



# ENERGY PRICES AND DEBT

IPA's Fuel Poverty Forecast

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# Introduction

IPA Energy + Water Economics were asked by the National Housing Federation to provide advice on the impact of increasing energy prices on the levels of debt and fuel poverty. This executive summary focuses on IPA's energy price and fuel poverty forecast.

The Federation campaigns for energy suppliers to stop charging pre-payment meter customers a premium for their gas and electricity. Current pre-payment meter customers, who are often on low incomes, can pay up to £70 a year more than customers who pay for their energy by quarterly bill and £560 more than customers who pay by online direct debits.

The research highlighted that rising commodity prices in the last few years have fed through into substantial increases in the wholesale price of power and IPA's forecast of future prices suggests that this is likely to be sustained over the next three years. The increase in wholesale energy prices feeds through to significant increases in the tariffs offered by suppliers to domestic customers and the resulting rising gas and electricity bills are likely to have a substantial impact on a household's ability to pay, pushing more people into debt (and higher levels of debt) as well as increasing the number of households in fuel poverty.

IPA's main findings for fuel poverty and energy pieces are:

- Rising wholesale gas and electricity prices will increase average annual electricity bills by 25% from around £400 per year in 2007 to over £500 per year by the start of next decade and annual gas bills are forecast to increase by about 55% — from around £575 per year in 2007 to around £900 per year over the same period.
- Fuel poverty is also expected to increase – the predicted rise in gas and electricity bills suggests that the number of households in fuel poverty will increase to over 5.5 million by the start of the next decade, which is over double the 2005 levels with over 1.5 million additional households being classified as being in fuel poverty between 2007 and 2008.

# Gas Bills

IPA's forecast annual gas bill is calculated by multiplying the forecast gas consumption with the delivered unit rates. The historical (figure 1.1) and forecast (figure 1.2) annual gas bills are shown in the below figures for credit and prepayment customers.

As can be seen, gas bills for 2008 and beyond are forecast to be much higher than in previous years reflecting the significant increases seen in the wholesale gas price. It is worth noting that as supply companies generally get a considerable portion of their gas on long-term contracts, there is likely to be a lag between when wholesale prices increase and when this feeds through to the customer.



Historical bill information has been sourced from BERR's Quarterly Energy Prices Report, June 2008. However, the point remains that gas bills will rise from their current levels and average bills could exceed £900 per year by the start of the next decade.

**Figure 1.1 Historical Average Annual Gas Bills, per year, Money of the Day Terms**

	Credit meter			Pre-payment meter		
	London	Birmingham	Edinburgh	London	Birmingham	Edinburgh
<b>1998</b>	318	317	313	331	331	331
<b>1999</b>	305	307	307	318	318	318
<b>2000</b>	295	297	297	311	312	310
<b>2001</b>	293	296	294	308	309	308
<b>2002</b>	309	313	311	326	327	327
<b>2003</b>	320	324	320	335	335	335
<b>2004</b>	334	333	332	351	352	343
<b>2005</b>	388	389	384	401	403	400
<b>2006</b>	480	480	469	499	503	501
<b>2007</b>	556	556	547	590	595	588

**Figure 1.2 Forecast Average Annual Gas Bills, per year, Money of the Day Terms**

	Credit meter			Pre-payment meter		
	London	Birmingham	Edinburgh	London	Birmingham	Edinburgh
<b>2008</b>	807	838	765	848	879	805
<b>2009</b>	887	922	842	930	965	884
<b>2010</b>	864	897	819	907	941	861
<b>2011</b>	847	879	802	890	923	844

# Electricity Bills

The forecast annual electricity bill is calculated by multiplying the forecast electricity consumption with the delivered unit rates. The historical (figure 2.1) and forecast (figure 2.2) annual electricity bills are shown in the below figures for credit and prepayment customers.

Historical bill information has been sourced from BERR's Quarterly Energy Prices Report, June 2008.

