

Cold Comfort

Fuel Poverty and the Winter Fuel Payment

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Executive Summary

The Government is failing on its Fuel Poverty target. The number of households spending more than 10% of income on energy has risen steadily since the launch of the Fuel Poverty strategy. The Government's own figures show that by 2007, the numbers of people in fuel poverty in the UK had risen to 4,000,000 from 2,500,000 in 2001. Even more worrying, they suggest that there may have been 6,500,000 by 2009 - and this despite spending of £20 billion.

In 2009 the Fuel Poverty Advisory Group, who advise Government, suggested that "the Government appears to have given up on the legally binding 2010 Fuel Poverty Target".

It has been estimated that every 1% rise in energy prices implies an increase of 40,000 in Fuel Poverty. With estimates of increases in bills of up to 100% in the next decade, the Government's performance on this target is only likely to deteriorate.

Excess winter deaths are higher in the UK than all but four other countries in the EU. We fare worse than Sweden, Norway and Finland, which all face much colder winters. The main reason is the poor energy efficiency of British housing; low incomes also contribute.

The Fuel Poverty target is not a particularly helpful way to focus resources and has perverse effects. It focuses effort on meeting the target, rather than necessarily tackling poverty or improving home energy efficiency. For example, its logic is to move households from a fuel poverty ratio of 11% to 9%, rather than helping the poorest. And it has led to the offloading of responsibility for social welfare onto energy companies, who should instead be concerned with providing value for money in a competitive market and with energy efficiency. The Government trumpets the Winter Fuel Payment (WFP) as a major part of its Fuel Poverty Strategy; WFP is by far the largest spending on fuel poverty. But by the Government's own figures, only 18% of households in receipt of it are fuel poor. 100,000 pensioner households who receive WFP have an income over £100,000. Meanwhile a full 49% of the 'fuel poor' receive no WFP. The Government should acknowledge that the WFP is not a credible policy for tackling fuel poverty.

If the Government wishes to use the WFP funding to boost the incomes of older people, it should do so transparently through the pensions or benefits system.

However, if the Government's priority for this money is to help poorer households keep warm, then the money could be far better used. The best approach would be to use the money to accelerate home energy efficiency improvements. A permanent solution to reducing fuel bills, this has the added benefits of increasing our national energy security, creating green jobs, and reducing carbon emissions from housing.

Alternatively, if the Government wished instead to boost the incomes of households likely to be fuel poor, then the money could be better targeted. For example, our analysis shows that targeting money to single person households and to the unemployed could significantly improve the effectiveness of the policy in reaching the fuel poor from 18% to 28%. However, such an approach driven by vainly attempting to meet the Fuel Poverty target, would still be highly inefficient. Given the inherent difficulty of identifying those in fuel poverty, it would still continue to direct more than two-thirds of funding to the non-fuel poor.

The fuel poverty target has effectively been abandoned by the Government, and this should be made transparent by abolishing the target. The Government's priority should be on helping people heat their homes affordably (and tackling carbon emissions) through improving the energy efficiency of homes. They should focus on tackling poverty per se, including pensioner poverty, rather than fuel poverty.

Introduction

No society would want its old, poor or vulnerable members suffering freezing temperatures every winter without doing something about it. But Britain has serious problems when it comes to ensuring that the most vulnerable in society can adequately heat their homes: poverty, badly-insulated homes and rising energy prices.

Fuel Poverty is conventionally defined as when a household needs to spend in excess of 10% of household income on all fuel use in order to maintain a satisfactory heating regime. In 2000, the Government set itself an ambitious target of abolishing fuel poverty in vulnerable households by 2010, and in all households by 2016. The first target will definitely be missed, and the second is very likely to be missed.

Since 2000, over £20 billion has been spent on fuel poverty benefits and programmes.¹ That fuel poverty is worsening, despite this spending, suggests this money is being misdirected at best – and, at worst, simply wasted.

Fuel poverty is an emotive issue. This winter, likely the coldest for thirty years, has thrown into stark relief the number of people suffering from the cold. Nevertheless, this should not preclude rational analysis of the issue. If there are clear and identifiable causes of human misery and deaths, then the aim of public policy should be to tackle these causes in a sensible and cost-effective manner. Not only is the Government failing to meet its own targets, but its attempts to tackle it have had all sorts of strange consequences – not least giving wealthy pensioners extra handouts, and involving energy companies in the benefits system. This is a policy area in urgent need of reassessment.

A rational look at fuel poverty must start at the point of whether it differs significantly from simple poverty. We would rarely discuss food poverty or clothing poverty, so why fuel poverty? The various Government policies in place to tackle the problem of fuel poverty, as it sees it, must be challenged, since they appear to be achieving far too little at present.

Causes of fuel poverty

A household is said to be in fuel poverty if it needs to spend more than 10% of its income on fuel to maintain a satisfactory heating regime (usually 21 degrees for the main living area, and 18 degrees for other occupied rooms). The “Fuel poverty ratio”² is thus defined as:

$$\text{Fuel poverty ratio} = \text{fuel costs (usage x price)} \div \text{income}$$

Fuel poverty is therefore a function of three components: the energy efficiency of the home, the cost of energy, and income levels (poverty) more generally. On all three fronts, the UK faces a challenging situation.

Home Energy Efficiency

Poorly insulated housing stock requires more energy to be heated adequately. Even under current government plans, by the end of 2010, 14.3 million homes out of 25 million in the UK will still be without one or both of loft insulation and cavity wall insulation.³

Improving home energy efficiency is rightly seen as the most effective way to solve fuel poverty, since it is the only way to physically and permanently make heating homes cheaper. There is a double benefit to be gained here, since housing accounts for approximately 27% of total UK carbon emissions. The challenge is to deliver an 80% cut in UK carbon emissions by 2050. Of the homes we will inhabit in 2050, around 80% are already standing today.⁴

Cost of energy

The second component, the cost of energy, is the main cause of recent rises in fuel poverty. This is a result of both world energy commodity prices and of government programmes, such as the Renewables Obligation, to reduce carbon emissions. The future of energy prices is likely also to be one of increase, with the combination of the costs of decarbonisation and increasing global demand pressure on fossil fuels.⁵ The rise in prices presents a major challenge to tackling fuel poverty.

