Journalist and AECB contributor Kate de Selincourt shares her personal view that energy supplier schemes like the Feed-in Tariff and the new Energy Company Obligation make the fuel poor poorer, which is no way to tackle fuel poverty. Instead, she argues, fuel poverty programmes should be removed from energy budgets altogether.

The sudden announcement late last year of the halving of the Feed-in Tariff paid for small scale PV, in December rather than in April as had been expected, with just six weeks' notice, unsurprisingly led to a bitter outcry.

At the time of writing in early January, the situation is still up in the air, as the government appeals against a court ruling that the change was unlawful; see for example http://www.businessgreen.com/bg/news/2134854/solar-feed-tariff-confusion-continues-decc-prepares-appeal

When projects, either with commercial or with social emphasis, had been built up carefully often over many months or longer – on the basis of an undertaking on which the government reneged with just 6 weeks' notice -- the fury is hardly surprising.

However, amidst the dismay about lack of warning, shattered business plans and lost jobs, there have been notes sounded that have left me uncomfortable.

A cry that has been heard repeatedly is that the move to slash PV FiTs was an attack on the fuel poor. Bath and North-East Somerset council describes solar PV as 'one of the most cost-effective ways to help (residents) out of fuel poverty'. *Inside Housing's* Green Light campaign describes the FiT as a 'vital green subsidy' enabling social landlords to 'protect tenants from fuel poverty':

"Social housing providers are to be hit by a heavy cut to the feed-in tariff , which has jeopardised much of the sector's plans to fit solar panels that could reduce tenants' bills by up to £150 a home," the website says http://www.insidehousing.co.uk/SPIN2_NO_ADS.aspx?navCode=1641

More furiously, former MP Alan Simpson, now a renewable energy consultant, blogged that: "The PM may have a solar roof on his own home, but he wants to prevent most others from doing the same. Specifically, he wants to make sure the poor can't join him" http://www.businessgreen.com/bg/industry-voice-blog/2126019/camerons-solar-roof-begins-crumble . Friends of the Earth also took up cudgels here http://www.foe.co.uk/resource/briefings/monbiot_fits_response.pdf .

These accusations of 'picking on' the fuel poor are based on the damage to some imaginative projects, whereby for example social landlords and community groups have raised capital to install PV panels on the roofs of a group of beneficiaries; the Feed-in Tariff goes back to the project developer, either simply to cover the finance, or in some cases, it has even been put towards further social objectives; at the same time, the free electricity generated by the panel generally goes to the householder, cutting their electricity bills by a very welcome chunk.

However, it has always struck me as a bit odd to see the FiT as a programme for poverty relief, and in fact, at the levels set, it is hard to see how the overall effect could be to benefit

the neediest. Rather, it seems to be an expensive way to deliver carbon reduction, which can on occasion be used to benefit a very modest number of people in fuel poverty, but depending not on need, but on accidents of tenure and location.

Perhaps I'm missing something, but is there really an important difference, from the recipients' point of view, between helping someone out of fuel poverty by supplying £150 worth of free electricity to their home via a solar panel on the roof, and simply cutting their bill, or even just giving them £150?

Initiatives that have suffered, have suffered because of the reduction in an income stream which had been going to pay for PVs, which could then generate free electricity for beneficiary households, many of whom were in fuel poverty. (Although it would surely have been just as valuable and legitimate, if the households had been in any other kind of poverty?)

However in my opinion, that income stream is being generated very inefficiently, and as an approach to helping those in fuel poverty, it seems particularly inefficient, as the way the money is raised, via an increase in the cost of power, means it ends up costing people in fuel poverty proportionately more than it costs anyone else.

As Greg Barker put it in the House of Commons debate on the FiT cuts, "Yes, it is great for the few thousand who may benefit from solar panels in social housing, but what about the other 5.5 million ... in fuel poverty, who will not benefit but would still face the prospect of £80 on their electricity bills?"

While the £80 figure is contentious, overall this argument seems to me to hold water: the fact that Greg Barker and Chris Huhne assert something, does not automatically make it untrue, I have had to conclude.

