



At home with energy:

A selection of insights into
domestic energy use in Scotland

The Energy Saving Trust is the UK's leading impartial organisation helping people save energy and reduce carbon emissions. We do this by directly supporting consumers to take action, helping local authorities and communities to save energy, using our expert insight and knowledge and providing quality assurance for goods and services. Everything we do is about enabling people to save energy in the most cost effective way possible; either directly through our impartial advice network and website or indirectly through our work with partners.

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1 Executive Summary

The Energy Saving Trust in Scotland works with consumers to help them take action on climate change by living a low carbon lifestyle. We have contact with over 300,000 Scottish households each year and over 3.5 million consumers each year across the UK.

We undertake research and evaluation to inform the design, development and improvement of our services. This report draws from these various sources, to offer insights into consumers, their perspectives, motivations and behaviours. We hope these insights will help support the various stakeholders working to cut energy consumption and carbon emissions from the domestic sectors, including central and local government, businesses and civil society organisations.

Consumers are increasingly adopting small behaviours (see section 4) such as turning off lights and appliances when not in use and washing clothes at 30°C. This is likely to be driven by a number of factors, primarily financial motivators, but also concern over climate change and increased awareness of the benefits of such behavioural change.

However, small water saving behaviours appear to be lagging behind and on closer examination the frequency with which small behaviours are practised can be surprisingly low. Although progress has been made, we are still some way from such behaviours being the 'norm'. The introduction of smart meters, and in future smart energy management systems, will help consumers to more easily monitor and control their energy consumption, though water using behaviours are still likely to need further focus.

Other behaviours explored in this report relate to the take-up of energy efficiency products. Although basic measures (see section 5) such as loft and cavity wall insulation have been the focus of climate change policy efforts to date, many consumers are still unaware of them. Consumers typically overestimate the costs of such measures and underestimate the benefits. The situation is similar for basic water saving measures, such as aerated showerheads and dual flush toilets. For many, limiting energy use is simply not a priority for them and they are unlikely to take action unless they are approached more proactively or required to take action. This highlights the benefits of local area based initiatives where advisors can go door-to-door to explain the measures and assess the suitability of properties.

Unsurprisingly, the greatest challenges relate to the take-up of high cost measures (see section 6) which are also least familiar to consumers, such as microgeneration technologies and solid wall insulation. Awareness is typically very low with many consumers unfamiliar with such measures and simply unaware that they may be appropriate for their home. Solid wall insulation faces particular challenges due to consumer concerns over visible impacts and the disruption caused during installation. Initiatives which provide consumers with access to finance may help make such measures affordable, but the terms of such schemes will be important. Builders have an important role to play in advising householders and ensuring they take advantage of opportunities to improve the energy performance of their property at least cost and with least disruption. Demonstration homes are key to improving consumer understanding and trust in new technologies.

The Energy Saving Trust is delivering a number of services and programmes on behalf of the Scottish Government in order to help overcome the various barriers to action identified throughout this report (see section 7).

2 Introduction

Around a third of Scotland's CO₂ emissions are the result of the energy we use to heat and power our homes. With national carbon budgets becoming ever more challenging, significant changes in our day-to-day use of energy and the physical fabric of our homes will be required.

In this sense, 'energy behaviours' relate to our every day use of electrical appliances, hot water, heating and lighting in our homes as well as the decisions we make to purchase and install physical energy efficiency and water saving measures and microgeneration technologies. The Scottish Government's Climate Change (Scotland) Act 2009 has set an interim target of reducing greenhouse gas emissions in Scotland by 42% by 2020 from 1990 levels¹. Longer term the Act requires emissions cuts of 80% by 2050. The household sector may well be expected to cut emissions by more than 80% in order to compensate for other sectors where such cuts are more difficult.

With such significant change required, it is vital that we have a good understanding of consumer attitudes, perspectives and behaviours, the barriers to the take up of desired actions, and what governments, energy suppliers, retailers, building professionals and others can do to help overcome such barriers.

This report draws from a range of sources to provide insight into a variety of consumer attitudes, 'small behaviours' in the home and the take-up of low cost and high cost energy efficiency and microgeneration technologies.

The Energy Saving Trust undertakes research to better understand consumer perspectives. This insight is used to develop and improve our services, and provide advice to government. We also regularly evaluate our services to test their impact and explore with our customers how improvements can be made. As a deliverer of a number of advice and support services, the Energy Saving Trust is also in a unique position of having direct contact with over 300,000 Scottish households each year and over 3 million consumers each year across the UK. This report provides an overview of just some of the data we hold. Where possible we refer the reader to where more detailed information can be found. Data presented here relates to Scotland unless stated otherwise.



The report focuses on a number of key behaviours relating to domestic energy. It does not, however, consider consumer choice of electrical products, how and where we travel or how we deal with waste, all of which are important areas in their own right. It should also be recognised that many other aspects of consumer behaviour are important determinants of household emissions, including the wider behavioural issue of how to encourage people to value energy efficient homes, for example, through promoting Energy Performance Certificates at sale or rental and marketing of zero carbon homes as high quality, warm and cheap to run homes. These choices we make are all important aspects of the Energy Saving Trust's work² although outside the scope of this report.

¹ 1995 for F-gases Hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride.

² For information on these other areas please see <http://www.energysavingtrust.org.uk>

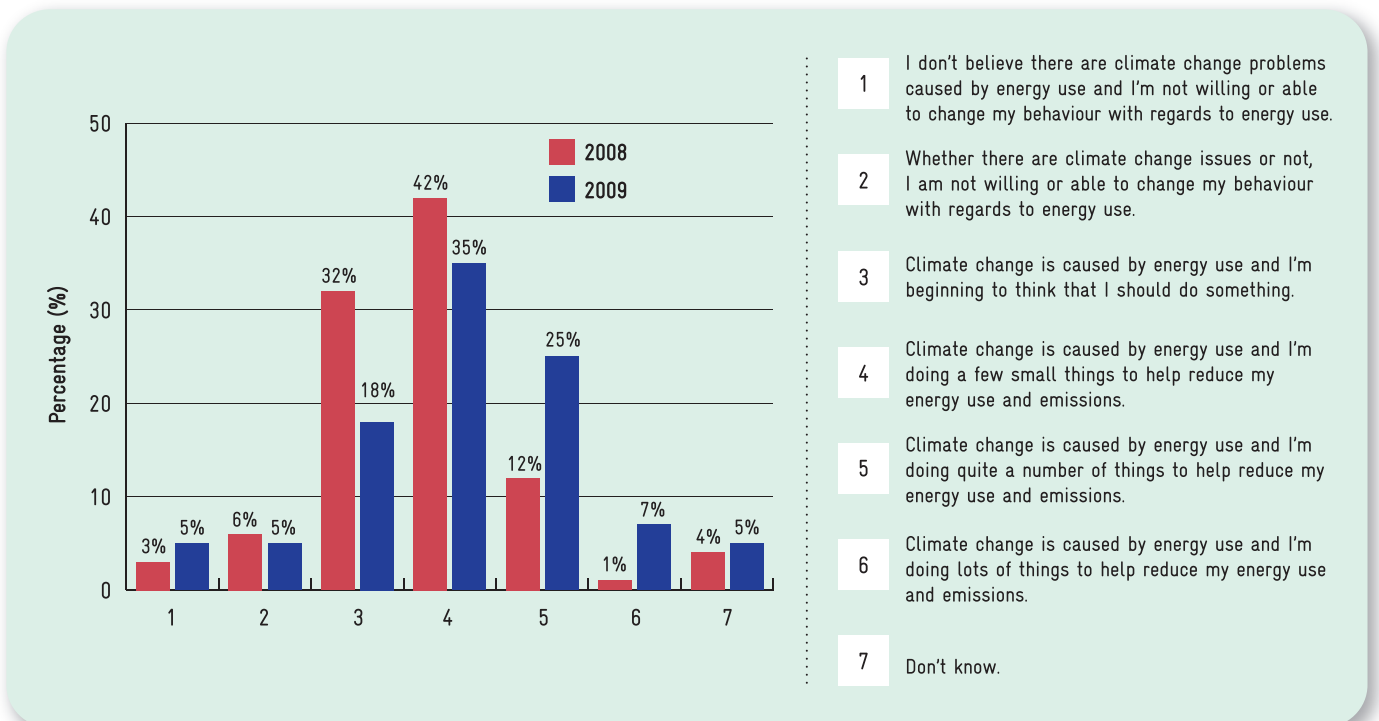
3 Attitudes to climate change

Awareness of climate change and its impacts is increasing, with the proportion of people in the UK reporting that they are concerned about the effects of climate change rising from 60% in 2007 to 65% in 2009³. Most people in Scotland are linking climate change to energy use. Between 2008 and 2009 the number of people making that link and claiming they are doing quite a number of things to reduce their energy use and emissions increased from 12% to 25%⁴ (Figure 1). However, one in ten people say they are still not willing or able to take any action.

There are signs that recent controversies may have undermined confidence in the science of climate change. In early 2010, 24% of the public reported feeling less certain about the need to act on climate change.⁵

The link between attitudes to climate change and take-up of energy efficient behaviours is not straightforward. Taking up a behaviour, whether it is a habit or the decision to purchase a renewable technology is the result of a combination of many factors, with environmental concerns being just one aspect. As a result, apparently high levels of concern and a desire to reduce energy use (as shown in Figure 1) do not always translate to uptake of behaviours or installation of measures, as this report demonstrates.

Figure 1. The Scottish public's view of climate change and energy⁶



3 Future Foundation and Energy Saving Trust (2009) Green Aware.

4 Energy Saving Trust & Defra (2009) Survey of public attitudes and behaviours towards the environment.

5 Energy Saving Trust (2010) Attitude Tracker.

6 Energy Saving Trust & Defra (2009) Survey of public attitudes and behaviours towards the environment.

Respondents were asked 'Which of these statements best reflects how you currently feel?'

