



Department for  
Business, Energy  
& Industrial Strategy

# Smart Metering Energy Efficiency Advice Project

Annex 1: Review of Energy Efficiency Advice Best  
Practice

Prepared by Ipsos MORI and Energy Saving Trust  
for the Department of Energy and Climate Change

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# Executive summary

## Study background, aims and approach

The Government is committed to ensuring that every home and business in the country is offered a smart meter by 2020. This represents an ideal opportunity to engage households in discussions around energy efficiency. The Government has therefore placed an obligation on suppliers to offer energy efficiency advice during installation visits.<sup>1</sup>

Ipsos MORI and Energy Saving Trust (EST) were commissioned by the Department of Energy and Climate Change (DECC) to create, test and evaluate an approach to delivering such advice at the point of smart meter installation. This report was prepared during the study's initial scoping phase, following a review of forty-six studies and sources in September 2015.

Drawing out evidence from a small-scale review of the literature (on behaviour change, communications and energy use) and key lessons from stakeholders, the report informed the development of advice and supporting materials in the context of the smart meter rollout, as tested in the pilot. Expert stakeholders were consulted through a workshop and were drawn from the areas of domestic energy use, smart metering and energy efficiency advice. This executive summary draws on all sources and opinions considered during the review process.

## Recommendations for the content of energy efficiency advice

- Where possible, advice delivery should focus on practical 'know-how' messages. This requires a focus on what steps can be taken to achieve energy savings, rather than stopping at broad motivational messages. Messages which break down goals into actions – identifying the what, the where and the how – are likely to prove more effective than generic literacy advice.
- Energy efficiency advice should be tailored as much as possible to its target audience.<sup>2</sup> Messages that are relevant to particular consumers are more likely to be effectively communicated. Advice should be concise, avoid long lists of actions, and focus on energy saving measures which are realisable by the household and beneficial in terms of energy saving, cost saving and/or comfort.
- The way the advice is framed and delivered to the household may vary depending on different customer motivations, such as cost savings or the environmental benefits of saving

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<sup>1</sup> This is stipulated in the Smart Meter Installation Code of Practice (SMICoP), available at <http://www.smicop.co.uk/>.

<sup>2</sup> Considerations for consumer groups classed as vulnerable have been included where available in the sources reviewed. As this small-scale review has been completed for the purposes of informing the wider project however, this means that not all groups have been covered in depth. For example, consumers with a first language other than English and households with specific medical equipment needs are outside the scope of the wider study (as these groups are not currently being targeted in the current stage of the smart meter roll-out).

energy. Cost-saving messages can be an effective motivational hook, but may cause confusion and potentially risk the credibility of the message if savings are overstated or not guaranteed. While cost-savings may be realised in the longer term, messages highlighting more immediate benefits, such as warmth and comfort, may be stronger influencers of behaviour change.

- Framing advice messages around a practice or ‘natural’ grouping – such as a daily routine or measures related to rooms of the house – may make more sense to a householder than a series of random actions. Grouping measures this way may help customers to identify behaviours that resonate with them, and avoid prematurely dismissing advice viewed in the first instance as not pertinent or convincing.
- Framing advice messages around social norms – such as showing the energy behaviours of peer groups or average benchmarks for energy use – may be effective at triggering behaviour change. However, evidence for the effectiveness of using social norms in this way is mixed and should be treated with caution. Furthermore, it may not be appropriate to encourage vulnerable customers to lower their energy use to the ‘average’ level. For example, older customers or those with particular long term health conditions may find their heating use is necessarily higher than average.
- ‘Gamification’ – setting games based around energy efficiency behaviours – may be an effective method of engaging particular consumers. It should be noted that the evidence is still mixed with regards to the long term impact of gamification on engagement with energy-efficiency behaviours.
- Messages should be clear, simple and specific about the actions that are being promoted. Actions can be perceived as simpler if they are presented as the norm and easy to undertake. Breaking complex behaviours down into prompting plans can help consumers digest the suggested actions.
- Hard-copy materials can play an important role in advancing energy efficiency advice. These may be more effective when presented as concise factsheets, limited to key messages. Added to this, materials should incorporate evidence-based design techniques to emphasise key messages, such as the use of bright colours, and images tailored to the specific topic of energy efficiency advice. On this latter point, generic, non-relevant images should be avoided; these may be off putting for customers and dismissed as a marketing gimmick.

## Recommendations for how and when to deliver energy efficiency advice

- Advice may need to be framed differently at different times of year to ensure it is seasonally relevant and appropriate. It is important to consider whether certain types of advice are reasonably replicable throughout the year.
- Preparing customers in advance of the installation by informing them that they will receive advice is important for maximising customer engagement with, and reception to, energy efficiency advice (and is a SMICoP requirement). This helps to set expectations and provides customers with the opportunity to prepare questions they may wish to ask.

- During the smart meter installation visit, the provision of ‘one-way’ advice (e.g. through videos or printed material) can help the householder to gain an initial understanding while the installer is carrying out the technical installation. The installer can then use any questions to tailor and clarify advice afterwards. This ‘two-way’ verbal advice has value, giving customers an opportunity to ask questions.
- Advice may be more likely to be acted upon if it is delivered via a combination of formats or channels, e.g. through verbal communication and hard-copy materials, supported by ‘motivational devices’ (objects reminding customers to take energy saving measures) and In-Home Display (IHD) demonstrations. The choice, timing and sequencing of these different communication methods should be practical and operational for installers.
- The use of leave-behind packs could allow customers to access advice after the installation. Including information about using the IHD in these packs could help to reinforce key messages, e.g. using IHD information to measure and record energy use, so encouraging action planning. Leave-behind packs may also reduce reliance on the visit itself and the risk of ‘information overload’ for the customer. These could also include signposting to further sources of energy advice (e.g. online sources).
- Leaflets are unlikely to be effective on their own. They should be combined with verbal advice and a practical “walk through” of ideas. For example, encouraging consumers to play with the IHD during the installation visit may help to link verbal advice to reductions in energy use seen on the IHD; actively engaging customers in energy efficiency advice and helping to convince them of its validity.
- The IHD can be an effective tool to engage customers in energy-saving behaviours, triggering them to take actions rather than solely thinking or talking about ways of saving energy. To achieve this, information must be explained to customers in an accessible, easy to manage format.
- Low cost objects, such as magnets or room thermometers, may be used to remind customers of ways to save energy, acting as motivational triggers and stimulating behaviour change. These may be more effective than householder pledge cards or tip lists, for example, which require mental commitment to a list of measures and may quickly be forgotten.
- Consumers can be motivated to act by following energy saving tips shared by other consumers (e.g. online or via social media). Encouraging engagement in online energy use tracking and pledging, though, can be challenging as it requires intensive prompting.
- There is strong evidence that the trust and credibility of the messenger delivering advice has an important impact on how a piece of information is received. For this reason, the use of trusted, local partners forms part of Smart Energy GB’s strategy. Research shows that installers can be trusted messengers, as they are perceived as experts in their field. This level of trust will be enhanced if installers feel comfortable with the advice content they provide, and have sufficient expertise to deliver it confidently and in an engaging way.

## Recommendations for tailoring advice to specific customer groups

- Opportunities to vary advice content exist at different points in the customer journey for the smart meter installation. For example, existing customer data could be used prior to installation to give installers information about the household or the property they are visiting or, alternatively, installers may more easily establish this information upon arrival. During the installation visit, advice could be tailored through ‘on-the-spot’ questions asked by the installer to establish consumers’ level of engagement, and their awareness and understanding of their utilities and energy consumption. After the installation visit, ongoing communications could be provided by energy suppliers in the form of leave-behind packs.
- Distinct approaches to the delivery of advice may be required for vulnerable customers. In some cases, there may be value in local support networks and housing associations providing tailored advice either verbally or in hard copy where trusted communication channels already exist. In addition to this, an encouraging, non-patronising tone of voice can help communicate certain tailored advice hooks (e.g. messages around financial savings) to particular vulnerable groups, such as low income customers and/or customers living in fuel poverty.
- Advice around heating needs to be sensitive to households where a reduction in temperature would not be safe; for example, among older householders, or those already under-heating. Cost-saving messages require consideration for certain vulnerable groups due to the balance between financial savings and physical warmth.
- Tailoring message content according to income group, tenure and property type can increase its effectiveness. Messages focusing on warmth and fuel-bill savings can be more powerful for lower income groups, while taking an environmental slant can be more effective for higher income groups. Advice to owner occupiers may be more focused on installations, whereas for tenants the focus may be more on behaviour change.
- Certain groups could benefit from tailored advice on understanding the IHD and how to operate it. Evidence suggests this may be helpful for older customers, those from lower social grades, lower income groups, those without formal qualifications and those with (or another member of the household with) a long-term health condition or disability. These groups, who may be more likely to face “information overload” on the day of the visit, might also need ongoing support to feel comfortable with their IHD following the installation visit.
- For low-income households, practical uses for the IHD that do not focus solely on energy efficiency may be of benefit. For example, the IHD could assist with budgeting, enabling customers to track their energy use, limit their consumption and save money.
- Use of games and challenges may be more or less appropriate for different audiences. For example, setting challenges through apps may be less appropriate for those who are less-well engaged in technology and digital communications. This will have some overlap with lower income and older audiences.
- At all stages in the customer journey lower literacy groups should be catered for through the use of images, visual representations, video, verbal advice and active demonstration, rather than an over-reliance on written information.

## Glossary of key terms

**BIT** – Behavioural Insights Team

**COI** – Central Office of Information

**ELP** – Smart Meter Early Learning Project: the government has used the foundation stage of the Smart Metering Implementation Programme to carry out an extensive programme of research into how best to deliver consumer benefits through effective engagement. This has taken the form of a series of research projects, known collectively as the Smart Metering Early Learning Project (ELP) (<https://www.gov.uk/government/publications/smart-metering-early-learning-project-and-small-scale-behaviour-trials>)

**EST** – Energy Saving Trust: an independent organisation providing impartial energy related advice to householders (<http://www.energysavingtrust.org.uk/>)

**IHD** – In Home Display: a portable device that displays current and past energy usage and how much it is costing or will cost. A range of IHDs can be purchased and used independently of a smart meter but as part of the early roll-out customers were offered – free of charge – an IHD to accompany their smart meter.

**SMICoP** – Smart Metering Installation Code of Practice – specifies the minimum standards for energy suppliers to follow in relation to the Customer facing aspects of the installation of Smart Metering Systems. The aim of the Code is for the Customer experience of the installation process to be positive, to protect Customers during the process, for Customers to be given appropriate assurances over what will take place during the installation process, and to deliver Programme benefits, including long term behavioural changes.

