



## Acknowledgements

The Federation would like to thank all those who contributed case studies and literature to this review, demonstrating the great work being carried out by housing associations and others to help households cut their energy use:

**Simon Robinson,**

Action for Sustainable Living

**Alexandra Willey,** Affinity Sutton

**Natalie Jones,** Ashram Housing

**Alex Roberts,** Aster

**Carl Taylor,** Birmingham

Co-operative Housing Services

**Heather Macnaughton,** Castle Rock

Edinvar Housing Association

**Zoe Redgrove,**

Centre for Sustainable Energy

**Nick Goodman,** Change Agents UK

**Gillian Cooper,** Consumer Focus

**Michael Harrison,** Department for  
Energy and Climate Change

**Sarah McClelland,**

Great Places Housing Group

**Katrina Baker,** Groundwork London

**David Malsom,**

Groundwork Oldham & Rochdale

**Victoria Cartwright,**

The Guinness Partnership

**Jane Keiller,** Hastoe Housing Association

**Phil Davies,** Impact Housing Association

**Jade Herriman,**

Institute for Sustainable Futures

**Owen Daggett,**

The Joseph Rowntree Foundation

**Tim Harries,** Kingston University

**Louise Brennan,**

London and Quadrant Group

**Jude Lockett,**

London Sustainability Exchange

**Matthew Bush,** Metropolitan

**Viv Nichols,** Newlon Housing Trust

**Ketra Najjingo,** Newlon Housing Trust

**Debora Slavin,** Orbit Heart of England

**Mike Price,** Pelham Architects

**Ben Shaw,** Policy Studies Institute

**Peter Evans,** Radian

**Sarah Thomas,** Regenda

**Peter Smith,**

St Vincent's Housing Association

**Jon Clarke,**

Severn Wye Energy Agency Ltd

**Helen Sellers,** Spire Homes

**Naomi Baker,** Southwark Council

**Joshua Steiner,** Southway Housing Trust

**Michelle Shipworth,** UCL Energy Institute

**Justine Cooper,** University of Greenwich

**Helen Wordsworth,**

Wakefield and District Housing

**Claire Szwarko,**

Wherry Housing Association

**Robin Roberts,** Worthing Homes

**Phil Beardmore**

**Laura Hales**

Count Us In is made possible with funding from the Oak Foundation. The Federation would also like to thank British Gas for the welcome support it has provided to the project.

# Contents

## Section 1: Introduction

About this report .....	5
About Count Us In .....	6
Background to the project	
Climate change and greenhouse reduction targets.....	6
Fuel Poverty .....	7
Green Deal and Energy Company Obligation.....	8
Smart meter roll-out .....	8

## Section 2: The human element of energy use

Habits versus one-off behaviours.....	9
What makes people behave the way they do? .....	11

## Section 3: Encouraging more energy efficient behaviour

Ways of engaging people with their behaviour .....	13
Making it relevant .....	18
Behaviours to target .....	18
Maximum impact with minimal effort .....	19
Local area working .....	20
The best times to engage people with their behaviour .....	21

## Section 4: Case studies

Better Off Green.....	22
Eco-Family .....	24
Energy Action for Rutland.....	25
Fit for the Future.....	26
FutureFit .....	27
The Guinness Partnership .....	29
Homes of Our Times .....	30
Neighbourhood Energy Challenge .....	31
Relish™ .....	33
Save Money Save Energy Road-shows .....	35
Southway Energy Team .....	36
Warmer Living Project .....	37
WDH Climate Change Engagement .....	38
WISE (Wherry is Saving Energy) .....	40

## Appendices

Appendix A: Summary of Count Us In Pilots .....	42
Appendix B: Index of case studies reviewed.....	45
Appendix C: Further reading .....	51

Endnotes .....	54
----------------	----

## Figures

Figure 1: Frequent behaviours contributing to reducing energy use in the home .....	10
Figure 2: Factors influencing the way people behave.....	11
Figure 3: Ways of engaging people with their energy use .....	14

## Section 1: Introduction

**“Much of the discourse on developing an eco agenda for housing is focused on the property, ie. technologies, funding and the challenges of retrofitting older housing. However, one of the key messages emerging from the survey of UK housing associations is the importance of the human aspect of the issue, that is resident behaviour, the choices residents make, the interaction between residents and technology and the way housing management and maintenance staff interact with residents.”**

Stewart Fergusson, *UK Housing Associations and Sustainability*, December 2011

Improving the energy efficiency of existing homes has long been recognised as an important aspect in tackling climate change, reducing fuel poverty and improving security of energy supply. Energy efficiency in existing homes is high on the Government’s agenda with a range of initiatives being explored to promote better energy use, including a national programme to roll out smart meters to homes and the Green Deal.

Representing around 20% of England’s housing stock<sup>1</sup>, social landlords play an important role in promoting better use of energy amongst consumers. Over the past ten years housing associations have led the way in improving the energy performance of homes, mostly through their own investment. This includes delivering the Decent Homes programme, which has been instrumental in ensuring social housing is warm and weatherproof, with reasonably modern facilities. Further improvements to homes over and above the Decent Homes standard are being delivered through new-build and innovative retrofit programmes. The average energy rating of social housing stock is now some 10 points higher than private tenures.<sup>2</sup>

This work is driven by a desire to reduce residents’ fuel bills and fuel poverty and not by regulation. Housing associations are also committed to effectively managing their assets in order to get the best out of their housing stock. The work of housing associations is also responding to broader drivers, including the need to tackle climate change and ensure a secure energy supply that meets future demand.

Historically, much of the work of housing associations has focused on improving the thermal performance of homes and micro-generation. Whilst this work is of great value and necessary in order to support people to live more sustainably, there is growing recognition that occupant behaviour is a major determinant on whether the energy savings made possible by these physical improvements are realised.<sup>3</sup>

It is therefore important to understand the reasons why occupants use energy in the way they do and the most effective approaches to helping them be more energy efficient. Housing associations have an important role to play in this research process and are increasingly at the forefront of work providing insight into occupant behaviour.





## About this report

Having built up strong relationships with their residents through managing large portfolios of homes and delivering a range of social improvement programmes, housing associations are well placed to deliver engagement programmes that respond to the needs of different households.

This report provides a review of current thinking around engaging consumers with their energy behaviour within the domestic sector. It draws on research from a range of sources including a review of over 70 case studies from across England and abroad. More than half of these are from housing associations, revealing the important role they play in promoting better use of energy amongst their residents. The learning points from this review have helped shape the Count Us In project and it is hoped they provide inspiration for those providers planning engagement activity with their residents. The learning will be built upon through the five Count Us In pilots, the key findings of which will be shared in a learning guide to be published at the end of the project.

This report is split into the following sections:

### Section 1: Introduction

The remainder of section 1 provides background to the Count Us In project, setting out how addressing occupant behaviour can contribute towards reducing the carbon footprint of housing and tackling fuel poverty.

### Section 2: The human element of energy use

This section identifies the different habits that impact on energy use in the home. It describes how a range of factors influence how people behave, including lifestyle factors, personal attitudes and beliefs, levels of awareness about an issue and social norms. These different factors need to be targeted in order to encourage lasting behaviour change.

### Section 3: Encouraging more energy efficient behaviour

This section describes current thinking around changing people's behaviour. A range of tools are available to motivate people and equip them with the knowledge to improve their energy use. Drawing on lessons from research and case studies, this section examines the pros and cons of different behaviour change techniques, covering feedback on consumption, advice and guidance, motivational campaigns and peer-to-peer working.



**Section 4: Case studies**

This section provides detailed summaries of a selection of case studies that highlight key learning points set out in this review.

**Appendix A**

Provides a summary of the Count Us In pilots.

**Appendix B**

Provides details of case studies that have fed into this review.

**Appendix C**

Provides a reference list of further reading on the topics discussed in this review.



**Above:** Energy Academy. [Action for Sustainable Living](#)

**About Count Us In**

Count Us In is a two-year project, financed by the Oak Foundation and the National Housing Federation, which will focus on energy savings through behaviour change, rather than physical energy efficiency measures and technology.

Starting with a review of existing projects and methods of engaging consumers with their energy consumption, Count Us In will co-finance five 18-month pilots in which housing associations will work with their residents to reduce their energy consumption and energy bills by 5% to 10%.

