Ofgem Consultation
Creating the right environment for demand side response
Written response submitted on behalf of the Government's Fuel Poverty Advisory Group for England (FPAG)

The Fuel Poverty Advisory Group is a non-departmental advisory body, which consists of a chairman and senior representatives from the energy industry, charities and consumer bodies. Each member represents their organisation, but is expected to take an impartial view. The role of the Group is to:

- Consider and report on the effectiveness of current policies aiming to reduce fuel poverty;
- Consider and report on the case for greater co-ordination;
- Identify barriers to reducing fuel poverty and to developing effective partnerships and to propose solutions;
- Consider and report on any additional policies needed to achieve the Government's targets;
- Encourage key organisations to tackle fuel poverty, and to consider and report on the results of work to monitor fuel poverty.

Note

The diverse nature of the Group's membership may, on some occasions, prevent unanimity on some of the following points.

The Fuel Poverty Context

Escalating energy prices are the biggest cause of more households going into fuel poverty. The long term trend is for prices to continue rising. The average domestic dual fuel bill is now at a record high of £1,420 per annum[1] creating severe additional hardship for some six million UK fuel poor households[2] . The problem is even more acute for many living off the gas grid using Oil or LPG, where average fuel bills are circa £2,100 per annum[3]. The Government's Energy Market Reform (EMR) has no beneficial impact on bills between now and 2016 and adds costs from 2016 onwards.

The recession, unemployment plus the industries overall and longer term investment plans estimated at c. £200 Billion to 2020[4] and uncertainty over new generating capacity and energy prices will exacerbate the problem. FPAG remains deeply concerned that the costs and implication of the UK's transition to a low carbon economy, has yet to be sufficiently explored. Meanwhile, the regressive means of collecting costs added to fuel bills to fund a range of related environmental and energy costs creates consumer inequity.

[1] Ofgem: Electricity and Gas Supply Market Indicators updated 22 November 2012
[2] Consumer Focus 2012
[3] DECC, Fuel Poverty Detailed Tables 2010
[4] Ofgem Project Discovery

Fuel price rises have far outstripped increases in household income and have hit the poorest hardest; many low-income households therefore need urgent and immediate help with rising energy costs.

Those with the lowest incomes are the least able to absorb price rises, as fuel makes up a much more significant proportion of their incomes than is the case for those on higher incomes. The mean annual income of fuel poor households in the UK in 2010 was £11,000 compared to an average income of £32,000 for non-fuel poor households[5]. In addition, those on the lowest incomes typically pay more for their energy with households with an average income of £6,500 paying £1,954 for their energy, compared to those earning around £42,000 paying £1,244 per annum[6].

The table below illustrates the fundamental difficulties faced by fuel-poor households. Not only are they economically disadvantaged, they also need to spend more on fuel, in absolute terms, to achieve a warm and healthy living environment *i.e.* those who need to spend most on fuel are least able to do so and live in the most thermally inefficient properties

Fuel expenditure as a % of income	Number of households (thousands)	% of whole stock	Average full income (£)	Average fuel costs (£)	Average SAP
<5%	9,900	45.8%	41,963	1,244	59.1
5-10%	8,164	37.8%	19,832	1,338	54.0
10-15%	2,275	10.5%	12,549	1,497	47.0
15-20%	641	3.0%	9,649	1,644	42.0
>20%	620	2.9%	6,567	1,954	36.0
Total	21,600	100.0%	28,526	1,338	54.7

Source: Detailed Tables published by DECC in 2012

Professor John Hills, at the request of Government, undertook an independent review of the fuel poverty definition and measurement which completed in April 2012. Professor Hills' 'interim findings' and conclusion that fuel poverty is a: 'distinct and serious problem; that it deserves and requires attention as recognised by Parliament in adopting the Warm Homes and Energy Conservation Act, were welcomed by FPAG. We also noted and strongly endorsed Professor Hills' emphasis on the detrimental physical and mental health consequences of living in a cold home.