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# 1. Introduction

## 1.1 Study background and aims

The Government is committed to ensuring that every home and business in the country is offered a smart meter by 2020. This represents an ideal opportunity to engage households in discussions around energy efficiency. The Government has therefore placed an obligation on suppliers to offer energy efficiency advice during the installation visit.<sup>3</sup>

Informed by conclusions drawn in DECC's Early Learning Project,<sup>4</sup> Ipsos MORI and Energy Saving Trust (EST) were commissioned by the Department of Energy and Climate Change (DECC) to:

- Create, test and pilot an approach to delivering energy efficiency advice during the smart meter roll-out which leads householders<sup>5</sup> to adopt energy efficient behaviours;
- Explore the most appropriate forms of advice delivery for different types of customer, including vulnerable groups;
- Evaluate the piloted approach using feedback from customer and installers; and
- Generate recommendations for energy suppliers, advice providers and other stakeholders based on the findings of the study.

## 1.2 Overview of overall study approach

The overall study, delivered in partnership with two energy suppliers, was grounded in 'action research' with the advice delivery approach developed iteratively across its four main stages.

- Phase One explored best practice for the content and delivery of advice via a small-scale evidence review of key literature and a stakeholder workshop.<sup>6</sup>
- Phase Two created and developed the pilot advice through general public discussion groups and depth interviews with vulnerable customers.
- Phase Three trained installers in the delivery of the developed advice,<sup>7</sup> and piloted it with over 400 customers across four locations.<sup>8</sup>
- Phase Four evaluated the piloted approach in follow-up research with a wide range of customers and installers, as well as through a stakeholder workshop.<sup>9</sup>

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<sup>3</sup> This is stipulated in the Smart Meter Installation Code of Practice (SMICoP), available at <http://www.smicop.co.uk/>.

<sup>4</sup> Among the conclusions of the ELP's (2011-2013) research into the maximisation of benefits with early roll-out customers was the potential for giving suppliers further support to assist in their delivery of energy efficiency advice at the smart meter installation visit.

<sup>5</sup> This study applies to households only, and not small businesses.

<sup>6</sup> The workshop involved 30 stakeholders including energy suppliers, academics and advice providers.

<sup>7</sup> EST trained 13 installers across the two supplier organisations. They were selected to represent a range of experience and engagement with giving energy efficiency advice.

<sup>8</sup> Customers were not specifically targeted for installation visits incorporating the pilot advice; instead a 'business as usual approach' was taken, working with the supplier's standard appointment booking processes. As a result, some customer groups have not been engaged in depth through this study as they were not included in the smart meter roll-out in the piloted areas (e.g. customers without English as a first language, households with specific medical equipment needs and PPM customers).

This report presents the findings of Phase One's exploratory analysis of evidence and ideas in the fields of behaviour change, communications and energy use. The primary purpose of this phase was to collate readily available information on approaches to consumer advice which have previously been evaluated, to inform the following stages of the project.

### 1.3 Approach to Phase One (the focus of this report)

Phase One consisted of two main activities: a small scale evidence review, and a workshop held with experts in the fields of domestic energy use and smart metering. The learning from Phase One is presented in this report which provided the basis for the initial design of the advice materials for testing in the other phases of the overall study.

- **Small-scale literature review:** Over 40 sources of evidence were reviewed for this small-scale review including primary research reports, previous literature reviews and commercial and industry-based guidance. Rather than acting as a fully comprehensive stand-alone evidence review, the primary purpose of this report was to inform the phases of the study to follow. Sources were selected based on advice and prior knowledge from DECC, Energy Saving Trust and Ipsos MORI's Behaviour Change Unit. They were selected via convenience sampling based on professional judgement of quality, and were drawn from the fields of behaviour change (including in the energy, health and finance sectors) and energy efficiency communications, as well as outputs from international smart meter research studies.<sup>10</sup> A full bibliography of reviewed sources is presented at the end of this report. These sources were reviewed with the aim of identifying learning in the following key areas.
  - **Content:** which energy efficiency actions to focus on
  - **Style of messaging:** packaging messages in the most effective tone, style, framing
  - **Format of supporting materials / devices:** use of images, colour, alternative formats
  - **Delivery approach:** lessons for the messenger and timing of delivery of advice
- **Stakeholder workshop:** This was organised and led by DECC with 30 representatives including advice providers, academics, consultants, Smart Energy GB, suppliers, NSAP training providers and individuals working in DECC policy. The workshop was structured into two main discussions and led by facilitators, to explore the following:
  - The energy efficiency behaviours which were felt to be more adaptable through advice delivered during the smart meter installation, and how these 'targetable' behaviours may vary for different consumer groups; and
  - How advice provision at the installation visit may be delivered in a way that encourages and supports customers in adopting these behaviours and what lessons can be learned from experts in the field of behaviour change and energy efficiency advice.

<sup>9</sup> Sixty depth interviews were conducted with customers receiving the pilot advice and follow-up calls gathered feedback from pilot installers. A stakeholder workshop (with similar representation across different types of organisation to Phase One) was also conducted to 'road test' the lessons learned.

<sup>10</sup> Sources were selected by recommendation from: EST, based on the evidence they draw on for their advice delivery through their nationwide advice centres; DECC's own research, and previously commissioned research, around advice delivery; Ipsos MORI's Behaviour Change Unit focusing on cross-sector lessons around effective communications aiming to instigate behavioural change. Across these recommendations, sources were selected to ensure they reflected a range of types of source, including social research, academic literature, communications sector literature, and grey literature.

## 2. Best practice lessons for the content of energy efficiency advice and materials

This section discusses evidence relating to the most appropriate content of energy efficiency advice that could be provided verbally or in hard copy during the smart meter rollout. It focuses on the energy efficiency advice itself: what it should ‘look like’ and what it might include to encourage behaviour change. Sections 3 and 4 then explore the delivery of this advice by installers, and considerations for different customer groups. This section is split into three main areas of best practice.

- **Which energy efficiency behaviours to focus on:** prioritising the measures most likely to save the most energy and to be adopted by customers, at scale
- **How to frame the advice:** using message frames and ‘hooks’ to engage customers
- **Packaging the advice in hard copy:** best practice for the design and format of supporting materials delivering this advice content

### 2.1 What types of energy efficiency behaviours should form the focus?

#### 2.1.1 The importance of teaching energy *know-how*

Energy efficiency advice delivered in the smart meter rollout must balance the behaviours that have the largest energy saving potential with those most likely to be adopted by customers. Burchell’s analysis of the advice given as part of the Smart Communities project<sup>11</sup> discusses types of advice or ‘energy knowledge’, and how this may be implemented at scale. This is relevant to the Smart Metering Energy Efficiency Advice Project (of which this evidence review is part) because the delivery of advice at smart meter installation is for national (large scale) roll out. Furthermore, the in-home setting of advice delivery gives installers the opportunity to engage with customers face-to-face and in the home environment.

Burchell identifies two types of energy efficiency knowledge:

- i. Factual knowledge about energy, energy systems, carbon, ideal attitudes and behaviours, termed *energy literacy*; and
- ii. Practical knowledge required to implement change that emphasises experience, demonstration and practice, termed *energy know-how*.

Know-how might include the tools to identify and understand an energy inefficiency (e.g. identify a draught), as well as to know where to obtain the materials to remedy it and how to install these. Messages like this that break down goals into smaller manageable actions, and help individuals to identify barriers and develop plans to overcome them, might achieve better results.<sup>12</sup>

The provision of energy literacy knowledge is claimed by Burchell to be easier to implement at scale than energy know-how, but to produce less change in terms of uptake of energy efficient behaviours. Meanwhile the provision of energy know-how was found to produce a larger

<sup>11</sup> (Burchell, 2015)

<sup>12</sup> (Behavioural Insights Team, 2014)

change, while being more resource intensive and harder to implement at scale.<sup>13</sup> Know-how, by definition, can be household specific and so may require information on customers' households. However, despite this challenge, the smart meter roll-out provides a potential opportunity to communicate energy know-how since the smart meter installation takes place in-home, giving the installer more information and visibility of the home. The installer also has the opportunity to engage in a conversation with the customer and to explain *how* to save energy in the context of that particular home and the household's energy use.

### 2.1.2 Prioritising behavioural changes to focus on

Internal work in DECC in 2011 supported by the Central Office of Information (COI) recommended that interventions around the smart meter rollout should be designed to target only those factors which the programme is able to impact on. However, it identified a very large number of both behavioural and physical measures as in scope – more measures than are likely to be reasonable to communicate in one visit to a household. Prioritisation of which measures to communicate in energy efficiency advice is therefore important.

As mentioned, one way of prioritising behaviours may be to look at their relative impact in terms of energy saving. For example, the earlier DECC work supported by COI recommended that minimising energy from cooking should be out of scope due to the very low energy impact of cooking activities (5% of household energy). Cambridge Architectural Research estimates the potential energy saving from making small changes to everyday household behaviours, if these were adopted across Great Britain's housing stock.

#### Six behaviours with greatest overall potential for energy saving (CAR):<sup>14</sup>

1. Turning thermostat down by 2 degrees from 20°C to 18°C (33 TWh)
2. Turning thermostat down by 1 degree from 19°C to 18°C (16 TWh)
3. Delaying start of heating from October to November (11 TWh)
4. Wear a thick jumper at home in the heating season (6 TWh)
5. Replace standard shower head with a water efficient shower head and use twice every day (5 TWh)
6. Use radiator valves to turn off heating in unused rooms (4 TWh)

Whilst turning down the thermostat may have a large potential energy saving benefit for a household, this may however conflict with demand for comfort. This demonstrates the importance of including a range of measures in energy efficiency advice, including, for example, avoiding loss of heat rather than simply reducing its supply.

An alternative approach to prioritising messages may be to consider the **propensity of a household to adopt a behaviour**. The households taking part in the British Gas 'Smart Meter Challenge' came up with their own top ten energy saving ideas:

#### Top ten energy savings ideas from households in British Gas 'Smart Meter Challenge'<sup>15</sup>

- Choose the right size of burner or ring for the pan, and always put lids on to keep the heat in

<sup>13</sup> (Burchell, et al., 2014)

<sup>14</sup> (Palmer, et al., 2012)

<sup>15</sup> (British Gas and the Futures Company, 2014)

- Use a steamer to cook vegetables, so you can layer vegetables on top of each other and still use one ring
- Cook two meals at once rather than using the oven when it's half-full
- Wash clothes at 30°C instead of 40°C
- Only boil the amount of water you need in the kettle
- Turn down the thermostat on your hot water by 1-2°C (but keep at 60°C or above to avoid legionella)
- Dry clothes on a line or clothes horse rather than using a tumble dryer or radiator
- Wait until you have a full dishwasher before you put it on
- Don't leave mobile phones charging overnight
- Turn all appliances off standby

The first three of these relate to cooking, and so would be seen as out of scope according to the internal work with COI. Meanwhile, the measures in this list relating to washing and drying clothes, controlling the thermostat and turning appliances off standby were raised by stakeholders attending the workshop as low- (or zero-) cost behaviours relevant to and actionable by all customer groups.