4 Small behaviours

4.1 Context

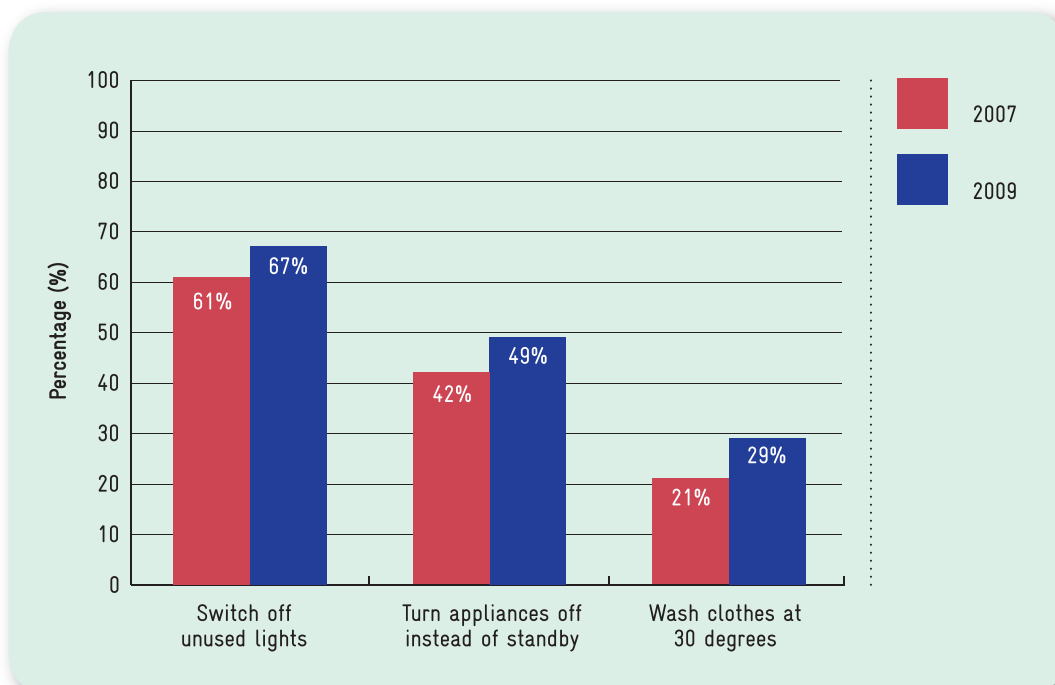
This chapter looks at small, 'no cost' behaviours in the home – these are the habits and actions we undertake, often on a daily basis, without even realising we are doing them. They include turning off lights and appliances when not in use, avoiding overheating rooms by turning the thermostat down by 1 degree, washing clothes at 30°C, taking shorter showers and boiling only as much water in the kettle as is required. Collectively, across the country such behaviours can account for a significant amount of energy use and CO₂ emissions. We estimate that if everyone

in Scotland undertook these behaviours it would reduce Scottish household emissions by 3%, and save in the region of £80 million per year off consumer bills.⁷

For energy related small behaviours, research shows a positive story with the proportion of people in the UK reporting these types of behaviours increasing markedly between 2007 and 2009⁸ (see Figure 2 below). 83% of Scottish households now say they only fill their kettle up with as much water as they need.⁹

Tracking of such behaviours is inherently difficult which is why we typically rely on self reporting of actions.

Figure 2. Reported adoption of energy related behaviours between 2007 and 2009 by UK respondents



7 This is the cumulative impact of everyone: taking one minute off every shower, using a bowl to wash up, doing one less load of washing per week by avoiding half loads, only boiling the amount of water they need in the kettle, washing their clothes at 30 degrees, turning off the tap whilst brushing their teeth, turning their heating down by 1 degree, switching off lighting while not in use and avoiding leaving appliances on standby. It is a conservative estimate as it excludes anyone who says they are already doing these measures, even though they may not be doing them all the time and it assumes everyone has installed basic energy efficiency measures such as cavity wall and loft insulation and energy efficient lighting before carrying out any changes therefore.

8 Future Foundation and Energy Saving Trust (2009) Green Aware.

9 Energy Saving Trust & Defra (2009) Survey of public attitudes and behaviours towards the environment.

Results are therefore prone to inaccuracies due to people's poor recollection of their own behaviours and tendency to exaggerate actions which are seen as desirable. However, these results still show an encouraging trend and at the very least indicate a heightened awareness of the importance of small behaviours and desire to undertake them.

While the majority of consumers are increasingly taking steps to reduce their energy consumption through undertaking small behaviours, there is still some way to go with small water saving behaviours. Hot water use accounts for approximately a quarter of household CO₂ emissions and 30% of gas bills. However, consumers are not making the link between energy use, carbon emissions and hot water use. This is supported by anecdotal evidence from our advisors giving water saving advice who believe "we're starting from a position of zero...so we've got to slowly build up awareness". Despite 50% claiming to make an effort to cut down on water use at home¹⁰, survey responses highlight poor water use in practice. Unprompted, only 10% of people in Scotland make the link between water use in the home and carbon emissions.

Scottish consumers are especially unconvinced of the need to save water as there is a perception of water being a plentiful resource.

*"I don't see how it can be a problem in this country – it rains all the time."*¹¹

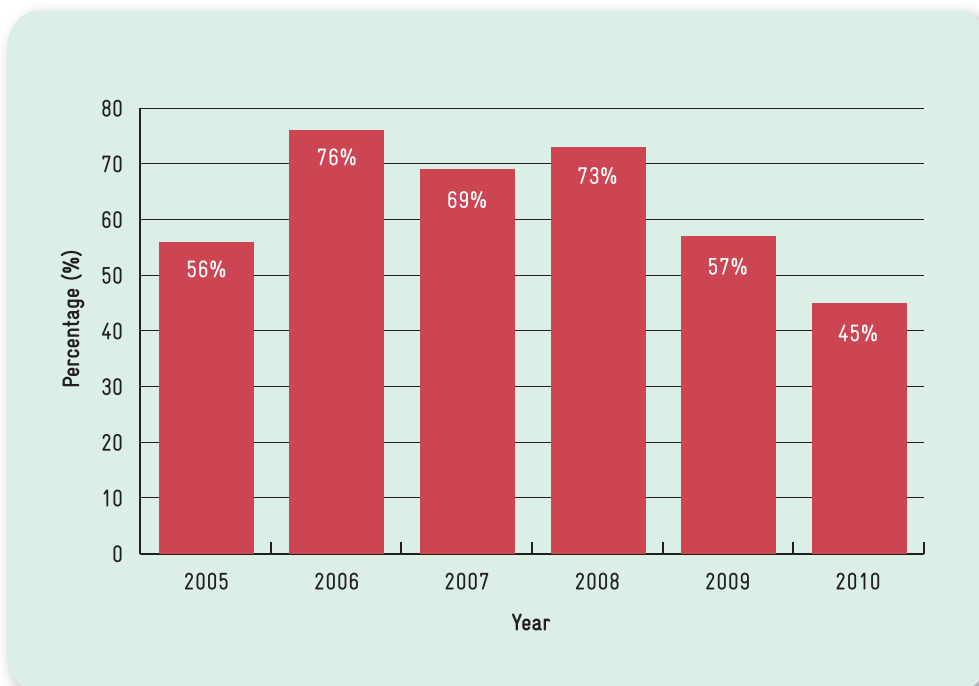
4.2 Key barriers

The increased adoption of small energy behaviours can be partly explained by increasing awareness and concern about climate change. From 2005 to 2008 Scottish people reported feeling an increasing pressure to change the way they live to reduce the impact of climate change, though this pressure has declined more recently (see Figure 3).

Perhaps a stronger driver for consumers adopting small behaviours over recent years has been economic concerns, particularly due to sharp increases in energy prices throughout this same period, combined with the recent economic downturn. This is supported by our research that shows 68% of consumers report that now times are tougher economically, they are more interested than ever in how to save energy¹².

*"We do try and turn off the television standby because it is a way of saving a few pence per week which amount up all over the years. I suppose there is an element there of doing something because it helps your pocket"*¹³

Figure 3. Consumers in Scotland reported social pressure to change their behaviour due to climate change¹⁴



10 Energy Saving Trust & Defra (2009) Survey of public attitudes and behaviours towards the environment.

11 Energy Saving Trust (2009) Qualitative research, UK.

12 Energy Saving Trust & Defra (2009) Survey of public attitudes and behaviours towards the environment.

13 Energy Saving Trust (2009) Levers and barriers research, UK.

Another factor explaining the increase in people's awareness of small behaviours is the increase in the number of sources for such messages. It is increasingly common for the private sector to convey messages about the importance of small behaviours. The October 2009 edition of Asda's magazine, distributed to 356 stores, highlighted the carbon and money savings to be made from small behaviours such as washing clothes at 30°C and switching lights off (these were verified by the Energy Saving Trust, bringing crucial impartiality to the retailers claims). Similarly Ariel and the Energy Saving Trust have also run a 'Turn to 30' campaign (see Box 1) and PG tips recently highlighted the importance of not over-filling kettles through messaging on boxes of teas.



Box 1. Wide promotion of small behaviours

Ariel's 'Turn to 30' initiative led the way to a wider campaign by Procter & Gamble called Future Friendly. This is a partnership between leading household brands such as Lenor, Flash and Fairy, with experts like the Energy Saving Trust helping to verify claimed energy and CO₂ savings. The campaign is now in its third year and aims to help and inspire people to live more sustainable lives and save energy, water and reduce waste. As well as promoting the environmental benefits of their specific products, the campaign also promotes more general energy, water and waste saving messages such as using a water butt in the garden, avoiding standby and drinking tap water instead of bottled water. For more details visit www.futurefriendly.co.uk



Many local authorities and housing associations also promote energy saving behaviour as part of their climate change programmes. For example Fife Council has launched a free DVD which offers energy saving tips to householders¹⁵. At a national level, the 10:10 campaign is also offering advice on energy saving tips, including simple day-to-day behaviours.¹⁶

The large number of organisations now delivering small behaviours tips is helping to reinforce the messages, reach a wide audience and keep energy saving tips at the front of people's minds. There have been very few parallel campaigns promoting the importance of water saving behaviours.



¹⁴ Energy Saving Trust (2010) Attitude Tracker, respondents were asked whether they agreed with the statement 'I feel a growing pressure to change the way I live to reduce the impact of climate change' (Scotland)

¹⁵ <http://www.fifedirect.org.uk/home-energy>

¹⁶ <http://www.1010uk.org>

4.3 Making progress

While the general picture for energy related behaviours is positive, more activity is required to ensure that these behaviours 'stick' and become the norm for everyone. Although self reported levels of these behaviours are high, there is clearly a tendency for people to exaggerate their tendency to do 'good' things when completing surveys. On closer inspection, consumers confess to often forgetting to undertake certain behaviours even when they had intended to do so. **Figure 4** shows the frequency with which consumers report they actually practise small behaviours. All of these respondents had initially reported they were 'already doing' these behaviours.