**Figure 2.1 Historical Average Annual Electricity Bills, per year, Money of the Day Terms**

	Credit meter			Pre-payment meter		
	London	Birmingham	Edinburgh	London	Birmingham	Edinburgh
<b>1998</b>	263	253	273	275	263	292
<b>1999</b>	258	252	272	268	261	288
<b>2000</b>	252	245	268	263	261	281
<b>2001</b>	246	239	267	256	256	278
<b>2002</b>	244	237	266	253	253	279
<b>2003</b>	249	238	266	253	254	281
<b>2004</b>	252	247	286	250	262	298
<b>2005</b>	288	279	316	292	297	318
<b>2006</b>	339	333	369	348	356	393
<b>2007</b>	371	391	408	381	418	430

**Figure 2.2 Forecast Electricity Unit Rates, per kWh, Real 2008 money**

	Credit meter			Pre-payment meter		
	London	Birmingham	Edinburgh	London	Birmingham	Edinburgh
<b>2008</b>	502	506	498	521	528	520
<b>2009</b>	520	524	516	540	547	539
<b>2010</b>	506	510	503	526	532	525
<b>2011</b>	502	505	499	522	528	522

As can be seen, electricity bills for 2008 and beyond are forecast to be much higher than in previous years reflecting the significant increases seen in the wholesale electricity price. It is worth noting that as supply companies generally get a considerable portion of their electricity on long-term contracts, there is likely to be a lag between when wholesale prices increase and when this feeds through to the customer.

However, the point remains that electricity bills will rise from their current levels and are likely to hit £550 per year by the start of the next decade.

It is worth noting that there is little regional variation in forecast electricity bills, with similar trends being observed for both the historical and forecast values reflecting the significant contribution of wholesale power prices to the delivered price.

# Fuel Poverty

Fuel poverty is also expected to increase – the predicted rise in gas and electricity bills suggests that the number of households in fuel poverty will increase to over 5.5 million by the start of the next decade which is over double the 2005 levels with over 1.5 million additional households being classified as being in fuel poverty between 2007 and 2008 (figure 3.1).

Fuel poverty is defined as households who pay more than 10% of their income on fuel bills. This section considers the impact on changes to annual bills on the number of households considered to be in fuel poverty.

## Historical Trends

Recent estimates for the number of households in fuel poverty for England, Scotland and Wales are:

- England: In 2004, there were 1.2 million households in fuel poverty which had increased to 2.6 million by 2006;
- Scotland: In 2002, there were just under 300,000 households in fuel poverty (13.4% of all Scottish households). This had increased to nearly 420,000 households in 2004/05 and 543,000 in 2005/06 (which corresponds to 23.5% of all households);
- Wales: In 2004, 130,000 households were in fuel poverty which had increased to 243,000 by 2006 representing an 87% increase.

The latest official figure for fuel poverty was 2,400,000 in 2005.



## Forecast Fuel Poverty

There is a relatively widely accepted rule of thumb that for every 1% increase in energy prices, the number of households in fuel poverty increases by 40,000. The year on year utility bill increases, and the resulting forecast levels of households in fuel poverty using this formula are shown in the following table.

**Figure 3.1 Forecast Electricity Unit Rates, p/kWh, Real 2008 money**

	2005	2006	2007	2008	2009	2010	2011
<b>Annual Energy Bill £/yr</b>	676	819	927	1,309	1,406	1,369	1,348
<b>% Increase Yr on Yr</b>	-	21%	13%	41%	7%	-3%	-2%
<b>Fuel Poverty ('000s)</b>	2,400	3,246	3,774	5,422	5,720	5,614	5,553

## National Housing Federation

The National Housing Federation represents 1300 independent, not-for-profit housing associations in England and is the voice of affordable housing. Our members provide two million affordable homes for five million people.

## About IPA Energy + Water Economics

IPA Energy + Water Economics are consultants specialising in Infrastructure: Electricity, Gas, Renewables, Carbon, Water and Transport.

They provide services in pricing and markets, trading and risk, regulation, project economics, financing and PSP across these sectors. IPA are one of the leading specialised energy practices in Europe.

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