As part of the Review's conclusions, they established a 'Fuel Poverty Gap' which measures the average and aggregate depth of fuel poverty expressed as the difference between costs faced by the fuel poor and typical costs of achieving a warm home. The Review found that fuel poor households are paying £1.1 billion more for their fuel compared to typical households across England. The fuel poverty gap clearly demonstrates the enormous scale of the problem. In his final report Professor John Hills stated: "It is essential that we improve the energy efficiency of the whole housing stock. But those on low incomes and in the worst housing can

[5] DECC (2012) *Annual Report on Fuel Poverty Statistics 2012*
[6] DECC Fuel Poverty Detailed Tables 2010

neither afford the immediate investment needed nor afford later repayments without additional help." FPAG unequivocally agrees with Professor Hills.

It remains very clear that irrespective of how fuel poverty is defined and measured, the number of households and occupants will still remain in the millions.

Under the current definition of fuel poverty nearly 50 per cent of households are pensioners (10 percent contain a person over the age of 75 or over), 34 per cent contain someone with a disability or long-term illness, 20 per cent have a child aged 5 or under[7]. Hence the plight of the ever increasing numbers of fuel poor households has never been more serious than it is today. High energy bills cause stress and misery for many and often ill health as well for those living in a damp and poorly insulated property.

At the same time as the energy Industry sets course for a low carbon transformation and EMR, the future of fuel poverty, its measurement, definition, mitigation schemes and the welfare benefits system will **all** change. For the first time since 1978 there is no longer a government funded fuel poverty programme in England. The devolved assemblies of Scotland and Wales, however, keep their funded schemes which will be in **addition** to a GB wide new energy supplier obligation.

Consultation Response

FPAG will limit its response to the implications for the residential consumer in general and the fuel poor consumer in particular.

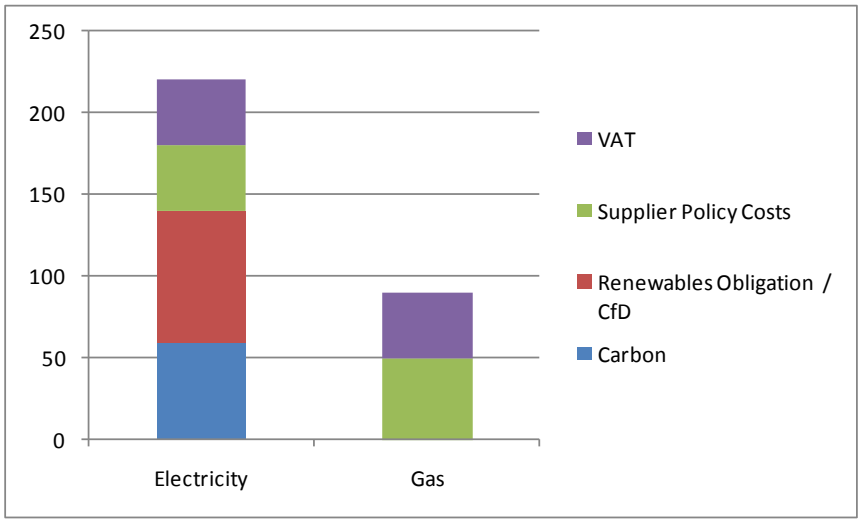
The UK's transition to a low carbon economy has profound implications for all consumers, but particularly so for the fuel poor. Many stakeholders, including FPAG, argue for major intergenerational policy change such as this, for it to be funded by the Treasury and not by costs directly added to consumer's energy bills. Adding costs to energy bills in this way is inherently regressive.

Hence, where an opportunity to reduce energy costs for consumers potentially exists, in this case demand side response, it is important that all consumers should have equal access to the benefits.

In order for demand side response to be effective it is essential that an adequate price signal is present in the market. Anecdotal evidence to date would seem to suggest that due to the way particular costs are added to electricity bills and the mechanisms used to facilitate low carbon energy in the market, price differentials would be minimal to stimulate sufficient financial benefit for residential demand side response. FPAG's research results, for example, reveals that 30% of the off-peak typical electric heating tariff being required to cover the government's policy costs, and with further policy cost increases likely, it is not unrealistic to foresee this increasing to some 50% of off peak unit costs.