According to the above recommendations, and drawing on stakeholder advice, it is likely that a vast number of energy saving actions, both behavioural and purchasing, could be given as part of energy efficiency advice. When discussing how best to prioritise advice content to something manageable and communicable, stakeholders at the workshop suggested focusing on particular advice or knowledge that will be: (i) relevant to that household, (ii) engaging to that household, and (iii) beneficial to that household in terms of energy saving or comfort. A possible approach to narrowing the canon of energy efficiency advice may be to identify and exclude the following.

- Out-of-scope advice: efficiencies that may have a negligible impact or undesirable consequences.
- Identifiable in advance advice irrelevant to household circumstances: some messages may be disregarded prior to the visit based on available information on that household, for example benefits status, age, or fuel type (off-gas).
- Identified in-home advice irrelevant to household circumstances: household suitability will not be identifiable for most measures, but might draw on household information revealed at the visit.
- Unengaging advice to household: behavioural advice in particular may not be engaging to an individual due to their personal preferences. This may be revealed during conversation, potentially enabling some tailoring by the installer. More likely these will simply be disregarded by the householder.

## 2.2 Framing advice: using message frames and 'hooks' to engage customers

### 2.2.1 Motivational hooks

The evidence review highlights the need to couch energy-saving behaviours within a motivating argument for reducing energy use. It is recognised that people may not think in terms of consuming energy; instead, they may see themselves as consuming its benefits through

warmth, comfort, entertainment and security. Some may also be concerned that saving energy means losing comfort.<sup>16</sup> A range of **motivating factors** may therefore be needed to resonate with different types of customer, including comfort (e.g. preventing heat loss), as well as financial considerations, environmental concerns, competitiveness, cooperation, conformity and altruism.<sup>17</sup> In other words, in addition to providing information on *how* to achieve a particular energy saving behaviour, the message may be framed in terms of *why* this may be beneficial for a particular customer.

One motivating message frame is **using less to save money** – examples of communications below are taken from the Centre for Sustainable Energy focusing on money saving<sup>18</sup>.

**Tips for lower energy bills**  
saving energy saves money

Easy-to-do tips to help you reduce the amount of energy you use, and cut the amount you spend on your gas and electricity.

**Heating and hot water** - this probably costs you the most so make sure you're not being wasteful!

- 1) Make sure furniture isn't in the way of your radiators: it will absorb the heat.
- 2) Turn down the radiators in rooms you don't use much. Use your central heating timer to turn the heating off entirely overnight and when no one is around.
- 3) Keep the heat in. Close the curtains when it's getting dark and tuck them in behind the radiator. Shut the doors to rooms you use most.
- 4) Turn your heating down by 1 degree. Save 10% on your bills. Don't go below 18C if you have health concerns, are elderly or have small children.
- 5) Stay warm with a hot water bottle - it's much cheaper than running an electric blanket for the whole night.
- 6) Don't leave your hot water heating on all the time! Instead set the timer to heat it up for a couple of hours each morning (or at night).

**Appliances** - energy smart technology can save you money in the long term

- 1) Don't use a remote control to turn things off. Press the button on the device or turn them off at the plug. Save £50 to £90 a year by not leaving appliances on standby.
- 2) Be a friend to your freezer. Defrost it regularly and keep it as full as you can to help it run more efficiently.
- 3) Dodge the draught! Fit draught-excluders to your front door, letter box and key hole
- 4) Buying a new TV, washing machine or dishwasher? Look out for the Energy Saving Trust 'recommended' logo, and remember: the bigger the TV, the more energy it'll use.
- 5) Replace old light bulbs. Choose energy efficient ones, or LED ones that use 90% less electricity.
- 6) If you need to dry clothes inside, don't dry them on radiators. Hang them on a clothes horse near an open window, and close the door (this helps prevent mould too).
- 7) Borrow an energy monitor from your local library - this shows you how much energy you're using and can help you work out how to cut down.

See the energy myth-busting page on our Love Your Home website  
[www.cse.org.uk/mythbuster](http://www.cse.org.uk/mythbuster)

Turn over for more energy saving tips

**Cooking** - change habits, not equipment

- 1) Keep lids on your saucepans. You'll be able to turn the hob down and use less electricity or gas.
- 2) Try it on for size. Match the sizes of the saucepan and hob ring you're using.
- 3) Keep the oven door shut as much as possible when you're cooking - every time you open it you lose a quarter of the heat.
- 4) When boiling water, only fill the kettle with as much as you'll actually use (but make sure you cover the metal element at the base).
- 5) Zap it. Use a microwave for small items of food and reheating things, rather than the oven.
- 6) If you have an electric hob, boil water for cooking in the kettle; this is more efficient than bringing it to boil on the hob.
- 7) Make a big batch. Cook more than one meal at a time and freeze it for another day.

**Other money savers**

The Warm Home Discount is a rebate on the household electricity bill (£1.40 for the winter of 2014-15). A Winter Fuel Payment of between £100 and £300 is available if you were born on or before July 5 1953. Cold Weather Payments are made when your local temperature is either recorded as, or forecast to be, an average of 0°C or below over seven consecutive days.

Social tariffs and fixed term agreements might be available to cut costs for low income or vulnerable households. Some energy suppliers have trust funds to aid people significantly behind on payments.

If you receive any type of benefit or are on a low income, it's worth calling your supplier to check your eligibility.

Another way to cut bills is to install home energy efficiency improvements.

Affordable Warmth is a 100% free scheme that includes grants for insulation, draught-proofing, heating and much more.

CSE has formed a partnership with energyhelpline to make switching energy supplier easier.  
See [www.cse-switch.org.uk](http://www.cse-switch.org.uk).

energyhelpline.com  
the energy switching site

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Charity 298740  
Founded: 1979

The Centre for Sustainable Energy is a national charity that helps people change the way they think and act on energy.

Our Home Energy Team offers free advice on domestic energy use to households in Bristol and Somerset (including the statutory authorities of North Somerset and Bath & North East Somerset).

**For energy advice:**  
Phone 0800 082 2234  
Email [homeenergy@cse.org.uk](mailto:homeenergy@cse.org.uk)  
Web [www.cse.org.uk/loveyourhome](http://www.cse.org.uk/loveyourhome)  
[www.facebook.com/EnergySavingAdvice](https://www.facebook.com/EnergySavingAdvice)  
[www.twitter.com/cse\\_homeenergy](https://www.twitter.com/cse_homeenergy)

In their review of 15 energy efficiency schemes, Consumer Focus also found using **comfort and warmth** as a focus is an effective message frame to engage the public.<sup>19</sup> Furthermore, the Cosy Devon campaign below combines messages about warmth with monetary savings, suggesting these frames may work when combined (i.e. comfort *and* financial savings) as well as individually.

**Cosy Devon**  
hug your home

**Love your home for less**

Save energy, save money, keep warm.  
We have great discounts for cavity wall and loft insulation.

0800 512 012  
Or visit [cosydevon.co.uk](http://cosydevon.co.uk)

Partnered scheme  
Cosy Devon is a partnership scheme between all 10 local authorities across Devon and 1 CCG, one of the UK's leading energy companies.  
Cosy Devon is based in Plymouth in Devon. We are the energy hub for the county, and work in partnership with local authorities to help them reduce their energy bills and improve their energy efficiency. We are also working with local businesses to help them reduce their energy bills and improve their energy efficiency. We are also working with local businesses to help them reduce their energy bills and improve their energy efficiency.

For more information, why not call the Energy Saving Trust advice centre on: 0800 512 012  
Or visit [cosydevon.co.uk](http://cosydevon.co.uk)

**Cosy Devon**  
hug your home

**Ooh lovely!**

Save energy, save money, keep warm.  
We have great discounts for cavity wall and loft insulation.

**FREE** to everyone aged 60 and over

**FREE** if you are in receipt of income related benefits

**FREE** if you have a household income of £18,000\* or less

**£99** for loft or cavity wall insulation for everyone else  
or £149 if you have both installed!

**The best deal in Plymouth!**  
Apply for a free, no obligation survey today!

Partnered scheme  
Cosy Devon is a partnership scheme between all 10 local authorities across Devon and 1 CCG, one of the UK's leading energy companies.  
Cosy Devon is based in Plymouth in Devon. We are the energy hub for the county, and work in partnership with local authorities to help them reduce their energy bills and improve their energy efficiency. We are also working with local businesses to help them reduce their energy bills and improve their energy efficiency. We are also working with local businesses to help them reduce their energy bills and improve their energy efficiency.

For more information, why not call the Energy Saving Trust advice centre on: 0800 512 012  
Or visit [cosydevon.co.uk](http://cosydevon.co.uk)

<sup>16</sup> (National Housing Federation, 2012)  
<sup>17</sup> (RAND Europe / DECC, 2012)  
<sup>18</sup> (Centre for Sustainable Energy, 2015)  
<sup>19</sup> (Consumer Focus, 2010)

There is mixed evidence, however, for the effectiveness of using potential financial savings as a hook. Using the IHD to illustrate cost over short timescales, such as a day, may show values that are too small to provoke any action or interest.<sup>20</sup> Meanwhile, evidence suggests the savings achieved with longer term measures (such as insulation payback) can also be difficult for customers to perceive<sup>21</sup> due to the difficulty in measuring the financial saving. Rather than outright financial savings therefore, emphasising **avoidance of waste**, being “**smarter**” and **staying comfortable** may be more compelling ways to encourage these customers.<sup>22</sup>

### 2.2.2 Embedding in existing household practices

In addition to framing advice in motivational terms, social practice theory suggests the context in which actions occur may also be an important factor,<sup>23</sup> since actions themselves – in this case energy saving behaviours – are embedded within existing household practices. As such, framing advice messages around a practice may make more sense to a householder than a series of unconnected actions. Stakeholders consulted during the scoping stage of this study suggested that **grouping sets of behaviours together around different practices, rooms or times of day** may help customers relate to specific groups of behaviours relevant to their lifestyle and routine. For example, a set of behaviours around a morning routine could combine advice on shower duration, morning heating programme, kettle filling and standby usage.

### 2.2.3. Framing messages around social norms

Evidence from communications literature (in fields such as health and finance, as well as energy) suggests the persuasive power and behaviour-forming influence of a message can be increased by using social norms, as in the examples which follow. There are two potential (and different) applications of this evidence: communicating to customers what ‘normal’ *practices* are; and what are ‘normal’ *levels of energy consumption*. It is likely that the former in particular will be relevant for this study.