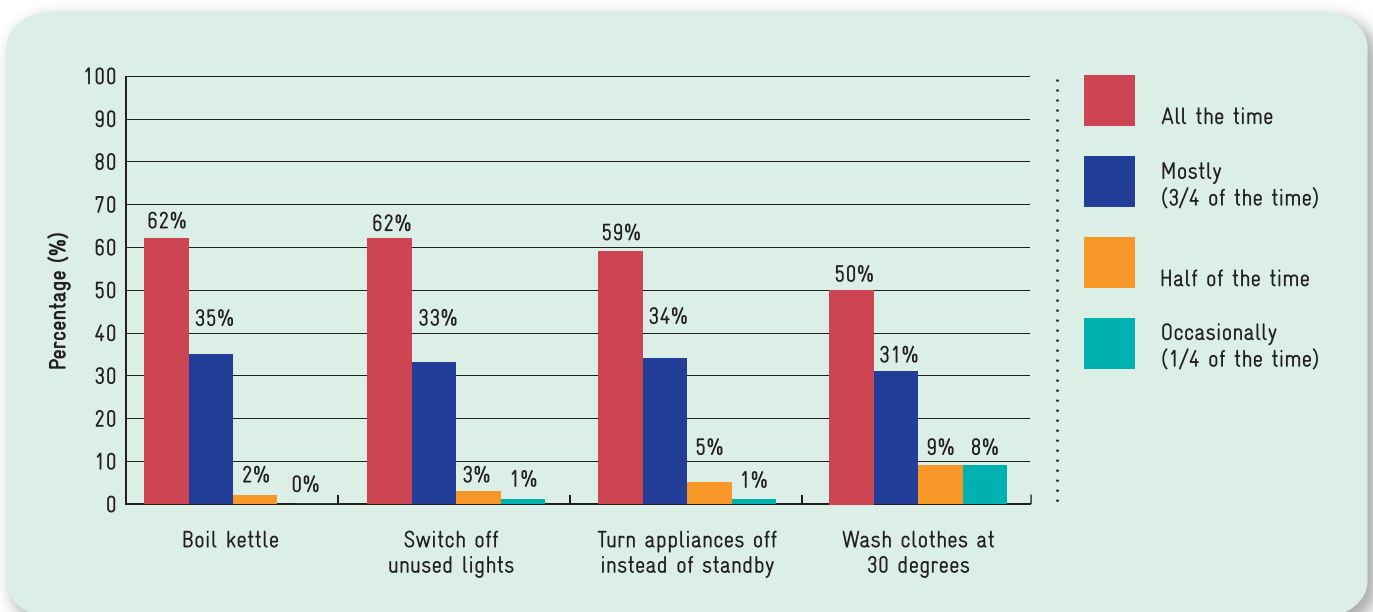
The up-coming GB-wide rollout of smart metering offers a major opportunity to raise people's awareness of energy consumption further and ensure the level and frequency of these behaviours increase to form permanent 'locked-in' habits. The government has announced that displays will accompany every smart meter¹⁷. This will ensure that households are able to access real time feedback on their energy consumption which can have a significant impact on behaviour¹⁸. Evaluation of the West Midland's real time display research where 1,400 clip-on real-time displays were

issued to consumers, demonstrated that displays can help increase the frequency with which people undertake behaviours¹⁹.

To maximise the impact of energy displays, they must be accompanied by advice and a demonstration of how to use the device effectively, as well as an explanation of what information is being shown. The real-time display evaluation results showed a high degree of understanding of the displays, even amongst older, less 'technology savvy' consumers, once they had received such face-to-face explanations: 84% of consumers over 65 years old reported that they found the displays 'easy to use'.

It is vital that energy displays convey information on energy consumption in a clear, accessible and engaging way. Research we undertook last year showed that many displays are currently not as user friendly and useful as they could be²⁰. At the time of writing, DECC and Ofgem were exploring options for a minimum functionality requirement for the displays that will accompany smart meters, and the advice and information that will need to be provided when smart meters and energy displays are installed. This will help ensure the rollout of smart metering maximises behavioural change, and energy and carbon savings.

Figure 4. Frequency with which people carry out small behaviours²¹



17 DECC (2009) Towards a smarter future: Government response to the consultation on electricity and gas smart metering: http://www.decc.gov.uk/en/content/cms/consultations/smart_metering/smart_metering.aspx

18 International experience has shown that direct feedback on consumption can deliver savings of 5-15%, see Darby (2006) The effectiveness of feedback on energy consumption. A review for Defra of the literature on metering, billing and direct displays: <http://www.eci.ox.ac.uk/research/energy/electric-metering.php>

Further innovations in smart home energy management technologies offer exciting opportunities for consumers. Integration of energy displays with heating controls and the development of 'home hub' technologies offer the potential to give significantly more control to consumers. Equally, the introduction of intelligent automated appliance control can potentially save energy and carbon, and reduce use of peak loads, while reducing the need for consumer behavioural responses. New innovations are also beginning to link consumption data to internet and mobile phone applications to enable consumers to access information from wherever they are.

Water metering offers a greater opportunity to engage people as they could make savings on their water, as well as their energy bill. At the moment consumers see little financial incentive to save water if they are not on a water meter although there is good support for water metering as 62% of Scottish people think that water bills should reflect how much you use²². Like the installation of smart meters, installing a water meter is a great opportunity to engage with consumers in their own homes about water and energy saving.

The public's awareness of water related behaviours is much lower than that of energy behaviours and would benefit from the sort of large scale awareness raising campaigns that energy behaviours have seen. A coordinated, consistent and extensive communication plan would start to raise the profile of water saving and solidify in people's mind the need to, and the multiple benefits of, saving water and therefore, energy and CO₂. Preliminary evaluation results from our water advice pilot in Edinburgh indicate that following this type of communication campaign, awareness of water saving behaviours has increased significantly. The proportion of consumers who made unprompted links between their water use and energy savings increased from 10% to 16%.



19 Energy Saving Trust (2010) Evaluation of Advice Centre Real Time Display Project.

20 Energy Saving Trust (2009) The Smart Way to Display: http://www.energysavingtrust.org.uk/smart_meters

21 Energy Saving Trust (2010) Evaluation of Advice Centre Real Time Display Project.

22 Energy Saving Trust (2009) Attitude tracker.

5 Basic measures

5.1 Context

Basic measures refer to the measures which can save substantial amounts of energy and carbon, typically cost a few hundred pounds or less to install and are highly cost effective, paying for themselves within a few years.

For space heating, the basic measures are cavity wall and loft insulation, and for water heating these are tap and shower aerators.

Basic insulation measures form the main focus of many of today's current government-led mitigation efforts such as the Carbon Emissions Reduction Target (CERT) and the Home Insulation Scheme in Scotland. Since April 2002, the Energy Efficiency Commitments and Carbon Emission Reduction Target have led to at least 3.2 million cavity walls and 4.3 million lofts being insulated.²³

The UK Government last year set an aspiration of having all empty cavities and lofts that currently have less than 125mm of insulation insulated to guideline levels, where practical, by 2015. This will require around 3 million cavities and around 7 million lofts to be filled between January 2010 and the end of 2015. In Scotland in particular, this could require as many as 400,000 cavity walls and up to 1 million lofts being insulated. Achieving the average annual rates of installation to deliver these measures may become increasingly challenging, as the overall number of unfilled cavities and lofts diminishes and they become harder to find. Furthermore, there will remain approximately 3 million cavities in the UK beyond the 2015 target which are practically possible to insulate although more difficult and around 3 million lofts with less than 150mm of insulation (but over 125mm), which will need to be addressed.

While a lot of CO₂ savings from water use fall under small behaviours, significant savings can be made from low cost water and energy saving devices such as aerated taps and showerheads. They are cheap to buy and install and a typical house could save 0.2 tonnes of CO₂ per year.²⁴ Uptake of water efficient products is very low at the moment with only 6% of people claiming to have hippos (water displacement devices) and 2% aerated shower heads.²⁵

5.2 Key barriers

There are a number of barriers to the take-up of basic insulation which have been identified through surveying of households which have not taken up these measures.

Figure 5 contains groups of key barriers, which form three main categories:

- Affordability, where consumers consider a measure to be too expensive or where time taken for measures to pay for themselves is too long.
- Awareness, where consumers have never thought about it, don't know if they have it or not, or don't know how to go about having such work done.
- Motivational, where consumers are putting it off or have not got round to it or are put off by the hassle involved in having it, or where they are just disinterested.

Lack of awareness is clearly a major obstacle. 6% of people confess to not knowing whether they have cavity wall insulation or not. While 24% of people say they cannot afford to have their cavity walls insulated (23% for loft), this is likely to be at least partly due to a lack of awareness over the true costs and benefits of such work. 25% of Scottish people believe cavity wall insulation will cost them more than £600 which is significantly above the market price of around £250 or less²⁶. Once informed of the true costs and likely benefits, and the speed and simplicity of the process, people are often pleasantly surprised.

In order to decide to take up basic insulation measures, consumers require access to the reliable information and advice. Consumers often complain of a 'minefield' when looking for such information and are very wary of being mis-sold products or paying above market prices.

23 Data sourced from Ofgem. CERT figures available up to end of Dec 2009 and are from approved supplier schemes only and for Great Britain, not UK.

24 Assumes all homes with a shower flow rate greater than 8 litres per minute are fitted with an aerated showerhead that restricts flow to 7.7 l/m.

25 Energy Saving Trust & Defra (2009) Survey of public attitudes and behaviours towards the environment.

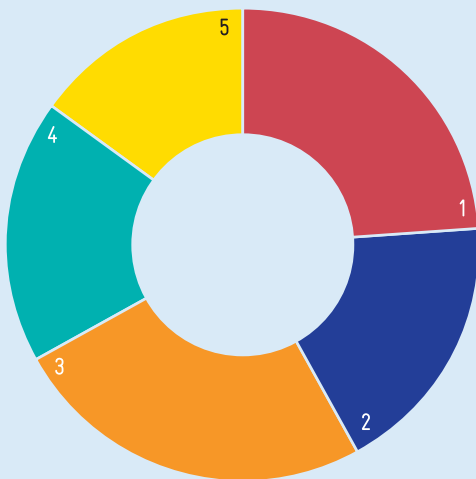
26 Energy Saving Trust (2010) Attitude tracker.

27 Energy Saving Trust & Defra (2009) Survey of public attitudes and behaviours towards the environment.



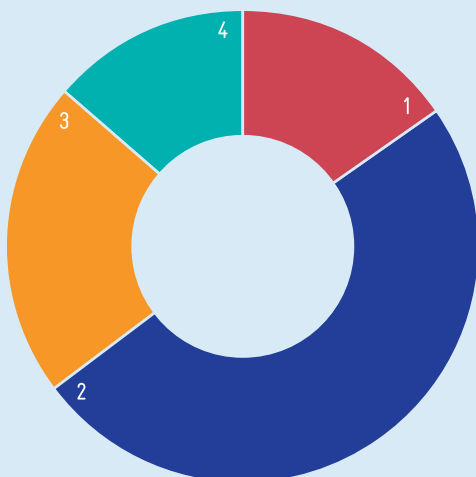
Figure 5. The key barriers to loft and cavity wall insulation²⁷

Scotland: Key barriers for cavity wall insulation



- 1 Awareness 24%
- 2 Motivation 18%
- 3 Affordability 25%
- 4 Doubts about the efficiency/might cause damp 18%
- 5 Other 15%

Scotland: Key barriers for loft insulation



- 1 Awareness 17%
- 2 Motivation 44%
- 3 Affordability 24%
- 4 Other 15%

It is also clear that a lack of motivation is a major barrier to take-up. The potential to save energy is typically given a low level of priority by the majority of consumers. The size of potential financial savings, and/or the strength of other reasons for saving energy (e.g. environmental) simply do not make it 'top of mind' for them. As a result, many people will report that they have not considered undertaking such activity. 15% say they have simply never thought of doing cavity wall insulation and 9% for loft insulation²⁸. Furthermore, many of those who may have considered installing basic measures will not commit enough time and effort to researching and finding out what measures may be appropriate for them, or organising for the work to be done.

