

## **HECA Base Line Data Report (revised)**

**For  
Test Valley Borough Council**



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Whilst the Environment Centre has endeavoured to ensure that all information contained within this document is correct, it cannot be held responsible for any inaccuracies within or problems arising out of the use of this document.

*This document is only intended to provide INDICATIVE information and guidance for those associated with this project.*

## **Test Valley Borough Council HECA Base Line Information (revised)**

### **Overview**

Test Valley is home to over 113,500 people living in more than 46,400 households. The Borough has lower than (English) average fuel poverty levels, however there is still considerable scope to improve the energy efficiency of the housing stock and reduce domestic energy consumption and associated CO<sub>2</sub> emissions.

Per capita domestic CO<sub>2</sub> emissions in Test Valley are slightly higher than those in Hampshire, South East England and Great Britain. Domestic gas consumption is notably lower than the British average, however 25.5% of homes in the area are off gas. Electricity consumption is above the British average, but 2010 showed a reduction in the consumption rate. Test Valley's domestic CO<sub>2</sub> emissions have increased from 31% to one third (33.3%) of the Borough's total yearly emissions (domestic, transport and industry). This is a lower proportion than in Hampshire, the South East and Great Britain; however, improvements to the energy efficiency of the Test Valley's housing stock could further reduce the Borough's CO<sub>2</sub> emissions.

Cavity wall insulation installations in the Test Valley Borough Council area fell consistently below the GB average value, with the shortfall in 2011/12 increasing to more than double the 2008/09 figure. Loft insulation installations have also remained below the British average and again the installation gap has increased steadily from 887 below the average in 2008/09 to 3,214 below average in 2011/12. However, numbers of domestic solar PV installations have remained above the British average since June 2010.

### **Fuel Poverty**

#### **Actual number and percentage of households in fuel poverty in Test Valley (TV)**

Fuel poverty levels have been consistently below the English average since 2006. In 2010, there were 46,428 households in the Test Valley Borough Council area, of which 4,686 were in fuel poverty (10.1%). This is lower than the Hampshire average, with 10.7% of households in fuel poverty (76,132 of 714,232 households in fuel poverty). The average for the South East region is even higher, at 11.5% (3,473,397 households with 401,054 in fuel poverty).

Year	Estimated number of TVBC households	No. TVBC households in fuel poverty	Average no. households in fuel poverty (England)	% TVBC households in fuel poverty	% average England value	TVBC population ('000s, mid-year estimate)
2006	46,743	3,413	7,460	7.3	11.5	112.4
2008	46,296	4,407	10,230	9.5	15.6	113.5
2009	46,439	5,155	12,160	11.1	18.4	113.4
2010	46,428	4,686	10,850	10.1	16.4	113.5

## **CO<sub>2</sub> Emissions**

### **Total CO<sub>2</sub> emissions in the Test Valley Borough Council area (per capita)**

Total per capita CO<sub>2</sub> emissions in Test Valley are slightly higher than those in Hampshire, South East England and Great Britain. Per capita emissions in the Test Valley area were reducing year on year until 2010 where there was an increase of 0.3tCO<sub>2</sub>/capita. However, this total is at least 1.2t greater than the Hampshire, South East England and Great Britain per capita emissions for 2010.

Year	Total TVBC area CO <sub>2</sub> produced (kt)	TVBC area per capita CO <sub>2</sub> emissions produced (t)	Total Hampshire area CO <sub>2</sub> produced (kt)	Hampshire area per capita CO <sub>2</sub> emissions produced (t)	Total South East England CO <sub>2</sub> produced (kt)	South East England per capita CO <sub>2</sub> emissions produced (t)	Total Great Britain CO <sub>2</sub> produced (kt)	Great Britain per capita CO <sub>2</sub> emissions produced (t)
2005	304.0	8.50	3,201.7	7.2	20,626.9	6.9	155,229.8	7.5
2006	308.2	8.60	3,221.0	7.1	20,643.3	6.9	155,249.8	7.4
2007	296.6	8.40	3,099.0	6.9	20,159.1	6.7	150,648.9	7.2
2008	297.6	8.10	3,120.0	6.8	20,159.6	6.5	150,493.7	7.0
2009	273.6	7.50	2,820.9	6.2	18,201.6	5.9	136,393.2	6.4
2010	293.9	7.80	3,023.5	6.4	19,560.9	6.1	146,525.2	6.6

### **Test Valley Borough Council domestic CO<sub>2</sub> emissions broken down by fuel type**

Domestic electricity consumption accounts for the highest proportion (between 46% and 42%) of Test Valley's domestic CO<sub>2</sub> emissions; only 33.5% - 35% of emissions come from gas consumption. According to DECC's 2010 data, 34,600 households in Test Valley have gas meters, therefore it would appear that 11,828 properties are off gas (almost one quarter of the total housing stock). In 2010, almost one quarter of domestic CO<sub>2</sub> emissions came from other fuels.

