



**Association for the
Conservation of
Energy**

Westgate House
2a Prebend Street
London N1 8PT

020 7359 8000
pedro@ukace.org

Comments on Draft Fuel Poverty Strategy for England: Who to Target and Depth of Retrofits

In the summer of 2014, the UK Government published a draft fuel poverty strategy for England. This draft strategy states that to effectively combat fuel poverty, fuel poor homes should be brought up to an energy efficiency standard of EPC Band C and a target set accordingly. Setting a high standard for energy efficiency is the correct approach because although it is vital that fuel poor households receive immediate financial support to help them pay their energy bills, it is widely recognised by fuel poverty experts that the only long term solution to fuel poverty is to make homes highly energy efficient.

However, the draft strategy has some very serious flaws. The first major flaw is that it calls only for action that is “reasonably practicable” despite the fact the Government knows full well that a judicial ruling in 2009 found that this controversial term, originally used in the Warm Homes Act 2000, makes any commitment effectively meaningless and unenforceable. The ‘reasonably practicable’ caveat must be eliminated from the strategy.

The second major flaw is that the strategy only intends to target homes of the 'fuel poor'. As a result they are not helping other low income households who will be the next 'fuel poor' if their circumstances change negatively or fuel prices rise. If the Government only helps the 'fuel poor' to make their homes energy efficient then the number of households in fuel poverty will hardly move. The strategy should ensure that all **'low income'** households are targeted instead.

The third flaw is that although they have set a reasonably high final energy efficiency standard of EPC Band C, they propose it is not met until 2030, despite the fact it is possible for all low income homes to be treated to this standard by 2025, as advocated by all the major non-Government stakeholders working on fuel poverty in the UK. A 2025 target should be established to ensure all low income households reach EPC Band C by this date.

The fourth major flaw in the draft strategy is that they recommend interim standards of bringing fuel poor homes up to EPC E by 2020 and EPC D by 2025. The average fuel poor home in the UK has an energy efficiency rating of EPC Band E. Setting a target for taking fuel poor homes to Band E is an extremely ineffective way of tackling fuel poverty. These homes are not only hard to identify but taking them up to EPC Band E will either not bring them out of fuel poverty or do so only temporarily as most of them quickly fall back into fuel poverty as energy bills rise. The Band D target is also too weak because approximately 40% of all fuel poor households live in properties which are Band D and taking the other 60% of households to this standard also puts them at serious risk of falling back into fuel poverty as energy prices rise. Setting a target of Band D will only reduce fuel poverty in England from 2.3 million to approximately 2 million.

The Energy Bill Revolution is therefore calling for the Government's fuel poverty strategy to eliminate the interim targets and ensure that all **low-income** households are targeted and improved up to a minimum Energy Performance Certificate (EPC) rating of **Band C in one go**, with all low income homes treated by **2025**. Only in this way can poor energy efficiency as the main root-cause of fuel poverty be eliminated.

This briefing compares two scenarios in England for either targeting low income or just fuel poor households and for either taking them up to EPC Band D by 2020 or up to EPC Band C in one go, with all homes treated by 2025¹. By looking at these scenarios **we demonstrate that by far the most effective approach is to target all low income homes and that they should be taken straight up to an EPC Band C standard in order to 'fuel poverty proof' their homes and maximise programme efficiency.**

¹ Scenarios are drawn from <http://www.ukace.org/2014/03/ending-cold-homes/>

1 The basics

We estimate that at the start of 2015, there will be 2.36m households in fuel poverty in England according to the new definition of fuel poverty for England. In the simplest terms, these households' incomes are very low at less than £12,024 per year (i.e. below the poverty line) and their energy costs are greater than the national median energy bill, which we estimate will be £1,420 at the start of next year². For fuel poor households, the average fuel poverty gap – i.e. how much more they are paying than the median energy bill, is £405. The aggregate fuel poverty gap is £955m.

