UNDERSTANDING OF HOUSING CONDITION IN THE BOROUGH</p>	<p>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</p>	<p>Be able to identify where future support is needed and potential projects to improve the housing condition</p>
<p>HELP HOUSEHOLDERS MAKE ENERGY EFFICIENCY IMPROVEMENTS TO THEIR PROPERTIES AND BENEFIT FROM RENEWABLE ENERGY SYSTEMS</p>	<p>Using the council’s Green Investment Fund to run a low interest loan scheme for energy efficiency measures and renewable energy. Continue to run a scheme to provide grants in certain circumstances Work with Basingstoke Transition Network to run engagement events during Green Week 2017 Promote Hitting the Cold Spots and The Energy Saving Trust as energy advice lines for Basingstoke residents Work with Basingstoke Energy Services Cooperative to raise awareness of renewable energy systems</p>	<p>Loan scheme delivered through parity trust. Grant available for homeowners that meet certain eligibility requirements Borough residents aware of the potential benefits of improving home energy efficiency and using renewable energy sources</p>

<p>HELP LANDLORDS MAKE ENERGY EFFICIENCY IMPROVEMENTS TO THEIR PROPERTIES AND BENEFIT FROM RENEWABLE ENERGY SYSTEMS</p>	<p>Using the Green Investment Fund to offer small grants to landlords for energy efficiency improvement work</p>	<p>Enable energy efficiency improvements in the private rented sector</p>
<p>SUPPORT RESIDENTS TO MAKE REDUCTIONS IN THEIR ENERGY BILLS, HAVE WARMER HOMES, SWITCH SUPPLIERS AND MAKE BEHAVIOUR CHANGE</p>	<p>Bring in the Citizens' Advice Bureau and other agencies to work together Use annual Basingstoke Green Week to engage with residents</p>	<p>Reduce fuel poverty levels in the borough Help households reduce their energy bills Greater awareness of the benefits of having a smart metre installed Borough residents are aware of the potential benefits of switching suppliers</p>
<p>PROVIDE INFORMATION FOR RESIDENTS VULNERABLE TO ILL-HEALTH FROM COLD HOMES ON HOW TO KEEP WARM AND HEALTHY AT HOME</p>	<p>Work with the health sector and contacts in community groups to give information to those vulnerable to cold homes and those who are in contact with residents who might be vulnerable.</p>	<p>Produce and distribute two flyers. One for adults vulnerable to cold homes. The other for people in contact with vulnerable adults such as community health practitioners, fire service and community groups</p>
<p>WORK WITH OTHER HAMPSHIRE LOCAL AUTHORITIES TO EXPLORE MUNICIPAL ENERGY OPTIONS</p>	<p>Explore options for developing a local energy company</p>	<p>A local energy company could offer more stable low tariffs and better customer service to residents</p>

EXPLORE POTENTIAL FOR DISTRICT ENERGY IN NEW DOMESTIC DEVELOPMENTS IN THE BOROUGH

Deliver heat mapping and energy master planning through heat network delivery unit funding

Understand the potential for including heat networks in future domestic developments