The Feed-in Tariff is part of the programme to increase renewable generation in the UK, in order to cut carbon emissions and improve energy security – and also to 'prime' the renewables market. But at the high levels set until recently, FiTs were a very expensive way for the nation to achieve these aims. By DECC's own estimates, the FiT was expected to deliver carbon savings at a cost of £460 per tonne CO2, while installing solid wall insulation (SWI) on private houses delivers carbon savings for £30 to £40 per tonne (http://www.dekoepel.org/documenten/FITsImpactAssessmentaccompanyingGovernmentResponse%5B1%5D.pdf and http://www.decc.gov.uk/assets/decc/legislation/energybill/1002-energy-bill-2011-ia-green-deal.pdf)

This high cost is added to electricity bills; all kinds of figures are bandied back and forth about quite how much it costs each household – from lower estimates of about £3 a year in 2011 to the ('up to') £80 in 2020, quoted by Greg Barker above.

But whatever the costs, any policy for collective benefit that is paid for out of fuel bills is going to be more socially regressive than policies paid for out of general taxation. (http://www.cse.org.uk/projects/view/1143)

While the installation of PV on some roofs randomly lifts just some households out of fuel poverty – depending on their location/tenure/landlord/roof orientation (or indeed whether they have a roof at all), increasing energy costs to fund this scheme pushes all fuel poor households a little further into fuel poverty – and brings some in for the first time.

If the scheme benefits only those able to finance their own installation up front, then the regressiveness of the policy becomes starker. But even if all the subsidised PVs went to people in fuel poverty, unless everyone in fuel poverty could have a panel, then it still wouldn't be fair.

So far unsurprising to many AECB members. Clearly, on the basis of the comparison between FIT and insulation above, spending on an insulation programme would be better value for the nation as a way to cut its carbon emissions, than spending on PVs at the 43p or even the 21p FIT rate. And insulating homes is surely at least as good a way of reducing fuel poverty as fitting PVs – possibly better, as the internal conditions in insulated homes generally become more pleasant and healthier too.

And indeed in large part this is what the Energy Company Obligation accompanying the Green Deal sets out to do. The 'big six' energy suppliers will be set targets ('Obligations') in terms both of cutting emissions, for example by insulating 'hard-to-treat' homes (mainly by subsidising solid wall insulation), and also in terms of reducing the heating costs of those in fuel poverty, by improvements on their homes – expected to be achieved by installing basic heating and insulation measures. These are the so-called Carbon and Affordable Warmth Obligations.

So – win-win then. What's not to like?

Well, what's troubling me is that once again, it is the fuel poor who are paying, proportionately, the most for this scheme, as once again it lands on everyone's energy bills.

There has been anger because only around £1 in £4 of the spending is expected to be targeted directly at fuel poverty via the 'Affordable Warmth' programme, with a further unspecified proportion of the carbon spending supposedly ring fenced for 'vulnerable households'. The rest of the money will be spent on the homes of the relatively more able to pay, with the energy companies actively incentivised to fund schemes where additional funding, including from private means, is available (http://aecb.net/news/2011/12/the-government-consultation-on-the-green-deal-and-the-associated-energy-company-obligation-eco-has-now-been-published-2/#more-2259 , see 'Customers – who will get what'.

As with the Feed-in Tariff, those who have not benefited from measures will still be paying, and those in fuel poverty, paying proportionately the most, with some on the margins being pushed into fuel poverty, because of the extra cost of the measures. As currently structured, the ECO, by adding a fixed amount per bill rather than increasing the unit cost of energy, may be even more regressive than the FiT (It's a bit of a technical point, but for more info see http://www.eagacharitabletrust.org/costs-eco-impact-fuel-poverty)

DECC's approach to softening this blow verges on the bizarre in my opinion – and to me, lifts the lid on the contradiction at the heart of the ECOs. The officials who have written the Green Deal consultation seem well aware of the regressive nature of adding the cost of a programme to fuel bills – unsurprisingly, as this has become a very hot political topic of late. However, the solution proposed by DECC seems to run as follows (I paraphrase):

DECC recognises that it is important not to burden the fuel poor with increases in fuel costs. Insulating the homes of able to pay customers will enable the big six to meet their carbon targets more cheaply, because the able to pay are more likely to come forward for the

improvements (saving on marketing costs), and can also make a contribution to the cost of the work from their own resources, eg via a green deal.

Fuel poor households are more expensive to help. That expense would fall disproportionately on the fuel poor as energy costs are a higher proportion of the overall spending of these households. Therefore, it is better for the fuel poor to focus on insulating the homes of the better off. Or as DECC themselves put it in the Green Deal and ECO consultation: "The obligation could include a requirement to reach out to low income households and communities and address attitudinal barriers but experience of previous schemes suggests that delivery will be at greater cost to all energy bill payers as there are costs associated with finding and communicating with 'harder to engage' households."