Table 1: The basics

	Consideration	Band D by 2020	Band C by 2025	Comment
The headlines	How many low income households below Band in 2015 (the size of the target group)	1.40m	4.45m	A Band C target captures 77% of low income households; Band D captures just 24%. In 2015, the average low income household living in a Band D rated home has disposable income of £8,776, and faces an energy bill of £1,450. Not going for Band C means leaving most of these people out in the cold.
	How many fuel poor households below Band	1.20m	2.27m	Band D would help just 51% of fuel poor households. A Band C target would help 96%.
	How many fuel poor homes would miss out	1.16m	0.09m	With Band D, 49% of fuel poor households would not receive any home energy improvements. With Band C, 4% would miss out, but at least they already live in a home which is above average in terms of energy efficiency.
	The deadline we explored for achieving target Band	2020	2025	Band D could conceivably be an interim milestone on the way to achieving Band C by 2025. However, this would entail visiting many homes again, and as a result would cost more to deliver. It is far more efficient to go straight for Band C – because the benefits are much greater, and because the additional cost per home is relatively small (see below).
	How many years in which to do it	6	11	The later target date for Band C reflects that it is truly ambitious, improving homes beyond today's average EPC rating, but is also achievable.

² Median means that 50% of England's households pay more than £1,420, and 50% of households pay less than this. At any point in time, depending on energy prices and home energy efficiency, the median bill will have a different value, but there will always be half of households paying more, and half paying less, than this median. The poverty line will also differ over time. To be below the poverty line, a household's income must, after fuel costs, be less than 60% of the median equivalised (taking account of household size and composition) after housing costs annual income.

2 The costs

Going for Band C requires more investment but represents much better value for money, ensuring we are ‘fuel poverty-proofing’ low-income homes by making them better than the national average of EPC Band D.

Table 2: The costs

	Consideration	Band D by 2020	Band C by 2025	Comment
The costs	Average cost to improve each low income home	£4,550	£5,860	The additional cost of going to Band C is relatively small, and the rewards are much greater.
	Annual capital cost	£1.03bn	£2.37bn	The annual capital for Band C is this much higher primarily because a much larger number of households would be helped. The annual cost for Band D corresponds roughly with continuing the status quo level of home energy efficiency investment.
	Average cost to improve each home that can reach target Band for less than £10,000	£3,120	£4,750	The costs of achieving target EPC Bands for each home need to be kept reasonable. For homes that cost less than £10,000 to improve to Band D or Band C, this is the average cost per home.
	Percentage of target homes that can reach target Band for less than £10,000	87%	88%	These percentages correspond to the average costs in the row above. That’s 1.22m out of 1.4m homes that can be improved to Band D for less than £10,000, and 3.92m out of 4.45m homes that can be improved to Band C for less than that.
	Average cost to improve each home if costs limited to £10,000 per property	£4,010	£5,380	If you limit investment to £10,000 for the remaining homes that cannot be improved to the target Band for less than that sum, then this is the average cost across all homes that need to be improved. In each case, a small percentage of homes won’t reach the target Band (but will get close), and each home will be substantially improved. Aiming for Band C with this investment cap, however, will reap far greater rewards in terms of bill savings, fuel poverty reduction and CO ₂ mitigation.
	Annual capital cost with £10,000 limit applied	£0.94bn	£2.18bn	Applying the £10,000 investment cap results in this annual capital cost to improve the target homes. The introduction of minimum energy efficiency standards for the private-rented sector begins to unlock additional investment: improvements to homes in the private-rented sector account for 35% of the annual cost of reaching Band D (£0.33bn), and 30% of the annual cost of reaching Band C (£0.65bn). More stringent requirements for landlords would secure much of this investment. For Band C, this means an additional £1.53bn is required in the owner-occupied and social housing sectors. In England, the ECO, even with its newly reduced ambition, can be expected to deliver at least £0.86bn investment per year. A further £0.12bn per annum currently comes from the Green Deal Home Improvement Fund. Without taking account of the social housing sector’s investment in its own stock, this leaves £0.55bn per year – which is dwarfed in comparison with annual carbon revenues which everyone pays for through their energy bills (£2bn) and the annual Government infrastructure budget of £45 bn per year.

3 Benefits I – the impact on fuel poverty

Going for Band C has a strong impact in reducing the numbers of households in fuel poverty and the numbers of households struggling to keep up with their energy bills. In addition to going for this high standard, critical to achieving this is to target all low-income households living in inefficient homes.