Behavioural Insights Team’s (BIT) EAST framework recommends describing a desired behaviour as what most people would do in the same context or situation, to encourage individuals to conform, especially to those in their peer group. According to BIT (and others),<sup>24</sup> this fosters **collective action**, **social pressure** and also a social – sometimes public – **commitment** to an action. This strengthens the likelihood that the behaviour will be adopted and sustained.<sup>25</sup>

The National Housing Federation study also found that comparisons to other, similar households may be useful to frame a household’s energy usage and increase the impact of

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<sup>20</sup> (Hargreaves, et al., 2010)

<sup>21</sup> (DECC, 2014)

<sup>22</sup> (National Housing Federation, 2012)

<sup>23</sup> (Shove, 2012)

<sup>24</sup> (Rogers, et al., 2015)

<sup>25</sup> (Behavioural Insights Team, 2014)

advice.<sup>26</sup> Another example of the effective application of social norms is to encourage tax payments to HMRC by using **messages which state that other people are doing so**, thus highlight where the target audience may be falling behind a benchmark or average in relation to peers. This is a “descriptive norm” for which there is also evidence of behaviour change in recycling, energy efficiency and litter reduction.<sup>27</sup>

Stakeholders attending the workshop suggested an equivalent idea for this project, enabling customers to compare their energy use to other similar households in their local area, as has been done elsewhere (see below example). It was suggested this could motivate customers to lower their energy use, and could also serve as a way to initiate conversation between the installer and the customer. However, stakeholders noted that using social norms in this way should not be used in isolation of other contextual information about energy use. Each household may be different in terms of the people living there and their energy needs, hence the importance of the installer initiating a conversation with the customer and tailoring advice (further information in sections 3 and 4).

The impact of social norms was also demonstrated in a study to encourage social housing residents with gas meters to use less gas. When residents were sent a usage letter with a chart showing their level of use in comparison to that of their neighbours (the social norm), there was an immediate impact on behaviour (although this dropped over time) compared to a second group who were sent a standard usage letter with no comparisons to neighbours shown. Introducing a financial incentive/reward to reduce energy consumption had a large and long-lasting impact (over time), however this was reduced to zero impact when combined with the social norm information.<sup>28</sup> The ‘cancelling out’ effect of social norms when combined with financial incentives/rewards may be relevant to the message frames and hooks used in the energy advice given in this project.

Social comparisons were also suggested at the stakeholder workshop as a means of ‘tapping into’ the idea that a person may like to view themselves as environmentally friendly for example, and could use the IHD to challenge this.

#### 2.2.4. Highlighting the impacts of behaviours

Evidence from the communications field also suggests the behaviour-changing influence of advice could be strengthened by including information on the impacts of specific measures. A study of techniques that successfully change health behaviour, for example, highlights the value of providing information on **both positive and negative consequences** – the benefits and costs – of an action.<sup>29</sup> This may also tie in with hooks – such as financial savings or positive impacts on the environment – as discussed in the sections above.

Information on negatives or costs can also be packaged as the consequences of *inaction*, as in the example of messaging to encourage organ donation: “Three people die every day because there are not enough organ donors.”<sup>30</sup> In this example, the messaging hinges on a natural tendency for people to be loss-averse, and **feel the loss of something more than they may feel an equivalent gain**.

This finding is also tested in studies in the energy sector. The internal work supported by COI concluded that the threat of a loss is a stronger motivator than the promise of a gain, and advice

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<sup>26</sup> (National Housing Federation, 2012)

<sup>27</sup> (Behavioural Insights Team, 2012)

<sup>28</sup> (Dolan et al, 2013)

<sup>29</sup> (Dusseldorp et al, 2013)

<sup>30</sup> (Behavioural Insights Team, n.d.)

and guidance which informs consumers how much energy they can save through adopting particular behaviour changes acts in the same way as a 'gain' message. Instead, informing consumers about the loss incurred through *not* adopting a behaviour is a more powerful motivator.<sup>31</sup> One group of stakeholders attending the workshop also noted that talking in terms of 'loss' may be more likely to engage householders than using the word 'waste', which may lead some to feel defensive, guilty or worried about their energy use.

These lessons will need to be borne in mind in the design of advice content – for example framing messages in terms of the losses incurred through inaction (e.g. the otherwise higher cost of a bill/money lost through inaction) may be more powerful than spelling out the benefits of greater warmth and comfort in the home.

### 2.2.5. Gamification and challenges

Stakeholders suggested at the workshop that using games and challenges to engage particular customers (e.g. families with children) may encourage them to remember energy efficiency advice and put it into practice. These stakeholders felt 'gamification' as a form of advice provision could be novel and innovative, and noted that children who take up challenges may pass on learning points about energy efficiency to their parents.

British Gas experimented with 'gamification' in the British Gas National Smart Meter Challenge,<sup>32</sup> a project that engaged fourteen households over a ten-week period. In the first five weeks, households were challenged to complete activities and record the impacts on their energy use. Challenges included an 'energy guzzling game' (using the smart meter to work out what uses the most energy in the home) and a 'kitchen challenge' (to try out energy-saving tips in the kitchen and use the smart meter to measure the impact). In the final five weeks, the project recorded any new energy habits that members of the household had taken up since completing the challenges. The aims of the project were to find out and share ideas about the impact of smart meters on customer attitudes towards, and management of, their energy use. British Gas reported three shifts in customer understanding and behaviour:

- From 'something technical that I can't see' to 'something simple and visible';
- From 'something I can't influence' to 'something I can control'; and
- From 'something that's a time-consuming chore' to 'something that's in line with modern life'.

The 'EAST' framework also highlights the potential benefits of using gaming techniques - via apps, for example - to make a behaviour appear more attractive (and thus more likely to be taken on).<sup>33</sup> However, whilst competitions may lead to a marked short-term change in behaviours, there is less clear evidence that this change is durable when compared to more conventional energy report and community based interventions.<sup>34</sup>

## 2.3 Packaging advice in hard copy: best practice for the design and format of supporting materials

This section draws together lessons from the fields of behaviour change and public communications (for example, Behavioural Insights Team 2012 and 2014) to explore the most effective ways of packaging advice to customers in hard copy (as opposed to communicated verbally). This applies to the way in which advice is worded in text, as well as the graphic design of materials and the types of materials used.

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<sup>31</sup> (Shipworth, 2000)

<sup>32</sup> (British Gas and the Futures Company, 2014)

<sup>33</sup> (Behavioural Insights Team, 2014)

<sup>34</sup> (RAND Europe / DECC, 2012)

Key findings from this small-scale literature review, and discussions and suggestions made at the stakeholder workshop, suggest that to influence behaviour, the format and style of communications should:

- Be **easy** to understand and straightforward, reflective of the desired behaviour change;
- Provide **action-based** messages which clearly define the desired behaviour;
- Use a helpful and encouraging **tone**; and
- Consider **layout**, and appropriate use of **colour** and **images**.

### 2.3.1 Simple content to reflect the desired behaviour change

The 'EAST' framework developed by BIT specifies that for a policy to lead to effective and sustained behaviour change, the content of the message must first make the behaviour appear 'easy'.<sup>35</sup> There are two aspects to this that will be relevant to the style of content tested in this study: the behaviour change itself must be seen as **simple to adopt**; and, as a precursor to this, the message encouraging the behaviour must be **easy to understand**. In practice, this means messaging should use **simple language** (it is argued this can aid its persuasive power)<sup>36</sup> and be formed around a **single main message** (as opposed to multiple messages).<sup>37</sup> Furthermore, the target audience should be able to **understand the message at a glance**.<sup>37</sup>

The EAST framework also proposes presenting the action or behaviour as being easy to adopt.<sup>38</sup> Relevant to this study is DECC's smart meter small-scale behaviour trials, which found that actions believed by the target audience to be **easy to undertake**<sup>39</sup> were among the most effective types of tested interventions. Insight from the EAST framework provides examples of how this may be achieved: an action is more likely to be perceived as easy to undertake if it is depicted as something which is the **default**, part of the everyday **mainstream norm** (rather than niche) and without hassle factors (for example the effort of an action).<sup>40</sup> For example in smart metering, energy behaviours should be depicted as habitual and 'normal', rather than 'different, green or pro-environmental'.<sup>41</sup> It should be noted, though, that some households may be interested in these latter aspects and so tailoring may be important here.

A number of other studies suggest further reducing cognitive load by streamlining the content of the entire communication. For example, this may be achieved by **avoiding visual clutter**. In a study regarding the comprehension of illustrated text, Glenberg and Langton argue that images may engage attention, aid comprehension and memory, particularly if the image is relevant to the individual.<sup>42</sup> However, Levie and Lentz find – in a review of research on the effects of text illustrations – that irrelevant images can be distracting.<sup>43</sup> This could have implications for this study, suggesting that the use of images should be carefully thought out in terms of their use, relevance to, and intention for, the reader. It also suggests careful attention should be paid to the use of images across the full suite of hard copy materials, as opposed to only considering each image in isolation. More evidence on the appropriate use of images is included below.

<sup>35</sup> (Behavioural Insights Team, 2014)

<sup>36</sup> (Behavioural Insights Team, 2012)

<sup>37</sup> (Royal Mail, n.d.)

<sup>38</sup> (Behavioural Insights Team, 2014)

<sup>39</sup> (DECC, 2015)

<sup>40</sup> (Behavioural Insights Team, 2014)

<sup>41</sup> Internal work supported by COI

<sup>42</sup> (Glenberg & Langton, 1992)

<sup>43</sup> (Levie & Lentz, 1982)

Lessons learned through a National Housing Federation communications trial also suggest that the avoidance of visual clutter may be achieved by removing irrelevant content (in text, as well as images).<sup>44</sup> For example this might mean using **short leaflets with key advice or illustrated ‘top tips’ guides**, rather than large booklets. Burchell’s “Smart Communities” project<sup>45</sup> supports this: the study found comprehensive reports overwhelmed householders, whereas small, factsheet-style reports (in this case with seven key ideas) worked well.

### 2.3.2 Defining the behaviour using action-based messages

Communications literature – including lessons from other sectors – asserts that in order for a behaviour to be adopted the desired action must be **clearly defined**. This could mean spelling out the ‘who’, ‘what’, ‘where’, ‘when’ and ‘how’ for example,<sup>46</sup> using **specific terms** and timeframes to inform the target audience not just what to do, but how they can go about doing it (i.e. achieving objectives around teaching energy know-how.<sup>47</sup> In a study on how to change clinical behaviour by making guidelines specific, the use of ‘**concrete statements**’ and wording was recommended to aid comprehension and recall of the behaviour (which are precursors to an action being undertaken).<sup>48</sup> In “Learnings from the DECC Community Energy Efficiency Outreach Programme”, households responded best when they were clear about what was being promoted and what was required of them.<sup>49</sup>

In the above recommendations, once the target audience has been persuaded to take up a behaviour, the ‘concrete’ and specific statements help form action or ‘**prompting-plans**’ to enable the individual to work out how to get to the end goal. This is especially important if the action is not immediately seen as achievable. This evidence argues guiding people to identify the when, where and how of fulfilling their intentions can increase their likelihood of following them through.<sup>50</sup> Furthermore, making concrete plans has been found to help people implement their intentions, but can also create a feeling that the participant has made an agreed commitment to undertake a behaviour.<sup>51</sup> Plans may be most effective when they are precise (acting as cues when particular moments occur), and public (exploiting the increased impact of social pressure and accountability).<sup>52</sup>

### 2.3.3 Tone of voice

The evidence reviewed also suggests that these ‘concrete statements’ are more effective if they use a **helpful and encouraging** tone. Therefore, they should **not be too direct**, avoiding the perception that they are too forceful.<sup>53</sup> Stakeholders attending the workshop highlighted the former as being crucial for effective engagement with householders, to avoid customers feeling blamed for ‘bad’ energy behaviours, thereby making them less likely to engage with, or have the confidence to act on, further energy efficiency advice.

