

# Building a market for energy efficiency

Response to the BEIS Call for Evidence

9 January 2018



## Introduction

We welcome the opportunity engage with BEIS on how to increase the take up of energy efficiency improvements by owner occupiers, as represented by this Call for Evidence.

However we are disappointed that the Call for Evidence seems constrained by what we consider to be an old-fashioned perspective of domestic energy efficiency. Such a perspective is inappropriate for the next phase of low carbon owner-occupier housing retrofit work that will need to become prevalent if the UK is to meet its legally binding carbon emission reduction targets. As a result, the Call fails to outline a clear picture of (a) how a market for low carbon retrofit of owner occupier housing might emerge from the existing home improvement and renovation market (as it must because that has the required supply chain required) and (b) what policies and initiatives are needed to stimulate and enable this emergence.

We do not have the resources to answer each of the questions in the Call for Evidence. Instead we are providing alongside this short note the evidence and insights we have available which we believe can help BEIS and others (a) to understand better the nature of the challenge BEIS is endeavouring to address and (b) to shape a coherent programme that addresses that challenge in a way which reflects how markets typically develop.

This note therefore describes briefly the evidence and insights we have available; it is accompanied by additional documents which provide more detail and which should be seen as integral elements of our response to the Call for Evidence.

### **1. Do the next million first: rethinking the home-owner low carbon retrofit market**

Many people and organisations in the energy sector have been thinking for many years about how to stimulate home-owners to upgrade their homes to low carbon standards. But we've now come to the view that much of this thinking is wrong when applied to the types of home upgrades now required to meet UK carbon targets. This wrong thinking is embedded in the Call for Evidence and particularly in its dated characterisation of the nature of the market transformation required and in the type of policy proposals to secure that transformation which the Call includes.

Our challenge to what might now be called 'traditional' thinking is outlined in a presentation we produced in July 2017 to capture our insights and conclusions on what is needed next to transform the market in home owner energy efficiency. It is founded on our experience over three decades of developing and delivering (with varying degrees of success) energy efficiency schemes at a local (e.g. under EEC, CERT, ECO) and national level (e.g. Green Open Homes), two decades of evaluating various national policies and programmes (from Warm Zones to CERT to ECO to [Green Deal](#)

[Communities](#)), and a similar time engaging with national policy making in this field (again with varying degrees of success).

The presentation *'Do the next million first'* is provided with this note as part of our submission to the Call for Evidence. It describes our perspective on:

- What we've all been getting wrong and why this has paralysed policy-making.
- How we need to think differently about the challenge of building a market for home owner low carbon retrofit.
- What this leads to in terms of priorities for policies and programmes.
- How much this might cost.

Our starting point is that policy-makers seem to have been paralysed over the last few years by feeling they need to sort out how to get the whole housing stock up to standard before they introduce any new measures.

Our suspicion is that this apparent paralysis (a suspicion reinforced by the issuing of this Call for Evidence) may be due to both: (a) the explicit challenge to BEIS from the Committee on Climate Change on how the whole housing stock will be decarbonised over the next 15 years to meet legally binding carbon targets, and; (b) the overwhelming failure of the much-vaunted Green Deal which was wrongly considered in DECC to have been the result of evidence-based policy-making.<sup>1</sup>

The Call for Evidence, with its attempts to embrace market segmentation (though see section 2 below), may mark a shift from this constricting thinking. However, the Call still fails to reflect an understanding of how markets typically develop, with or without policy intervention.

We believe the low carbon retrofit market can be usefully conceived as liable to follow a technology adoption curve. With this comes the recognition that, in terms of the type of retrofit work now required, we are at the point on the curve where the market shifts from 'pioneers' to 'early adopters'. However, for reasons explained below and in the presentation, there are several factors which are currently blocking this shift and which represent excellent points for policy intervention.

In addition, we need to recognise that the low carbon retrofit work required next (i.e. insulating solid walls, fitting smarter heating controls etc) is relatively skilled building and heating engineering work (i.e. building trades) rather than semi-skilled insulation work of the sort that has (for very good reasons) dominated energy efficiency programmes over the last 20 years (i.e. loft and cavity wall insulation contractors). This changes the nature of the supply chains required and the policies they will respond to (not least because these supply chains are already busy doing 'not-low-carbon' retrofit and repair work).