The following housing associations have been selected to run Count Us In pilots:

- Aspire Housing
- Helena Partnerships
- Shepherds Bush Housing Group
- Trafford Housing Trust
- Yorkshire Housing

The five pilots will provide valuable learning on how to engage with occupants of a range of housing types in urban, rural and supported settings. A range of engagement techniques will be trialled including use of smart meters, social media technology, resident-led action, one-on-one training and group sessions.

Further details of each pilot is provided in appendix A.

**Background to the project**

**Climate change and greenhouse reduction targets**

The UK Government has committed to reducing its greenhouse gas emissions by at least 80% of 1990 levels by 2050. With domestic buildings in the UK accounting for 25% of total carbon emissions<sup>4</sup>, reducing energy use in the home will make a major contribution to tackling climate change. In fact, we need to save 3m tonnes of CO<sub>2</sub> from energy efficiency measures by 2020 if the sector is to achieve its proportionate share of carbon reductions<sup>5</sup>.





Whilst social landlords have made considerable improvements to their stock over the last 20 years, there remains considerable further need to improve energy efficiency in the sector to save carbon and reduce fuel poverty. This challenge is further compounded by the fact that an estimated 1.4 million social homes are classified as hard-to-treat, requiring more complex and expensive measures to improve their energy efficiency<sup>6</sup>.

By comparison, measures addressing occupant behaviour offer a cost-effective means of further reducing the housing sector's carbon footprint. There are potential savings to be made across households of all types and locations, offering an important compliment to continued investment in fabric physical improvements to housing stock.

### Fuel Poverty

Poor levels of energy efficiency in the UK's existing homes and rising fuel costs often make it unaffordable for low income households to adequately heat their homes. Despite significant improvements to the energy performance of housing stock, 16% of social housing households remain in fuel poverty.<sup>7</sup> The cost of energy is likely to continue to increase over the coming years as resource availability and investment in new infrastructure drive up prices. This will place a greater burden on households.

In March 2012 Professor John Hills completed an independent review of fuel poverty which concluded that fuel poverty remains a serious national problem that could worsen over the coming years without a renewed national policy response. Chief amongst the solutions proposed to tackle the problem was

improving the housing stock of those at risk and cutting energy waste.<sup>8</sup> In response, the Government has published a consultation proposing changes to the way fuel poverty is measured in England, and setting out its intention to refresh the Fuel Poverty Strategy in 2013.<sup>9</sup>

Housing associations have been working hard to help vulnerable and low income households reduce their energy costs whilst maintaining safe comfort levels in their homes, as can be seen from the case studies reviewed in this report. This is particularly challenging as many households are likely to already be frugal with their energy use out of necessity. Furthermore, traditional energy saving messages such as turning down the thermostat may not be appropriate for households who are under-heating their homes, as this could put their health at risk. Improvements to the energy performance of homes have also been known to result in a rebound effect, where households take advantage of lower running costs to raise comfort levels, thereby offsetting any potential savings in energy use.<sup>10</sup> For under-heating households this increase isn't necessarily a wasteful use of energy, but may be needed to create safe living environments.

Improving our understanding of how vulnerable and low income households can be supported to safely and efficiently heat and run their homes will enable housing associations to further support their residents.





### Green Deal

The Green Deal is the Government's flagship initiative for improving the energy efficiency of homes without up-front costs to the owner or occupier. Through the Green Deal consumers will be offered energy efficiency improvements to their homes with the costs recovered through a charge on their energy bills. Many housing associations recognise the potential for the Green Deal to deliver improvements to their residents' homes and are eager to become significant deliverers of the scheme. The legal framework for the Green Deal came into effect in October 2012. Households will be able to begin sign up to a finance plan from January 2013. In the lead up to the full scale launch, housing associations are amongst the pioneer providers working with the government to fine-tune delivery of Green Deal.<sup>11</sup>

For the scheme to work, it must adhere to a golden rule: the money saved by installing the energy efficiency measures need to be more than the costs associated with the work. There is a risk that unless occupant behaviour is understood and appropriately addressed, the Green Deal model will not work. This is because the way occupants use their home may affect the potential energy savings made possible by any of the works. For example, research by Gentoo through their Retrofit Reality project revealed a gap between predicted and actual savings in energy use and bills following retrofit works, much of which was attributed to tenant behaviour.<sup>12</sup>

### Smart meter roll-out

The Government intends to provide smart meters to every home in the UK by 2019. Together with real time in-home displays, smart meters will offer consumers detailed information on their energy use and the money they are spending on energy bills. Smart meters will also allow energy suppliers to collect meter readings remotely, eliminating the need for estimated bills and manual meter readings.

A number of studies have demonstrated the potential energy savings that smart metering can generate, particularly when combined with other energy saving measures.<sup>13</sup> However others have been more cautious about smart metering and its benefits for different consumers.<sup>14</sup>

The Government is currently finalising the details of how the roll-out will take place, including how consumers will be engaged with the process. A better understanding how smart metering can be used to influence occupant behaviour will enable organisations such as housing associations to make the most of the engagement opportunities provided by the roll-out.<sup>15</sup>





## Section 2: The human element of energy use

It isn't buildings themselves that consume energy, but the occupants who use them. Differences in behaviour amongst occupants will result in different amounts of energy being used. Even amongst neighbours living in identically designed homes.<sup>16</sup> This not only makes it difficult to predict the energy savings that will come from building and retrofit works, but also highlights the need to address occupant behaviour in energy efficiency programmes.

### Habits versus one-off behaviours



Amongst those behaviours that have the biggest environmental impact in the home are our habits – the activities and actions that we repeat frequently.<sup>17</sup> These are behaviours linked to how we heat, cool and light-up our homes, and how we cook, clean and entertain ourselves (see Figure 1).

In this way energy consumption can be seen as a consequence of the way we live in our homes – it's often what energy provides us rather than consuming energy itself that we think about,<sup>18</sup> which is one of the reasons why it can be difficult for people to reduce their energy use, despite good intentions.

There are also infrequent or one-off activities that can impact on energy use in homes, such as purchasing new appliances, installing insulation or changing tariffs. A number of Government initiatives have targeted these types of behaviour in recent years with varying degrees of success.<sup>19</sup> This is in addition to the considerable work of housing associations to improve the environmental performance of homes through physical measures and new technology. Fewer

initiatives have focused on changing habitual behaviours, which could bring lasting energy savings over the long-term, and at less financial cost compared to one-off measures such as installing insulation or new heating systems.

Research has shown that occupants of social housing tend to be home for longer periods of the day and use fewer appliances than other tenures,<sup>20</sup> making a focus on energy use habits all the more important.



**Figure 1: Frequent behaviours contributing to reducing energy use in the home**

**Hot water consumption**

- Shorter showers/having showers rather than baths.
- Washing clothes at lower temperatures.
- Lowering hot water temperature.

**Heating/cooling the home**

- Not leaving windows open while heating is on.
- Adapting use of clothing and bedding to weather.
- Programming heating to turn on only when needed and for minimum time necessary.
- Using blinds, curtains or shutters to control temperature.
- Adjusting thermostat controls to keep indoor temperature at minimum necessary level.
- Minimising use of additional heating/cooling appliances.
- Only heating occupied rooms.

**Lighting**

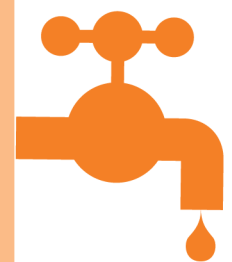
- Switching off lights when not in use/when leaving a room.
- Use daylight when safe to do so.

**Household appliances**

- Filling kettle only with amount of water needed.
- Switching off appliances from standby/when not in use.
- Not using the tumble dryer/air-drying laundry when possible.
- Not leaving laptops and phones on charge. unnecessarily.
- Setting appliances to economy setting/using low energy setting for “always on” appliances.
- Using a full load for dishwasher, dryer and washing machine.
- Defrosting your freezer regularly.
- Where renewable energy supply is available, timing use of appliances to peak generation periods.

**Maintenance**

- Service and maintain boiler on an annual basis.
- Regularly de-scaling the kettle will make it boil more quickly.
- Fixing leaking taps.
- Keeping air vents free of obstructions and controlling draughts around windows and doors.





## What makes people behave the way they do?

It can be very hard to change our behaviour, despite the best of intentions to do so. This is because there are many factors at play motivating or stopping us from taking certain action, and very often we are not even aware of the different influences driving us to behave the way we do.

Much research has sought to explain the drivers of behaviour and how they influence us in different ways, each drawing on a different scientific perspective. We can group the different factors under several categories, as described in Figure 2.