In the Smart Meter Early Learning Project, lessons drawn from the public health sector included avoiding simply telling the target audience what to do, and using supportive messages. This support and help can be achieved, for example, by reminding the target audience they are not

<sup>44</sup> (National Housing Federation, 2012)

<sup>45</sup> (Burchell, et al., 2014)

<sup>46</sup> (Rogers, et al., 2015)

<sup>47</sup> (Burchell, 2015)

<sup>48</sup> (Mitchie and Johnston, 2004)

<sup>49</sup> (Databuild / DECC, 2014)

<sup>50</sup> (Gollwitzer, 1999)

<sup>51</sup> (Rogers et al. , 2013)

<sup>52</sup> (Rogers et al. , 2013)

<sup>53</sup> (DECC, 2015)

alone, and highlighting where they can find help. Emotions can also be engaged to create supportive styles, e.g. using humour, fear, sympathy or aspiration.<sup>54</sup>

In this study, testing materials during Phase Two will explore the balance between messages which are clear and direct, and those which may be too forceful. It was noted in the stakeholder workshop that an installer asking, for example, “how would you like your home to be heated? What time do you get up? Are you happy for it to be cooler for the first 20 minutes you are awake?” is unloaded and likely to be more effective than saying “You should delay putting your heating on in the morning, and you should turn the thermostat down”. Again, the testing stage of the development of advice and supporting materials in this study will be vital to understanding the types of words or phrases which do and do not help create this encouraging tone.

### 2.3.4 Layout and use of colour and images

Research on communications materials in the field of energy use and more widely provide lessons relevant to the graphic design of hard copy materials for this study. It will be important, once the content of text and images is agreed, to test options for the layout of this information on the page, and the colours and images used.

Royal Mail eye tracking research<sup>55</sup> provides the following insight that may be relevant to **layout** in particular.

- The front of a leaflet or letter is looked at more than the back (nearly two and a half times as much).
- Tops of these materials are looked at more than bottoms.
- Actions required are more likely to be noticed if they are placed to the right of the page, above or in line with the headline, and if they are in a different colour.
- Putting key content in headings, boxes, images or bold text, as these are places readers are most likely to focus, ignoring more detailed information.
- If relevant to the product or message, an unusual leaflet shape or size can also be a very effective attention-grabber.

Further evidence, when added to the above, provides insight that may allow the testing of options combining different colours schemes, layouts and images. For example, evidence suggests the use of bright red or blue makes information more likely to be believed than the use of middling shades of green, yellow or pale blue.<sup>56</sup> While too many colours may be confusing, using darker colours for statements that may be unfamiliar to the reader can make them more likely to be perceived as truthful than if printed in a lighter colour<sup>57</sup>.

While keeping in mind the aforementioned need to avoid visual clutter and too many images, previous studies stress the **importance of including visuals with colour** in materials. For example, the DECC heating control trial found that tenants liked the use of colour (and also the inclusion of animated characters) in the leaflets tested, and others felt the content could have been delivered by images alone.<sup>58</sup> Stakeholders also emphasised that, from their experience, text needs to be accompanied by visuals and diagrams to draw attention to the materials and to help convey the messages communicated in the text. The National Housing Federation

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<sup>54</sup> (DECC, 2015)

<sup>55</sup> (Royal Mail, n.d.)

<sup>56</sup> Daniel Kahneman, TF&S

<sup>57</sup> <http://www.sciencedirect.com/science/article/pii/S1053810099903860>

<sup>58</sup> (DECC, 2014)

“Lessons Learned” report<sup>59</sup> also stresses the importance of using pictures, particularly for overcoming language barriers.

The EAST framework<sup>60</sup> also highlights the value of using images to personalise communications. The example is given of attracting attention of non-payers of car tax by including in the letter a picture of the offending car. This resulted in payment rates rising from 40-49 per cent. The equivalent in an energy context may be to include thermal imaging, showing a specific house where heat is being lost.

However, various trials have shown that not all types of image will be successful. In previous work, photographs have increased the effectiveness of testimonials in encouraging charitable giving.<sup>61</sup> A BIT investigation into ways of increasing the proportion of people registering to become organ donors, though, found that the inclusion of a photograph of a group of people reduced the desired effect (it was less successful than the control and the least successful of eight treatments overall). It is hypothesised that the use of a stock photo discouraged individuals, who saw it as a marketing gimmick.<sup>62</sup> It will be important for any materials developed for consumers to receive during the smart meter customer journey take on board these key principle designs, and abiding by them will give the best possible chance that materials providing energy efficiency advice are engaging.

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<sup>59</sup> (National Housing Federation, 2014)

<sup>60</sup> (Behavioural Insights Team, 2014)

<sup>61</sup> (Team, 2013)

<sup>62</sup> (Behavioural Insights Team, n.d.)

## 3. How and when to deliver advice

**This chapter draws on evidence relevant to the timing of advice delivery – both within the installation visit and beyond – and best practice for *how* to deliver advice that encourages behaviour change. Considerations for ‘how’ to go about giving advice include the format or channel being used, and the messenger themselves. Both are highly relevant to this study. Installers will act as the messenger of advice, communicating it using verbal and hard copy formats, and demonstration of the IHD as well as leave-behind motivational devices and factsheets. The section is structured as follows.**

- When to deliver advice: considerations for what might come before, during and after the smart meter installation visit to best engage customers
- How to deliver advice – formats for this engagement before, during and after the installation visit: encouraging customer engagement with the IHD; formats for encouraging engagement with energy efficiency advice and purchasing behaviours; and formats for ongoing engagement beyond the smart meter installation
- How to deliver the advice: tone, timing and the importance of a trusted and credible messenger

### 3.1 Considerations for when to deliver advice

#### 3.1.1 Before the installation visit

It was noted in the stakeholder workshop that planning of the advice approach should consider seasonality, and the subsequent impact on the pertinence of particular message frames and take-up of advice (‘keeping warm and cosy’ for example may have less impact as a message in summer than in winter). It was noted that in-home energy audits are deemed best scheduled during the heating season, and most effective in autumn and spring when households are likely to be adjusting their heating controls. Other specific measures may also be seasonal, such as “line dry your clothes” in spring and summer.

It was also noted by stakeholders that – with reference to the booking of the installation itself – there may be value in informing the customer prior to the installation that they will receive energy advice.<sup>63</sup> This may help ensure the customer is not just expecting a technical meter exchange, and may encourage them to think about energy efficiency in advance of the visit. There was a suggestion that repetition of key advice prior to and during the visit may also help improve customer recall. Another way of providing advanced notice or ‘teasers’ of the advice ahead of the smart meter installation may be to engage community groups, to raise awareness among customers before and alongside the rollout.

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<sup>63</sup> This is in fact a requirement of the Smart Meter Installation Code of Practice. SMICOP states that supplier ‘communications regarding the Installation Visit should clearly explain to the Customer what the Installation Visit will entail; the need for the Customer to be at the premises, an indication as to how long a typical Installation Visit takes, that safe access, working conditions, and access to the meter will be required, that the gas and/or electricity supply will be shut off, that the operation of the Smart Metering System will be demonstrated, **and that Energy Efficiency Guidance will be offered**’

### 3.1.2 During the installation visit

Evidence presented in this section suggests advice may be most effectively communicated through a combination of **'one-way' communications** (e.g. via printed materials given to the customer) to help the householder gain an initial understanding before and during the installation, and **'two-way' conversation** that allows the customer to ask questions. The latter may allow customers to reflect on the materials, and installers to tailor advice to the household composition and context. The following findings suggest the formats that may engage customers specifically during the installation visit itself.

Consumer Focus<sup>64</sup> and National Housing Federation<sup>65</sup> both describe behaviour change as best delivered through face-to-face, one-to-one interventions (as will be the case in this study, where the installer will act as the advice messenger). However, Darby and Liddell<sup>66</sup> found in focus groups with experienced installers that many experienced difficulties in getting customers to interact and ask questions during the visit, encountering householders who listened only passively. The DECC/BIT heating control trial in Newcastle<sup>67</sup> also suggested that the timing of providing different formats for the information, and the combination in which they are delivered, will be important in determining levels of engagement.

When discussing the installer role in delivering advice and how this might work in practice, stakeholders attending the workshop noted that first – before initiating a conversation with the customer – installers could think about how the advice may be tailored upon visual inspection of the property. The conversation with the customer offering energy efficiency advice would come after this, and would be based on what the installer sees (as well as what the customer says or asks): the appliances used in the property, for example, and its physical interior and exterior (including the roof and walls and their level of insulation).

Stakeholders attending the workshop further suggested that, in order to facilitate engagement, there could be merit in providing a YouTube video, a DVD or hard copy materials that the customer can look at while the installation takes place, before talking to the installer and asking questions.

The use of a tool or survey for the household to complete during the installation was also discussed during the stakeholder workshop. The functions of this survey would be to:

- Engage the customer while the installer is carrying out the technical installation;
- Route the installer script to the most appropriate set of advice and recommendations; and
- Collect data to help to provide more tailored advice post-visit.<sup>68</sup>

The internal work supported by COI concluded that ideally an installation visit would involve the consumer taking an active part in proceedings, ensuring that installer's advice is listened to, questions are asked as necessary and the IHD is demonstrated to the householder. Following the installation, the IHD is an enabler to further behaviour change and so it is vital that the household keeps the device plugged in and prominent, and that they understand and can use the data.

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<sup>64</sup> (Consumer Focus, 2013)

<sup>65</sup> (National Housing Federation, 2012)

<sup>66</sup> (Darby & Liddell, 2015)

<sup>67</sup> (DECC, 2014)

<sup>68</sup> DECC Smart meter energy efficiency workshop. 07/09/2015

Additionally, whilst some on-the-spot information can be given at installation stage (e.g. seeing what different appliances use) the installer also needs to demonstrate ways of using and staying engaged with the IHD over the longer-term.<sup>69</sup> Using the IHD to help communicate energy efficiency advice is discussed further below.

### 3.1.3 After the installation visit

A common view among stakeholders engaged in the workshop was that the smart meter visit should be just the start of the engagement with consumers around energy efficiency, indicating the importance of follow up contact. Since advice may not be digestible all in one go at the installation, it was felt important by stakeholders that reliable advice and information is still accessible after the visit (further information on the format of leave behind packs is below).

Evidence shows there is also household appetite for post-installation information, for example, to encourage effective use of the IHD and check if the customer still understands how to use it.<sup>70</sup> In the Smart Meter Early Learning Project, while 76 per cent of customers did not see any disadvantages to the smart meter, concerns were expressed over difficulties in understanding the IHD. As such, there were calls for more information on how to use it, potentially as part of a follow-up phone call.<sup>71</sup> The same study showed households who unplug their IHDs following installation of a smart meter do not do so as a result of a particular time passing, but instead because they were just not interested, or they felt they had saturated the information needs they had on their energy use.<sup>72</sup>

It is important, therefore, to consider the most appropriate format for information delivered as a follow-up to the installation visit; aiming to promote more sustained engagement in energy efficiency behaviours.