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1 Senior CSE staff were close enough to the process to know that the Green Deal really wasn't evidence based (or at least that the 'evidence' was clearly partial and/or unsound). However, the common misconception in DECC and now BEIS that it was evidence-based will still be raising questions about the quality of DECC's and now BEIS's 'evidence' and therefore about the likely efficacy of any policy proposals being put forward since the Green Deal's failure was accepted in 2015.

As outlined in our presentation, we propose that policy effort and practical action should focus on how to get the next million home-owners who are already keen to take action to actually take that action – the early adopters. And that relies on them being able to get a quote from a builder they feel they can trust (who will tend, therefore, to be a local company recommended by someone they know).

But the builder won't give a quote if they are already busy and making good money – which the good ones are (though probably not on low carbon work like solid wall insulation). And they won't do the homework to enable them to give that quote if they don't think it's a growing market. After all, if you have all the work you need and you're making a decent living, why spend time getting your head round the technologies and techniques involved, the risks and how they are managed, and how to quote so you can make a decent margin?

Our answer lies in local initiatives to orchestrate both home-owner demand and building-trade supply at local level.

As outlined below in Section 2, we have estimated that there are a million of these early adopter home-owners in the UK who already believe in the need to act, want to take action and can fund the improvements themselves. But they won't act without a builder they can trust.

So the immediate focus of policy effort should be on supporting local market development initiatives – and these need to happen locally because that is the level at which the building trades who need to be involved operate. The required activities for a local market development initiative and likely associated costs are described in more detail in the presentation.

If such market development initiatives are supported and succeed in stimulating greater take up, low carbon retrofit will start to become much more normal and local supply chains will become stronger, with building trades shifting into low carbon retrofit as standard practice. That will make it easier in future to stimulate new demand and to create the political space for tougher policies in the next decade that ensure all homes come up to standard.

These issues are explored more in the 'Do the next million first' presentation provided alongside this response.

## **2. Segmenting the market (the need to focus on the 'next to act' – the early adopters)**

While the Call for Evidence acknowledges the value of segmenting the market, the 'segments' identified in paragraphs 25 – 26 of the Call in combination represent about 20% of all households, which makes them too large to be useful (they are potentially 100% of the market over the next 5 years). They are also unsophisticated segments from a market development perspective.

The segment descriptors presented are defined largely by household 'stage of life'. This is directly the result of the approach taken in the underlying research which, as its primary purpose, identified people who had done home improvements in terms of their stage of life (particularly the EST study referenced in footnote 31 and 32). The error made in that research work was to then suggest that all those in each of these 'stages of life' categories share a similar perspective of energy efficiency opportunities and have common motivations to realise them. BEIS' segmentation needs to be more

refined than this and draw on more sophisticated characterisation about household types, values and interests, such as provided by Experian MOSAIC classifications.

We would therefore recommend taking a different approach to segmentation. The first step is to accept the proposition that the people most likely to take action next to undertake low carbon retrofit on their homes (a) share values and interests and possibly life stages with people who have already taken action and (b) have demonstrated their interest in taking action through their behaviours (such as visiting a [Green Open Homes](#) event to see homes like theirs which have already been improved, near where they live owned by people like them).

To explore who these 'next to act' early adopter households might be, we analysed the full postcodes (where available)<sup>2</sup> for visitors to Bristol Green Doors open homes events over the last few years against address-level MOSAIC classifications. By analysing full postcodes, it is possible to develop a reasonably detailed picture of the types of people who visited and are therefore highly likely to share characteristics with those most likely to act next.

A very clear picture of these 'Early Adopters' emerges, suggesting a clear targeting strategy for market development activities. There are three main groups of people across six MOSAIC categories which between them account for two thirds of the Bristol Green Doors visitor cohort.

- Middle-aged, higher earning, environmentally minded, 'able to pay' households in professional full time (C13 Uptown Elite, D14 Cafés and Catchments)
- Retired people, apparently on lower incomes, but unlikely to have any housing costs due to having paid off their mortgages (I39 Ageing Access)
- A more mixed slightly younger group varying from higher earners who are 'on it' and environmentally minded (C12 Metro High-Flyers) – although MOSAIC describes these groups as typically renting, that doesn't apply to all of them (H35 Primary Ambitions, J40 Career Builders)

We have provided in as attachments with this evidence:

(a) *'Who are the early adopters?'*, which provides a bit more detail on this analysis and associated evidence that there are very nearly 1,000,000 households in these MOSAIC category groups across England who live in homes with solid walls (where low carbon retrofit needs are most significant).