Year	Domestic Electricity	Domestic Gas	Domestic 'Other Fuels'	% of total - domestic Electricity	% of total - domestic Gas	% of total - domestic 'Other Fuels'
2005	135.4	106.4	62.2	44.5	35.0	20.5
2006	139.1	106.5	62.6	45.1	34.6	20.3
2007	136.8	101.8	58.0	46.1	34.3	19.6
2008	133.1	103.3	61.2	44.7	34.7	20.6
2009	121.0	91.8	60.9	44.2	33.5	22.3
2010	123.9	102.3	67.8	42.1	34.8	23.1

### **Test Valley domestic per capita CO<sub>2</sub> emission estimates, compared to Test Valley per capita total for industry, domestic and transport sectors.**

From 2005 to 2010, Test Valley's per capita domestic CO<sub>2</sub> emissions have been slightly higher than those in Hampshire, the South East and Great Britain. However, the Borough's total per capita CO<sub>2</sub> emissions are also higher than county, regional and national figures.

Year	TVBC per capita Domestic (t)	TVBC per capita Total (t)	Hampshire per capita Domestic (t)	Hampshire per capita Total (t)	South East per capita Domestic (t)	South East per capita Total (t)	Great Britain per capita Domestic (t)	Great Britain per capita Total (t)
2005	2.7	8.5	2.5	7.2	2.5	6.9	2.6	7.5
2006	2.7	8.6	2.6	7.1	2.5	6.9	2.6	7.4
2007	2.6	8.4	2.4	6.9	2.4	6.7	2.5	7.2
2008	2.6	8.1	2.4	6.8	2.4	6.5	2.5	7.0
2009	2.4	7.5	2.2	6.2	2.2	5.9	2.2	6.4
2010	2.6	7.8	2.3	6.4	2.3	6.1	2.4	6.6

Test Valley's domestic CO<sub>2</sub> emissions make up at least 31% of the Borough's total emissions, year on year. This is lower than in Hampshire, the South East and Great Britain. However, improvements to the energy efficiency of the Test Valley's housing stock could further reduce the Borough's CO<sub>2</sub> emissions.

Year	TVBC domestic CO <sub>2</sub> emissions as % of total emissions	Hampshire domestic CO <sub>2</sub> emissions as % of total emissions	South East domestic CO <sub>2</sub> emissions as % of total emissions	Great Britain domestic CO <sub>2</sub> emissions as % of total emissions
2005	31.8	34.7	36.2	34.7
2006	31.4	36.6	36.2	35.1
2007	31.0	34.8	35.8	34.7
2008	32.1	35.3	36.9	35.7
2009	32.0	35.5	37.3	34.4
2010	33.3	36.0	37.7	36.4

## **Energy Efficiency Interventions**

### **Cavity Wall Insulation installations 2008-2012**

From 2008/09 to 2011/12, cavity wall insulation installations in the Test Valley Borough Council area fell consistently below the GB average value. The shortfall between the number of Test Valley installations and the GB average installations has increased from 589 in 2008/09 to 1,646 in 2011/12.

<b>Year</b>	<b>No. of TVBC area CWI installations</b>	<b>GB value</b>
2008/09	793	1,382
2009/10	1,748	2,723
2010/11	2,403	3,830
2011/12	3,413	5,059

### **Loft Insulation installations 2008-2012**

Numbers of loft insulation installations in the Test Valley Borough Council area are below the GB average, with the installation gap increasing steadily from 887 below the average in 2008/09 to 3,214 below average in 2011/12.