*"It makes total sense to put [cavity wall insulation] in, and I've got the money. I know it's mad not to, I just don't get round to it."*²⁹

There are a number of myths and reservations held by consumers over basic energy efficiency measures. Some consumers express concerns over insulation leading to damp problems. There is also some scepticism over the claimed benefits of such measures. As illustrated in **Figure 5**, this tends to be significant in Scotland where 18% of consumers report doubts over the benefits or concerns over damp caused by cavity wall insulation as the main reason for not having it installed (compared to a UK average of 6%)³⁰. This may be the result of negative experiences with cavity wall insulation with early technologies or poorly placed insulation.

The barriers to water saving products are similar to basic insulation; a lack of awareness, perceived cost, motivation and myths around what can be saved. Awareness is very low and many people don't understand or know the products they already have. 24% of Scottish customers don't know what type of shower they have and 13% didn't know if they had a dual flush toilet³¹. Even less is known about new water saving devices; 68% of Scottish people surveyed hadn't heard of or considered using a hippo (a water displacement device) and 69% hadn't heard of or considered using aerated showerheads³². The perceived cost of water devices is typically much higher than the actual costs.

5.3 Making progress

The low levels of awareness of insulation and water devices suggest an important role for basic information and advice provision. From our own experience of delivering advice services, it is clear that there is a significant

demand for such information on insulation and water products. We estimate that in 2009-10 around 60% of customers who contacted our advice centre services, did so seeking information on cavity wall and/or loft insulation³³, and the most popular water-related frequently asked question on our website is 'where can I buy a water efficient showerhead?'

Although awareness of water saving measures is even lower, there is large potential to engage people in this area. 53% of Scottish people report that they are interested in new devices that can help them save water³⁴. Part of breaking down this barrier is through communication campaigns as with behavioural measures, but also making it easy for consumers to access information and buy these products. This means ensuring the supply chain is set up so products are widely available in shops and clearly labelled with their water and energy saving potential.

Once people are aware, many will still need to be motivated to take up measures. Evidence from callers to our advice centre show that money is the main reason they have contacted us (see **Figure 6**). This includes both short term 'money off' offers such as through CERT and longer term bill savings, although comfort in the home and saving the environment or energy come a close second and third. These motivations can play an important part in the advertisements and messaging used in promoting energy efficiency and climate change – this is explored in **Box 2**.



28 Energy Saving Trust & Defra (2009) Survey of public attitudes and behaviours towards the environment.

29 Energy Saving Trust (2009) Levers and Barriers Research, UK.

30 Energy Saving Trust & Defra (2009) Survey of public attitudes and behaviours towards the environment.

31 Energy Saving Trust (2010) Public survey on water behaviours.

Box 2. Encouraging uptake through good communications.

Research we commissioned in 2006 demonstrated the importance of well-planned communication campaigns. For example, it is important to avoiding 'alarmist' messaging over the urgent need to act on climate change, as this is likely to disengage people¹. More recent research we have undertaken has revealed the benefits of focussing communications on avoidance of waste as opposed to saving, in climate change communications². Waste is heavily ingrained within British culture as a negative trait at odds with common values. This is especially the case within the present economic down turn. For a guide to good climate change communications please see our briefing note 'Communicating with your communities'³.

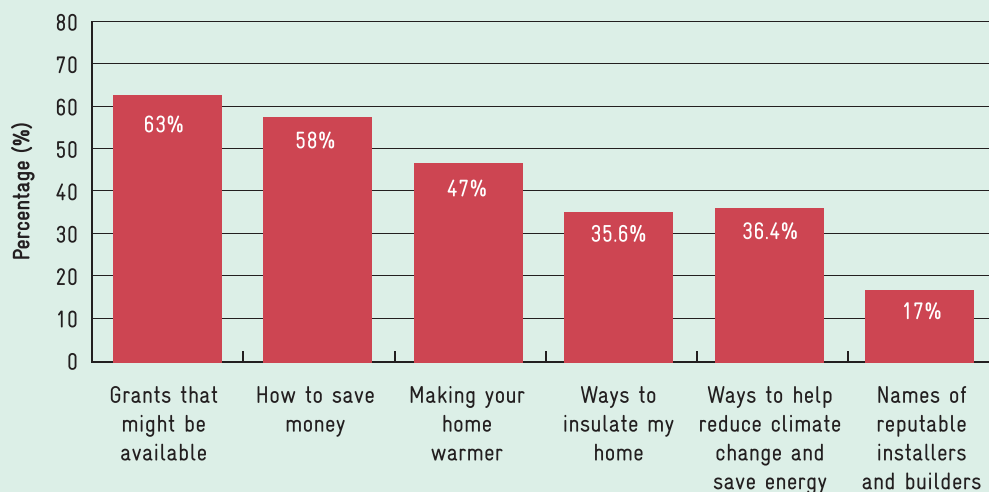
It is also important to focus on the tangible benefits of action. For the majority of consumers, carbon savings resulting from fitting insulation will be a second order benefit. Focusing on how the home will be warmer, less damp and less costly to run, is likely

to be far more compelling. A new report from Futerra emphasises the need to present a compelling vision of change in order to 'sell' the climate message.⁴

Efforts should also be made to segment audiences to reflect the different motivations of different consumer groups. Different consumers also have different preferred communication routes. While letters and forms may be an effective way of reaching some older households, others may not have the time or may not be as comfortable filling in forms. Phone-based or face-to-face contact, may be more appropriate for such consumers.

- 1 IPPR (2006) Warm Words: how are we telling the climate story and can we tell it better? http://www.ippr.org.uk/members/download.asp?f=/ecomm/files/warm_words.pdf&a=skip
- 2 Energy Saving Trust (2009), Qualitative research.
- 3 <http://www.energysavingtrust.org.uk/business/Publication-Download/?oid=179147&aid=421265>
- 4 Futerra (2010). Sizzle, the new climate message <http://www.futerra.co.uk/downloads/Sellthesizzle.pdf>

Figure 6. Motivation for contacting Energy Saving Scotland Advice Centres in 2009/10³⁵



32 Energy Saving Trust & Defra (2009) Survey of public attitudes and behaviours towards the environment.

33 Based on evaluation of 2009/10 data for Energy Saving Scotland advice centre. Promoted recall from customers who remembered contacting the Energy Saving Trust.

34 Energy Saving Trust (2010) Public survey on water behaviours.

35 Based on evaluation of 2009/10 data for Energy Saving Scotland advice centres.

5.3.1 The benefits of local activity

Given the significant motivational barriers to cavity wall and loft insulation outlined above, proactive provision of information can help overcome the hassle involved in seeking out advice. This can, therefore, help deliver take-up amongst the sizeable proportion of people who, although open to having such measures installed, are not sufficiently motivated to act on their own and to investigate options.

Area based approaches can also help overcome other barriers to uptake by, for example, building in loft clearance services to facilitate loft installation as in the Home Insulation Scheme (see Box 3).

Intensive local activity can help motivate residents to get involved through tapping into an area’s sense of community and making the process of having measures installed feel more normal and attractive. 28% of people in Scotland say that they would be more likely to install energy efficiency measures if their friends and neighbours were also doing it³⁶. Successful community schemes, for example the Linlithgow Climate Challenge group³⁷, can generate large energy savings within a community. The efforts of the Linlithgow group resulted in 78 people having cavity wall insulation and 137 residents having loft insulation installed.

“If everyone was doing it, then we all would wouldn’t we?”

“We’re all in boxes on our own – bring back community.”³⁸

Local authorities, community groups, third sector organisations and charities are typically highly trusted, so their involvement in local schemes can help increase consumer appetite and buy-in.

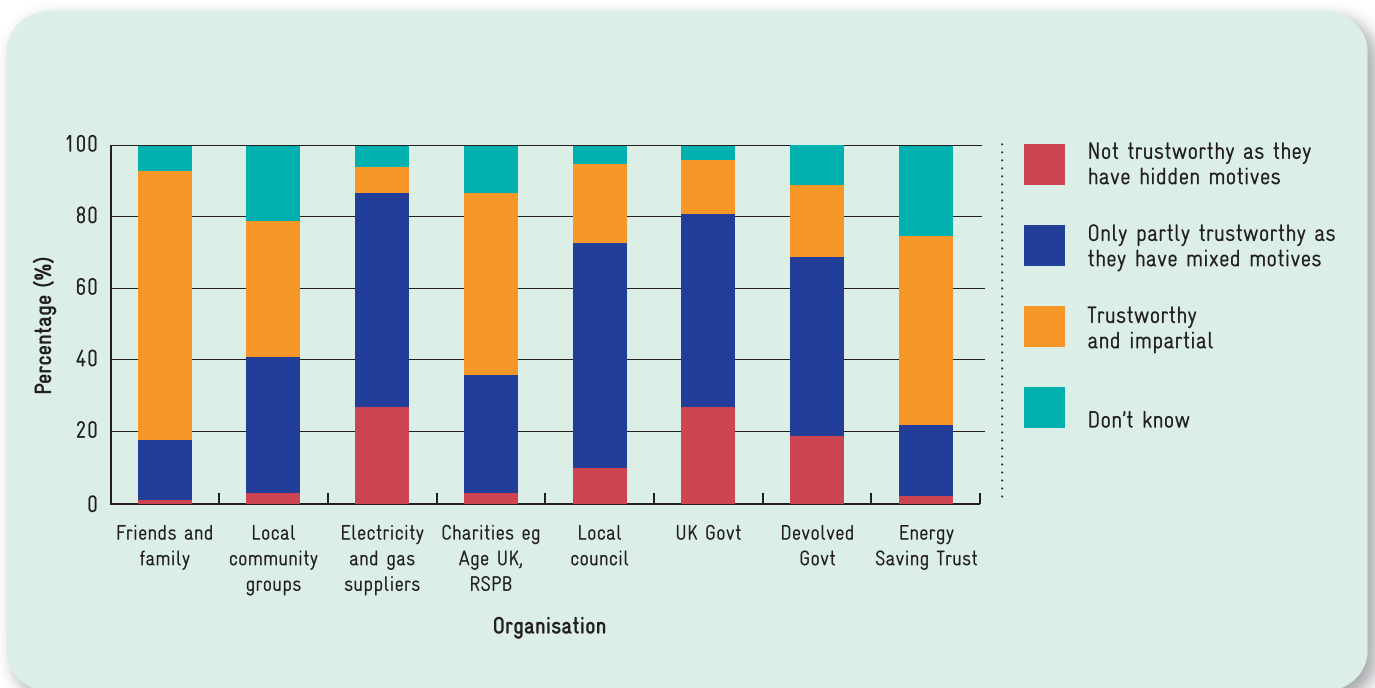
“A bloke came to the door saying they were in the area and we could get it done cheaply, but I don’t trust companies that just knock on the door.”³⁹

Figure 7 illustrates the levels of trust consumers have in different organisations.

In future it’s possible that suppliers will be required to work more closely with local authorities in delivering local activity, which will support the development of more local area based schemes and partnerships.

