UK household energy policy: another fine mess

Philip Webber describes the recent string of failures in the government's home energy efficiency programmes and what needs to be done about them.

Last autumn, Energy Secretary Ed Davey announced that there would be another change to the flagship Green Deal programme for home energy efficiency. This was the latest in a series of legislative changes and new incentive funds since 2012 concerned with how energy use in the domestic sector could be reduced. This article reveals how government policy has virtually been a case study of how not to create an environment where energy saving and carbon reductions take place efficiently and effectively.

Government policy changes since 2012

First, some background. In 2008, the Climate Change Act was established as a legally binding framework to reduce UK carbon emissions by 80% by 2050, using 1990 as the base year. Almost a quarter of all carbon emissions in the UK currently result from energy use in domestic and commercial buildings.[1] In addition, most of the existing housing stock, which currently has poor thermal standards, will still be in place in 2050. Hence a major retrofit programme in the domestic sector should be a crucial part of the action necessary to meet the target.

At the end of 2012, the Coalition government made major changes to how home energy improvements were funded and incentivised. All of the home energy saving schemes set up by the previous government were cancelled and replaced with two new ones: the Green Deal; and the Energy Company Obligation (ECO). The Green Deal is a loan paid for out of energy bill cost savings. The ECO provides subsidies for specific measures and helps those in low-income households and other priority groups. Subsidies are funded by 'green energy levies' imposed on the largest ('big six') energy companies through carbon reduction targets set by government.

Energy companies do not directly install the energy saving measures. They offer work via tenders and contracts to a range of smaller companies and installers across the UK. Coalitions of sub-contractors are formed to bid for work and in turn may employ their own sub-contractors to install measures. This is a complex chain of relationships. Whenever the government changes the subsidy levels or the operation of scheme with little notice, considerable uncertainty results.

In practice the main driver of energy efficiency improvements has been ECO funding. To qualify for ECO, a Green Deal energy assessment has to be carried out to estimate the cost and recommend appropriate measures. The ECO programme worked well and formed the bulk of new insulation work in 2013 and 2014.

But the Green Deal process proved lengthy and complicated, and the 7.5% interest rate for loans was a major disincentive. The Green Deal had extremely low take-up – around a few per cent of original targets.[2]

Also while previous schemes sold energy saving on the basis that it would save you money, the Green Deal's selling point was that it would not cost you any more. It aimed to reduce your fuel bills slightly, a much weaker selling point. Also, with rising and fluctuating energy prices, and confusing energy tariffs and billing financial savings are hard to see (e.g. against a rising bill).

The very poor take-up of the Green Deal was viewed as a political problem. It also created a large cash flow problem as customers who would contribute some of their own finance (termed 'able-to-pay' in the industry jargon) were simply not installing energy

Dates	Events
December 2012 – March 2013	Extreme uncertainty in home energy efficiency markets as government consultation paper on new schemes not yet published, but previous funding schemes (CERT, CESP etc.) have stopped.
April 2013	Green Deal and ECO subsidies start – but details still not yet published. Big six energy companies cautious about issuing new contracts, limiting duration and scale of work.
Summer 2013	Green Deal and ECO details now clear. Prices for energy efficiency work drop dramatically. Some sub-contractors relying solely on ECO go out of business.
December 2013	Green Deal take-up is extremely low so ministers announce a new short-term subsidy – the Green Deal Home Improvement Fund (GDHIF). Companies develop marketing to attract customers with the new £4,000 cashback scheme for May 2014.
December 2013	Chancellor's Autumn Statement announces ECO funding to change from 1st April 2014, particularly for external wall insulation (EWI).
December 2013 – April 2014	Extreme pressure to get EWI on the books before the cut-off date; a mad rush ensues to get work done. In April, many workers are laid off after an intense period of work.
May 2014	Ministers announce that the GDHIF cashback will be £6,000 not £4,000, but they fail to make it clear when this will happen. Chaos reigns. All customers who signed up wait for new larger incentive. No firm dates are given until the DECC releases details in June.
June 2014	More confusion. The scheme is pulled after 2-3 days operation. All the £70m seems is committed in the form of 9,000 cashback vouchers. No-one understands how it happened so quickly. Foul play is suspected. Some sub-contractors don't get paid; some customers don't get the cashback they expected and are left with large unexpected bills.
September 2014	House of Commons Committee on Energy and Climate Change recommends that home retrofitting needs an injection of new life, suggesting incentives from Council Tax and Stamp Duty. They label DECC communications "confusing".
November 2014	£24m of new funds for Green Deal programme released. The scheme closes the same day as being opened - all the money had been allocated in vouchers. An even worse fiasco than in the summer

Table 1. Timeline of key events in the UK home energy efficiency sector, 2012-14
(Compiled from a range of government and industry sources)

saving measures. Ministers at the Department of Energy and Climate Change (DECC) intervened with several small incentive funds to try to get the Green Deal to take off. But over the same period the Treasury made fundamental changes to ECO funding. All these interventions are summarised in the timeline in table 1. Funding changes to the ECO that originated from the Treasury were intended to be populist by providing short-term savings in household energy bills – but at the cost of future funding and larger long-term savings.