[7] Hills Review 2011 2012

The sums collected by the Big 6 suppliers to fund some aspects of Government social and energy policy are predominantly loaded onto electricity and not gas bills. The view of the Government's own Fuel Poverty Advisory Group is that the loading and its disparity of these policy costs by 2020 will, on a £per customer basis, look something like £220 vs £90 per annum (all big suppliers support this view).



DECC's view of the numbers in 2020; note the policy costs on electricity at 26%:

2020 Bill (Real 2012 prices)	Gas bill	Electricity bill	Energy bill
Bill without policies	826	670	1496
Breakdown of bill after policies:			
Wholesale energy cost	413 (56%)	185 (31%)	598 (45%)
Network costs	130 (18%)	129 (21%)	259 (19%)
Other supplier costs and margin	120 (16%)	102 (17%)	222 (17%)
Energy and climate change policies	35 (5%)	156 (26%)	191 (14%)
ECO and GD admin	*27 (4%)*	*21 (3%)*	*48 (4%)*
RO		*41 (7%)*	*41 (3%)*
EU ETS		*11 (2%)*	*11 (1%)*
CPF		*32 (5%)*	*32 (2%)*
WHD	*6 (1%)*	*5 (1%)*	*11 (1%)*
FITs		*14 (2%)*	*14 (1%)*
Smart Meters & Better Billing	*3 (0%)*	*2 (0%)*	*5 (0%)*
EMR Support Cost		*30 (5%)*	*30 (2%)*
VAT (5%)	35 (5%)	29 (5%)	64 (5%)
Bill after policies (no WHD rebate)	733	601	1334
Average WHD rebate net of Green Deal loan repayment		-4	-4
Bill after policies (with WHD rebate)	733	598	1331
Based on final consumption of 14000 kWh of Gas, and 3030 kWh of Electricity.			
Figures may not sum due to rounding			

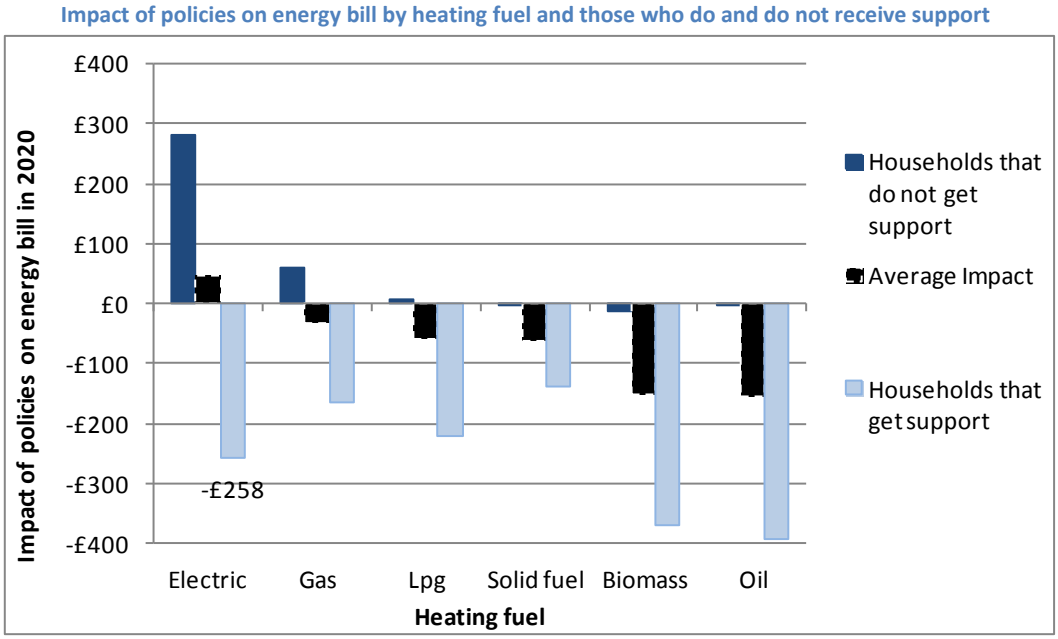
In order to give greater perspective of the implications and 'underline its importance', FPAG wishes to cite the following research[8] and conclusions drawn, commissioned by Consumer Focus as part of its commitment to support the work of FPAG on the distributional impacts of energy tariffs. The study was designed to first assess the impact of the Energy Bill and other social and environmental policies on household energy bills, with particular attention to **those not likely to benefit from ameliorative measures funded through costs added to bills**; and second explore potential solutions to off-set those worst affected.