**Figure 2: Factors influencing the way people behave**

Personal circumstances	Personal values, and attitudes	Knowledge and awareness	Social and household norms	Human nature
<ul style="list-style-type: none"> <li>• These include factors such as age, health, household size, employment status and income.</li> <li>• For example, a large household with young children will have different energy needs to a single person household.</li> <li>• Lifestyle factors may also impact on the amount of time someone has to engage with behaviour change programmes.</li> </ul>	<ul style="list-style-type: none"> <li>• People place different values and priorities on different aspects of their lives.</li> <li>• For example what's important to people isn't necessarily the amount of energy they use but having a comfortable home. They will be less likely to act if they feel it will impoverish their lifestyle.</li> <li>• People will be more likely to act if they feel the issue is relevant to them and they believe that they can make a difference.</li> <li>• People are also influenced by their attitudes towards who is delivering the message.</li> </ul>	<ul style="list-style-type: none"> <li>• Behaviour can be influenced by a person's understanding about an issue.</li> <li>• For example confusion over how to use heating controls can mean they are set incorrectly or a person may not understand how much energy different activities use.</li> <li>• People may also believe that energy costs are more to do with the pricing of suppliers and less their own behaviour.<sup>21</sup></li> </ul>	<ul style="list-style-type: none"> <li>• We are influenced by what we believe to be normal. This is informed by what we see others around us doing and what we understand to be socially acceptable.</li> <li>• For example people take more baths and wash their clothes more often than they used to because of changing ideas about cleanliness.<sup>22</sup></li> </ul>	<ul style="list-style-type: none"> <li>• People tend to act in ways that make them feel better about themselves.</li> <li>• They also tend to go with the flow and avoid change, particularly if it is seen as inconvenient and requiring too much effort.</li> </ul>

## Section 2

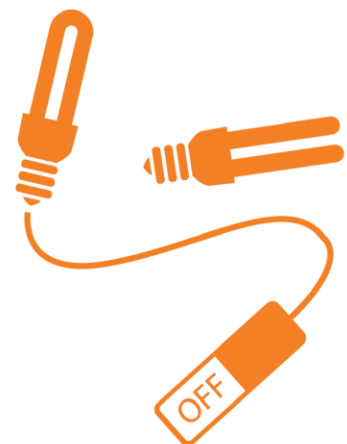
In order to encourage lasting behaviour change we need to target the most relevant factors influencing the behaviour in question. With regards to energy use, recent research by the Department for Energy and Climate Change (DECC)<sup>23</sup> suggests the key factors driving behaviour are:

- **Energy literacy:** consumers understand how much energy they consume and how much individual activities contribute to this.
- **Knowledge of behaviour:** consumers know the different ways that they can reduce their energy use.
- **Beliefs about outcomes:** consumers believe that reducing their energy use is desirable and that taking action will make a difference. Importantly, consumers also need to believe that they have responsibility for reducing their energy use.
- **Self efficacy:** consumers believe that they are capable of changing their behaviour, including having the time and resources necessary to change. The more a behaviour is seen as easy and convenient, more likely it is that change will be achieved.
- **Salience:** consumers believe that reducing energy use is relevant to them and their underlying concerns and priorities.
- **Social and household norms:** consumers believe that reducing energy use is normal and socially desirable.

DECC proposes that these are the drivers most able to be influenced, and therefore should be the focus of attempts to encourage energy efficient habits.



**Above:** Satley resident with her energy efficient heating system. [Groundwork Oldham and Rochdale](#)



## Section 3: Encouraging more energy efficient behaviour

“To help people change their behaviour you need a tailored approach with a range of interventions, including providing clear relevant information, offering incentives and utilising local networks and community capacity. You need to allow enough time and resources, and you must recognise that change happens over time, so your interventions must be timely and sustained.”

Low Carbon Housing Retrofit Behaviour Change Group, *Delivering the missing quarter*, June 2012



Section 2 highlighted important factors that need to be addressed by any behaviour change programme if they are to be successful. How and when people are engaged is also an important element of any successful programme.

### Ways of engaging people with their behaviour

There are different tools available to housing associations, which can be grouped into the following categories:

- ⚡ **Feedback on consumption:** this includes providing information on an individual's own energy use, as well as making comparisons between groups of people. Feedback can be provided in real time (such as through a smart meter or energy monitor) or cover a longer period of time (such as through bills or reports).
- 📄 **Advice and guidance:** this includes providing general hints and tips on saving energy (such as through a website or user guide), or providing individuals with tailored information that reflects their specific needs (such as through home energy audits).
- 😊 **Motivational campaigns:** these seek to provide people with an incentive to


change their behaviour and include the use of incentives, competitions and pledges.

- 👥 **Peer-to-peer working:** this involves making use of community networks (such as through to engage people (such as through energy clubs and social activities) and enabling residents to deliver engagement activity directly to their peers (such as in the form of energy champions).

Each method can be delivered in a number of ways and have their own merits and drawbacks. Figure 3 summarises key lessons about each approach and provides examples of case studies that have made use of them. For details of the case studies, refer to appendix B. A selection of case studies are profiled in section 4.

Regardless of the approach taken, research shows that a key factor in the success of any behaviour change programme is using different techniques in combination as people are likely to respond differently to each approach. Furthermore, any successful attempt to change behaviour is likely to involve small steps over a period of time rather than radical changes.<sup>24</sup>

Figure 3: Ways of engaging people with their energy use

<b>Feedback on consumption</b>	
<p>Research has shown that feedback can be very effective at changing behaviour, particularly when given frequently and used in combination with other interventions. It helps make energy use visible to people and highlight the impact of changes in their behaviour.</p>	
<b>Case study examples</b>	
<p><b>Real-time feedback</b></p> <ul style="list-style-type: none"> <li>• Has been shown to be effective at changing behaviour; however there is some concern that the initial impact will wear off over time if people do not get into the habit of regularly checking their consumption.</li> <li>• Can be relatively expensive to set up, however smart-metering roll-out will provide an opportunity for all households to receive real-time feedback.</li> </ul> 	<p>The SHIMMER project provided fuel-poor households with real-time feedback on appliance use via smart meter and an on-line portal. This was linked to advice on budgeting. Early results show this encouraged a change in behaviour.</p> <p>The Energy Demand Research Project also demonstrated that provision of real-time consumption information influenced behaviour change.</p> <p>The Neighbourhood Energy Challenge and The Big Green Scheme provided residents with energy monitors to help them save energy (for more information see case study profiles on pages 31).</p> <p><b>Further reading:</b> Van Dam et al (2010), Darby (2010), Erhardt-Martinez et al (2010).</p>
<p><b>Historic feedback</b></p> <ul style="list-style-type: none"> <li>• Can be relatively inexpensive to implement, but has been shown to be less effective than real-time feedback. Has more of an impact on gas consumption.</li> <li>• The way feedback is presented is important; it needs to stand out from other information received. Graphic presentation tends to work best.</li> </ul>	<p>As part of the CHARM Home Energy Study consumers were provided feedback on their consumption in graphical format, broken down by activity. This was found to reduce electricity use by about 5%. Feedback by email was more effective than via website.</p> <p><b>Further reading:</b> Consumer Focus (2011), Darby (2006), Raw and Ross (2011)</p>
<p><b>Comparative feedback</b></p> <ul style="list-style-type: none"> <li>• Comparing one person's energy use with others can help put their consumption into context and motivate them to take action.</li> <li>• Placing a value on action, such as indicating desirable behaviour with a smiley face or tick can also help to prevent low-consuming households from unnecessarily increasing their energy use as a result of the feedback.</li> </ul>	<p>Opower Home Energy Reports provide tailored information to consumers based on their consumption. They have been credited with average savings of 2.75% in energy use over 16 month period.</p> <p>The Carbon, Control and Comfort study also found comparative feedback to be effective in reducing energy use.</p> <p><b>Further reading:</b> Cialdini (2003)</p>

## Advice and guidance

Information can be useful to raise awareness and overcome misconceptions (for example over how energy systems are operated or need to be maintained). However how it is delivered is very important. A number of studies have shown that tenants often look to their landlord for information and advice on saving energy.<sup>25</sup>

### Case study examples

#### General advice and guidance

- Research consistently highlights that information on its own is not a very effective means of achieving lasting behaviour change.
- It is most successful when delivered in succinct, easily understood and visually appealing portions on an ongoing basis.