The benefits of local activity are also applicable to water products. Area based approaches break down the motivational barriers and make it easier for people to take up these measures. A Consumer Council for Water report indicated that people would do more to conserve water if someone came round to install water-efficient devices⁴⁰. The relatively low cost means water saving devices could easily be integrated with any local energy efficiency schemes and 65% of people would prefer to have water and energy efficient devices installed at the same time rather than separately⁴¹. Local marketing can also make water saving more relevant to the individual particularly if it’s an area of water shortage.

Figure 7. Varying levels of consumer trust in different organisations⁴²



5.3.2 Incentives and requirements

Although loft and cavity wall insulation make good economic sense, and are heavily subsidised by suppliers, the significant 'hassle' and motivational barriers to action, and for some consumers cost barriers, suggest that additional financial incentives or subsidy may also be necessary. Council tax rebates have been shown to be a particularly effective way of encouraging uptake of measures⁴³. In some area based schemes, loft and cavity wall insulation have been subsidised to the point of being free for all. However, in some cases even this has not been sufficient. Sheffield's Affordable Warmth Scheme has reported approximately 13% of residents not being interested in any free measures offered (cavity wall and loft insulation). In Scotland, 16% of consumers (owner occupiers without insulation) say they do not want cavity wall insulation or that they probably won't have it installed, with 2% saying the same for loft insulation.⁴⁴

In such instances, some level of compulsion may be required. Evidence from our market research suggests that much of the public are open to the prospect of Government taking a stronger approach to ensuring uptake of measures⁴⁵. Many consumers would like to see Government demonstrating strong leadership on climate change and 43% of Scottish people surveyed agreed that Government should take stronger action on carbon emissions – even if this meant making people fit energy efficiency measures.⁴⁶



Box 3. Home Insulation Scheme

The Energy Saving Trust is currently delivering an area-based initiative called the Home Insulation Scheme (HIS) in selected areas of Scotland. Funded by the Scottish Government and endorsed by relevant local authorities, the scheme operates through teams of home energy assessors who visit each householder offering free home energy audits and customised energy efficiency advice. Home insulation is then offered to suitable properties either at a discounted price or free of charge.

HIS doorstep visits enable the Energy Saving Trust to target householders directly, giving assessors the chance to collect information on the property and conduct home energy audits. It is also beneficial to the householder as it gives them a chance to ask questions or raise concerns about getting home insulation, thereby reducing barriers to installation.

From the property information collected, the assessor works out whether the property could benefit from any home insulation through the scheme, and also whether the householder could be eligible for other kinds of support through the Energy Saving Trust. This help can include referral to the Energy Assistance Package which can provide benefit entitlement checks, referral for social energy tariffs, and free additional energy saving measures such as a new central heating system for eligible householders.

After the doorstep visit the householder is then referred on to get whatever help they are eligible for. If they're referred for insulation through the Home Insulation Scheme, the householder is put in touch with the contracted HIS installer in their area, who will perform a technical survey of their property and then install insulation. If they're referred for any other kind of help they will receive a call from their local Energy Saving Scotland advice centre to talk through their options.

The Home Insulation Scheme makes the process of getting home insulation easier for the householder as they're guided through the process, from the doorstep visit, to the survey, and then installation.

36 Energy Saving Trust (2010) Attitude Tracker.

37 <http://www.energysavingtrust.org.uk/content/download/559220/1986861/file/Linlithgow.pdf>

38 Energy Saving Trust (2009) Levers and barriers research, UK.

39 Energy Saving Trust (2009) Levers and barriers research, UK.

40 Consumer Council for Water, 2006. Using Water Wisely: http://www.ccwater.org.uk/upload/pdf/Using_Water_Wisely_v4_PRINT.pdf

41 Energy Saving Trust (2010) Attitude Tracker.

42 Energy Saving Trust (2010) Consumer survey.

43 See British Gas partnerships: <http://www.britishgas.co.uk/energy-efficiency/products/home-insulation/council-tax.html>

44 Energy Saving Trust & Defra (2009) Survey of public attitudes and behaviours towards the environment.

45 Energy Saving Trust (2010) Attitude Tracker.

46 Energy Saving Trust (2010) Attitude Tracker.

6 High cost measures

6.1 Context

To achieve the level of carbon emissions reduction required from the household sector, it is clear we will have to move beyond the low cost measures discussed in the previous chapter. More complicated and expensive measures such as solid wall insulation and microgeneration will need to be installed on a large scale.

It is estimated that there are currently a little over 100,000 domestic microgeneration installations in the UK, with 90% of these being solar thermal installations. In Scotland this number is likely to be closer to 12,000 domestic installations⁴⁷. At present, there are thought to be less than 10,000 domestic solar photovoltaic installations in the UK. By 2020, it is hoped that 1.6% of UK electricity will come from small scale renewable sources. In line with this the Feed-In Tariff is projected to support the uptake of 750,000 domestic scale installations (predominantly solar PV). On a pro rata basis this equates to 67,500 installations in Scotland, which is a significant challenge.

On heat, the UK Government has a target of delivering 12% from renewable sources by 2020 (up from around 1% in 2010). In Scotland the target is 11% by 2020. The impact assessment for the proposed Renewable Heat Incentive (RHI), estimated that it would deliver 1.7 million installations across the UK by 2020, which, on a pro rata basis, would mean just over 150,000 installations in Scotland or 30,000 per year.

The Committee on Climate Change estimates that 2.3 million homes across the UK will need to have solid wall insulation fitted by 2022. On a pro-rata basis, this would mean around 200,000 installations in Scotland by 2022⁴⁸. On a linear trajectory that suggests 210,000 installations per year between 2011 and 2022 in the UK. At present it is estimated that there are only 16,000 to 23,000 solid wall insulation refurbishments undertaken per year throughout the UK, with the majority of these, over 65%, being external wall insulation⁴⁹. The vast majority of these jobs are in social housing.

While the high upfront costs associated with these technologies is an obvious challenge for achieving large scale take-up, there are also other important factors relating to consumer perceptions, confidence and familiarity.

6.2 Key barriers

6.2.1 Attitudes and Perceptions

Microgeneration

Understanding of microgeneration technologies is generally low. While some consumers have a basic level of familiarity with solar technologies, very few people have heard of newer technologies such as heat pumps.

Although understanding of microgeneration technologies is low, there is a strong intuitive interest in these technologies. Many people are attracted to the idea of generating their own energy and being less reliant on the grid or delivered energy. In Scotland, 53% of people surveyed would like to know the suitability of their home for renewable energy⁵⁰. Interest is particularly high in solar technologies and wind turbines which enjoy higher profiles and seem to naturally resonate with many consumers.

We have experienced an increase in the number of consumers seeking information and advice on microgeneration technologies. Visitors to our UK 'generate your own energy' web pages have doubled from an average of nearly 18,000 per month in 2007 to over 36,000 per month in the last six months of 2009, which equates to approximately a quarter of our overall web traffic. Since the launch of the Clean Energy Cash Back scheme (the Feed-In Tariff) in April this year, we have had around 15,000 visitors per month to our 'sell your own energy' web page. When asked, 15% of callers to our advice network in Scotland say that interest in renewable energy was one of the reasons they contacted us.⁵¹

47 Energy Saving Trust estimate based on The growth potential for microgeneration in England, Wales and Scotland, 2008.

48 Based on Scotland having approx. 9% of the UK's homes.

49 Purple Market Research (2009) Solid Wall Insulation Supply Chain Review:

http://www.eeph.org.uk/uploads/documents/partnership/SWI_supply_chain_review_8_May_20091.pdf

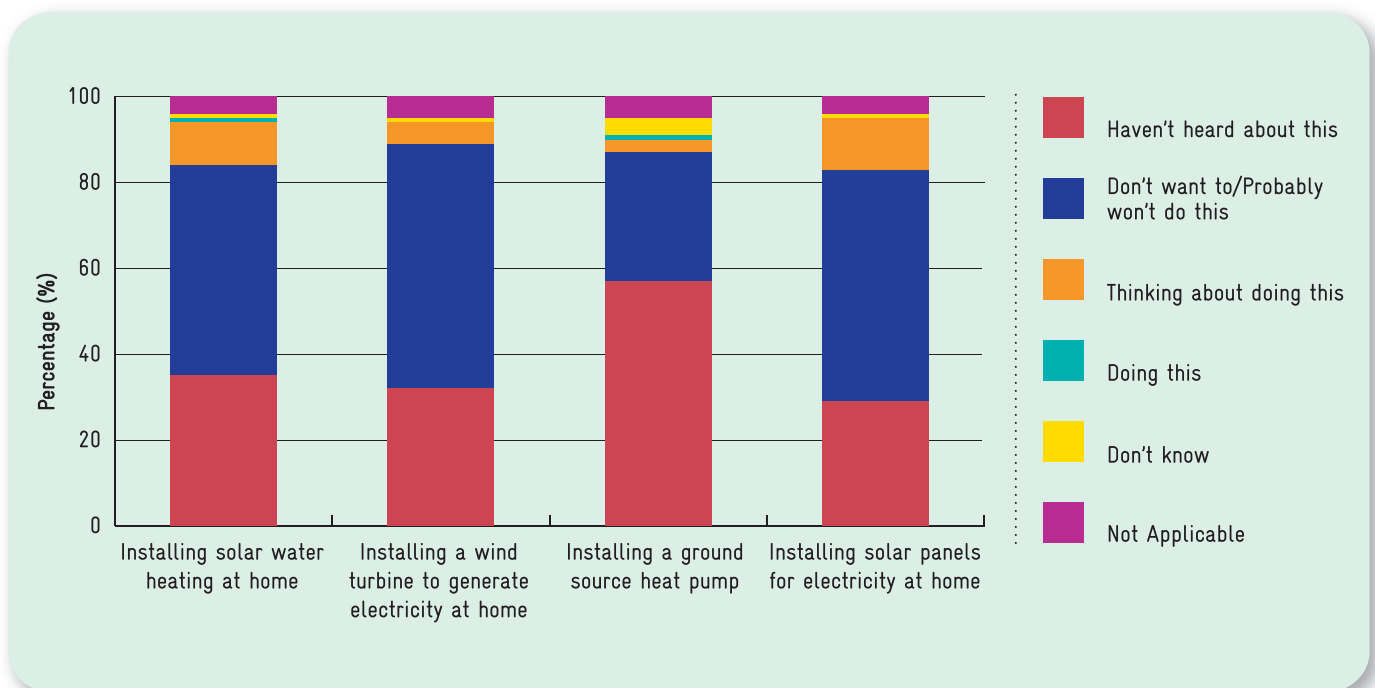
50 Energy Saving Trust (2010) Attitude Tracker.

51 This is based on evaluation data for 2009/10 and reflects the motivations of people who recall contacting us, Energy Saving Trust Evaluation Programme 2009/10, UK.