Ernst and Young estimated that domestic energy bills will rise by 20% by 2020 purely due to the decarbonisation agenda. Their definition includes: the increasing cost of financial support to renewables under the Renewables Obligation; the cost of rolling out smart meters and the supplier obligation to reduce household carbon emissions; changes to the generation mix and the post-2012 EU Emissions Trading Scheme; and additional investment in networks.⁶

Ofgem’s Project Discovery set out a number of future scenarios for energy, and showed price rises under every scenario, between 14% and 60% by 2020 in real terms.⁷ These figures are seen as optimistic by some observers. According to a recent Citigroup report: “real terms increases of between 57% and 100% are possible in our view”.⁸

The implications of these price rises are enormous, given that a study by the Department for Trade and Industry (DTI) in 2003 estimated that every 1% increase in gas and electricity prices implies an increase of 40,000 households in fuel poverty.⁹ In fact the relationship is not linear because of the income distribution

curve. This means that every percentage rise in fuel prices will trap a larger number of people than the previous rise. It has been estimated that as many as 1 in 4 UK households may now be “fuel poor”. The numbers of households in fuel poverty increased from 2.5 million in 2001 to 4 million in 2007, an increase of 62.5%. The most recent projections by the Department for Energy and Climate Change (DECC) suggest that the numbers could have risen to 6.5 million households by 2009.¹⁰

Income levels

The third component is income. Low income correlates strongly with fuel poverty, although it is possible for relatively high-income people to be defined as being in ‘fuel poverty’, for example, if they live in large or very energy-inefficient houses.

Income poverty is generally measured in the round, relative to the relevant population (as an equivalised income below 60% of the median). By contrast, fuel poverty is a measure of income relative to one specific item of expenditure, the cost of which depends substantially on energy prices and on the degree of home energy efficiency.

Well-established Government welfare programmes exist to tackle poverty, including pensioner poverty and child poverty. Clearly, action to raise incomes in general can also have the effect of lifting people out of the definition of fuel poverty.

Much additional state support ostensibly targeting fuel poverty has also focused on raising incomes. It is relatively quick and easy to boost incomes, rather than for example to deliver substantial energy efficiency improvements. However, because of difficulties in targeting the fuel poor, much of this additional support for incomes goes to the non-fuel poor.

The priority should be to solve real root problems efficiently and for the long-term, rather than to meet targets in the short term. One-off income payments, even if they successfully target a household actually in fuel poverty, will help, as the name suggests, one time only. Support available for tackling fuel poverty should prioritise ways to permanently reduce future bills, through energy efficiency measures, with the additional benefits this brings for the environment in reducing carbon emissions.

Other factors

Other factors have an impact on people’s ability to heat their homes affordably. Fuel type, the number of occupants, and method of payment all have measurable impacts. For example, homes off the gas grid, many of them in rural areas, often depend on solid fuels or heating oil. Heating oil in particular has seen large price rises in recent years, in response to global oil price movements. Low population densities in rural areas also mean that area-wide home energy efficiency schemes there do not benefit from the same economies of scale as in more urban areas.

Effects of Fuel Poverty

Excess Winter Deaths

The present approach is failing too many people who are suffering from low incomes and badly insulated homes. This is particularly concerning in light of the number of excess winter deaths. These are defined as the difference between winter and non-winter deaths.¹¹ There were an estimated 36,700 excess winter deaths in 2008/9 in England and Wales. This is the highest figure since 1999/2000. Excess winter deaths for 2009/10 may be even higher due to the coldest winter for 20 years.

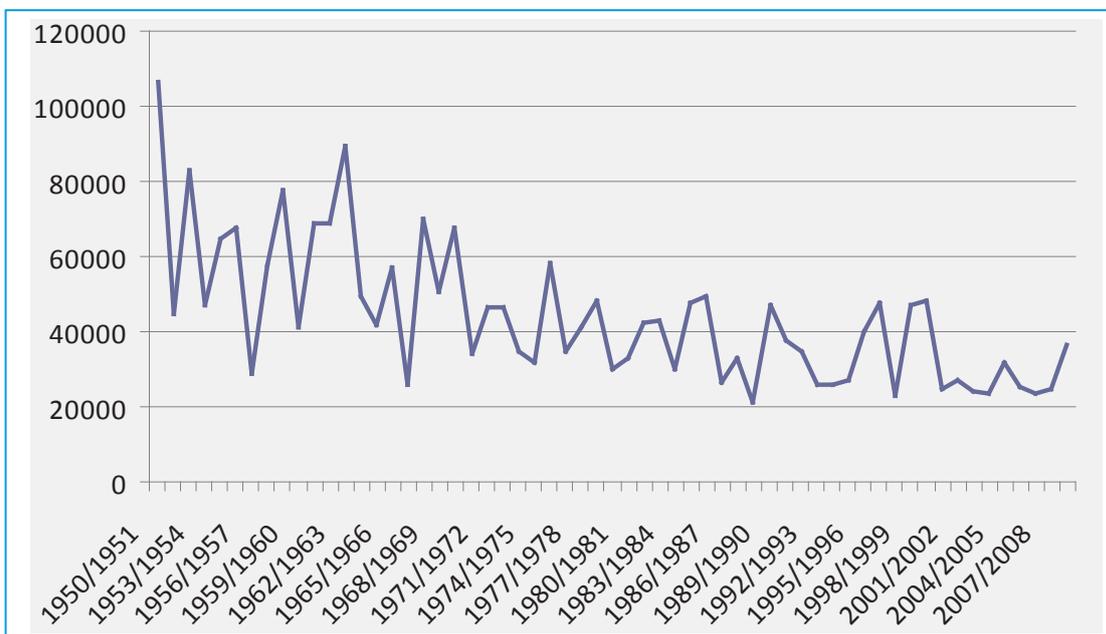
Initial concerns about fuel poverty in the 1970s were in large part driven by the number of excess winter deaths, although the focus then was on hypothermia.¹² Now, coronary heart disease, strokes and respiratory diseases are responsible for most excess winter deaths.¹³

Compared to other EU member states, the UK has an above-average level of seasonal variability of death, worse than all other EU members except Ireland, Portugal and Spain, and level with Greece.¹⁴ While it might be surprising to see these last three relatively warm countries on the list, it is most likely due to the quality of their housing stock, which is often not built to protect against cold weather, and the comparative poverty in some regions of these countries.