Many housing associations provide general energy saving information and advice on their website and through tenant newsletters.

Metropolitan produced an illustrated guide as part of their Homes of Our Times initiative. Interviews with residents revealed that despite them rating the design, there was little recollection of having received the guide (for more information see case study profile on page 30).

The Guinness Partnership is working with residents to develop a guide that is relevant to their needs (see case study profile on page 29).

Relish have produced a very visual guide that is now being used by other organisations to engage households (see case study profile on page 33).

#### Tailored advice and guidance

- Tailoring information to the user will make it more relevant to them and more likely to be noticed and made use of, particularly when delivered face-to-face.

Engagement activity involving in-home visits were common amongst the case studies reviewed. See for example: EnergySave and Greener Greenwich projects, St Vincent's Housing Association's Fit for the Future project, and the Green Doctor and Energy Academy programmes.

The Save Money and Energy Road-show used a portable meeting area to provide outreach to rural communities (for more information see case study profile on page 35).

#### Further reading:

Wilson and Hawkins (2011), Raw and Ross (2011), Lyndhurst (2007).



### Motivational campaigns

A range of techniques can be used to give people a motive to commit to changing their behaviour over the long-term. Often these techniques will need to be combined with others to be successful and may need to be regularly refreshed to maintain their effectiveness over longer periods of time.

#### Case study examples

##### Commitments and pledges

- Can be effective when combined with feedback.

Residents were asked to make pledges as part of the Better Off Green Campaign. Pledge cards were sent with introductory letters to all residents (for more information see case study profile on page 22).

The Your Green Place campaign also asked residents to make pledges.

##### Further reading:

Darby (2006)

##### Incentives/disincentives:

- Can have an initial impact, but research has shown that their effectiveness wears off over time.
- They could be made more effective if they are regularly changed over time.

The Energy Demand and Research Project found little evidence that financial incentives were very effective.

The SHIMMER project also made use of incentives and found that smaller, frequent rewards helped motivated households.

##### Further reading:

Abrahamse et al (2005), Raw and Ross (2011), Cabinet Office behavioural Insights Team (2011).

##### Challenges/Competitions

- Can be useful in motivating people to take part in a programme.

The Green Newlon project incentivised residents to come together and share information.

The Neighbourhood Energy Challenge challenged households to achieve the greatest energy savings (for more information see case study profile on page 31).

The Big Carbon Challenge, Green Streets and Climate Clubs are other examples.





## Peer-to-peer working

Research shows that who delivers engagement has a big impact on success. People who feel supported by their friends and colleagues are more likely to change their behaviour.<sup>26</sup> Group and peer-to-peer working draws on the power of social norms, encouraging people to change their behaviour based on what they see others doing.<sup>27</sup> Whilst these approaches can require significant up-front investment of time and resources they can be very effective.

### Case study examples

<p><b>Resident-led engagement:</b></p> <ul style="list-style-type: none"> <li>• People are more likely to trust messages delivered by people they can relate to and who are perceived as independent. This could be particularly helpful to improve confidence in outcomes and overcome reluctance amongst households to engage.</li> <li>• Training and supporting residents to deliver engagement activity increases the capacity of communities to help each other. This can reduce the costs of delivering engagement activity over the long-term and provide residents with new skills and qualifications, improving employment opportunities.</li> </ul>	<p>As part of the Eco-Family project a local family was followed over a year, sharing their experiences saving energy via a web blog (see page 24 for more information).</p> <p>The Smart Communities project is encouraging local residents to meet to develop ways of saving and decide how to encourage their adoption by the rest of the community.</p> <p>Energyise London, Energy Academy, New Earswick Good Life Initiative and Warmer Living Project are also examples.</p> <p><b>Further reading:</b> Cabinet Office behavioural Insights Team (2011), Preston et al (2009).</p>
<p><b>Using existing community networks:</b></p> <ul style="list-style-type: none"> <li>• Peer-to-peer engagement will be more effective when working at the neighbourhood level.</li> <li>• Making use of enthusiastic residents and existing social networks can assist with the delivery and promotion of engagement activity in a cost effective and timely manner.</li> <li>• Involving residents in the design and planning of engagement programmes has also been shown to improve participation and tailor activity to the community.</li> </ul>	<p>The Energyise London project made use of local networks and trusted voices.</p> <p>Better Off Green used of a “resident green team” to help shape the engagement programme (see page 22 for more information).</p> <p>The Wandle Valley Low Carbon Zone made use of existing community networks to overcome scepticism and lack of awareness amongst the community.</p> <p>The Guinness Partnership and Southway Energy Team are other examples (see page 29 and 36 in section 4).</p> <p><b>Further reading:</b> Philips and Rowley (2011), Preston et al (2009).</p>
<p><b>Working with young people:</b></p> <ul style="list-style-type: none"> <li>• Working with young people can also be an effective way of engaging households as they may involve their family in completing tasks or sharing messages.</li> <li>• Engagement will need to be tailored so that it is relevant and interesting to young people.</li> </ul>	<p>Examples amongst the case studies include competitions through schools, use of social media and arts projects. See for example Better Off Green (page 22), Climate Clubs, Smart Communities and Power Agents.</p>

In addition to considering the type of engagement techniques that will be used, there are a number of other factors that should be addressed when planning a behaviour change programme to ensure it has maximum impact. These are discussed below.

### Making it relevant

Research shows that behaviour change will be more effective when it is made relevant to people's underlying concerns. This not only applies to the advice and guidance given the households, but also to the reasons people are given for getting involved in the behaviour change programme in the first place.

Many of the case studies found that environmental concerns were less of a priority to consumers than saving money and keeping their homes warm and comfortable. Other case studies found that linking energy efficiency to improving skills and job opportunities also was effective.

By taking time up front to understand the issues of most concern to residents, engagement activity can be tailored so that saving energy becomes a way of achieving other outcomes important to the households being targeted.

#### Case study examples

- Energy Action for Rutland (page 25)
- Warmer Living Project (page 37)
- WDH Climate Change Engagement (page 38)

#### Other examples (see appendix B):

- Green Ways to Work
- Retrofit Reality
- Wandle Valley Low Carbon Zone

### Behaviours to target

Different consumers will have different consumption patterns due to a range of factors (refer to Figure 2). As such the behaviours that have the potential to achieve the biggest savings in energy use will vary from household to household. Certain behaviours are also likely to be easier to change than others.

Research to date has shown that households have had more success at changing behaviours related to lighting and appliance use rather than heating. These include turning appliances off standby, switching off lights, only filling kettles with the water needed, and using full loads and cooler cycles when washing clothes.

#### Case study examples (see appendix B):

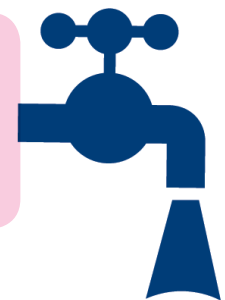
- Birmingham Energy Savers
- CHARM Home Energy Study
- Green Streets

With regard to space heating, a number of case studies suggest that confusion over how to operate heating controls is a barrier to households saving energy. A lack of understanding of how to use and maintain micro-generation technologies has also been identified as a barrier.<sup>28</sup>

Many housing associations have sought to address this issue by including demonstration of heating controls as part of their engagement activity with residents and developing user-friendly guides.

#### Case study examples:

- Energy Action for Rutland (page 25)
- Homes of Our Times (page 30)
- Wherry is Saving Energy (page 40)





**Above:** Pedmore Primary School, winners of climate change poster competition. [Accord Group](#)

## Maximum impact with minimal effort

Effective engagement activity comes with cost and resource implications for those delivering it, particularly given that successful behaviour change involves ongoing support to households over a longer period of time to continually reinforce key lessons and maintain motivation. The case studies demonstrate the commitment of housing associations to deliver projects that help their tenants use energy more efficiently. Housing associations choose to deliver these projects often at significant costs to themselves. Having access to appropriate funding and identifying high impact, low cost engagement techniques is therefore critical to housing associations being able to continue to engage households with their energy use.

General advice and guidance provided through mass-media such as websites, newsletters and illustrated guides is the most easily delivered behaviour change tool. However these passive means of delivery are not always effective at being noticed and therefore changing behaviour (refer to Figure 3).

Community events such as roadshows, fetes and workshops provide the opportunity to reach out to large numbers of people. However success of these is dependent on a number of factors including timing, location of venue and generating sufficient publicity.