## 3.2 How to deliver advice: formats for encouraging customer engagement

### 3.2.1 Using the IHD and effective formats to engage customers with it

The Smart Meter Early Learning Project<sup>73</sup> found that an effective explanation of the IHD, provided alongside the smart meter, is likely to be a key means to engage householders in discussions around energy efficiency. The findings of an additional IHD trial supporting this assertion are shown below, suggesting that the device can help to break the stagnation point between deciding that something is a good idea and actually taking action.

#### Case-study: University of East Anglia IHD trial<sup>74</sup>

A trial of three different types of IHD across 75 homes found that following use of the IHD:

- Most participants bought additional low energy lighting
- 25% were considering installing insulation
- 35% were considering installing solar panels

<sup>69</sup> (Ipsos MORI / DECC, 2015) (National Housing Federation, 2012)

<sup>70</sup> DECC/Ipsos (2015)

<sup>71</sup> DECC/Ipsos (2015)

<sup>72</sup> DECC/Ipsos (2015)

<sup>73</sup> (Ipsos MORI / DECC, 2015)

<sup>74</sup> (University of East Anglia, 2010)

- Participants were tending to turn devices and lights off when not in use
- Other behavioural measures such as not over-filling the kettle and keeping the freezer full.

The stakeholder workshop conducted during the scoping stage of this study generated the following ideas for **how the IHD should be used to promote energy efficiency awareness and behaviour**.

- Use the IHD to identify surprise high energy using activities or behaviours, helping to show simple changes that could have a big impact on bills e.g. electric shower, high-spec TV, tumble dryer: some stakeholders did warn of customers who are under-heating their homes (and for whom it would not be appropriate to encourage even less use of the heating). In such cases, it could be helpful to demonstrate that rather than turning off all heating entirely, it may be cheaper to use a small heater in the main room used (particularly for single occupiers of properties).
- Looking at the current colour/state of the IHD and why is it showing that colour – “what are you using right now?”: this should be supported by a list of ‘know-how’ measures to help the customer work out *how* to reduce the energy consumption shown on the IHD.
- Show how the IHD can be used to budget energy spending: some IHDs can send a message if the weekly budget is near/exceeded which encourages more ongoing use of the IHD rather than one-off engagement.
- Promote tinkering with the IHD to test different things and spend time learning from it: this could be assisted by installers setting out an IHD challenge/experiment including a few tasks to get the household used to using the IHD.

It was noted by stakeholders, however, that demonstrating gas use will be much harder than electricity use and not possible within a short slot during the installation visit. The traffic light system on IHDs is also only for measuring electricity use.

Considering the **formats used to engage customers with the IHD**, research conducted with installers<sup>75</sup> shows that the IHD is typically introduced to consumers through a **combination of hard-copy material, verbal explanation and hands-on ‘playing with the IHD’**. Hard-copy materials should take on board the good design principles and effective messages framing techniques already discussed. Furthermore, the National Housing Federation trial<sup>76</sup> emphasised the importance of **demonstration and reinforcement** in the provision of information. This was confirmed in the Smart Meter Early Learning Project<sup>77</sup> in relation to IHDs more specifically, with demonstration of the IHD proving an important tool for conveying advice and encouraging engagement.

While leaflets are likely to form a key part of information delivered during the smart meter visit, research evidences the importance of the timing of providing these, and also the way in which the written information is combined with other modes of delivering advice. For example, the Newcastle heating control trial<sup>78</sup> found that when leaflets were given out at the end of the visit (without engagement or advice) very few read them, suggesting **leaflets are not effective on their own**. While tenants involved in the trial were receptive to leaflets (in this case, giving advice on how to use heating controls, but the same could apply to IHD use), this was only as an addition to verbal advice; acting as a reminder of the advice given.

<sup>75</sup> (Darby & Liddell, 2015)

<sup>76</sup> (National Housing Federation, 2012)

<sup>77</sup> (Ipsos MORI / DECC, 2015)

<sup>78</sup> (DECC, 2014)

The installers consulted by Darby and Liddell<sup>79</sup> suggest the written component of this may also be effectively delivered through **use of video**. This study showed video can be more engaging, help prevent written information overload and be more suitable for consumers with limited literacy. Video options include a YouTube channel or DVD (which would also cater for those with no internet access). These videos could be given to consumers to watch whilst the gas meter is exchanged (making efficient use of the visit time), with questions asked at the end (some suppliers have already used this model).

### 3.2.2 Formats for promoting engagement with energy efficiency advice during the visit

A key discussion at the stakeholder workshop was how to motivate consumers who did not feel they could take any energy efficiency action, either because of the nature of their property or because they could not see the added benefit of it. One suggestion was to develop a **workbook structured by rooms of the house**, helping the consumer to think through what's important about the fabric of their building e.g. windows, external walls, etc. This ties in with the discussion held around 'packaging' behaviours into room-based sets, so that customers do not focus, or alternatively dismiss, a specific individual behaviour at the expense of other related ones (for example, because the specific one chosen is already obvious to them, or is not appropriate). This was felt to be potentially helpful for people living in listed properties or in conservation areas, to tackle immediate assumptions that no action was possible.

The installer could also take a 'walk and talk' approach to giving energy efficiency advice verbally, by room. Given the challenge of time-constraints at the installation, it may only be possible for the installer to do this in one initial room (rather than a 'walk-round' of all rooms). Stakeholders suggested this could be the customer's most used room, one they have not previously considered or a room they struggle to keep warm (e.g. a room with lots of external walls, or an extension).

A range of previous trials around the delivery of energy efficiency advice have promoted the value of **thermal imaging** for engaging consumers in discussions around energy efficiency behaviours.

#### Case-study: Thermal image testing, E-viz<sup>80</sup>

Showing thermal images encouraged stronger energy related intentions along with a stronger belief that they would benefit from draught-proofing.

Compared to a control and audit-only group, a group of householders that received a carbon footprint audit and thermal images of their home reported an increased number of energy saving actions at a 1-year follow-up (Study 1).

Compared to an audit-only group, householders that received an energy saving audit with thermal images were nearly five times as likely to install draught proofing measures (Study 2).

Personalised thermal images, compared to images of other peoples' homes, encouraged stronger energy related intentions in householders along with a firmer belief that they would benefit from



<sup>79</sup> (Darby & Liddell, 2015)

<sup>80</sup> <http://www.eviz.org.uk/>

### taking draught proofing measures in their home (Study 3).

Burchell's report on the Smart Communities project<sup>81</sup> also suggested that thermal imaging elements gave a visual experience that was more powerful than other sensory experience in this context. Thermal imaging was also found to be a good engagement tool in a Consumer Focus study.<sup>82</sup>

A constraint with this approach, however, is that thermal imaging requires a temperature differential between indoor and outdoor spaces, so will not be possible to implement throughout the year.

The E-Viz project also tested a range of other information formats to encourage engagement in energy efficiency advice, although limited evidence of their relative effectiveness has been reported and so it is difficult to make a judgement on the value of replicating these modes.

- “Virtual Reality Home” - an interactive virtual home where users can see the impact of different installations and behaviours: this may be particularly effective for more extensive retrofit works or technologies that may not be easily described.
- An educator app in the form of a dynamic building simulation that allows users to explore tailored options and so help them to save money in their home, e.g. the Energy Saving Trust's Home Energy Check.<sup>83</sup>

### 3.2.3 Developing effective leave-behind packs

Stakeholders at the scoping workshop recommended developing **'leave behind' packs to be given at the end of the visit**. The purpose of these would be to act as a memory jog but also to help engage other members of the household that were not present during the installation.

Leave-behind packs should be tailored as far as possible (further information on tailoring can be found in the next chapter). Mailing or leafleting with energy efficiency advice has been found to be less effective when distributed as a generic mail out, but more effective when sent to households known to be interested and with advice relevant to their situation.<sup>84</sup> A range of different leave-behind packs could be developed which are tailored to fit particular household groups, for example, a family pack including games or activities for children and links to curriculum activities.

Beyond written information, leave-behind packs at the smart meter installation visits could also **include simple devices and tools** to encourage customers to “play” with the ideas provided. Examples for this are provided in DECC's Small-scale Behavioural trials during the Smart Meter Early Learning Project.<sup>85</sup> The key conclusions from this were that the use of simple motivational devices appeared to have helped promote and reinforce energy saving behaviour.

The most commonly used physical motivational device was the **'Snuggle Blanket'** used in the Green Doctor Trial, although the **temperature gauge** used in the same Trial appears to be a stronger motivator for intended energy saving behaviour change. Over half of respondents who used the temperature gauge also turned down their heating, as a respondent in the Leeds Phase C Door-step visit intervention reported:<sup>86</sup>

<sup>81</sup> (Burchell, et al., 2014)

<sup>82</sup> (Consumer Focus, 2013)

<sup>83</sup> Home Energy Check available online at: <http://hec.est.org.uk/>

<sup>84</sup> Databuild/DECC (2014)

<sup>85</sup> (DECC, 2015)

<sup>86</sup> (DECC, 2015)

*“I made changes because I use the temperature card, if it says 18 I turn down the heater.”*

Of the remaining two devices used in the Green Doctor Trial, a shower timer and a hot water temperature gauge, evidence suggests that neither were extensively used nor did they prompt many to undertake the associated energy saving behaviour. The **magnet** (see below) used in the Hot Tips & Radiate Heat Trial appeared to be the most effective prompt style motivational device for encouraging energy saving behaviour used across the Trials. The radiator key which featured in the Hot Tips & Radiate Heat trial, although not as impactful as the Snuggle Blanket and Temperature gauge used in the Green Doctor Trial (in terms of usage and impetus to change energy saving behaviour), was used by around half of respondents.<sup>87</sup>

In the Green Doctor Trial, certain participants made pledges to undertake energy saving actions. However, during the evaluation interviews, few spontaneously (i.e. without the interviewer prompting them) reported that they had taken any energy saving action that related directly to their pledges, and very few could recall that they had a pledge card. For the Hot Tips & Radiate Heat Trial, the impact of making a pledge or ticking a commitment was found to be somewhat limited.<sup>88</sup>

Overall the **physical motivational devices appeared more effective** than the psychological prompt-style aide-memoire stimulus triggers such as pledges, and tip lists.

### Hot Tips reminder Magnet



### Pledge Card



### Advice and Guidance leaflet



The Ulster smart meter trial<sup>89</sup> also used small but memorable prompts sent as ‘reminders of the trial’, although it is unclear if this was intended to keep people engaged with the trial or engaged with energy saving more generally. Devices such as fridge magnets, tea towels, key rings and notepads, were sent out with the ‘Monitor, manage and make the change’ logo on the basis that they might be used regularly or placed in high profile places. The study did not include an assessment of which of these materials were most effective in encouraging sustained behaviour change, although there is evidence that these were memorable for customers (especially the magnet).