Countries with colder winters – including Norway, Finland, Sweden and Canada – fare better than the UK. Again, this is due to a mix of factors including levels of energy efficiency in housing stock, and socio-economic factors including poverty¹⁵.

While the second half of the Twentieth Century saw gradual improvements, since 2000 there has been no discernible improvement in the trend of UK excess winter deaths.

Figure 1. Excess Winter Deaths 1950-2008¹⁶



Linked to this phenomenon, but receiving far less attention, is cold-related ill health (morbidity). There are many people who become ill, or whose illness is exacerbated, by cold and inadequate housing. They need the services of the NHS. There are almost no statistics available of the cost implications of excess winter deaths and ill-health to the NHS. One of the few estimates on record is that NHS expenditure rises 2% in the coldest months of the year.¹⁷

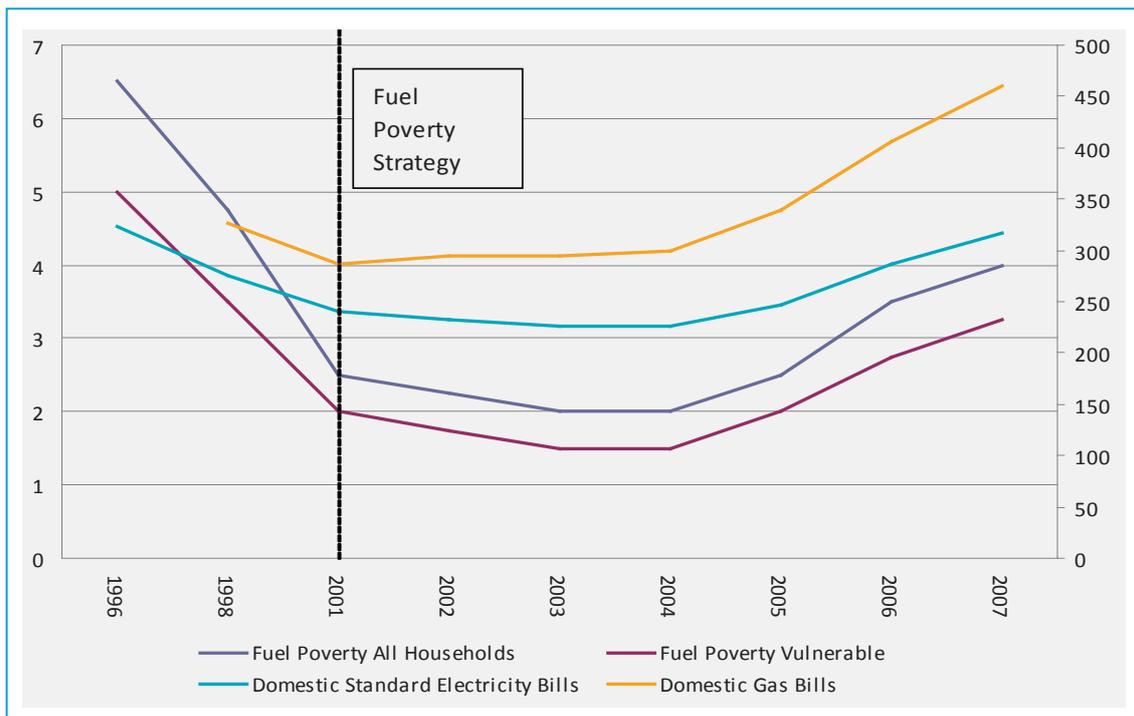
While it may not be possible to reduce the seasonal variability of deaths or illness to zero, it should be possible to raise performance towards the best-performing EU member states. More reliable statistics on the social and financial costs of excess winter illness and death, and more evidence linking cold and damp housing and ill-health, might bolster the case for action.

How did we get here?

In 2000, the Government passed the Warm Homes and Energy Conservation Act, followed by statutory orders establishing the targets for eliminating fuel poverty. After a decade of a liberalised energy market, prices had fallen significantly, yet there were still some people struggling to pay their bills. The forecast for prices at that time was that they would keep falling in the long term, allowing the Government to foresee fuel poverty being ended.

By 2009, it was clear that progress had not been made. National Energy Action went as far as to describe the “collapse of the UK Fuel Poverty Strategy” while the Fuel Poverty Advisory Group suggested that “the Government appears to have given up on the legally binding 2010 Fuel Poverty Target”.¹⁸ Fuel poverty has increased significantly since the middle of the decade, even before the effects of the recession come into play.

Figure 2. UK Households in Fuel Poverty (in millions, left hand axis) and average standard credit electricity and gas bills, England and Wales (£ right-hand axis)¹⁹



Perhaps the most damning evidence is shown in figure 2 above. In 2001, when the statutory target was set, fuel poverty had been falling sharply. This decline probably contributed to the setting of the ambitious target, because the Government assumed that prices and incomes would continue to improve and eradicate fuel poverty without them needing to do very much.²⁰ Since the introduction of the strategy and the associated target, fuel poverty has increased, alongside energy prices. All of the expenditure on the fuel poverty strategy has been ineffective in making positive progress towards the target. Figure 2 shows a rise from 2.5 million fuel poor households in 2001 to 4 million in 2007, an increase of 62.5%.

Is the current target appropriate in principle?

The present definition of fuel poverty as being when a household spends more than 10% of its income is fairly arbitrary, to enable the target to be set. In the Warm Homes and Energy Conservation Act (2000), fuel poverty is described more qualitatively as when a person “is a member of a household living on a lower income in a home which cannot be kept warm at reasonable cost”.²¹

A wide range of factors including fluctuating energy prices, changes in households’ income levels over time, choice of energy tariffs, the price of other essentials (such as housing, food or clothing), people’s choices about housing, and the weather will all have an impact on whether a household is in fuel poverty. It is quite possible, for example, for someone to enter fuel poverty with a small increase in their energy bill, but to be better off overall if other costs fall more.