Across the case studies, one-to-one engagement through home visits has consistently proved more effective than other means of engagement. But such an approach involves considerable cost, time and resources. For example residents in the Wandle Valley Low Carbon Zone needed on average three separate prompts before they opted into receiving a home energy audit.<sup>29</sup> And follow-up engagement will often still be needed to reinforce messages.

### Case study examples:

- Better Off Green (page 22)
- Eco-Family (page 24)
- Save Money Save Energy Roadshows (page 35)
- Warmer Living Project (page 37)

### Other examples (see appendix B):

- Energise London
- Greener Greenwich
- Green Streets
- Wandle Valley Low Carbon Zone

Research is currently underway on approaches that can deliver one-to-one engagement to large numbers of households in cost effective ways. This includes trialling online delivery of engagement (such as through the SHIMMER and Energy Neighbourhoods projects). For approaches involving online platforms, the design and usability of the user interface will be an important determinant in how well it is used.<sup>30</sup> Another approach is to combine one-

## Section 3

off home visits with follow-up support delivered through telephone hotline and website (such as in the EnergySave project) or written feedback (such as through the Energy Action for Rutland project). Building the capacity of residents to deliver aspects of engagement and making the most of existing community networks and forums has also been shown to be effective at delivering ongoing support in cost effective ways.

### Case study examples:

- Energy Action for Rutland (page 25)

### Other examples (see appendix B):

- Energy Neighbourhoods
- L&Q EnergySave
- SHIMMER

A number of housing associations are also trialling use of tradespeople and front-line staff to deliver engagement as part of their standard work. This involves providing training to staff and contractors expected to have contact with residents to ensure that they provide consistent and relevant energy saving advice and guidance. Results are still being collated for these studies.

### Case study examples:

- FutureFit (page 27)
- The Guinness Partnership (page 29)
- Homes of Our Time (page 30)
- Relish (page 33)



## Local area working

Many housing associations own large portfolios of properties which are often managed on a neighbourhood level. This presents opportunities to deliver effective engagement that can take advantage of economies of scale and the unique characteristics of different areas.

Several case studies demonstrate how working on a neighbourhood level, within concentrated geographic areas, helps to develop awareness of projects, recruit households and maintain momentum. Local area working also offers opportunities for engaging households through existing community networks.

**Above:**  
Contractors  
and staff.

[Walsall  
Housing  
Group](#)

### Case study examples:

- Warmer Living Project (page 37)

### Other examples (see appendix B):

- The Big Green Scheme
- Energy Demand Research Project
- Energy Neighbourhoods
- RE:NEW





**Above:**  
Orbit resident  
and her  
sustainable  
home.

[Orbit Heart  
of England](#)

## The best times to engage people with their behaviour

The timing of engagement activity can be just as crucial as how it is delivered. Research has shown how certain moments of change provide valuable windows of opportunity for changing people's behaviour. This includes changing jobs, moving home or carrying out major building works to a home. The changes that people experience at these points can make it easier for them to establish new routines and habits.<sup>31</sup>

A number of case studies have found that delivering engagement activity in parallel to retrofit works or the installation of micro-generation technology can increase its effectiveness. This is because such works usually involve contact with residents and discussions on the use of new technology systems. These provide an opportunity to talk to residents more widely about saving energy in the home.

New tenancies also provide an opportunity for engaging with residents on energy use as part of welcome visits.

### Case study examples:

- The Guinness Partnership (page 29)
- Homes of Our Times (page 30)
- Relish (page 33)

### Other examples (see appendix B):

- Birmingham Energy Savers
- SHIMMER

## Section 4: Case studies

The case studies below demonstrate a range of approaches to behaviour change and engagement from organisations of different types, sizes and locations. They represent a small snapshot of the important work housing associations and other organisations are delivering to help households save energy use.

Whilst only a handful of case studies could be profiled in detail in this review, the Federation would like to thank all the organisations who responded to our request for case study information. A full list of all the case studies that have fed into this review is included in appendix B.

The following symbols are used to indicate the different types of techniques used in each case study:

- ✂ Feedback on consumption
- 😊 Motivational campaign
- 📄 Advice and guidance
- 👥 Peer-to-peer working

### Better Off Green



**Delivered by:** Aster.

**Location:** South and south-west England.

**Duration:** 2 years from November 2011.

**Status:** Ongoing.

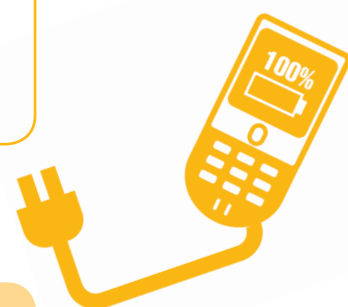
The campaign aimed to help households reduce their environmental impact and reduce fuel poverty by saving them money. The Better Off Green branding was created to communicate the money saving and environmental aspects of the project. It provided the brand for a variety of engagement initiatives carried out through the campaign, designed to reach as many residents as possible. These covered a broad range of themes including energy use, recycling, transport, water use, shopping habits and growing your own.

Residents were invited to become part of a resident green team which helped shape the engagement programme. Residents

received energy saving training so they could act as energy champions within their communities and support staff at roadshow events.

To launch the campaign, all 17,000 households were sent a leaflet with energy saving advice along with a pledge card. Advice included top tips and where to get help with bills. Households were asked to pledge small behaviour changes. Return of pledge cards was incentivised via a competition to win an eco-holiday.

Younger residents were encouraged to be Green-eyed Monsters and spy changes they could make at home. This was seen





**Above:**  
Better  
Off Green  
Roadshow.  
[Aster Group](#)

**Right:**  
Green Eyed  
Monsters  
[Aster Group](#)

as an effective way of getting messages into the home. To incentivise engagement young people were encouraged to send in drawings of Green-eyed Monsters doing green things in return for branded merchandise.

A series of roadshows have taken place providing residents the opportunity to get advice and information from a wide range of environment organisations.

Free branded merchandise such as mugs and fridge magnets were given out to residents, providing general hints and tips. An energy tariff comparison site has also been set up on the Better Off Green website.

### Outcomes and learning

So far over 4,000 households have been directly supported to save money by reducing their environmental impact. 607 households returned pledge cards.

It is estimated that total savings so far are up to £63,388 on fuel bills and 161 tonnes carbon per year. The project is ongoing with more initiatives planned and further savings expected.



Getting numbers through the doors of roadshows was a challenge. Timing and venue were crucial, and letters were a more effective means of inviting residents than flyers.

The offer of free radiator reflector panels to residents has proven very successful, being taken up by over 3,100 residents. The project has also demonstrated that early involvement of residents is vital to success. Monitoring financial and carbon savings is recommended.

### Further information:

[www.aster.co.uk/our-green-ambitions/better-off-green-campaign/](http://www.aster.co.uk/our-green-ambitions/better-off-green-campaign/)

Eco-Family



**Delivered by:** Newlon Housing Trust working with Global Action Plan.

**Location:** London, England.

**Duration:** September 2009 - December 2010.

**Status:** Ended.

Newlon invited residents to register to become the Eco-Family. A local family was selected from the shortlist and were followed over a period of a year to spearhead the project. Each month, the Eco-Family was set challenges covering a range of topics including energy use, waste and water use. The family reported back on their experiences and progress each month via a web blog. This was supported by resources and general energy saving tips made available to any household wanting to take on the same challenges as the Eco Family.