52 Energy Saving Trust & Defra (2009) Survey of public attitudes and behaviours towards the environment.

53 Taken from Energy Saving Trust Evaluation Programme 2008/09.

Figure 8. Awareness in Scotland of microgeneration technologies⁵²



Evaluation of our services has also shown an increasing desire for more detailed information on the suitability of microgeneration technologies for their circumstances, and the costs and benefits of different technologies. Customers reported wanting help with the 'extra step' involved in 'more technical problems'⁵³. In Scotland, the Scottish Government funded Energy Saving Scotland home renewables advice service is intended to help meet this need. It provides free home visits from trained advisors, who offer tailored advice on which technologies might suit a property, and are able to discuss potential savings and any technical or planning issues. Since October 2008, over 3,000 Scottish households have had a home visit and personalised advice report delivered to them under the scheme, and of these, over a thousand have stated that they are installing or likely to install a renewables system.⁵⁴

*"I felt more able to make an informed choice about the renewable energy source best suited to my needs. I was able to select a supplier and get quotes with more confidence."*⁵⁵

Another indication of consumer interest in microgeneration is the average length of time spent viewing our 'generate your own energy' web pages. Figure 9 illustrates the time spent on different web pages from April to December 2009, and shows that consumers tend to consistently spend longer

on microgeneration pages than on others. During this time, 6.5% of visitors to these UK pages were from Scotland, in addition to visits to the Scotland specific web pages on renewable energy.

While there is a clear demand for information and advice on microgeneration, consumers often report difficulties in finding impartial advice. People report being confused over the amount of information available and not knowing where to start or who to trust.

*"Put solar power into Google and you don't know where to start."*⁵⁶

With many people being very unfamiliar with microgeneration technologies and the significant costs at stake, consumers are very wary of being given inaccurate or sales based information. Many consumers are mindful of the well documented example of micro-wind installations being poorly sited or where new technologies have been shown not to deliver the benefits initially advertised by manufacturers.

This lack of familiarity with microgeneration and confusion over where to get authoritative advice can limit people's confidence in technologies. This can have the effect of perpetuating 'myths':

*"Solar is old technology that has never really worked - I'm going to wait until they've moved it."*⁵⁷

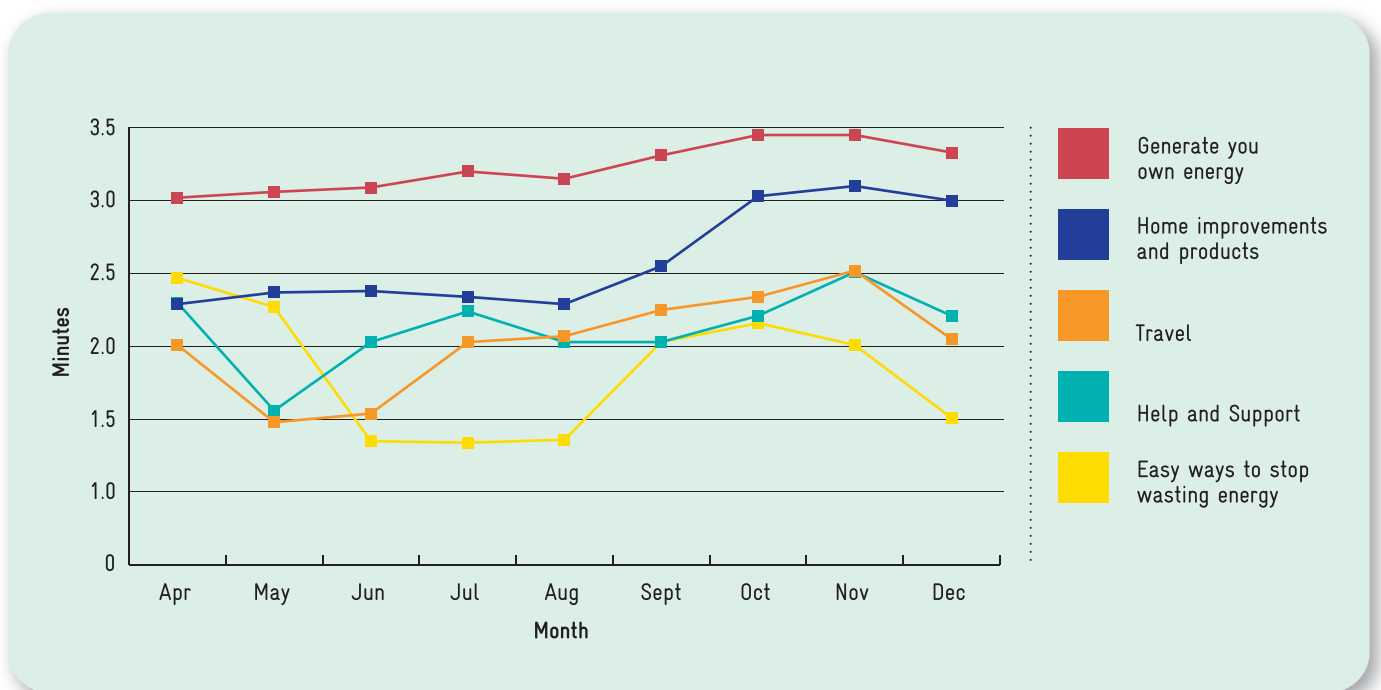
⁵⁴ Energy Saving Scotland home renewables advice service statistics, from 1st Oct 2008 to 31st May 2010.

⁵⁵ Home renewables advice service customer, March 2010.

⁵⁶ Energy Saving Trust (2009) Levers and barriers research, UK.

⁵⁷ Energy Saving Trust (2009) Levers and barriers research, UK.

Figure 9. Time spent on different sections of website



Solid wall insulation

Although solid wall insulation sits within a similar cost range as a number of microgeneration technologies, the challenges posed by consumer perceptions and attitudes towards the technologies are very different.

As illustrated by Figure 10, a large proportion of consumers are simply not familiar with the concept of solid wall insulation and are not aware that it is an option. In Scotland, 30% of consumers say that they have never thought about it. There is also frequent confusion with the terminology with consumers unsure as to whether they have solid walls or not. This is likely to explain why 13% of people report to already have solid wall insulation, when the true level is much lower. Although many people have heard of cavity wall insulation, this is not the case for solid wall insulation.

By providing consumers with information explaining how solid wall insulation works in practice, it is possible to get more insight into the other key barriers. After familiarising survey respondents in the UK with the basic processes involved with solid wall insulation, we asked them to identify the main reasons for them not having such work done⁵⁸. Figure 11 illustrates the top four most cited reasons.

The visual impact of external insulation is clearly a major concern for many consumers. For internal wall insulation

the added hassle of disruption and the need to redecorate are significant issues. Additionally, some consumers, particularly in smaller properties are also put off by loss of internal space. It may be possible for innovations in insulation materials to help overcome these reservations. For example, it is already possible to get a range of external finishes in different types of rendering or pebble dash. Approximately 69% of all homes in Scotland already have a render finish suggesting the application of insulation would not have a negative visual impact, although this percentage is lower in the 20% of Scotland's buildings which were built pre-1919 and will almost certainly have solid walls.⁵⁹

Even if concerns over unwanted visual impacts are eased, the apparent lack of tangible, visible benefits offered by solid wall insulation, which can be enjoyed by occupants and 'shown off' to friends and family, can be a drawback. This is clearly not the case for many microgeneration technologies; especially roof mounted ones, which are highly visible.

While there are a few highly motivated individuals taking up solid wall insulation⁶⁰, consumer interest is relatively low compared with interest in microgeneration.

58 This is based on an online survey in 2009 of a nationally representative sample of 2276 homeowners, with sole or joint responsibility for financial decision-making. Taken from a report for the Energy Saving Trust by Quadrangle.

59 Scottish House Condition Survey, 2002.

60 See for example the Old Home SuperHome network: <http://www.sustainable-energyacademy.org.uk/get-inspired/superhome-locator>

Figure 10. Key barriers to solid wall insulation

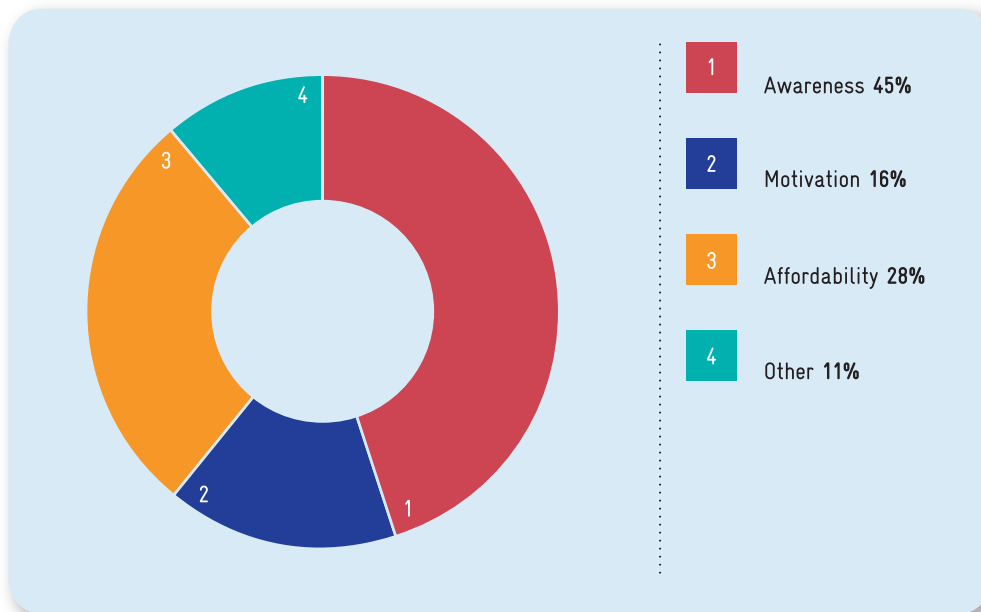
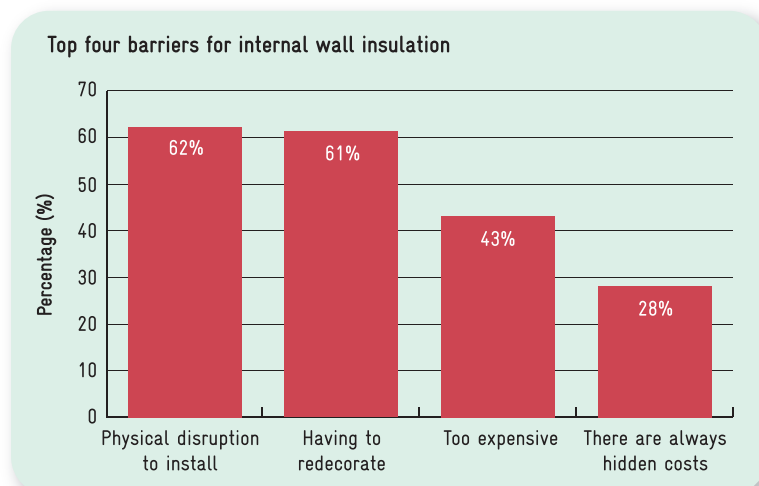
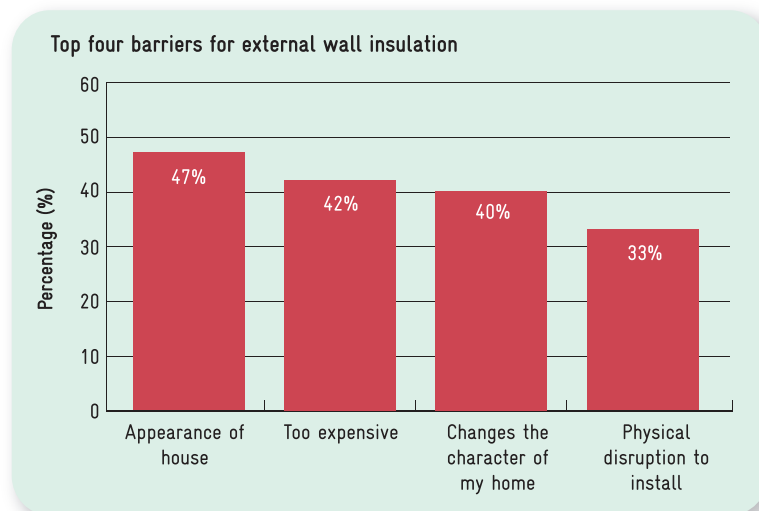