The logic of the target is also to focus effort on moving households from spending 11% of income on energy to 9%, so maximising the reduction in numbers in ‘fuel poverty’ rather than helping those spending a greater proportion of their income on energy.

As discussed earlier, the target appears to have led to a focus on short-term income supplements, rather than a long-term focus on addressing the root cause in energy inefficient homes.

The ‘maths’ of assessing the target has also led to perverse incentives for Government policy choice. The example below illustrates this:

If a household spends £120 a month on energy, out of an income of £1000, then they are in fuel poverty as defined by the target, i.e.

$$\% \text{ income spent on energy} = 120/1000 = 12\%$$

Cutting their energy bill by £25 takes them out of fuel poverty:

$$\% \text{ income spent on energy} = 95/1000 = 9.5\%$$

while increasing their income by £25 doesn’t:

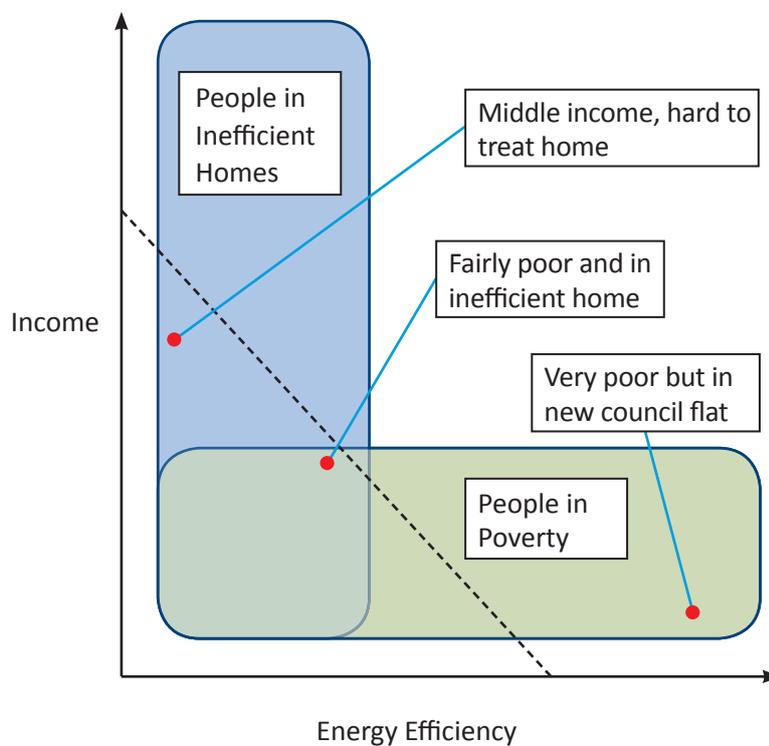
$$\% \text{ income spent on energy} = 120/1025 = 11.7\%$$

But the impact for the householder is the same either way. They have used just as much energy, and their home is just as efficient (or inefficient), so the recipient feels just as warm (or cold) under either scenario. In this way, the target has incentivised the Government to involve energy companies in the social welfare system, for example, through mandating reduced social energy tariffs, which redistributes money between energy bill payers.

Conceptually, fuel poverty conflates two priorities for government: energy efficiency and poverty. The question remains open as to what extent the concept of fuel poverty adds to the drive to improve the energy efficiency of the domestic housing stock or to eradicate poverty.

Consider figure 3 below. The line represents the 10% threshold for being in fuel poverty, caused by the combination of energy efficiency and income. For now, assume the price of energy is constant. The three dots represent different stylised cases – a middle-income person in a home which is hard to make substantially more energy efficient, a poor person in a fairly energy inefficient home and a very poor person in a modern, highly energy efficient home. This is a stylised example but demonstrates how it is possible that under the current fuel poverty target, those on relatively higher incomes may be deemed more in need of help than those on lower incomes. The only one of the three not in fuel poverty is the one in most need as a result of overall poverty.

Figure 3. Poverty, Energy Efficiency and Fuel Poverty



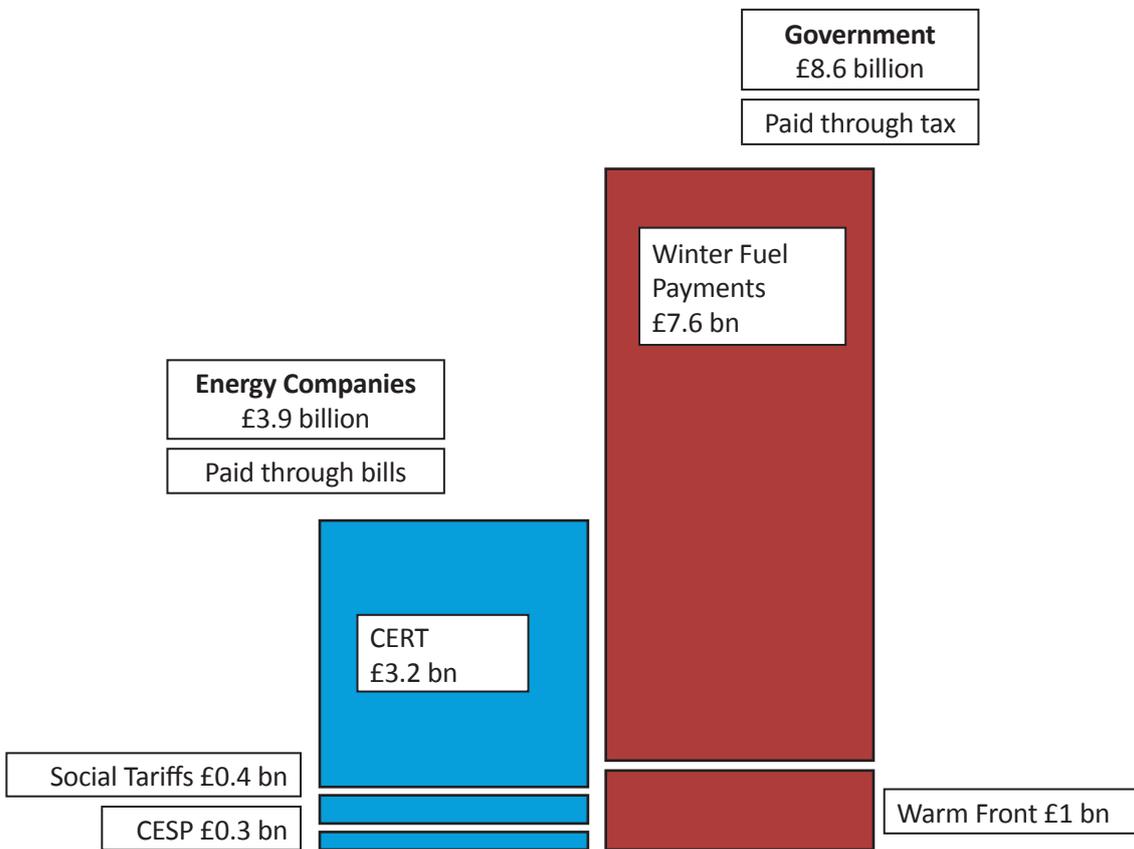
The Government should focus on poverty per se, and on energy efficiency, rather than this target, which they will fail to meet anyway.