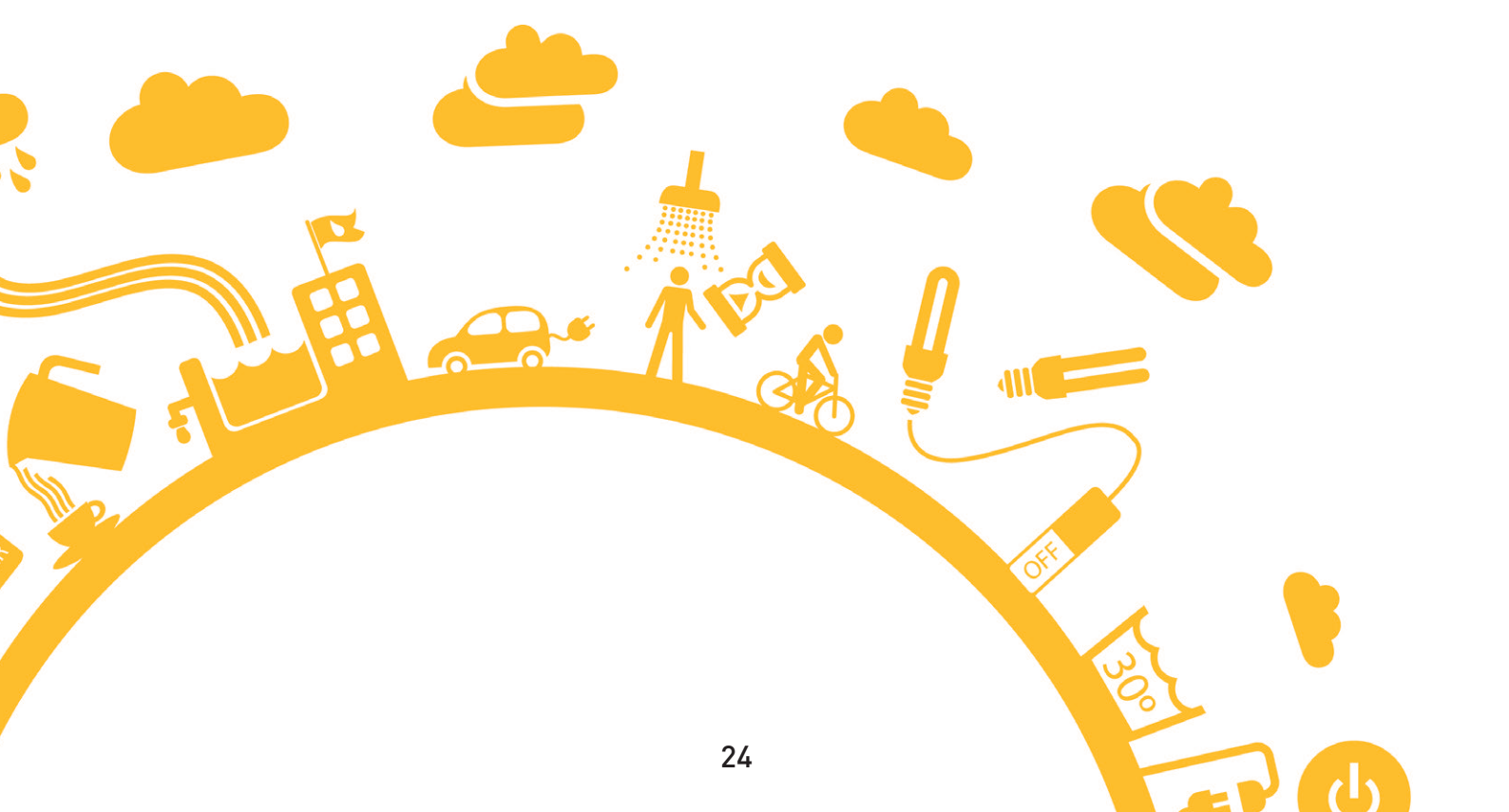
**Outcomes and learning**

Eco-Family was part of a wider programme of initiatives called Save Money, Save Energy, Save the World, and also included Energy Doctor and Greener Newlon projects. It is estimated that combined the initiatives reached over 300 households, with average CO<sub>2</sub> savings of 8%.

The Eco-Family project demonstrated how competition and reward, not just lower bills, can be great motivators towards energy conservation. It also demonstrated the role that information technology can play in motivating people to change their energy consumption behaviour.

**Further information:**

[www.newlon.org.uk/residents/anti-fuel-poverty-campaign/eco-family/](http://www.newlon.org.uk/residents/anti-fuel-poverty-campaign/eco-family/)





### Energy Action for Rutland



**Delivered by:** Change Agents UK closely supported by Rutland County Council and in partnership with Spire Homes, Age UK, Voluntary Action Rutland and Rutland Citizen's Advice Bureau.

**Location:** Rutland, East Midlands, England.

**Duration:** January 2012.

**Status:** Ongoing.

**Cost:** Details upon request.

A coordinated programme of activities across a range of local organisations targeting fuel poor households across the county of Rutland. More than 1,000 households, including rural communities, were targeted by being sent an information leaflet. They were offered free 90 minute home energy audits at which households received bespoke advice on saving energy and cutting fuel bills. A week after the energy audit, households received an easy-to-understand report. General advice and guidance was also provided on the local authority website and information displays in customer service areas at Rutland County Council offices, local libraries and Citizens Advice Bureau.

Front-line staff across a range of public and community organisations received training to be able to advise households about the basics of saving energy. Warm home packs were distributed to households at energy audits and also through GP surgeries. Free basic energy efficiency measures and a free handyman service were also on offer.

#### Outcomes and learning

Satisfaction levels amongst households receiving advice were high (92%). After 4 months, 200 households had requested

and received an energy audit and over 50 homes had received energy efficiency improvements. More than 300 warm home packs were distributed and 20 frontline staff had been trained to give energy efficiency advice. Additional funding has been secured to continue the programme for a further two years and expand the service to Melton Borough.

The programme highlighted the importance of providing households with tailored advice that was relevant to their concerns (saving money and being comfortable in their home). Word of mouth amongst residents proved vital to the uptake of home energy audits as branding, trust and recognition increased.

A common finding amongst households visited was that heating controls were not being used efficiently, householders were on inappropriate tariffs and basic energy saving measures (draught proofing, insulation and/or hot water jackets) were possible.

Coordinated working across different local organisations helped ensure the programme remained on track and maximised reach building on existing links and local knowledge.

#### Further information:

[www.rutland.gov.uk/climate\\_change/energy\\_action.aspx](http://www.rutland.gov.uk/climate_change/energy_action.aspx)

Contact Nick Goodman at Change Agents UK ([nickgoodman@changeagents.org.uk](mailto:nickgoodman@changeagents.org.uk))

### Fit for the Future



**Delivered by:** Accord as the lead partner (supported by the NRCCE) worked with a range of stakeholders to deliver this project, including Black Country Housing Association and Family Housing, Marches Energy Agency

(MEA), Walsall College, Associated Skills for Industry (ASFI) Mears PLC.

**Location:** West Midlands, England.

**Duration:** 18 months, beginning in 2009.

**Status:** Ended.

The project tested a two-tiered training programme for residents that aimed to improve their knowledge of climate change and energy saving measures and provide an opportunity for improving their skills to take advantage of employment opportunities within the emerging green economy. Through the development of retrofitting qualification for trade operatives the project also sought to build capacity within housing associations to install and maintain new technologies in their housing stock.

The intention was to create a pathway for those who had little or no prior knowledge in climate change, from the initial hook-in and engagement of residents in an introductory energy conservation session through to a more advanced level of learning for those wishing to expand their skills and gain a nationally recognised qualification.

The three elements of the training package were:

- Energy Conservation Workshop - A 2-3 hour (non-accredited) taster workshop that provided participants with a general introduction to climate change and basic energy management principles within the context of their own home and lifestyles.

- Level 2 Climate Change & Energy Management - A 1-day nationally recognised qualification in climate change and energy awareness.
- Level 3 Retrofit Skills Programme - A 12-day (accredited at Level 3) qualification that developed the knowledge and skills of qualified operatives in environmental technologies and sustainable construction techniques.

Residents were also provided the opportunity to improve their confidence in job seeking through opportunities such as climate change champions and work placements.

### Outcomes and learning

More than 379 residents have been trained in cutting their carbon footprint and reducing fuel bills and nearly 58 have completed a one-day accredited Level 2 course.

Despite some of the original outputs not being achieved, the pilot has been extremely effective in raising awareness of climate change and energy conservation amongst residents and has received two national awards.







### FutureFit continued

All 152 households are being monitored for one year via gas and electricity sensors and internal and external temperature gauges. The findings will be compared to historic bills.

Along with those involved in the project, a series of stakeholder workshops engaged with residents and staff outside of the process. These introduced the retrofit agenda and involved visits to a live empty Affinity Sutton property and an interactive design session with participants where they decided on a package of works for the property that was actually delivered as part of the project.

Due to the success of these workshops, Affinity Sutton is now launching CommunityFit which will provide an opportunity for residents in five locations across England to decide on a package of energy upgrade works for their community centre. These centres will become energy learning centres for the wider community.

#### Outcomes and learning

Phase 1 findings:

- As savings on bills could not be guaranteed it was more difficult to

get people engaged early on. About a quarter of those initially interested in having their homes retrofitted dropped out before and during works.