The hardest hit

A core objective of this research was the identification of households 'hardest hit' by the energy policies.

Electricity, as previously mentioned above, is subject to the majority of policy costs. Households reliant on electricity for heating are likely to have higher than average levels of electricity consumption, compared to the rest of the population, and therefore bear a disproportionate share of policy costs. These households might expect to receive measures to offset the particularly high costs they face, but this does not appear to be the case. The research found that a lower proportion of electrically-heated households (27%) benefit directly from policies when compared to all households (40%). Consumers that use electricity to heat their homes see an average increase in their bill relative to the 'no policy' bill, while all other consumers see a decrease on average. Furthermore, the difference between electrically-heated 'winners' (defined as households that 'get support' and benefit from policy) and electrically-heated 'losers' (households that do not get any support) is stark, at over £500.

The graph below shows the impact of policies on 2020 household energy bills by household heating fuel for DECC's 'central policy scenario'.



[8] The hardest hit – Going beyond the mean. Centre for Sustainable Energy Bristol, April 2013

Across all households that do not benefit from energy policy, electrically-heated homes are subject to the largest increase of £282, whilst households using non-metered fuels experience a decrease (regardless of whether or not they benefit from policy). This is because the benefits of products policy outweigh the total policy costs for this group of consumers.

In 2020, electrically-heated households:

- represent 10.5 per cent of the total share of heating fuel by type
- pay 18.9 per cent of the total cost of domestic energy policy
- receive 6.8 per cent of all measures deployed.

Furthermore, these householders contribute a significant amount towards large scale infrastructure projects designed to deliver energy security and renewable energy. When combined, the EMR and historical legacy of the Renewables Obligation represent the largest share – some 35% - of total policy costs of £4.8 billion in 2020.

Identifying the hardest hit

The analysis of the impact of Government policies on domestic energy bills by different socio-demographic characteristics highlighted some important distributional issues, not least the implications for low-income households with electric heating.
Chi-squared Automatic Interaction Detector (CHAID) was used to further explore and identify the characteristics of those 'hardest hit'. The analysis found that of the five groups 'hardest hit' by policy costs, four use electricity to heat their home and hence have above average electricity consumption, compared to the population as a whole.