Programmes aimed at tackling fuel poverty

It is striking that there are so many policy interventions in an area where the outcomes are so bad. Looking at Figure 4, it seems that the lack of progress is not because there are insufficient initiatives. Between 2008 and 2011, government policies will drive about £12.5 billion of expenditure on both fuel poverty and on improving domestic energy efficiency. Other policies such as the Decent Homes programme (costing £2 billion) and the general benefits system also have potential impacts on fuel poverty.

Spending on measures is broadly divided into energy company spending (left column, Figure 4) and government spending (right column, Figure 4). The truth is, because energy companies will pass costs on to consumers, households pick up the tab for both columns of spending. The difference is whether the money has been collected through general taxation, or through energy bills.

Figure 4. Government policies to reduce domestic CO2 emissions and fuel poverty, 2008-2011



The Winter Fuel Payment

The total, about £12.5 billion over 2008-11, appears to be achieving little positive progress on delivering the Government's fuel poverty target. In part, this is because the lion's share is spent on income boosting measures which inefficiently target the fuel poor: in particular the £7.6 billion on Winter Fuel Payments (WFP) over 2008-2011.

While no doubt this cash payment is gratefully received by pensioners and may be used to pay for household fuel bills in winter, the recipient is not any better prepared to cope with future bills in the longer-term. Without a long-term improvement to household energy efficiency, the householder's ability to afford to keep warm is not improved. The WFP, a substantial proportion of which is not guaranteed beyond this winter, may lift some people above the fuel poverty this year but the same people face the likelihood of unaffordable fuel bills next winter and winters after that, and will reappear in the statistics.

As a policy for reducing fuel poverty, the Winter Fuel Payment is also bad at targeting the fuel poor. This is discussed further below.

Energy efficiency programmes

There are a set of other policies which attempt to improve the energy efficiency of homes, focusing on energy-inefficient homes and those in poverty. These policies are, in principle, the best approach.

Many of the existing set of policies place obligations on energy companies. The Carbon Emissions Reduction Target (CERT) has led to energy companies pursuing a variety of energy saving measures for households, even where they are not customers. At its best, this has led to the rollout of home insulation to houses which were previously inefficient and wasted significant amounts of heat and energy. At its worst, it has led to the mass mail-out of energy-efficient light bulbs, with little evidence that this would lead to significant energy efficiency improvements (this option has now been removed from the scheme).²²

In Policy Exchange's publication *Warm Homes*, we demonstrated how existing household energy efficiency programmes could be significantly improved.²³ Our proposals included abolishing several existing policies and quangos, including CERT, Warm Front and the Energy Savings Trust.²⁴ These would be replaced by a new Energy Efficiency Fund with equivalent resources to finance a massive investment in energy efficiency, delivered on an area-by-area basis. This would be a more effective approach, and would, for example, get around the landlord-tenant problem, where neither private landlords or their tenants have an incentive to improve the energy efficiency of their property, as well as helping those, without the money to invest upfront, benefit from lower bills – a “better than free” energy saving.²⁵

We argued that at a minimum every home in Britain should have cavity wall insulation (where appropriate), loft insulation, hot-water tank insulation, be draught-proofed and have double glazing (with a C rating) by 2014. We calculated that this would reduce the average bill by £314 per annum. The poorest households and communities should receive the installation of basic energy efficiency measures first, with investment targeted using the income and social welfare statistics.

Social tariffs

The Government is planning an additional intervention – to introduce mandated ‘social tariffs’, through the Energy Bill currently before Parliament. These are discounted energy prices for poor or vulnerable customers. While this is no doubt welcomed by those in receipt of the discount, its proponents gloss over its regressive nature: the costs of the discount are passed on to other customers, potentially pushing those just above the 10% threshold below it and into fuel poverty. It also introduces redistribution into a competitive commercial service, recruiting the energy companies into the business of social welfare and redistribution. While all the energy companies we interviewed made clear they would not countenance acting on it, it does also introduce an incentive for energy companies to avoid serving poorer customers to improve their competitiveness with those customers who would bear the cost.

A social tariff involves an energy provider offering the most disadvantaged customers a lower price for the energy they use than they would otherwise have been paying. At present, energy companies spend over £150 million per year discounting energy bills for customers who qualify for help,²⁶ under an agreement that runs to March 2010. The Energy Bill currently before Parliament seeks to formalise these social tariffs on a statutory basis.

The cost of social tariffs will be met by an increase on everyone else’s bill, effectively redistributing costs across each company’s customers.

For example, if 5 million out of 25 million households received a social tariff of the value of £200 per year, this would cost £1 billion per year to industry – most likely passed on to non-fuel poor customers as an average bill increase of £50.

One difficulty is identifying those customers in need of this help, because energy companies do not have information on their customers beyond that necessary to supply them with gas and electricity. To that end, there is a data sharing pilot project between the Department for Work and Pensions (DWP) and the big six energy companies. The aim of this is to use DWP data to identify people in receipt of those benefits which might indicate fuel poverty, and then require the energy companies to assess those customers’ eligibility for a social tariff.