And the trouble is that this chop logic does contain a strand of truth. If carbon abatement is to be carried out by energy companies and paid for from energy bills, then the best carbon value for everyone, including the fuel poor, is won by taking a hard look at a marginal abatement curve and picking off the best value savings first. If you are attempting carbon abatement by insulating the homes of the fuel poor this will be poorer carbon value for money twice over – the beneficiaries are more expensive to help, partly because they won't be able to contribute so much (or indeed anything) towards the capital cost. And then once the work has been done, the improvements may be 'taken as comfort' as the jargon goes – the householders may spend just as much on energy, but may finally actually be warm.

The problem arises, I think, because government is trying to jam two distinct aims into the same policy, as the Green Deal impact assessment admits:

"Alternative options to implementing the Green Deal and the ECO package were considered ... The UK Government must meet its statutory obligations under the Climate Change Act to reduce UK greenhouse gas emissions (GHG) and its statutory obligations to reduce fuel poverty. A viable alternative proposal must achieve deployment at scale of cost-effective energy efficiency measures - otherwise the costs to the UK of meeting carbon budgets would be substantially increased. It would also have to achieve improvements to the thermal efficiency of low income and vulnerable households to contribute to the Government's fuel poverty obligations." (my emphasis)

But why? Why does it have to do both? Yes, as it happens, the physical MEASURES to cut emissions and to cut fuel poverty are often the same, and many interventions contribute a bit to both. But the wider national benefits, the key target groups, the constraints, incentives, and stakeholders are all very different, and as here, can be pulling in opposite directions. What we have now is two targets fighting inside the same budget like cats in a sack.

The reason, one presumes, that the policy is attempting to cover both aims is because:
a) Superficially, the same measures might do one or the other so hey, why not?
b) Most other fuel poverty programmes, be they state or energy bill funded, are being cut. (see for example http://www.carboncommentary.com/2012/01/03/2230)So DECC have had to drag and stretch what is essentially a carbon abatement programme, to cover that new gaping hole.

There is, in fact, a case to be made that a drive for cost-effective carbon abatement (such as insulating the homes of energy over-users, or replacing direct electric heating) could actually lower net energy costs, by reducing the need for expensive new generation and

infrastructure. (See forthcoming AECB paper *Less is More*). It isn't clear whether this is fully appreciated by DECC; a lot of figures are bandied around about how much various policies add to or remove from average energy bills now and in the future.

In some US states, as David Olivier told last year's AECB conference: "privately owned [energy] utilities must invest in energy efficiency measures which cost less than investing in new power supply". According to David Olivier this could incentivise energy companies to finance carbon abatement technologies without needing to set up particular schemes like the ECO.

While superficially the carbon ECO could appear to be doing something similar, there would need to be much stricter criteria set for designing and installing demand reduction and carbon abatement measures, to ensure that they really were offering the claimed savings both to the household but perhaps more importantly, to the nation.

But tackling fuel poverty is not going to offer a profit for the energy companies in the same kind of way that demand reduction might. And it seems to me that DECC is tying itself in knots trying to create incentives that somehow do both.

Yet of course there are natural incentives for tackling fuel poverty, and if common human decency isn't enough, some of these incentives could be just as bankable in their way as energy demand reduction. If homes were warmer and more efficient, there would not be that huge pressure for winter fuel payments. If energy costs for the nation are reduced there is less cost-of-living inflation and therefore less pressure on all state benefits and allowances.

Health care bills would almost certainly drop; Professor Michael Marmot of the London School of Hygiene found that living in a cold home increased risk of heart and respiratory illness and mental health problems, impacted on infant weight gain and development, increases the frequency and severity of asthmatic symptoms, affects children's emotional well-being and resilience, and more (see http://www.foe.co.uk/resource/press_releases/cold_homes_health_12042011.html). The report by Professor John Hills of the London School of Economics for the Government estimated that at least 2,700 people die every winter because they can't afford their heating bills.

Even education might benefit – one of the costs of fuel poverty identified by Professor Marmot was the fact that children in fuel poverty often can't find a quiet place to do homework, that isn't also too cold to sit in.

Yet, revealingly, there was no attempt made to quantify these benefit in the process of drawing up the Green Deal and ECO.

The one obvious thing that energy companies could do about fuel poverty is to change the structure of their tariffs. At present, as David Thorpe explains in his blog http://lowcarbonkid.blogspot.com/2011/10/this-is-way-to-eliminate-fuel-poverty.html, low-income families may pay up to £250 a year more for energy, often because they do not pay by direct debit and are on pre-payment meters.

