



Renewables are key to future energy supply

Given the climate change media coverage and fuel price rises, everyone will have felt the impact energy use has in their lives more acutely in 2007. Generation of renewables in the county showed little progress but will be key to fulfilling demands for cleaner energy in the future.

Energy continues to be an essential and costly part of our lives, economically, environmentally and socially. Evidence of environmental impacts, through mining, water and air pollution, are all well documented. Scarcity of supply raises energy costs which are set to rise further with the introduction of government initiatives to reduce energy demand. Households will be increasingly impacted socially if this creates a barrier to accessing jobs and services. Clearly this is unsustainable so the government has begun to ask local authorities to take on more responsibility for energy use including the passing of the Climate Change Bill, issuing certificates and creating the Sustainable Homes Code.

Whilst we look for new ways to reduce our fossil fuel use, it is important we continue to monitor both residential and commercial consumption. As research methodologies are refined, new methods and results become available for calculating carbon emissions. The tables below use rounded figures with the same methodology as last year, however, revised data is now available for 2004 and 2005 on our website.²

Energy White Paper May 2007³

The UK government published its new White Paper on Energy during the year to set out its international and domestic energy strategy. It was created to respond to climate change and the need to provide clean, secure, affordable energy, it contains four energy goals:

- to put the UK on a path to cutting CO₂ emissions by 60% by about 2050, with 'real' progress by 2020
- to maintain the reliability of energy supplies
- to create competitive markets in and beyond the UK
- to ensure every home is adequately and affordably heated

The Paper also shows how measures set out in the 2006 and subsequent Energy Review Reports, the Pre-Budget Report and the 2007 Budget, have been implemented. Some of these measures are due for further public consultation, including nuclear power and more consultations on energy are planned for the future.

Energy Consumption in the Residential Sector

Viewing the residential gas figures below, it appears that consumption reduced slightly overall with 6 out of 10 districts having cut their use. Unfortunately Broxbourne, the district consuming the least last year, rose most dramatically and Stevenage was third highest. Electricity showed little change in use.

Table 1: 2005 Gas consumption and carbon dioxide produced as a result in each district in the residential sector

District	Gas Consumption Gwh ¹	CO ₂ Tonnes Produced
Broxbourne	617	117,291
Dacorum	1,068	202,987
East Hertfordshire	894	169,808
Hertsmere	788	149,792
North Hertfordshire	848	161,209
St Albans	1113	211,514
Stevenage	547	103,977
Three Rivers	708	134,554
Watford	628	119,302
Welwyn Hatfield	769	146,159
County	7,982	1,516,593

Source: DEFRA 2007. Conversion Values: Gas: 0.19, Electricity: 0.43 from the Local Authority Carbon Management Programme

Table 2: 2005 Electricity consumption and carbon dioxide produced as a result in each district in the residential sector

District	Electricity Consumption Gwh ¹	CO ₂ Tonnes Produced
Broxbourne	188	80,629
Dacorum	285	122,698
East Hertfordshire	311	133,660
Hertsmere	204	87,616
North Hertfordshire	255	109,501
St Albans	277	118,914
Stevenage	144	61,957
Three Rivers	180	77,438
Watford	159	68,182
Welwyn Hatfield	203	87,290
County	2,204	947,885

Source: DEFRA 2007. Conversion Values: Gas: 0.19, Electricity: 0.43 from the Local Authority Carbon Management Programme

Energy Consumption in the Commercial Sector

Using the same methodology as last year, consumption of gas appears to have fallen overall in the commercial sector by 663 Gwh. All districts, apart from Broxbourne, reduced their gas consumption. In contrast, electricity usage rose for all districts except for East Hertfordshire.

Table 3: 2005 Gas consumption and carbon dioxide produced as a result in each district in the commercial sector

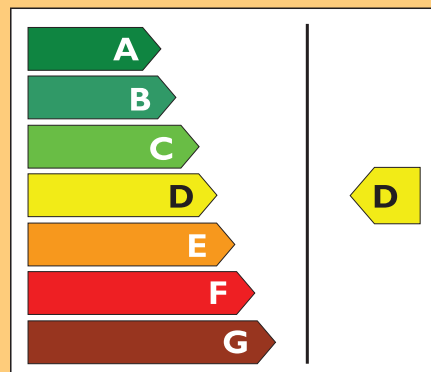
District	Gas Consumption Gwh ¹	CO ₂ Tonnes Produced
Broxbourne	232	44,109
Dacorum	608	115,564
East Hertfordshire	357	67,752
Hertsmere	356	67,567
North Hertfordshire	366	69,589
St Albans	376	71,434
Stevenage	360	68,453
Three Rivers	191	36,284
Watford	209	39,796
Welwyn Hatfield	421	80,038
County	3,477	660,586

Source: DEFRA 2007. Conversion Values: Gas: 0.19, Electricity: 0.43 from the Local Authority Carbon Management Programme

Table 4: 2005 Electricity consumption and carbon dioxide produced as a result in each district in the commercial sector

District	Electricity Consumption Gwh ¹	CO ₂ Tonnes Produced
Broxbourne	209	89,864
Dacorum	371	159,677
East Hertfordshire	356	153,038
Hertsmere	314	135,161
North Hertfordshire	297	127,613
St Albans	288	123,791
Stevenage	335	143,859
Three Rivers	194	83,434
Watford	321	137,825
Welwyn Hatfield	395	169,699
County	3,079	1,323,961

Source: DEFRA 2007. Conversion Values: Gas: 0.19, Electricity: 0.43 from the Local Authority Carbon Management Programme



Display Energy Certificate for Public Buildings

From 1 October 2008 every public building occupied by public authorities or institutions providing public services, with a floorspace exceeding 1000m², will be required to exhibit Display Energy Certificates (DECs).

The Energy Performance Building Directive governing this legislation was first published in January 2003. The UK was then given six years to apply provisions which include Energy Performance Certificates.

Ratings for the certificates are derived from a building's energy consumption figures over a three year period. The building is then assessed on how well it has operated based on those years. The ratings are similar to those issued for electrical appliances, ranging from A to G, with G being the worst. Assessment of a building's performance and the issue of a certificate can only be carried out by independent and accredited assessors who must be registered with an approved government accreditation scheme. The certificate issued must then be displayed within the building and renewed every year.

Schools, colleges, universities, hospitals and any other publicly-owned buildings accessed by the public, will be affected by the Directive. Landlords and property managers will be responsible for ensuring the Display Energy Certificate is made available and Trading Standards will enforce the certification of existing buildings. Penalty fines apply if a valid certificate is not produced up to 6 months after the certificate was required or if a valid Display Energy Certificate is not displayed. For more information on DECs visit the energy page of the report website www.hef.org.uk/qol.

Find out how energy use has affected carbon emissions in the Climate Change section

See page 6

1 1 Gwh = 100,000 Kwh

2 Revised datasource <http://www.dti.gov.uk/files/file37898.xls>

3 View at www.berr.gov.uk/energy/whitepaper/page39534.html