<sup>87</sup> (DECC, 2015)

<sup>88</sup> Only a small proportion of respondents (14 of the 95 respondents) claimed to have completed the ‘8 hot tips for winter’ leaflet to specify the energy saving changes that they planned to undertake.

<sup>89</sup> (Liddell, 2012)

### 3.2.4 Encouraging ongoing engagement through social media and online tools

Keeping track of energy use through a diary or the IHD, for example, is one idea to promote ongoing engagement with – and control over the cost of – energy usage (particularly for low income groups and those with children). This could be complemented with activities involving the IHD e.g. a list of 5-10 things to do to save energy. The National Housing Federation<sup>90</sup> also recommended “Personal action plans” as a useful way of engaging households.

However, as discussed above, the uptake of such ‘pledge’ documents may be less than desired. Instead, this may be improved through the use of social media and online tools.

A range of previous trials have tested the effectiveness of **online energy use tracking and pledges**, based on the concept of encouraging action through public commitment. EAST<sup>91</sup> recommends taking advantage of social networks. It is argued that people are influenced by those they are networked with and come into contact with, and so use networks to foster collective action among peers. An example of an online app linked to social networking is given in DECC/RAND’s “What Works” report<sup>92</sup> and described below.

#### Case-study: StepGreen.org online app trial

This online app linked to an individual’s profile page on MySpace or Facebook. Users could view and commit to suggested energy saving actions and report on having fulfilled an action with commitments and progress visible by friends of the user. The app tracked the amount of CO2 the user saved. Reminders of unfulfilled commitments, progress made and further actions were sent as “news feed”.

A three-week trial with 32 participants found participants viewed detailed information for “about 16 actions”, committed to “about 16” and reported completing 88% of their commitments one or more times.

The powers of collective discussion and social media were also highlighted in the Ulster smart meter trial which reported that ‘customers took most note of the “what other customers are saying” section and were more likely to try out other customers’ tips rather than from organisations.’<sup>93</sup>

While the theory is strong behind the use of social norms and public pledges for action, the IntelliEkon field trial<sup>94</sup> highlighted the **challenges of getting people to continue engaging with online tools**. In this trial households could choose between accessing feedback through a web portal or via written feedback (once a month by post). Feedback information was demanded most during the first two months; roughly one third of the sample accessed the portal only once; and only 5% used the portal frequently. This may highlight respondent fatigue, but also practical issues such as forgotten passwords.

The smart meter installation trial in Ulster<sup>95</sup> also set up a website to allow customers to view consumption by day, week, or month. It contained a news section and children’s resource section. However, the site did not attract any users. This trial also set up a Facebook page with the aim of encouraging customers to share their experiences. It is possible, however, that the usage of Facebook (and the website) could be different now (the trial was in 2012).

<sup>90</sup> (National Housing Federation, 2012)

<sup>91</sup> (Behavioural Insights Team, 2014)

<sup>92</sup> Mankoff *et al.* (2010) report in (RAND Europe / DECC, 2012)

<sup>93</sup> (Liddell, 2012)

<sup>94</sup> (IntelliEkon, 2011)

<sup>95</sup> (Liddell, 2012)

Burchell's report on the Smart Communities project<sup>96</sup> showed the **value of regular contact and reminders to encourage engagement**. In this trial, weekly email communications were sent to project members to prompt and encourage them to enter meter readings and to use their IHD. In the end-of-project survey, 62% of project members claimed they read the emails 'every week' or 'most weeks', while only 6% claimed they never read them. These prompts seemed to help create a routine for some.

British Gas' "My Energy" tool is another example of an ongoing engagement mechanism used with customers over time. It enables smart meter customers to:

- Track their energy use by day, week, month and year;
- See how the energy they use compares to similar homes;
- View tips and advice to reduce energy costs; and
- See their likely spend on heating, hot water, cooking, lighting and appliances.

There have been positive reviews of the tool by users, with suggestions of behaviour changes being made as a result.<sup>97</sup>

*"From the reports...we were really surprised to see just how much energy our heating and appliances were using! It was a real wakeup call. For example, we used to cook dinner during the day and then heat it up in the evening ready to eat. When we realised how much energy we were using on the microwave, it really made us change our behaviour and simply cook dinner in the evening, rather than reheating it each night."*

*"It has been really interesting and surprising for me to see my energy breakdown. For example, on Tuesdays, it says I use less energy which is when I always go shopping! ...It has definitely made me stop and think about the way I use energy. I used to just pay my bill and not think about it, but seeing exactly where my money goes makes you more conscious. As a pensioner, I need to be especially careful with money."*

### 3.3 The importance of a trusted and credible messenger to deliver advice

This section considers the ways in which energy efficiency advice can be delivered in a trusted and engaging way, including how customer expectations can be set to be most willing to receive this.

There is strong evidence (detailed below) that the trust and credibility of the messenger have an important impact on how a piece of information is received. The DECC Smart Meter Early Learning Project found that while consumers may not necessarily hold a high level of trust in energy suppliers, installers themselves are seen by consumers as effective and trusted messengers.<sup>98</sup>

Furthermore, stakeholders engaged in the workshop pointed out that if there is any initial mistrust around energy suppliers and their provision of energy efficiency advice, this may be mediated by the manner and expertise of the installer. As such, it was felt important that

<sup>96</sup> (Burchell, et al., 2014)

<sup>97</sup> "My energy" customer reviews – see <http://www.britishgas.co.uk/smarter-living/control-energy/smart-meters/my-energy-use/reviews.html>.

<sup>98</sup> (DECC, 2015)

installers feel comfortable with the advice content they provide and have sufficient expertise to deliver it confidently and in an engaging way.

As claimed in MINDSPACE,<sup>99</sup> the messenger (the person, body or thing) communicating a piece of information is a strong influencer of the recipient's reaction to the information. This approach describes the important characteristics of a messenger as follows.

- That they are perceived to be authoritative, expert and reliable
- That they are similar in demographic and other characteristics to the recipient (particularly for low socio-economic audiences)
- That they are consistent and convincing

MINDSPACE states peers make influential messengers, as well as people who are likeable, and this can override authority and expertise. This has important implications for the role of the installer, and may also make a third party messenger preferable to communications which come from Government or directly from energy suppliers.

Evidence suggests that customers' views of energy suppliers themselves are not necessarily directly linked to (or drivers of) their views of individual installers. In a study for DECC around the Green Deal<sup>100</sup> qualitative research found that consumers responded positively to the role of installers (unrelated to their view of the energy supplier), expecting them to be **experienced and knowledgeable**, and if local, likely to **provide a more personal service** with knowledge of the local housing stock and its peculiarities. While it should not be assumed that all installers will possess this type of local knowledge, this view does give positive ground to the **role of installers as effective and convincing advice-givers**.

Findings from energy efficiency advice projects also indicate that **ensuring the message comes from a trusted, and potentially locally known**, source is important to the effectiveness of the communication. Messages that are aligned with organisations that hold a trusted role in local communities, for example GPs, the local authority, Citizen's Advice, Age UK, may be more effective and spread more quickly.<sup>101</sup> Word of mouth from friends and family may play a reinforcing role in this.

Research points to low levels of trust in energy suppliers (though evidence suggests the opposite applies to perceptions of installers, as per the DECC Smart Meter Early Learning Project findings noted above), which may undermine their ability to communicate with consumers on energy efficiency.<sup>102</sup> A way to build trust and credibility – beyond using installers to deliver advice – may be for suppliers to align themselves with organisations who have existing networks within, and knowledge of, communities. Use of '**trusted intermediaries**' may be a good way of reaching and providing advice to vulnerable customer groups in particular, as schemes benefit from using existing networks that already have the trust of, and access to, these groups.

Success in the Big Energy Saving Network scheme was underpinned by a number of factors, including: the perceived impartiality and trustworthiness of the frontline workers delivering the advice; the experience, clarity and credibility of the advisors; and the ability of frontline workers to use existing relationships with vulnerable clients and knowledge of their circumstances to

<sup>99</sup> (Cabinet Office / Institute for Government, 2010)

<sup>100</sup> (DECC, 2011)

<sup>101</sup> (Consumer Focus, 2013)

<sup>102</sup> Consumer Focus (2011)

tailor advice to the needs and capacity of the audience. Certain types of organisation were found to be more effective at engaging different vulnerable groups.<sup>103</sup>

Some trials have found little difference in the impact (proportion of participants who claim to go on to undertake a behaviour) of delivering advice interventions through an unpaid community volunteer or paid professional/ambassador.<sup>104</sup>

### Messenger and tone

The most appropriate parties to deliver an intervention will depend on the specific behaviour, nature of advice, and audience typology being targeted. The internal work supported by COI identified the parties listed below as potential deliverers of energy related behaviour change interventions.

- Central government
- Local government
- Education sector
- Private sector (energy)
- Private sector (non-energy)
- Professionals and trades
- Not for profit sector
- Community groups
- Peers, friends and family
- Employers

There is a particular role for peers, friends and family in building social norms, as well as sharing information about the rollout to engender trust. This potentially includes using the education sector to encourage children, who have been found to be rated twice as influential on their parents' energy saving behaviour as any other source of information.<sup>105</sup>

Use of locally based staff to build up rapport with residents may be effective for accessing and engaging older householders, and overcome scepticism and mistrust.<sup>106</sup> The Smart Communities project<sup>107</sup> benefitted from social interaction between the local experts providing the advice and the householders. The tone of delivery of local experts was described in evaluations as knowledgeable, friendly, non-judgemental, authoritative, informative, respectful, understanding, informal, and modest.<sup>108</sup> Factors impacting the perception of advice included: whether it was delivered from a trusted source; the expertise of the installer; whether the installer was viewed as neutral and objective; and the ability of the installer to engage, in a talkative and friendly way.<sup>109</sup>

When undertaking installs to households for whom English was a second language, installers have described how this is often overcome by the presence of someone else (for example, a child family member) who spoke English, or a three-way phone call with a translator.<sup>110</sup>

<sup>103</sup> (DECC, 2015)

<sup>104</sup> (DECC, 2015)

<sup>105</sup> (Centre for Sustainable Energy, 2004)

<sup>106</sup> (National Housing Federation, 2012)

<sup>107</sup> (Burchell, 2015)

<sup>108</sup> (Burchell, et al., 2014)

<sup>109</sup> (DECC, 2014); (DECC, 2014)

<sup>110</sup> (Darby & Liddell, 2015)

The above findings underpin the importance and realisable potential of building an approach for this project that encourages a perception among customers of installers as a credible and trusted source.

