

Domestic energy bills in 2011

Introduction

Estimates are published in Quarterly Energy Prices (QEP)¹ of domestic electricity and gas bills based on fixed consumption levels. However, annual consumption in 2011 was significantly different to that in 2010. This article presents estimates of average energy bills in 2011 on both the fixed consumption basis and also based on actual average consumption. A chart showing average consumption levels for the last 8 years has also been included.

Domestic bills based on fixed consumption levels

In the December editions of QEP analysis, first estimates are made of domestic energy bills for the latest year. The estimates are made using fixed consumption estimates: with annual consumption set at 3,300 kWh for standard electricity usage (for economy 7 usage, we assume annual consumption of 6,600 kWh, of which 3,600 kWh are consumed at the off peak night rate) and 18,000 kWh for gas. These bill estimates are revised in March when full data is available from the energy suppliers. Estimates are produced showing bills by the different payment methods & regions and reflect prices during the year. The following table summarises the main information. Separate information looking at bills by different payment method are available in QEP.

Table 1 – Average energy bills on fixed consumption

	Electricity	Gas	Combined
2009	£430	£683	£1,113
2010	£417	£658	£1,075
2011	£453	£719	£1,172
Change 2010-11	£36	£61	£97
% change	8.6%	9.3%	9.0%

The key advantage of presenting bills with a fixed consumption level is that users can see the effects of price changes in the table. Also estimates can be produced in advance of detailed consumption information being made available. The first estimates of gas bills are published in December of the year, whilst estimates of domestic consumption are first published in March of the following year, with data subsequently being revised in the July edition of DUKES (Digest of UK Energy Statistics).

Domestic consumption in 2011

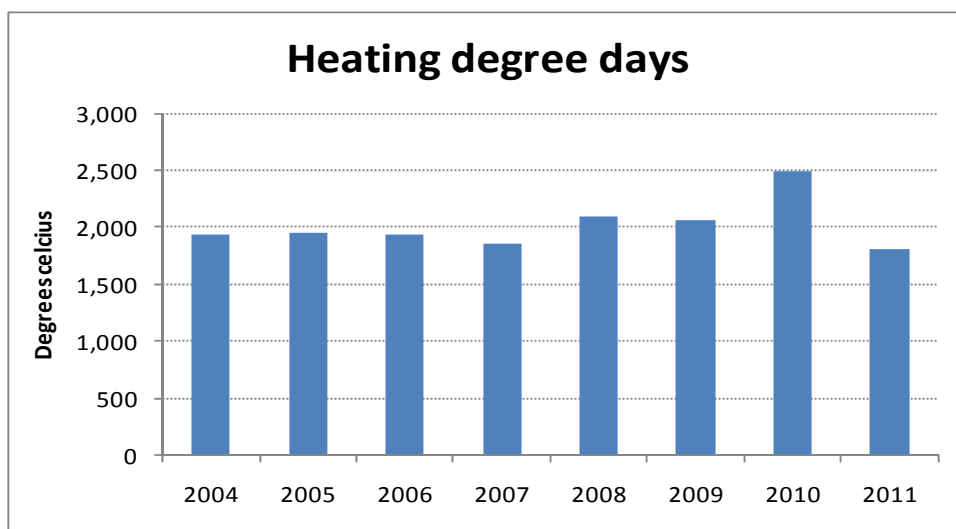
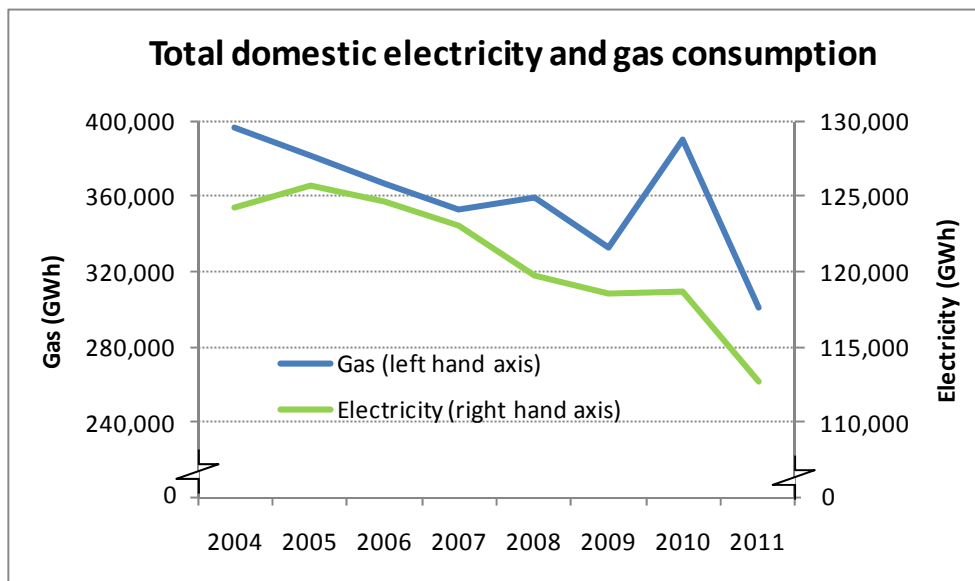
Data on total energy consumption are published monthly in Table 1.2 of Energy Trends. The monthly data are summed to produce the quarterly series. Data are collected from a variety of sources: surveys of producers; DECC administrative systems; with some data modelled. Data on final energy consumption are published on a quarterly basis: data for domestic gas consumption are published in table 4.1, with data for domestic electricity consumption in table 5.2. These tables show that domestic energy consumption fell sharply in 2011, with gas consumption down nearly 23 per cent, and electricity down 5 per cent. Data split between standard and Economy 7 meters is only estimated on an annual basis with the results presented in DUKES.