- Overall, residents' satisfaction with works was high, but their understanding of systems was low.
- Staff needed to be on hand through the project to resolve any issues and maintain resident engagement in the scheme.
- The Green Deal must include education for residents and funding for this needs to be identified. For this reason resident-facing staff need training on retrofit works and their implications for residents.
- Familiar faces were crucial to maintaining engagement throughout the process.
- Engagement at the stakeholder workshops was very successful and Affinity Sutton are looking to use this model in other areas of the business.

#### Further information:

[www.affinitysutton.com/futurefit](http://www.affinitysutton.com/futurefit)



### The Guinness Partnership



**Location:** England-wide.

**Status:** Ongoing.

Wide ranging programme of initiatives aiming to embed the provision of water and energy saving advice and tariff switching advice across a range of the organisation's services.

All front-line staff are being trained to provide a leading role in delivering face to face advice to residents as part of their standard duties. This includes housing officers providing all new tenants with advice as part of welcome visits which take place either 4 weeks or 6 weeks after sign up and also at annual visits where they occur.

To support staff, a comprehensive and engaging e-learning module has been developed that provides them with guidance on facilitating discussions with residents, addresses how to overcome common barriers which they may encounter, and provides hints and tips on reducing energy and water consumption and ensuring customers are on the best

tariffs. A crib sheet for staff is also being developed to assist them when they are in customers' homes.

In addition residents are being involved in the development of an energy and water saving handbook that will provide information that is relevant to their needs. Other supporting materials for households are being trialled, such as temperature gauges, radiator keys and radiator reflector panels.

General information and guidance on saving energy is also provided to residents on the organisation's website. This includes energy saving videos which focus on each room of the house.

#### Outcomes and learning

To monitor the effectiveness of the new service the impact of the advice on household energy consumption will be measured across 100 homes and compared to consumption last year.

#### Further information:

Victoria Cartwright at The Guinness Partnership ([victoria.cartwright@guinness.org.uk](mailto:victoria.cartwright@guinness.org.uk))



Homes of Our Times



**Delivered by:** Metropolitan.

**Location:** England wide.

**Duration:** 2009 – 2012.

**Status:** Ongoing.

A three year study reviewing the effectiveness of different approaches to helping customers make the most of the energy saving features in their homes. This evaluation study helps Metropolitan understand how customers save money on energy bills and respond to Metropolitan projects and initiatives. Metropolitan uses the results to challenge and improve future engagement and communication.

In 2009 an illustrated A5 Energy and Money Matters Leaflet was sent to all households providing general tips on saving energy and cutting bills.

As part of the Set It Right campaign, an interactive online guide was created providing advice on savings that could be achieved by setting the heating controls correctly.

Over 300 staff have received training in practical ways they can support customers to save energy. Contractors are also asked to provide energy and heating controls advice as part of annual gas safety checks.

**Outcomes and learning**

A lack of energy awareness and overly complicated heating controls were identified as two major barriers to customers saving energy and cutting bills. Many customer do not understand their

heating controls or how to best set them. The landlord was seen as a major source of information on saving energy.

The year 1 evaluation found that there was little recollection amongst households of the Energy and Money Matters leaflet that had been distributed. However, when shown the leaflet in 1-1 interviews, residents were very positive about the graphic presentation and commented the tone of the leaflet gave the impression it was there to help and not a lecture. They commented that the visual section was not the immediate thing seen and the front cover did not stand out, giving the impression of “being just another leaflet”. The text-heavy sections were not as well valued. The leaflet has since been refined to respond to this feedback.

The year 2 evaluation recommends a more proactive approach to communicating energy saving with residents, particularly around less obvious issues like heating controls. It recognises the value in using existing customer networks and forums to support this. It also highlights importance of a coordinated and consistent approach to providing information through different sources. While most homes had the means to control the heat in the home, only half were proactively using them.

**Further information:**

[www.metropolitan.org.uk/about-us/organisational-information/sustainability/](http://www.metropolitan.org.uk/about-us/organisational-information/sustainability/)

## Neighbourhood Energy Challenge



**Delivered by:** Regenda.  
**Location:** Birkenhead, Wirral,  
 North-west England.

**Duration:** 10 weeks from February 2012.  
**Status:** Ended.  
**Cost:** £5,300 materials + staff time.



**Above:**  
 Regenda  
 residents  
 participating  
 in the  
 Challenge.  
[Regenda](#)

The aim of the project was to reduce electricity consumption in participating households and raise awareness of energy saving measures across the wider area.

Twenty households were signed up to the Challenge from a small estate of 60 properties. The participating households competed against each other to reduce their electricity consumption. The winning household was given £600 worth of A-rated electrical goods of their choice.

All participants were provided with an energy efficiency make-over at the beginning of the competition, which included draught-proofing, radiator foils, energy saving light bulbs, Eco Manager

(energy monitor and standby saver), mobile phone plugs and radiator booster. While the make-over was being completed an energy audit of the home was undertaken and energy saving advice given to each household by local environmental charity Energy Projects Plus.

The participants' electricity use was monitored every two weeks for the duration of the competition and feedback was given on how much energy they were using compared to their neighbours.

At the end of the competition each household was given tailored feedback on the electricity they had used, savings they had made throughout the competition and advice on further action they could take.

An awareness campaign is planned in the area to share the participants' experiences with the rest of the community.

### Outcomes and learning

Most participants made reductions in their electricity consumption during the competition. Those households that made reductions reported that they and others in the family had got into the habit of saving energy and would be continuing after the competition.

On average the Energy Challenge participants used 24% less electricity per person than the average UK household. This was equal to an average annual saving of £190 per household. The winning

### Neighbourhood Energy Challenge continued

household went from paying £10 every six days to £10 every two weeks for electricity – a saving of £240 a year.

Most properties had external electricity meters which made collecting meter readings easier and meant more feedback could be given throughout the competition. The continual feedback was important as it helped participants to maintain motivation to reduce their energy consumption.

Many of the participants used pre-payment meters which meant they noticed reductions in their energy spend immediately. Those on credit meters were less likely to report a reduction in their energy spend even though meter readings throughout the competition showed that they had reduced their use.

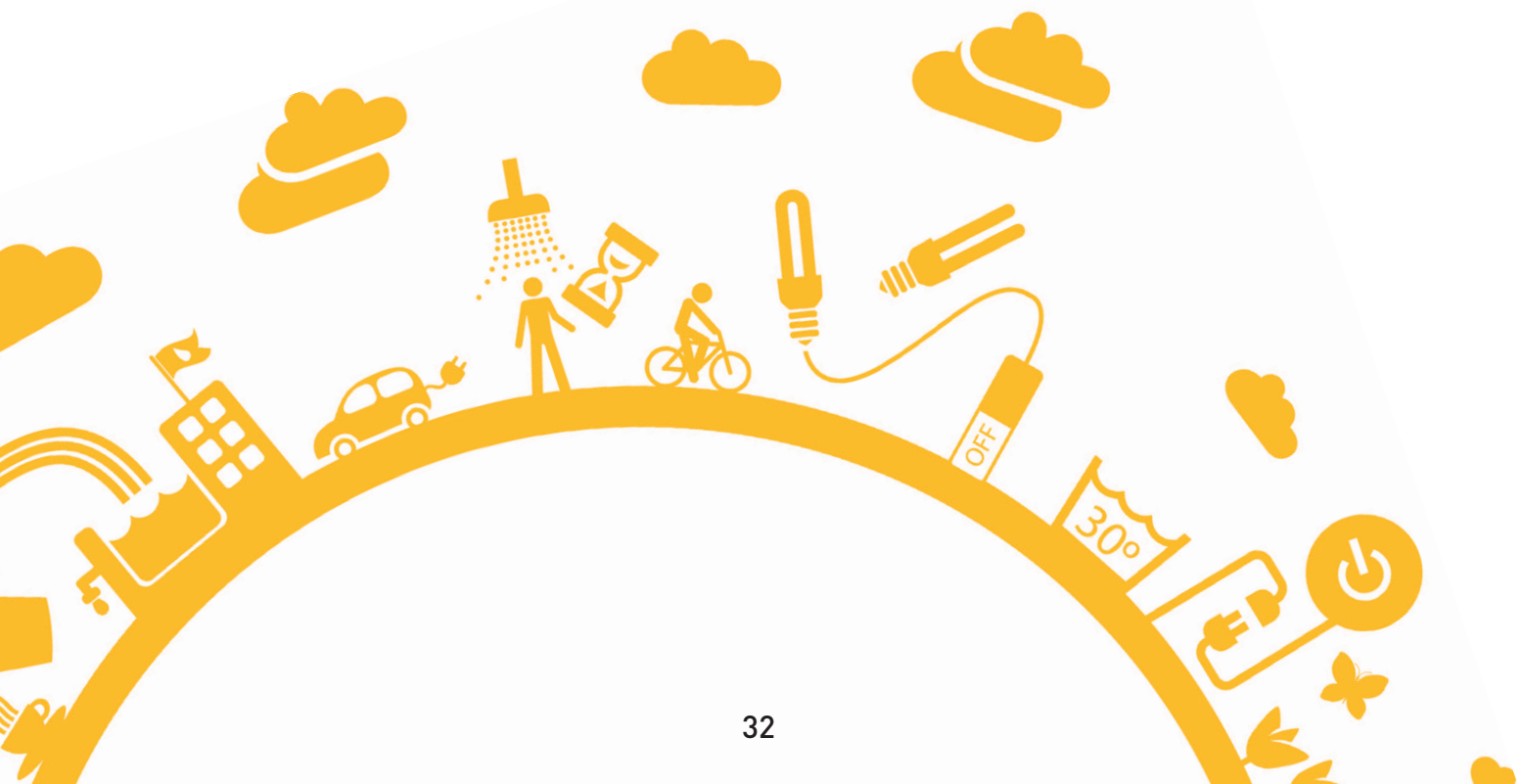
The vast majority of participants reported that the Eco Manager was the most useful gadget of those installed during the energy efficiency make-over. Some disabled and elderly participants valued the ability to turn off appliances from the plug, which were usually difficult to reach.