## 4. Tailoring advice to specific customers and households

**This section brings together evidence about the value of, and need for, tailoring of energy efficiency advice delivered at smart meter installation visits. It considers lessons for how the advice hook, message content and delivery style may be tailored to cater for the needs of different customer groups. Finally, it discusses the potential for tailoring follow-up advice post-installation as part of the ongoing customer journey.**

### 4.1 Importance of, and rationale for, tailoring advice

Different customer groups will have different energy, information and consumption needs. Advice provision should be tailored to account for these different circumstances if it is to stand the best chance of being relevant, engaging and acted upon. This includes considering the most suitable content for the advice (i.e. is it appropriate, likely to be taken up), and how it might best be delivered. This includes the timing and format of the advice, and the most suitable messenger.

The importance of developing intelligent and achievable forms of tailoring are well documented in the evidence reviewed. In a study of what works in changing energy use behaviour carried out by RAND for DECC,<sup>111</sup> for example, interventions were more likely to result in higher levels of savings when they included tailored instructions. Similarly, the DECC Community Energy Efficiency Outreach Programme found that messages were most effective when specifically tailored to target audiences. The evidence reviewed suggests that tailoring for households of different income levels, tenure and property types, in particular, will enable it to have greater impact.<sup>112</sup>

### 4.2 Tailoring the advice hook for different customer groups

The energy efficiency behaviours of different consumer groups and typologies – including vulnerable audiences – will be driven by different motivations. Literature on this topic describes the importance of the ‘salience’ of information. This contends that certain messages, using specific motivational slants, for example, chime more strongly with some groups than others. As such, this is more likely to affect behaviour.<sup>113</sup>

The evidence reviewed suggests the following ways of adapting common advice hook strategies for different audiences.

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<sup>111</sup> (RAND Europe / DECC, 2012)

<sup>112</sup> (Databuild / DECC, 2014)

<sup>113</sup> Internal work supported by COI

- In general, **loss aversion** messages work across groups, and tend to have more of an impact on behaviour change than messages that are set in a positive, 'gain' frame.<sup>114</sup> However, it should be highlighted that in lower income groups, loss messages need to be handled with care in order to avoid scare-mongering. The tone of voice in the delivery of advice to vulnerable groups is also important to consider, working best in an encouraging but not patronising tone.
- **Social norms** might be useful, but should be used carefully when making comparisons between certain groups. The usage of energy and consumption levels might differ significantly between different customers. For example, it may not be appropriate to compare usage of those on higher incomes living in larger properties, to that of lower income groups in smaller properties, especially if social appraisal is combined with the provision of the social norm.<sup>115</sup> Despite social norms being an effective message to change behaviour, it should therefore be used with care in certain cases.
- **Gamification** was discussed by stakeholders at the workshop as likely to be an approach that is more appropriate for some groups than others. For groups who are more likely to have smartphones or any other devices with digital communication tools, such as higher income groups and younger demographics, gamification can be used for setting challenges on apps and linking it back to their energy usage. However, for households with a lower income and older people, this might not be appropriate due to the lower adoption rate of technological devices.
- **Cost/benefit messages**, they will chime with certain groups more than others. DECC's Community Energy Efficiency Outreach Programme found that warmth and fuel bill savings were more compelling messages for low income groups, while environmental messages work better with higher income groups.<sup>116</sup> This highlights the need for messaging to be tailored in its content and the way in which the messaging is framed.

Furthermore, content styles, such as the tone of voice and depth of information provided, can be expected to elicit a behavioural response which varies between different groups. The EAST framework asserts the importance of making messaging attractive, both visually and in terms of highlighting the appeal of an action, e.g. with rewards. One way of doing this, which gives more salience to stimuli, is to personalise communications with images and colours.<sup>117</sup>

### 4.3 Tailoring content of messages towards various groups

The evidence reviewed makes a number of recommendations for tailoring the specific focus of energy efficiency advice for specific groups of customers, according to the following factors.

- **Tenure:** advice to owner occupiers may benefit from being more focused on home renovations and improvements, whereas for tenants the focus may be more effective if centred on behaviour change measures.<sup>118</sup>
- **Household income:** higher income groups may be more likely to consider energy efficiency installations and renewable energy options, whilst recommending behavioural measures such as correct thermostat settings is likely to better engage lower income groups.<sup>119</sup>

<sup>114</sup> Internal work supported by COI

<sup>115</sup> (Databuild / DECC, 2014)

<sup>116</sup> (Databuild / DECC, 2014)

<sup>117</sup> (Behavioural Insights Team, 2014)

<sup>118</sup> DECC Smart meter energy efficiency workshop. 7<sup>th</sup> September.

<sup>119</sup> (Databuild / DECC, 2014)

- **Vulnerable customers:** households living in fuel poverty may be harder to engage in energy efficiency messages if they believe they are already making all the energy savings they can.<sup>120</sup> Older people and families with young children are particularly vulnerable to cold<sup>121</sup> and so targeting measures that improve warmth and comfort may have a greater benefit for these groups.<sup>122</sup> Special attention needs to be paid to these households, as well as other households with higher heating needs, such as customers with a disability or households which are already under heating their homes. Messages need to be carefully framed as these groups may also be among the most worried that reducing their energy use could erode their comfort.<sup>123</sup>

#### 4.4 Considerations for engaging different customer groups with the IHD

The ELP found the IHD to be a key motivator for having a smart meter installed. It offers a key way of engaging customers in discussions around their household energy use and potential changes to the efficiencies of their behavioural habits and purchasing choices.<sup>124</sup> Delivering advice that aids understanding and engagement with the IHD is therefore likely to be critical to meeting the Government's targeted energy savings from the smart meter roll-out.<sup>125</sup> As with other areas of advice, this will need to be tailored to specific customers and household circumstances.

Evidence from the consumer research conducted by Ipsos MORI for the ELP suggests that the following groups of customers may be less likely to find the IHD's functions easy to operate: older customers, lower social grades, the lowest household income groups, those with no formal qualifications and households with someone with a long-term health condition or disability. Qualitative interviews suggest this may be due to lower confidence and familiarity with technology, concern about visualising the monetary value of energy use, and the perception that they were already saving as much as possible. Single-occupancy households were also found to be less engaged, partly due to a higher feeling of individual control over household energy use. Installers may therefore need to be able to present the IHD differently to different consumer typologies and there are calls for segment-specific approaches rather than population-wide messaging.

A trial with low income households vulnerable to fuel poverty found that whilst energy savings were not achieved for all participants over the study period, the IHD had become an essential budgeting tool for most; giving customers a greater sense of control.<sup>126</sup> It is thus necessary to ensure that these customers are given straightforward advice on how to operate the IHD. For low-income consumers, messages around energy efficiency might not be the main motivator to use the IHD. Instead, practical tips on how to use the IHD to monitor spend over the month and avoid a 'surprise' bill at the end of the month may be more effective.

<sup>120</sup> DECC 2015, Smart Meter Early Learning Project: Consumer survey and qualitative research.

<sup>121</sup> (Marmot, 2011)

<sup>122</sup> (Consumer Focus, 2013)

<sup>123</sup> (National Housing Federation, 2012)

<sup>124</sup> (Ipsos MORI / DECC, 2015)

<sup>125</sup> The DECC Impact Assessment assumes that the smart meter roll-out will result in energy savings of 2.8% for electricity and 2% for gas.

<sup>126</sup> (Liddell, 2012)

## 4.5 Tailoring the installation visit and customer journey

In a study on smart meter installers' experiences and views of the advice delivery element of their work, Darby and Liddell found some installers readily adapted the energy efficiency advice and the way it was delivered to suit (what they perceived to be) different types of people and households. Some installers were tailoring in this way according to the amount of time available at the installation visit, for example.<sup>127</sup> Likewise, in a study trialling advice on how to use heating controls carried out in Newcastle, engineers providing advice found it possible – and effective – to tailor the explanations they gave according to the recipient's circumstances, their information needs and the timeframe available. When information needs were more complex but available time slots shorter, more detail but less breadth of information was more effective.<sup>128</sup>

The above studies provide examples of 'on the spot' tailoring of advice. These involve the installer gauging householders' understanding of and engagement with their energy consumption and utilities at the time of the installation visit. Stakeholders attending the workshop discussed the possibility of tailoring the content of advice prior to the visit using energy suppliers' existing customer data. This could mean, for example, making use of information shared with the installer in advance of the visit, such as customers' property type and tenure. For example, advice regarding wall or loft insulation would only be given to householders living in properties where this is possible. However, it was noted that this type of information is easily gleaned by the installer upon arrival at the visit. Additionally, this type of 'tailoring in advance' would pose significant challenges regarding data sharing, and the coordination and completeness of customer databases holding such information.

'On the spot' assessments and tailoring of advice is therefore important. Stakeholders highlighted, for example, the importance of tailoring verbal advice on how to set up and use heating systems effectively. This is a key behaviour change that can help to reduce consumption. However, it requires 'on the spot' tailoring as the level of understanding and 'know-how' in using heating systems will vary between households. This information is not something installers can know or find out easily in advance of the visit. Providing useful standard written advice is also challenging given the range of different types of boilers, systems and controls.

Other examples where installer-led tailoring of advice offers significant potential benefit is in identifying some of the largest energy savings but that may only be relevant in certain households. For example, insulating a hot water tank can have a large energy saving impact, but whether or not the tank is insulated is unknown in advance of the installation.<sup>129</sup>

Stakeholders engaged in the workshop discussed customers with lower literacy needs as being particularly likely to benefit from a more supportive delivery of advice throughout the installation journey, including during follow up stages (discussed further in the next section). They felt these customers may benefit from having supporting advice materials in multiple formats to cater for different information and communication needs. This includes using images, visual representations, video, verbal advice and active demonstration of the advice. These stakeholders also believed that it was important to avoid over-reliance on written information. Instead, clearly guiding the person through the advice, and using written information as supporting material was thought to be more likely to have an effect.

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<sup>127</sup> (Darby & Liddell, 2015)

<sup>128</sup> (DECC, 2014)

<sup>129</sup> DECC Smart meter energy efficiency workshop. 7<sup>th</sup> September 2015

## 4.6 Options for tailoring supporting materials and follow-up

As discussed in Chapter 3, a range of different leave-behind packs could be developed as part of the overall advice delivery which is tailored to fit a range of households. For example, this may include a family pack including games or activities for children or links to curriculum activities.

The potential benefit for all customer groups of having materials developed for them as a reference point after the visit should be considered. According to DECC's Community Energy Efficiency Outreach Programme and stakeholders at the workshop, this should include information relevant to different groups, such as tenure, property type, size of household, whether they are a vulnerable group, and income and socioeconomic group. The supporting materials should be developed in accordance to the energy needs and motivations by customers, as discussed earlier in this chapter.

Stakeholders recognised that it is possible that suppliers may not always have the capability and capacity to cater for the information needs of customers with severe disabilities. Stakeholders, including suppliers, suggested they could look to utilise local networks to support the provision of advice to vulnerable households, for whom receiving advice through sources and channels with which they have established access and trust may greatly improve delivery. Another channel which suppliers could extend their help through is housing associations. If a supplier has a significant number of customers that are residents of a particular social housing provider it may be possible to use their tenant liaison officers as a trusted support team.

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