These demand reductions are largely due to the comparatively warmer weather experienced in 2011 compared to 2010. Other factors will have played a part including the greater deployment of energy efficiency measures to the household stock, it is likely there was some reduction in demand in reaction to the rises in energy prices in the winter of 2010/11 and in the autumn of 2011.

The following charts shows domestic gas and electricity consumption and the number of heating degree days in each of the last 8 years. The total number of heating degree days in 2011 is

¹ QEP - www.decc.gov.uk/en/content/cms/statistics/publications/prices/prices.aspx

estimated at 1,815 degree days, which was 27 per cent lower than the number in 2010. The methodology for calculating this is described in an article in the June 2011 edition of Energy Trends.



The table below shows estimates of energy consumption per household for the last four years. These estimates are based on data from energy companies as well as other Government data. A split of electricity consumption, between standard and Economy 7 usage in 2011 has been estimated, based on the split in 2010 and changes in gas consumption. Data for earlier years are taken from DUKES.

Table 2 – Average consumption by household

	Standard electricity meters	E7 electricity meters	Total electricity	Gas
2008	4,119	6,422	4,497	16,539
2009	4,116	6,190	4,436	15,231
2010	4,091	6,229	4,417	17,814
2011	3,932	5,670	4,190	13,680
Change 2010 to 2011	-159	-559	-227	-4,134
% change	-3.9%	-9.0%	-5.1%	-23.2%

Special feature – Domestic energy bills in 2011

This reduction in consumption, especially for gas will have had a large effect on the energy bill faced by a household.

Energy bills to reflect annual actual consumption

Most energy tariffs are made up of a fixed element and a variable portion: these usually comprise a standing charge combined with a price per unit consumed; or with a two tariff price structure, with a higher price being paid for the first units combined before a lower price for subsequent consumption. The result of this structure is that the more you use, the lower your average price paid.

The table below shows average prices derived from the DECC published fixed consumption bills. The first two columns show these bills by dividing the numbers in table 1 by the DECC standard consumption assumption; the third and fourth columns show prices derived from using the consumption estimates in table 2.

Table 3 – Average prices based on standard and actual consumption (pence / kWh)

	Using standard volume assumptions		Using actual volume estimates	
	Std electricity	Gas	Std electricity	Gas
2009	13.03	3.79	12.75	3.89
2010	12.64	3.66	12.39	3.66
2011	13.79	4.00	13.55	4.18
% change	9.0%	9.4%	9.4%	14.1%

Combining the actual consumption estimates with the prices above suggests that average bills by consumers using dual fuel gas and electricity were as follows:

Table 4 - Average energy bills on actual consumption

	Electricity	Gas	Total
2009	£525	£593	£1,118
2010	£507	£653	£1,160
2011	£533	£572	£1,105
Change	+ £26	- £81	- £55
% change	5.1%	-12.4%	-4.7%

In 2010, the average electricity bill faced by consumers fell by £18, as both prices and volumes fell. Spending on gas increased as the large increase in volumes consumed outweighed the effect of the price cuts. In 2011, prices for both fuels increased, but consumption fell, a result of the milder weather.

For electricity, the 3.9 per cent fall in consumption was not sufficient to offset the 9.4 per cent rise in prices, so actual bills for consumers were estimated to have risen by £26. For gas, the 23.2 per cent fall in consumption more than offset the 14.1 per cent rise in prices, with bills estimated to have fallen by £81. Overall dual fuel gas and electricity bills are estimated to have fallen by a combined £55 to an average of £1,105 in 2011.

User feedback

Please send any comments or queries regarding this analysis to Iain MacLeay using the contact details below.

Iain MacLeay

Energy Prices

Tel: 0300 068 5048

E-mail: Iain.Macleay@decc.gsi.gov.uk