The large number of government interventions during 2013-2014 had the overall effect of destabilising the operation of the energy saving market. Funding for carbon reduction (£/tonne) fell to around 20% of levels at the start of 2013.[3] Only short term contracts – typically lasting six months – or specific project contracts are now being issued for energy saving by the big six energy companies. This makes it hard for the small sub-contracting energy installers to plan ahead and stay in business.

How is the energy saving industry responding?

While any new incentives for home energy efficiency are welcome, the funding released – some £30m at a time – is completely insufficient to meet the scale of action needed properly insulate the UK's housing stock in the short or longer term.

Estimates by researchers at the University of Leeds[4,5] indicate that programmes to install insulation and carry out other carbon reduction measures, across a city region equivalent to Leeds (with a population of about 10m), would require an initial funding pot of about £5bn, but would pay for themselves in under 5 years. According to a review by climate economist Nicholas Stern,[6] translating that to the UK level would require up to £25bn per year. Once this funding pot was set up it could then become self-funding via payback through cost savings made in energy demand.

A better way forward

In my view, the problems with UK housing stock and inefficient energy systems represent a major opportunity. The government is providing tens of billions for projects such as the High Speed 2 (HS2) train route and Hinkley Point C (HPC) nuclear power station.[7] The domestic and commercial energy efficiency sector needs investment at a similar scale. It is unrealistic to expect energy reductions to be completely self-funding from a standing start. This is especially the case after the failed Green Deal which will unfortunately have acted to undermine future efforts to get householders to take up energy saving loans. An initial investment in energy saving through providing incentives and funding at the £5bn scale at realistically low interest rates, would regenerate the housing market, create many jobs and help get the UK back on track to meet its carbon targets. The only reason this is not happening is the lack of understanding and vision in government. Labour has recently proposed a policy of underwriting interest-free loans up to £1m to get the Green Deal working properly.[8] This would be helpful but is still at too limited a scale to have much impact. And ironically, this announcement has had the effect of reducing funding even further from energy companies as they await the outcome of the General Election in May 2015.

If the energy saving sector were to be incentivised to become a large-scale activity, this would pave the way for major private sector funding. Key potential sources are pension funds, which are struggling to find places to invest their multi-billion portfolios to secure interest rates greater than 1% in the wake of the recession. Their need for a long-term interest stream over 10-15 years matches well with the energy saving market.

During my time at Kirklees Metropolitan Council, in West Yorkshire, and afterwards at the University of Leeds, I met several fund holders who had several billion to invest. The snag is that they don't want to invest sums smaller than a £1bn, so there is a significant gap between what one pension fund manager called a "wall of money" (waiting to be invested) and current UK activity to invest in.

In addition, to really tackle climate change requires more widespread taxation of higher carbon emitting activities with the income being used to further reduce non-renewable energy use.

These are the challenges for any politician willing to take it up and positively transform the UK economy.

Dr Philip Webber, Chair of SGR, is also a non-executive director of Yorkshire Energy Solutions (YES) – an energy company with a social purpose – which has given him an insider's view of the current energy markets.

Notes and references

1. DECC (2014). Energy Consumption in the UK. www.gov.uk/government/statistics/energy-consumption-in-the-uk
2. Left Foot Forward (2014). leftfootforward.org/2014/02/the-coalition-falls-way-short-of-green-deal-sign-up-target
3. Personal communication with CEO of YES; October 2014.
4. Gouldson A, Kerr N, Topi C, Dawkins E, Kuylenstierna J, Pearce R (2012). The Economics of Low Carbon Cities: A Mini-Stern Review for the Leeds City Region. Centre for Low Carbon Futures.
5. Sullivan R, Gouldson A, Webber P (2012). Funding low carbon cities: local perspectives on opportunities and risks. Climate Policy, vol.13, no.4, pp.514-529.
6. For example, see the 2006 'Stern Review' on the economics of climate change. webarchive.nationalarchives.gov.uk/20130129110402/http://www.hm-treasury.gov.uk/d/Executive_Summary.pdf
7. For HS2, large investment funds are coming directly from government. However, for HPC, the investment will come from the private sector, but major financial support mechanisms will be provided by government.
8. Labour Party (2014). An end to cold homes: One Nation Labour's plans for energy efficiency. www.yourbritain.org.uk/agenda-2015/policy-review/policy-review/an-end-to-cold-homes-labour-s-energy-efficiency-green-paper