Compensating the hardest hit

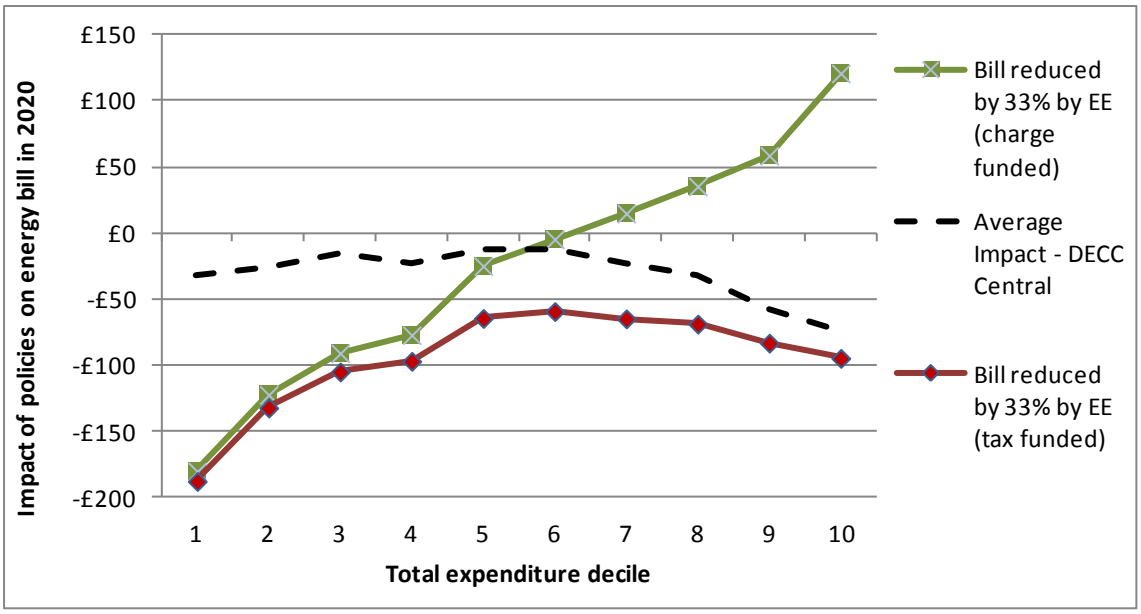
The research explored a range of approaches for off-setting the impact of policies on those worst affected and produce a more progressive distributional impact – that is, ensure lower income households are proportionally better off compared to higher income households. The application of an 'equity charge' in which a fixed credit is given to all consumers and the cost of this is recovered through raising the unit cost of energy above the median consumption threshold, provides a fairly effective form of compensation. However, the changes to tariff design under this approach do not protect the hardest hit as these are typically low-income households with above average electricity consumption.

A different approach to compensating those worst affected involves targeting electrically-heated purpose-built flats and households with occupants who are over 65. There are 1.1m households in electrically-heated purpose built flats. This group are worse off on average by over £100 as a result of policy costs, yet they have lower than average income and expenditure. Similarly households with occupants that are over 65 are typically lower income, especially those that use electricity for heating.

One approach to compensating these households involves allocating them a lump sum payment. However, the scale of payments required to ensure these households become **better off on average** is considerable (ranging from £500 to £1,000).

Therefore, an alternative approach involves reducing their energy costs by an average of 33 per cent through energy efficiency measures. The distributional impact of this approach is shown in the graph below.

Figure A.1. Average bill impact in 2020 by expenditure decile for the demand reduction packages



Further work is needed to quantify the cost of measures required to deliver the savings across the 1.68 million households identified for targeting. However, the 'consumer credit' package investigated as part of this study generated revenue of £1.1 billion per year from consumer bills, which is similar in scale to the current Energy Company Obligation.

Policy implications

The research explored a number of options for targeting the hardest hit households. It identified two groups that would benefit from targeting; households in purpose built flats with electric heating and all properties with electric heating containing at least one pensioner. The final stage of this research explored options for compensating these households. The research found that providing sustainable energy measures to reduce household energy costs provided the most successful approach to protecting these households and was the most progressive option in terms of distributional impact.

Further analysis reveals towards 30% of the off-peak typical electric heating tariff being required to cover the government's policy, and with further increases likely, that it is not unrealistic to foresee this increasing to some 50% of off peak unit costs..

Conclusion

FPAG very much welcomes Ofgem's consultation regarding this important area of policy development. In the pursuit of ensuring the best possible environment for all consumers to benefit from demand side response FPAG puts forward the following points for Ofgem to explore:

- The price differential opportunity if the new Energy Company Obligation and Warm Home Discount were to be levied more towards the gas bill
- The making of all off peak units unencumbered with policy costs to support Government's ambition to electrify heat and transport but also create a real price differential for customers to time shift energy appliance usage
- The promotion of modern storage heaters to electrically heated flats as a mechanism to balance supply and demand in a future that will have a more system balance challenges e.g. wind, solar, electric vehicles etc.
- Making all demand side management units of electricity unencumbered with policy costs to facilitate a simple 'level playing field' message to stimulate this market and engage more consumers in smart meters and seeking cheaper prices.

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19th July 2013