As energy prices rise in the future, social tariffs will need to get broader and deeper to keep up. For these reasons MSTs cannot be regarded as a sustainable long-term solution.

The energy companies have responded to the demands placed on them by establishing vulnerable customer units, providing benefit checks for customers identified as vulnerable.²⁷ This is in itself good for those who are helped, but it does seem an odd thing for those companies to have to do – it seems unlikely that the major supermarkets would be urged to help their poorer customers claim benefits, despite food being arguably as important as fuel to their daily lives.

All of these interactions between the energy companies and government have produced a strange situation. Redistribution and social welfare have become embedded in a competitive and commercial environment, driven by a Government seeking both to avoid using tax revenues to address fuel poverty, and to reduce headline energy bills in order to meet the defined fuel poverty target. Given the low esteem energy companies are held in by many of the public, transferring responsibility to them is politically attractive.²⁸ However, it is an abdication of responsibility on the part of government, which should be responsible for redistribution and the welfare of the poorest.

Who is Fuel Poor?

Accepting for now the Government’s definition of fuel poverty, who is fuel poor? From the 2007 Fuel Poverty statistics, it is clear that age is not the sole determining factor. 11.2% of couples over 60 without dependent children are in fuel poverty – less than the national average of 13.2%. A key driver is having is only one adult in the household – lone parents (17% in fuel poverty), people under 60 living alone (22.9%) and people over 60 living alone (30.5%) are more likely to be in fuel poverty than elderly couples.²⁹ More generally, household size is a hugely important indicator of fuel poverty:

Table 1. Demographics and fuel poverty³⁰

	Proportion who are Fuel Poor	
Household Size		
1	27.2%	
2	10.5%	
3	6.6%	
4	4.8%	
5 or more	7.3%	
Work Status		
Employed	5.5%	
Unemployed	40.8%	
Inactive	23.8%	
Payment Type	Electricity	Gas
Direct Debit	9.0%	7.9%
Standard Credit	18.9%	17.2%
Pre-Payment Meter	18.4%	17.8%
National Average	13.2 %	

There are significant differences between those using different payment methods, with customers on direct debit substantially less likely to be in fuel poverty, both for electricity and gas (the only slight difference between customers on pre-payment meters (PPMs) and those on standard credit is surprising, given how much debate has focused on PPM customers).

Perhaps the most telling distributional statistic from the 2007 data is the impact of worklessness on fuel poverty. Only 5.5% of households where the survey’s reference person was in work were in fuel poverty, compared to 40.8% of those who were unemployed. 23.8% of the economically inactive (including the retired) were in fuel poverty. This striking difference between those in work and out of work underlines the importance of income factors, regardless of energy costs.

How do these factors interact?

Using least-squares linear regression analysis with the 2005 English Housing Conditions Survey dataset,³¹ we can examine the influence of distinct factors, holding all others constant.³² This means that we can separate out the effects of different demographic and other factors to find out what factors most closely relate to fuel poverty. Throughout this analysis, the fuel poverty index (full income) is used as the dependent variable. (The full income definition is calculated by adding the personal incomes of every member of the household

together, plus any benefit payments that the household receives (from private sources, state benefits and savings). It includes income related directly to housing (i.e. Housing benefit, Income Support for Mortgage Interest (ISMI), Mortgage Payment Protection Insurance (MPPI) and Council Tax Benefit)³³. Theoretically it ranges from 0 (no spend on energy) to 1 (spending all disposable income on energy); in reality it ranges from near 0 to around 0.45.

The analysis tells us the correlation of each variable to fuel poverty, assuming all others are not changed. Table 3 shows the first regression equation. Pensioners are more likely to live alone. The regression aims to separate the effects of age and occupancy. The coefficients reported in the table are the best estimate of the effect of each of the two variables – being over 60 and living alone – on the dependent variable, the fuel poverty index. The equation tell us that living alone adds 2.2% to each person’s fuel poverty index, other things being equal, while being over 60 adds only 0.7%. This suggests that living alone has around three times the effect of being over 60 on fuel poverty, other things being equal. (Both of these relationships are statistically significant, meaning the effect is extremely unlikely (less than one in a thousand) to be the result of sampling error or other bias, and can be taken to be a reflection of the real situation.)

Table 2. Simple regression on living alone and age

Variable	Coefficient
Live Alone	0.022***
Over 60	0.007***
Constant	0.041

* p<0.05, ** p<0.01, ***p<0.001³⁴

Adjusted R² = 0.079³⁵

A fuller picture emerges when examining the work status of people in the dataset. Table 4 (below) regresses work status as well as household size and sex onto the fuel poverty index.³⁶

Table 4. Regression on Fuel Poverty Index, full income definition

Variable	Coefficient
Number of people in Household	-0.004***
Sex (Male =1)	0.001*
Work Status	
Full-time work	Reference Category
Part-time (<30 hours)	0.011***
Government Training Scheme	0.022***
Long-term sick	0.029***
Registered Unemployed	0.037***
Not registered Unemployed	0.265***
At home not seeking work	0.024***
Retired (including early retirement)	0.020***
Full-time Students	0.023***
Other	0.030***
Constant	0.45

* p<0.05, ** p<0.01, ***p<0.001

Adjusted R² = 0.173

Work status is clearly very important. The difference between being in work full time (the reference category) and all other statuses is statistically significant. The coefficients suggest that people in full time work spend at least 2% less of their disposable income on fuel than those who are not in work, other things being equal.

In terms of present policy, the most striking finding is the relatively better position of retired people compared to those on all out-of-work benefits. Those who are retired spend on average 2% more of their disposable income than those in full-time employment on fuel, while those who are claiming Job Seeker’s Allowance spend 3.7% more than those in full-time employment. People who are registered as long-term sick spend 2.9% more than those in full-time work, other things being equal.