<b>Year</b>	<b>No. of TVBC area LI installations</b>	<b>GB value</b>
2008/09	894	1,781
2009/10	1,710	3,349
2010/11	2,396	4,868
2011/12	3,735	6,949

### **Domestic Solar PV installations 2010-2012**

Numbers of domestic solar PV installations have been above the GB average for the entire Jun 2010 – Jun 2012 period. Above GB average rates of installation peaked at an overachievement of 141 in December 2011.

<b>Year</b>	<b>No. of TVBC area solar PV installations</b>	<b>GB value</b>
Jun 2010	11	7
Sep 2010	35	27
Dec 2010	58	44
Mar 2011	104	73
Jun 2011	159	110
Sep 2011	308	201
Dec 2011	509	368
Mar 2012	749	618
Jun 2012	826	708

## **Energy consumption**

### **Average Domestic Electricity consumption, KWh per capita**

From 2005 to 2010, domestic electricity consumption in the Test Valley Borough Council area has been between 570KWh/capita and 610KWh/capita above the GB average. Lowest rates of consumption (compared to GB average) were in 2006, 2008 and 2010.

<b>Year</b>	<b>TVBC average Electricity consumption, KWh per capita</b>	<b>GB value, KWh per capita</b>
2005	5,350	4,740
2006	5,172	4,590
2007	5,138	4,530
2008	4,910	4,320
2009	4,877	4,270
2010	4,840	4,270

### **Average Domestic Gas consumption, KWh per capita**

From 2005 to 2010, domestic gas consumption in the Test Valley Borough Council area has been between 710KWh/capita (2007) and 1,070KWh/capita (2005) less than the GB average value.

<b>Year</b>	<b>TVBC average Gas consumption, KWh per capita</b>	<b>GB value, KWh per capita</b>
2005	17,840	18,910
2006	17,260	18,130
2007	16,810	17,520
2008	16,010	16,810
2009	14,520	15,310
2010	14,310	15,100

## **TVBC Hard-to-treat homes**

Data from the 2001 RESIDATA (property age) and the 2005 English house condition survey (wall type)<sup>1</sup> provided information about the estimated average number of houses with solid walls and no connection to the gas grid. An estimated total of 7570 TVBC area homes had solid walls, which was around 17% of the total households in the area. The average percentage of households which had solid walls in Hampshire was slightly lower at 15%, although the average for the South East was higher than TVBC, at around 23%, and the national average was higher again (around 27%). This means that the extent of solid walled houses in TVBC is unlikely to be the determining factor in the low levels of CWI.

The separation of households into their associated land use classification showed that the majority of hard to treat households were located in rural Hamlets. Half of the 2463 households in Hamlets had solid walls, with almost all of the households off of the gas grid (97%). The households in urban and town areas had much lower percentages of solid wall properties and off-grid fuel types.

### **Statistics for the hard to treat households of TVBC.**

<b>Classification</b>	<b>Total number of households</b>	<b>% households</b>	<b>Total number of solid wall households</b>	<b>% solid wall</b>	<b>Total off gas households</b>	<b>% off gas</b>
All	43982	100%	7570	17%	13521	31%
Hamlet	2463	6%	1236	50%	2379	97%
Village	9639	22%	3042	32%	8084	84%
Town & fringe	3980	9%	209	5%	674	17%
Urban	27900	63%	3083	11%	2384	9%

The attached excel sheet includes the data split into 2001 census output areas. It highlights the areas with the greatest numbers of hard to treat homes, and fuel poor households. It includes the following statistics for each output area:

- Fuel Poverty Indicator: Number of households in fuel poverty (basic income definition)
- Fuel Poverty Indicator: Number of households in fuel poverty (basic equivalised income definition)
- Fuel Poverty Indicator: Number of households in fuel poverty (full income definition)
- Fuel Poverty Indicator: Number of households in fuel poverty (full equivalised income definition)
- Percentage of households in fuel poverty (basic income definition)
- Percentage of households in fuel poverty (basic equivalised income definition)
- Percentage of households in fuel poverty (full income definition)
- Percentage of households in fuel poverty (full equivalised income definition)
- Total count of households for Fuel Poverty Indicator estimates
- Total number of residents
- Estimated number of solid wall properties
- Estimated number of households without mains gas connection
- Estimated percentage of households without mains gas connection
- Estimated percentage of households with solid walls
- Total count of households for Hard-to-Treat data estimates
- Urban/rural indicator

<sup>1</sup> See CSE project at <http://www.ruralfuelpoverty.org.uk/>