Table 3: The impact on fuel poverty

	Consideration	Band D by 2020	Band C by 2025	Comment
The impact on fuel poverty	Number of households no longer in fuel poverty by target year	220,000	890,000	If you go for a higher energy efficiency standard, and if you help a larger proportion of the fuel poor (96% for Band C compared to 51% for Band D) and if the share of non-fuel poor low income households is greater, as is the case with Band C (2.18m out of 4.45m, compared to Band D's 0.2m out of 1.2m), then fuel poverty reduction is much more effective. One of the reasons for this is that if you only help fuel poor households (as opposed to low income households), then the household on a low income (not in fuel poverty) living in a home rated worse than an EPC Band C (and not receiving any help), simply becomes the fuel poor household of tomorrow as soon as their fuel poor predecessor is helped up to Band C. As a result, it is only by prioritising and helping all low income households up to an ambitious standard (as opposed to just helping fuel poor households up to a mediocre standard) that you can make serious reductions in the number of households in fuel poverty.
	Number of households remaining in fuel poverty (2.36m in 2015)	2.04m	1.47m	

4 Benefits II – the impact on energy bills

Only Band C gets ahead of the curve of continually rising energy prices by succeeding in reducing total energy bills. This is why we call it ‘fuel poverty proofing’. Also, in doing so, it demonstrates much better value for money than aiming for Band D.

Table 4: The impact on energy bills

	Consideration	Band D by 2020	Band C by 2025	Comment
The impact on energy bills	Average energy bill of low income households in target year (£1,494 in 2015)	£1,500	£1,402	For Band D, £4,010 investment per home generates £153 annual bill savings – a simple annual rate of return of 3.8%. For Band C, £5,380 investment per home generates £273 annual bill savings – a simple annual rate of return of 5.1%. Band C represents better value for money. And this is without taking account of increased wider benefits such as revenues to the Treasury (VAT, income and corporation tax take), reduced benefits expenditure, savings to the NHS, employment and manufacturing benefits, enhanced energy security benefits, an improved balance of payments and reduced CO ₂ emissions.
	What the bill would have been without improvements	£1,653	£1,675	
	Relative saving	£153	£273	
	Median energy bill in target year (£1,420 in 2015)	£1,487	£1,422	The median energy bill increases from 2015 to 2020 despite energy efficiency improvements to achieve Band D because energy prices increase by more. Energy prices continue to increase to 2025, but the median bill comes down because the effect of deeper energy efficiency retrofits to achieve Band C outstrips the effect of prices continuing to go up.

5 Benefits III – the effect on the fuel poverty gap

Much recent attention has been given to the new concept of the ‘fuel poverty gap’, a measure to aid understanding of the nature and severity of fuel poverty, but not on its own an indicator to measure success. Here, we explain the dynamics affecting the fuel poverty gap and explain how much more powerful Band C for all low-income households is at helping households better afford their energy bills.

Table 5: The effect on the fuel poverty gap

	Consideration	Band D by 2020	Band C by 2025	Comment
The effect on the fuel poverty gap	Aggregate fuel poverty gap (£955m in 2015)	£657m	£574m	The marginal difference in the fuel poverty gap from going to Band C by 2025 over Band D by 2020 may not appear to be large, but there are a few important points to note about why this is. First, gas and electricity prices increase considerably in DECC’s central estimate between 2020 and 2025. This puts pressure on the gap to increase between these years. At the same time, the deeper energy efficiency improvements that take place to 2025 push down average bills across the population. As a result, the average energy bill for low income households is a lot lower than it otherwise would have been – £1,402 as opposed to £1,675. This also means that the median bill (from which the gap is measured) is lower (see Table 4), which also serves to increase the gap.
	Average fuel poverty gap (£405 in 2015)	£322	£391	The reason the average gap is higher for Band C by 2025 compared to Band D by 2020 is due to the forces described above, but primarily because there are 670,000 fewer households in fuel poverty by 2025 with Band C compared to 2020 with Band D, which serves to increase the average gap per household despite the aggregate gap being lower.

6 Summary

In summary, it is recommended that there are no interim energy efficiency EPC targets for fuel poor homes and that instead there is a very strong case for targeting all low income homes, taking them straight to EPC Band C and treating them all by 2025. This will:

- Help virtually all fuel poor households and a far greater proportion of low income households. Nearly all of the latter struggle severely with their energy bills.
- Costs only marginally more yet is far better value for money.
- Makes a real difference in reducing the number of households in fuel poverty: from 2.36m to 1.47m compared to 2.04m with the Band D target. This is a huge achievement given the dynamics of the new, relative definition of fuel poverty now in use in England. Critical to achieving this is the higher energy efficiency standard represented by Band C and helping all low income homes, not just currently fuel poor homes, below this EPC Band.
- Reverses the trend for low income households' energy bills to increase as a result of rising energy prices, which Band D cannot achieve. A Band C target for low income households is therefore far more effective in 'fuel poverty proofing' the homes treated.