Table 5. Payment method regressed on fuel poverty index

Variable	Coefficient
Electricity Direct Debit	-0.005***
Electricity Standard Credit	Reference category
Electricity Pre-Payment Meters	0.005***
Gas Direct Debit	-0.003***
Gas Standard Credit	Reference Category
Gas Pre-Payment Meters	0.004***
Off gas grid	0.017***
Sex (Male = 1)	-0.002***
Age (years)	0.0002***
Constant	0.390

* p<0.05, ** p<0.01, ***p<0.001

Adjusted R² = 0.1058

For all the debate on pre-payment meters, payment method appears to exert relatively little influence. While those on PPMs are worse off than those on standard credit or direct debit, they are much better off than those who are off the gas grid (compare gas PPM at 0.4% with off grid at 1.7%).

The complexity of causation and demographics in fuel poverty, and the difficulty in accurately identifying the fuel poor, need to be taken into account in developing policies and targeting resources. People living alone or on out-of-work benefits seem in general more vulnerable than the retired, raising questions about the Government’s main policy response to fuel poverty: the Winter Fuel Payment.

The Winter Fuel Payment

The most expensive part of the Government's attempts to eradicate fuel poverty is the Winter Fuel Payment. This was introduced in 1997-8 as a one-off payment, then £20 per household, to help pensioners pay fuel bills. It is a universal benefit for all pensioner households.

The most recent increases in March 2008, from £200 to £250 for pensioners over 60, and from £300 to £400 for the top rate, were similarly pushed through Parliament as one-off supplementary increases, and then renewed for winter 2009/10. Pensioners aged over 80 and living alone or receiving Pension Credit, income-based Jobseeker's Allowance or income related Employment and Support Allowance are eligible for the top rate of £400.

In total the payment will cost £2.7 billion in 2009/10.³⁷

The universal nature of this benefit is the source of much criticism, as it leads to wealthy pensioners – and even those who have retired to much warmer climates but still receive benefits – receiving money to alleviate a problem from which they do not suffer.³⁸

The payment has also been much criticised by pensioner poverty campaigners, who see it as an inadequate “sticking-plaster” response to a problem that would not exist if the state pension was improved by immediately linking uprating with earnings rather than inflation.

From discussions with those involved in the campaign for the Winter Fuel Payment, it is clear that it is viewed very much as a general increase to all pensioners' income rather than actually having much link to fuel poverty. Because many poorer elderly people do not take up benefits to which they are entitled, campaigners saw the issue of fuel poverty as a useful argument for introducing a universal benefit, with the aim of providing an uplift in poorer pensioners' income.³⁹

The inefficiency of this as an approach for reducing fuel poverty is revealed by the proportion of pensioners receiving the benefit who are in fuel poverty, under the government definition. Of those households in which the oldest person is over 60, 18.4% were in fuel poverty in 2007, an increase from 8.9% in 2003.⁴⁰ Given the total £2.7 billion cost of WFPs in 2008, this implies that around £2.2 billion is being given to households who are not defined as fuel poor. Perhaps most perverse, there are as many households in receipt of Winter Fuel Payments in the top income decile as in the bottom – and 100,000 households with total annual income over £100,000 are eligible.⁴¹

The curious logic by which the Winter Fuel Payment is justified is based on the proportion of the fuel poor who are pensioners, which for the 2007 figures is 51.8%.⁴² However, even if half of all the fuel poor are pensioners, it does not follow that the most effective way to target the fuel poor is to give all pensioners a benefit. By similar logic, because half the fuel poor are not pensioners, perhaps everyone should get a winter fuel payment?

The Winter Fuel Payment should be seen for what it is: a universal income boost for all over 60s, not a credible part of the response to fuel poverty.

As presently constituted it has very little to recommend it as a solution to fuel poverty. It redistributes from young to old irrespective of energy efficiency or poverty, and is largely wasted on people who do not need help with their fuel bills. Even for those who do need help, it is so poorly designed that in many cases it will be spent on things other than fuel. Because it is a cash payment boosting overall income, it is probably not unreasonable to expect that the proportion spent on fuel bills will be in proportion to household spending on energy: in the region of 10%.

If the Government wishes to use the WFP funding to boost the incomes of older people, it should do so transparently through the pensions or benefits system. If it genuinely wants to use this funding to help those who struggle with energy bills, the Government has the means to target funding to the fuel poor much more effectively.

How could Government better target resources to the fuel poor?

The best approach would be to use the money to accelerate home energy efficiency measures, prioritising low income households. We outlined what such a programme might look like in *Warm Homes*. A permanent solution to reducing fuel bills, this has the added benefits of reducing carbon emissions, improving our national energy security, creating green jobs across the country, as well as improving quality of life and public health – potentially decreasing NHS expenditure.

Alternatively, if the Government wished instead to boost the incomes of households actually likely to be fuel poor, then the money could be much better targeted. For example, our analysis shows that targeting money to single person households and to the unemployed could increase the accuracy of the policy in identifying the fuel poor from 18% to 28%.

Alternatively, 90.3% of the fuel poor are estimated to be in the lowest three income deciles. Government may therefore be able to improve the targeting of resources to the fuel poor through using means tested benefits.

However, such approaches, driven by vainly attempting to meet the Fuel Poverty target, would still be highly inefficient, given the inherent difficulty of identifying those defined as being in fuel poverty. While an improvement on using the WFP to tackle fuel poverty, focusing on the unemployed and single person households would continue to direct more than two-thirds of funding to the non-fuel poor.

Conclusions

1. The Government's focus should be on helping people heat their homes affordably (and tackling carbon emissions) through improving the energy efficiency of homes. They should focus on tackling poverty *per se*, including pensioner poverty, rather than fuel poverty.
2. The Fuel Poverty target is not a particularly helpful way to focus resources and has perverse effects. It has, for example, led to the offloading of responsibility for social welfare onto energy companies, who should instead be concerned with providing value for money in a competitive market and with energy efficiency. This is not a sustainable solution to fuel poverty. Redistribution should be done through the tax and benefits system.
3. The fuel poverty target has, in any case, effectively been abandoned by the Government, and this should be made transparent by abolishing the target.
4. Winter Fuel Payments constitute the largest area of spending in the Government's fuel poverty strategy, but are a very poor way to target the fuel poor. Less than one-fifth of pensioners are fuel poor.
5. If the Government wishes to use the WFP funding to boost the incomes of older people, it should do so transparently through the pensions or benefits system.
6. If instead, the Government genuinely wants to use this funding to help those struggling to heat their homes, the best approach is to help them upgrade the energy efficiency of their homes as a priority, as well as all other homes. This is a long-term solution, as well as being in a cost-effective way to reduce carbon emissions. There is still considerable progress needed in this area, and we make proposals in the Policy Exchange report, *Warm Homes*.
7. If the Government instead wishes to boost the incomes of the fuel poor, the Winter Fuel Payment - which gives £2.2 billion annually to those *not* in fuel poverty - is not by far the best approach. The Government could target funding to the fuel poor more effectively, for example, through targeting single person households and to the unemployed. However, it is inherently difficult to identify those defined as fuel poor, so this would still direct more than two-thirds of funding to the non-fuel poor.