(b) *'Key BGD MOSAIC type descriptors'*, which reproduces the MOSAIC descriptors provided by Experian for each of the MOSAIC category groups listed above.

While these segments clearly have some overlap with the segments described in the Call for Evidence, they are more sophisticated in terms of their characterisation of these households and they represent a smaller subset of the overall population for policy targeting. The characterisations also provide more clues about how to target them. We hope this analysis encourages BEIS to develop a more sophisticated approach to segmentation to accompany an adoption curve model of how the market can be expected to develop.

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2 950 Bristol (BS) postcodes were available after removing duplicates (either people from same household or repeat visitor in separate years)

### **3. The need to understand and address barriers just for these ‘next to act’ households – rather than everyone**

The body of research on barriers to action quoted at length in the Call for Evidence relies heavily on surveys and householder interviews. These typically generate a list of barriers to people taking action on energy efficiency that has been more-or-less exactly the same for the last 25 years (see Hedges, A (1991) *Attitudes to Energy Conservation in the Home, Report on a Qualitative Study*, Department of the Environment, London). However, the list is largely meaningless as a guide to the value of different policy/market interventions because most of the people interviewed in the studies had no current intention to take action and have not tried to take action (and thus have not got close to any genuine barriers to their action).

‘Access to low cost finance’, ‘advice about what to do’, and ‘quality controlled contractors’ nearly always top the lists of barriers identified through these surveys. Often these barriers are specifically prompted in the research survey or interview, making it relatively easy for respondents to select those barriers which best justify to themselves (and the interviewer) their lack of action for something which they broadly know is a sensible thing to do.

And yet the true main barrier for most households is rarely captured; “I know it’s important but I haven’t got round to it yet because it didn’t seem urgent, I don’t know anyone else who has done it, and I’ve got other things I would rather – or need to - spend my money on it.”

We believe the findings of these studies are misleading, providing a false guide to the types of policies which may be required to address the identified barriers and a false indication of the potential value of such policies.

Instead, policy design needs to be oriented towards tackling the barriers to action which are encountered by people already keen to act, not those barriers mentioned by everyone interviewed by a researcher. We have not come across systematic research of this nature (and would recommend that BEIS commissions some as a matter of urgency).

Nevertheless, our anecdotal research suggests the relevant barriers for those ‘early adopters’ ready to act are not about access to low cost finance (the people keen to act have their own sources of finance, predominantly savings, as evidenced by the VERD project findings referenced in the Call). These people have a pretty good idea about what low carbon retrofit measures are needed on their homes but are unsure whether the proposals/quotes they receive (if they can find a builder to provide a quote) are good quality and good value. And they want a contractor recommended by a friend, family member, colleague or neighbour (because that’s how most people find decent building contractors) but struggle to get recommendations because so few people they know have so far actually done these measures (and somewhat fewer who would recommend their contractor).

As described in our *Do the next million first* presentation, the nature of the barriers experienced by those who will act next and the policy interventions likely to be required to address them are very different from the thinking which emerges from a generalised assessment of barriers to home energy efficiency. We would recommend that BEIS is more discerning about its commissioning and use of evidence about barriers to action so that it is better aligned with a more sophisticated conception of how this market can be developed.

That said, we recognise that, as we move up the adoption curve (assuming successful policies to secure action from the early adopters are put in place), this brings 'into play' different types of household with different circumstances ('early majority') who therefore face different barriers and will need different policy interventions to secure their action. This is covered on pages 23-24 of our *Do the next million first* presentation.

#### **CSE documents provided as part of our response to the Call for Evidence**

- *Do the next million first: what to do to get the home-owner market going for low carbon retrofit – in a world without grants*, Centre for Sustainable Energy, July 2017
- *Who are the early adopters?*, Centre for Sustainable Energy analysis of Bristol Green Doors data against address-level MOSAIC classification, July 2017
- *Key BGD MOSAIC type descriptors*, Extracted by CSE from Experian MOSAIC classification, July 2017

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