Instead of charging low-income and low-energy users proportionally more, via fixed standing charges and exclusion from the /kWh reductions for high users, they could turn this on its

head, and charge proportionally less for, say, everyone's first 3,000 kWh on energy each year, then charge more for usage above that.

There is a growing clamour for exactly this to be done. The Joseph Rowntree Foundation addresses this via two reports published here http://www.jrf.org.uk/focus-issue/climate-change . Save the Children talks about the 'poverty rip-off' whereby low income households pay more for almost everything – and notably energy -- here http://www.savethechildren.org.uk/get-involved/join-our-campaigns/the-uk-poverty-rip-off. Tariff reform is also proposed in this excellent paper from the non-profit group Localise West Midlands http://localisewestmidlands.org.uk/activities/fuelpoverty_greendeal/ (see summary, pdf download).

So can Green Deal and ECO tackle fuel poverty at all? From the above it sounds as though, contrary to what many others are calling for, I am suggesting that the ECO focuses on carbon abatement measures for the able to pay, and fuel poverty is dropped from the programme.

And from a policy point of view, I do believe this would be the honest thing to do. If this happened, then a meaningful fuel poverty programme could be established, with the benefits costed out – with the involvement – even the lead – taken by health and welfare departments and NGOs, and not DECC.

But from a practical point of view, it seems pretty obvious that the work relating to the actual buildings ought to be combined. If the Green Deal has given us anything, it has given us a DECC with a whole lot of practical insights into the kind of energy saving measures that can be implemented in our building stock.

I don't pretend to be able to design policies. But it does seem clear there are good reasons why the work programmes tackling fuel poverty and those tackling energy demand and carbon emissions should be combined. I'd go further and say that the actual contracts should be combined, on a local basis, where possible. Could a fuel poverty programme 'buy' improvements from a DECC (and DCLG?) – led home improvement programme?

Mass roll-out of home improvements offers economies of scale, not just in terms of skills development, materials sourcing and carrying out the work, but as importantly, in terms of pooling resources for design and project management – project management being an intimidating challenge for any individual home-improver, especially if they are out all day.

Mass rollout on a local basis also offers crucial opportunities to market and 'normalise' the radical kinds of measures, such as external wall insulation and mechanical ventilation, which are intimidating for all but the most enthusiastic early adopters to take on in isolation. And of course if you want to introduce district heating, you can hardly do that one house at a time.

So if anything, I'm saying that the measures to tackle fuel poverty should be ***more*** integrated into the carbon abatement programme – but that the funding should be separated away.

Instead, a meaningful programme to drive -- and commission -- proper fuel poverty work (and not the flimsy-mimsy shadow-of-Decent-Homes which is all the 'Affordable Warmth' ECO is currently offering) could be established by the departments whose responsibility fuel poverty logically is, ie DoH and DWP (and possibly Education too). If two outcomes share the same intervention – then couldn't there be a way for two programmes to share the cost?

But should any of these energy upgrade costs go onto energy bills? With the carbon obligation (or 'hard-to-treat ECO) as currently structured, once again all energy customers are paying towards benefits enjoyed by a few – just as with the Feed-in Tariffs. But as we mentioned above, in theory, these measures could turn a profit for the nation as a whole. Whether or not this can be achieved (and we should all look out for what *Less is More* has to say on this shortly) it would be good to think that the level of contribution was set so that people paid in at the level that they benefited back – in other words, that the funding was always arranged to end up looking like a green deal, as in the 'pure' Green Deal/ECO vision. It remains to be seen what actually happens of course.

To me it makes sense to be rolling out the highest practicable quality of home retrofits, realising significant economies of scale by working street by street and town by town (starting where it's coldest?). But the finance should be raised rationally, based on the financial advantage conferred.

Taxpayers who buy energy security and meet their carbon abatement obligations (in law, and morally, and economically – as enumerated in the Stern report) should contribute; energy companies who are spared the expense of new generation and infrastructure, householders and tenants with smaller fuel bills, landlords whose properties remain lettable, or even become more valuable, health care budget-holders and benefits bill budget-holders who see a healthier, more self-sufficient population: all should contribute in proportion.

By contrast, trying to load it all onto energy bills leaves a contradiction at the heart of this policy. Expecting the fuel poor to buy their way out of fuel poverty by putting up fuel bills and thereby, increasing fuel poverty is a massive exercise in chasing your own tail.