References

- ¹ DECC (2009) *The UK Fuel Poverty Strategy – 7th Annual Progress Report*, p5
- ² DECC Fuel Poverty Statistics, see http://www.decc.gov.uk/en/content/cms/statistics/fuelpov_stats/fuelpov_stats.aspx
- ³ Caldecott, B and Sweetman, T (2009) *Warm Homes*, Policy Exchange
- ⁴ Boardman, B (2007) *Home Truths: A Low-Carbon Strategy to Reduce UK Housing Emissions by 80% by 2050*, Environmental Change Institute, University of Oxford.
- ⁵ Ofgem (2009) *Project Discovery: Energy Market Scenarios*; Confederation of British Industry (2009) *Decision Time: Driving the UK towards a sustainable energy future*.
- ⁶ Ernst & Young (2008) *Costing the earth? The impact of climate change mitigation on UK domestic customer energy bills*
- ⁷ Ofgem (2009) *Project Discovery: Energy Market Scenarios*
- ⁸ Citigroup Global Markets Inc (2009) *The €1,000,000,000,000 (trillion) Decade* p10
- ⁹ DTI (2003), *A ready reckoner looking at the effect on fuel poverty of various price and income changes*. See www.berr.gov.uk/files/file16807.pdf
- ¹⁰ Based on the DECC Annual Report on Fuel Poverty Statistics 2009. These show 2.8 million households (England) and 4 million households (total UK) in Fuel Poverty in 2007. The same report contains projections for Fuel Poverty in England to 2009 – suggesting numbers likely to be around 3.6 million households in 2008 and up to 4.6 million in 2009. If the total UK figures increased at the same rate as the England-only projections, this would result in 6.5 million households in 2009, or 25% of UK households.
- ¹¹ Office for National Statistics (2009) *Excess Winter Mortality in England and Wales: 2008/9 (provisional) and 207/8 (final)*, p1
- ¹² Boardman, B (2009) *Fixing Fuel Poverty*, Earthscan, London p167
- ¹³ EC public health information, see http://ec.europa.eu/health/ph_information/dissemination/unexpected/unexpected_8_en.htm
- ¹⁴ Healy, J D (2003) *Excess winter mortality in Europe: a cross country analysis addressing key risk factors*, *Journal of Epidemiology Community Health*, 57, pp784-789
- ¹⁵ Ibid
- ¹⁶ ONS *Excess Winter Mortality – Historical Data*, See <http://www.statistics.gov.uk/statbase/ssdataset.asp?vlnk=7090>
- ¹⁷ Hansard HC Deb, 14th January 1998, vol 304 col 305
- ¹⁸ Environment, Food & Rural Affairs Select Committee, *Energy Efficiency and Fuel Poverty*, HC 37, Third Report of Session 2008/9.
- ¹⁹ DECC (2009) *The UK Fuel Poverty Strategy – 7th Annual Progress Report*, p7; and DECC 2009 *Quarterly Energy Prices* tables 2.2.2 and 2.3.2
- ²⁰ Helm D (2008) *How to Tackle Fuel Poverty*
- ²¹ Warm Homes and Energy Conservation Act (WHECA) 2000, See http://www.opsi.gov.uk/Acts/acts2000/ukpga_20000031_en_1
- ²² Which? *Free energy saving light bulb mailouts to end*, www.which.co.uk, 1st July 2009
- ²³ Caldecott, B and Sweetman, T (2009) *Warm Homes*, Policy Exchange
- ²⁴ Ibid, p2
- ²⁵ McKinsey (2007), *McKinsey Climate Change Special Initiative*
- ²⁶ DECC (2009) *The UK Fuel Poverty Strategy – 7th Annual Progress Report*
- ²⁷ Interviews with several companies
- ²⁸ Populus *Concerned Consumer Index* August 2008. All energy companies had net negative feeling thermometer scores.
- ²⁹ DECC (2009) *Fuel Poverty 2007 – Detailed Tables. Annex to the Annual Report on Fuel Poverty Statistics 2009*, p7. All figures use the full income definition.
- ³⁰ DECC (2009) *Fuel Poverty 2007 – Detailed Tables. Annex to the Annual Report on Fuel Poverty Statistics 2009*
- ³¹ Department for Communities and Local Government (DCLG), *English House Condition Survey 2005*
- ³² We would like to thank Dr Tom Scotto and Liam McGrath of The University of Essex for their assistance in managing the data
- ³³ DECC (2009) *Annual Report on Fuel Poverty Statistics*
- ³⁴ The p-values are a test of statistical significance. If $p=0.05$, there is a 5% chance that the observed relationship is a product of chance
- ³⁵ R^2 measures the goodness-of-fit, so if $R^2 = 1$ it is perfect. In social science it is rare to get much higher than around 0.5 before your model suffers from specification problems such as autocorrelation or multicollinearity
- ³⁶ We do not regress age in this equation because of significant overlap with the retired category
- ³⁷ Hansard HC Debs, 22 Feb 2010 Col. 107W

³⁸ news.bbc.co.uk, *48,000 ex-pats 'get fuel benefit'* 8th January 2008

³⁹ Interview

⁴⁰ Hansard HC Debs, 02 Dec 2009 Col. 815W

⁴¹ Boardman, B (2009) *Fixing Fuel Poverty*, Earthscan, London, p61

⁴² DECC *Fuel Poverty – Detailed Tables* p8

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