Figure 11. Top four barriers to internal and external solid wall insulation



6.2.2 Cost barriers

While other factors, as discussed above, are important influences on uptake, cost is likely to be the greatest single barrier for the majority of consumers. Both microgeneration and solid wall insulation technologies cost in the order of thousands of pounds, which is typically more than most people are able or willing to pay outright. **Figure 12** shows the breakdown of what the general public say they are willing to spend.

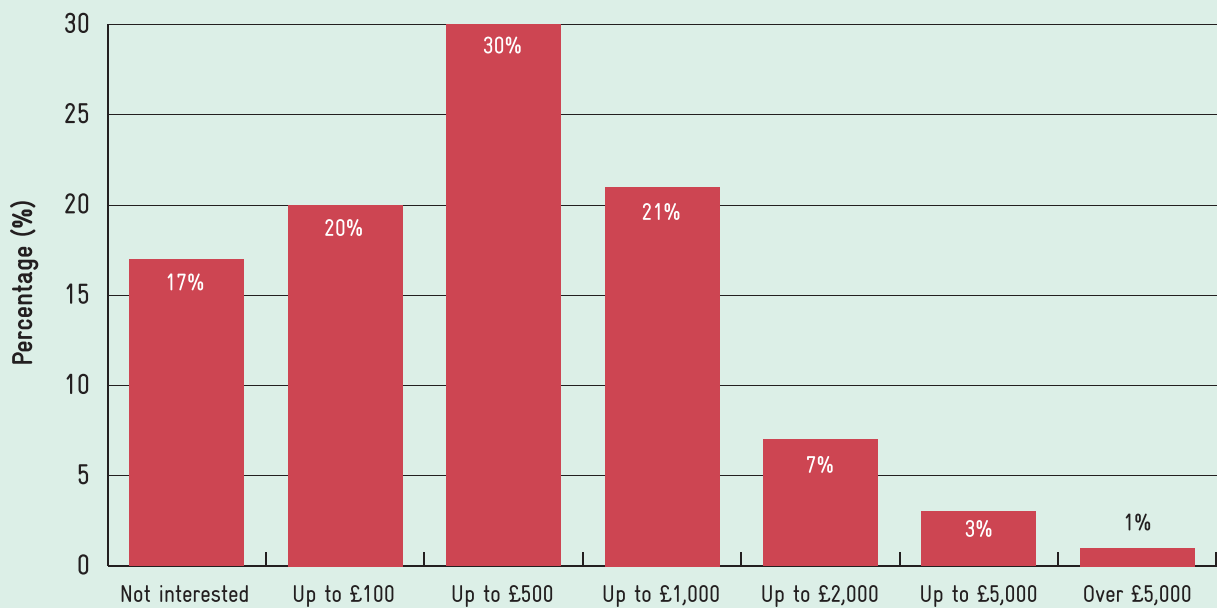
The average of £955 is skewed by the small number of people willing to pay up to and over £2,000. Bill savings from energy efficiency or renewables are typically heavily discounted by consumers. When thinking about repayment periods – the time by which the investment will have paid for itself through bill savings – people tend to apply relatively short timeframes, typically up to 5 years and often only 3 years.

People's willingness to pay is unsurprisingly strongly influenced by their socio-economic circumstances. The stated willingness to pay for socioeconomic groups A and B (company directors and senior managerial positions) is on average £1,127, compared with £899 for C1 (professional, middle management) and C2 (skilled manual workers) and £795 for D and E (unskilled

manual workers and economically inactive). Our practical experience of administering the Energy Saving Scotland home renewables grant⁶² (formerly SCHRI) suggests that even with the grant support, high upfront costs are likely to remain a significant barrier, particularly for lower income households. Our analysis of applicants to the Energy Saving Scotland home renewables grant shows that 81% of households receiving the grant are likely to be from the ABC1 social classes.⁶³

While costs are clearly a barrier for both solid wall insulation and microgeneration, other barriers and perceived benefits also affect consumers' willingness to spend on these technologies. This is demonstrated by using 'contingent analysis' of survey responses where financial variables, such as upfront cost and energy bill savings are kept constant so just the impact of remaining barriers is assessed. **Figure 13** shows the different proportion of people interested in purchasing internal solid wall insulation and solar thermal at different discrete prices, with all other factors held constant. Although the results do not reflect realistic scenarios, the differences in the numbers of consumers willing to purchase internal wall insulation versus solar thermal at any given price reveals different consumer preferences towards the technologies.

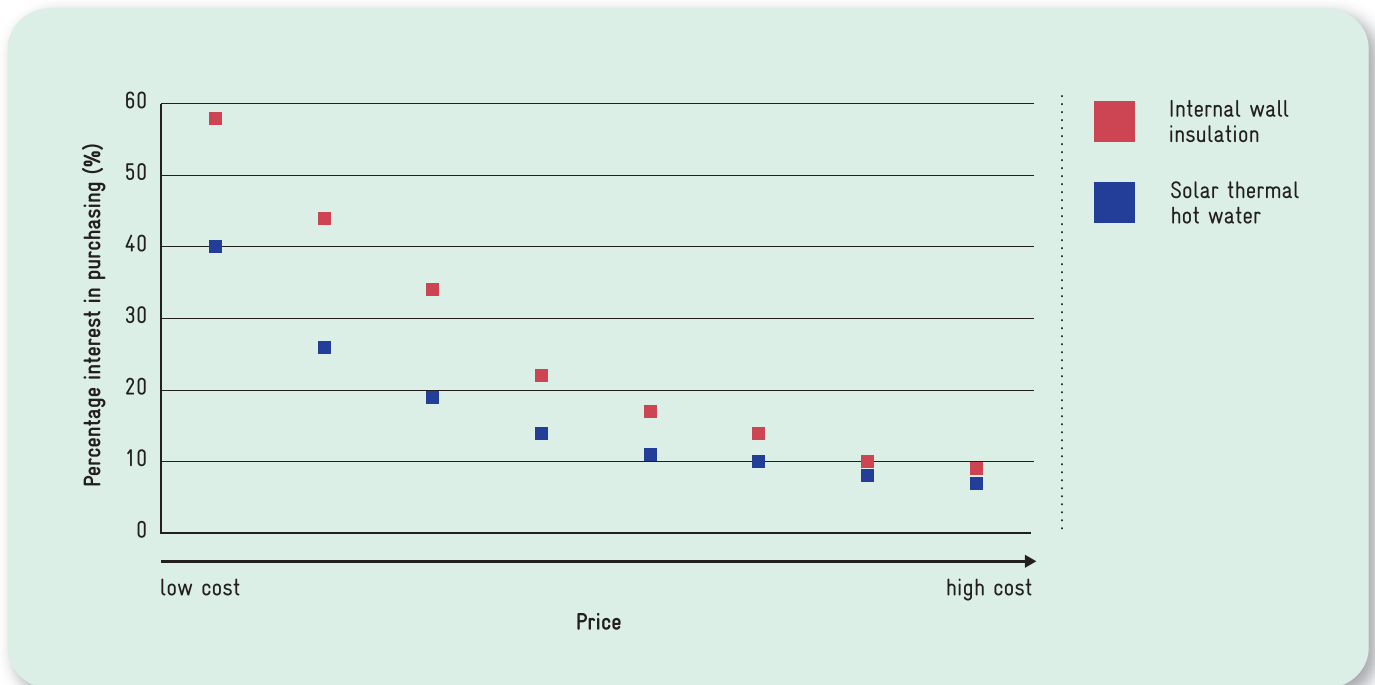
Figure 12. Consumer willingness to spend⁶¹



61 This is adapted from research undertaken on green finance. The figures apply to energy efficiency only but clearly also have implications for microgeneration technologies: <http://www.energysavingtrust.org.uk/Media/Corporate-Media/Events/energy-saving-finance-event/Research-summary>

62 <http://www.energysavingtrust.org.uk/scotland/Scotland-Welcome-page/At-Home/Grants-and-offers/Energy-Saving-Scotland-home-renewables-grants>

Figure 13. Revealed preferences for different technologies⁶⁴



6.3 Making progress

6.3.1 Incentives and access to finance

The introduction of the Feed-In Tariff this year, and the proposed Renewable Heat Incentive, will help encourage greater uptake of microgeneration technologies. However, the high upfront costs will still be a significant barrier for many consumers.

The Feed-In Tariff is likely to make innovative third party financing models more viable. Under such schemes the full upfront costs of technologies could be covered by third parties, such as local authorities or commercial operators, with a proportion of the regular payments used to pay off the costs over time. This could enable consumers to benefit from renewable technologies without having to pay the full upfront costs.

There is a risk that consumer preferences for microgeneration, combined with the added financial incentives from the proposed Renewable Heat Incentive, could lead to the installation of renewable heat technologies in homes where efficiency measures, such as solid wall insulation, have not

been installed. This could lead to 'over-sizing' of heating systems with greater than necessary energy use, running costs and carbon emissions.

It is therefore important that ways are found to incentivise packages of energy efficiency measures, including solid wall insulation. Our research shows that the levels of interest attached to borrowed money and the source of the finance will have a significant impact on the attractiveness of finance packages. Many consumers do not believe they should be exposed to commercial levels of interest when borrowing money to undertake such work. There is also a strong preference for some level of Government involvement in finance schemes to reassure consumers that excess profits are not being made from them, which they consider to be highly inappropriate. The following quotes are typical of consumer attitudes towards financing of low carbon technologies:

"The government should subsidise it so you only pay 2% at most."

"It should be interest free."

63 Based on Mosaic Public sector profile of recipients of a SCHRI/Energy Saving Scotland home renewables grants, Dec 2008 to March 2010.

64 Data is UK and adapted from Quadrangle (2009) Willingness to pay for more expensive measures, Energy Saving Trust and DECC: <http://www.energysavingtrust.org.uk/corporate/Corporate-and-media-site/Media-centre/Library/Publications-and-reports/Exploring-consumer-willingness-to-pay>

"I just kind of think that any loan should be 0% because the government wants you to do it. It's not-, I kind of feel like it's not our fault that things have got so expensive; and therefore if they want us to do something- then I'd do it but I'm not paying interest on it."

*"I don't want to give the banks any more money."*⁶⁵

The Scottish Government's Energy Saving Scotland home loans pilot aimed to build on and explore this consumer preference. Launched in October 2009 and running until June 2010, it was administered by the Energy Saving Trust, and made available zero-interest unsecured loans to householders for a range of measures, including solid wall insulation, low- and zero-carbon heating or electricity generating technologies. An evaluation of the scheme will be carried out in summer 2010.

If responsibility for repayments could be attached to the occupants of a property rather than specific individuals, consumers may be willing to take on longer term repayment schedules, as they may be less concerned about moving out of the property before the measure has paid for itself. This would allow the regular repayments to always be less than the energy bill savings. This is the premise of the Government's planned Green Deal initiative.

Unfamiliarity with the concept of applying a charge to a property makes it challenging to explore consumer attitudes to the idea. There remain some key uncertainties over how consumers will respond to such a scheme. Many of these issues are being explored through the 'pay as you save' (PAYS) pilots.⁶⁶



6.3.2 Using trigger points

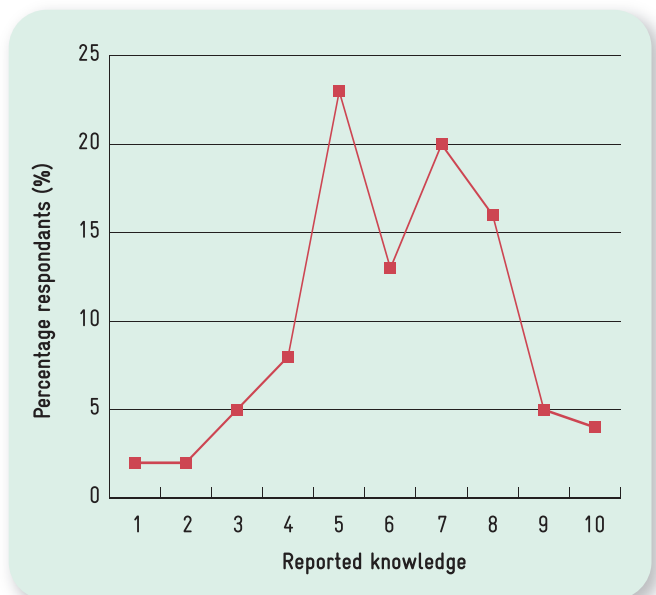
The best time to undertake significant improvements to the efficiency of a home is when other work is already planned or underway. This can help reduce additional hassle and disruption and save substantial costs. Fitting of new kitchens or bathrooms, extensions or significant redecoration projects are potentially ideal opportunities for households to consider installing internal wall insulation. Although less frequent, significant works to the outside of the property or window replacement, where scaffolding is already in place, present an ideal opportunity for external insulation to be applied.

Builders, plumbers and other tradespeople are therefore very well placed to advise households on what efficiency improvements may be possible. Trades people could also advise householders on microgeneration technologies for example when re-roofing or when heating systems need replacing. Our research shows that 84% of tradespeople in the UK would like to offer reliable advice on energy efficiency to households and 80% believe that being able to provide this information will be important in the next few years. Furthermore, 74% of UK homeowners say they would be interested in hearing the ideas of builders on how they could improve the energy efficiency of their home.

*"I would always like to know if there is more you can do and how much impact it would have."*⁶⁷

There are, however, some challenges in realising the benefits of such opportunities. Few trades people feel confident in making recommendations on how to save energy. This is illustrated in Figure 14.

Figure 14. UK builders' self-rated knowledge about their ability to advise customers on reducing energy consumption
(1 = "know next to nothing" and 10 = "extremely knowledgeable")⁶⁸



There is also a reluctance by tradespeople to appear as if they are seeking to push unnecessary work. Many consumers can be sceptical of such suggestions. Just 16% of Scottish households say they would trust the advice of the tradesperson already doing work in their house, if they offered to install energy efficiency measures. 58% say they would just think they were trying to get extra work.⁶⁹

“These tradespeople are businessmen...they are going to try and sell you to do more rooms.”⁷⁰

Our research also suggests that there may be ways of overcoming these challenges. Advice materials which provide reliable information on the potential savings from undertaking different improvements at key trigger points could be referred to by builders to help reassure customers. Additionally, a scheme which provides training to builders and allows them to carry a marque or logo to demonstrate that they have the expertise to provide advice on energy efficiency could be popular amongst homeowners. Although some builders expressed

concern over the potential costs, many builders were also interested in the prospect of such a scheme. This is illustrated in Figure 15.

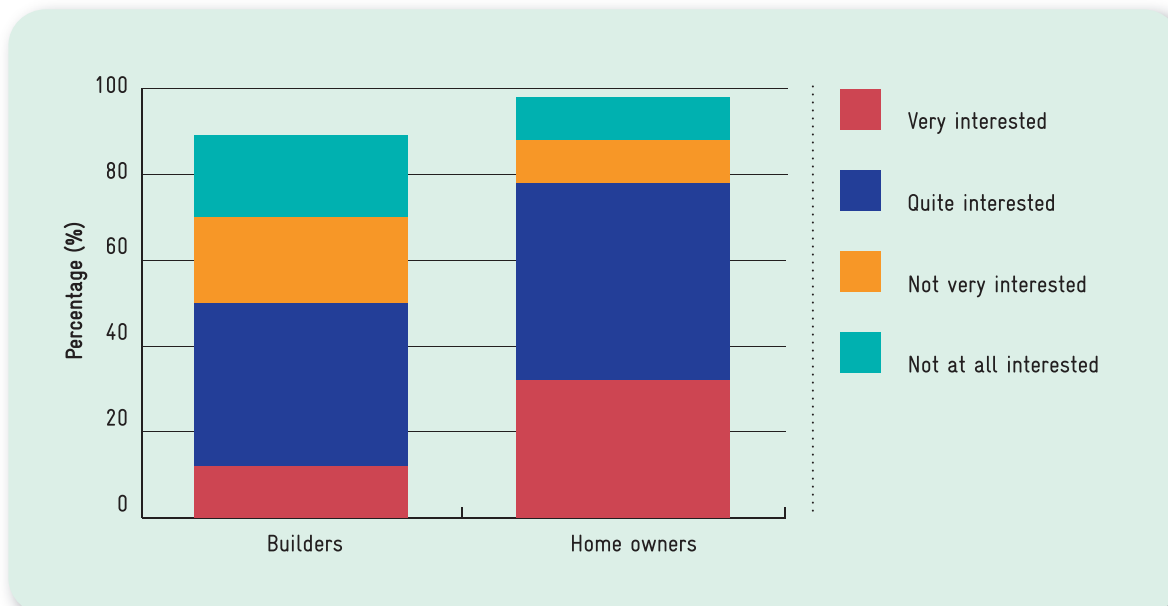
6.3.3 Demonstrating new technologies

Most people have never seen solid wall insulation or microgeneration technologies or at least have not had the opportunity to take a close look and ask questions.

“There are no shop windows you can look in on the High Street to find out all about it.”⁷²

This absence of familiarity means that for many people these measures remain relatively mysterious and this supports the sense that they ‘aren’t really for them’. Demonstrations and homes which people can visit to see and experience new technologies can help provide much needed familiarity and reduce mistrust in new products. In Scotland 48% of people say they are interested in seeing a local demonstration of renewable energy technologies.⁷³

Figure 15. Levels of interest in ‘builder marque scheme’, builders and consumers⁷¹



65 Taken from Quadrangle (2009) Willingness to pay for more expensive measures, Energy Saving Trust and DECC:

<http://www.energysavingtrust.org.uk/corporate/Corporate-and-media-site/Media-centre/Library/Publications-and-reports/Exploring-consumer-willingness-to-pay>, and Energy Saving Trust (2009) Levers and Barriers, UK.

66 The 5 PAYS pilot projects in England are testing innovative approaches to financing low carbon refurbishment. For more details see:

<http://www.energysavingtrust.org.uk/Home-improvements-and-products/Pay-As-You-Save-Pilots>

67 Energy Saving Trust (2010) Trigger Points Research, UK.

68 Energy Saving Trust (2010) Builder Marque Research, UK.

69 Energy Saving Trust (2009) Market research on tradesmen, unpublished.

70 Energy Saving Trust (2010) Trigger Points Research, UK.

71 Energy Saving Trust (2010) Builder Marque Research, UK.

72 Energy Saving Trust (2009) Levers and barriers research, UK.

73 Energy Saving Trust & Defra (2009) Survey of public attitudes and behaviours towards the environment.

7 Energy Saving Trust activities

The Energy Saving Trust delivers a number of services and programmes on behalf of the Scottish Government, as well as DECC and the Welsh Assembly Government, in order to help overcome the various barriers to action identified above. We work in four specific areas:

7.1 Providing expert insight and knowledge about energy saving

We use our 15 years of unique accumulated knowledge to drive our own programmes and to inform government, business and the third sector.

- Our Homes Energy Efficiency Database has in-depth data on 10 million homes in the UK, and 750,000 in Scotland.
- Last year over 300,000 customers searched for a grant using our grant information database – and which now has 395 schemes registered.
- The 365,000 Home Energy Checks we have carried out in Scotland since 2005 (2.5 million across the UK) give unparalleled insight into people's energy use.

7.2 Supporting consumers to take action

We provide energy saving advice people can trust. From simple tips to highly technical data, our impartial information helps over 500,000 Scots and 3.5 million people across the UK take action each year.

- Four out of five of our advice network customers would recommend us.
- We endorse advice energy efficiency advice from others so people get the right facts at the right time, enabling them to make the right decision.
- We refer half a million people to CERT schemes every year: last year we played a part in 54% of all loft insulations.

7.3 Helping local authorities and communities take action on energy saving

We provide practical help and guidance on areas such as social housing, energy efficient communities and public engagement.

- We support 125 local authorities with expertise, training and tools to lead carbon saving in their localities and 93% use our technical guidance.
- We have worked with 96 Climate Challenge Fund Communities in Scotland.
- We are strategic partners in area based energy reduction schemes and deliver the Home Insulation Scheme for the Scottish Government.
- Our online database is a comprehensive resource available to communities on carbon saving and funding.

7.4 We provide quality assurance for goods, services and installers

We help consumers to find the best energy saving products and technologies and support partners in developing and improving their offerings.

- The Energy Saving Trust Recommended scheme endorses over 2,500 products.
- We provide training and guidance to 20,000 housing professionals creating low carbon buildings.
- Our field trials test products in 'real world' situations so consumers know they will perform as claimed.



energy saving trust[®]

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