The mobile phone plug, although initially popular, was not used as much throughout the competition. Some participants found that it failed to charge their phones fully.

The project was very time intensive. It would be difficult to deliver on a larger scale without dedicated staff resources. Effectively sharing the participants' experiences with others in the community will be vital to ensure the maximum benefits of the project.

#### Further information:

Contact Sarah Thomas at Regenda (Sarah.Thomas@regenda.org.uk)







Relish™



**Delivered by:** Worthing Homes.  
**Location:** West Sussex, England.  
**Duration:** Phase 1: October 2009 -

September 2010.  
 Phase 2: Began late 2011.  
**Status:** Ongoing.

The Relish™ approach combines low cost retrofit works with resident education and engagement activity, which aims to educate residents on how their lifestyle can impact on reducing energy use and bills.

### Phase 1

Phase 1 piloted the approach working with four households, comparing the benefits of delivering works and education together, with education only and works only packages.

The engagement activity sought to involve the whole household at each stage of the process; it was designed to be fun, interactive and easy to understand, as well as demonstrating simple lifestyle changes that would provide real benefits in reducing household fuel bills.

Households received an initial energy assessment to determine their consumption habits. Based on this a bespoke energy plan was developed for those households receiving the education package. This was followed up with monthly face to face meetings with all members of the household to review their consumption and revise the energy plan as necessary.

Smart meters and energy monitors were used to monitor changes in consumption as well as provide households with regular feedback on their energy use.

An easy-to-read Relish™ residents' guide was developed providing practical tips on saving energy around the home.

### Phase 2

Phase 2 involves a scale-up of the Relish™ approach to 159 households, which includes 27 leaseholders.

The main difference to phase 1 is how the engagement is delivered to households. Given the number of households, much of the advice will be delivered via a continuous dialogue between households and staff and contractors from the on-site delivery team. Every member of the project and delivery team has been trained in Relish™ principles. Upon completion of the works each household will be provided with their own Relish™ handbook, explaining lifestyle habits. This will also include their own bespoke energy plan for the next 12 months and their Relish Rating™.

Resident energy champions are also being identified and recruited to provide advice and guidance to households; workshops will support this work. A poster campaign will also profile residents who make the largest savings.

A Relish™ community hub (show flat) has also been built providing an opportunity to demonstrate simple energy saving measures to residents, as well as the Relish™ smart wire. This is open for the residents to visit and talk to staff. This can also be viewed on the website, where there is a 360° virtual tour.

Following completion of the works continued resident support and engagement will be provided over a 12

### Relish continued

month period via bi-monthly visits from an energy advisor who will review each households' bespoke energy plan and provide appropriate advice.

The length of time spent with each household will be determined by their energy use category determined during the initial resident energy occupancy assessment as the biggest savings have been shown to come from high-energy using households.

#### Outcomes and learning

In Phase 1, the household that received both low cost retrofit works and education achieved energy savings of 30%. This compared to savings of 4% where only low cost retrofit works were carried out. Of households receiving education only, the high-energy user household achieved savings of 18%. The low-energy user household saw an increase in energy use of 2%. However this compared to an average increase of 12% amongst control group households – in real terms the savings are actually higher!

Seven months after the phase 1 pilot ended, the household receiving works and education continued to make savings in consumption. Of those who had received education only, the high-energy user household saw small increases in energy consumption, whilst the low-energy user maintained consumption levels.

Households were more receptive to changing habits associated with electricity use than gas use (lights and appliances). They were less keen to reduce internal temperatures or change bathing habits.



In phase 2, energy use will be monitored via manual meter readings. Households will receive incentives to facilitate this process.

Learning from the first 6 months of phase 2 includes the need to be flexible and adapt messages to different households - some are more motivated by saving money and others by the environmental benefits of reducing energy consumption.

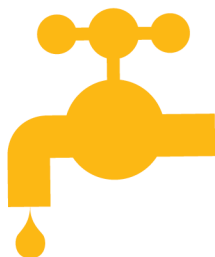
Some households were also initially reluctant to engage, however once the benefits of the scheme have been outlined the level of willingness to take part increased. It is important to invest time upfront to engage households early on to maximise the success of engagement later in the project.

The visual language developed for the resident guide is available to other organisations to use and adapt. Currently this is being used by Action for Sustainable Living as part of their Energy Academy programme for 17,000 households in Manchester.

**Above:**  
Monthly energy reviews.  
[Worthing Homes](#)



**Further information:**  
[www.relish.org](http://www.relish.org)



### Save Money Save Energy Road-shows



**Delivered by:**

Hastoe Housing Association

**Location:** South, east and west of England

**Duration:** Since 2011

**Status:** Ongoing.

Hastoe manages properties in mainly rural communities. It undertakes a range of activities to address fuel poverty and climate change, as outlined in the organisation's Financial Inclusion and Greening Hastoe strategies. This includes assisting households to find the cheapest fuel providers and providing information which will help them save money. For several years the organisation has been running training courses for residents and staff covering a range of topics relating to energy efficiency, advice on getting the best tariffs and grants and benefits available.

The organisation established the Hastoe Bus, which is a portable meeting area that can be driven around to rural schemes to host events, helping to reach homes over a wide geographic area. In 2011, the bus was used to deliver three Save Energy, Save Money road-shows delivered in partnership with Sustainable Homes, covering 10 housing schemes in 3 days. Sustainable Homes provided packs with information on energy saving tips around the home and each resident was taken through the pack individually and given the pack for future reference.

More Save Energy, Save Money road-shows were held over summer 2012 across all three regions where Hastoe has housing stock. These were operated in partnership

with local Citizens Advice Bureaus and Norfolk Credit Union who also gave general financial advice.

In addition, a Save Energy, Save Money film has been produced featuring Hastoe residents and is designed to demonstrate simple energy efficiency measures within the home. This will be publicised to staff and residents and will be available on the internet.

The Hastoe website provides general advice and guidance to residents and energy efficiency articles feature regularly in the Hastoe @home magazine. A Hastoe Facebook page provides opportunities for residents to share energy saving tips and was one of several ways used to communicate the Save Energy, Save Money road-shows.

**Outcomes and learning**

The events were publicised in advance and although some residents were willing to venture out to the bus, Hastoe found that knocking on doors was very successful and many residents were willing to engage. The events proved successful in that information was given to 31 residents in total.

The organisation has found the informal road-show style event to be particularly useful.

**Further information:**

[www.hastoe.com/content/86/going-green.aspx](http://www.hastoe.com/content/86/going-green.aspx)

### Southway Energy Team



**Delivered by:** Southway Housing Trust and Action for Sustainable Living (main contractor).

**Location:** Manchester, England.

**Duration:** 2011-2015.

**Status:** Ongoing.

Southway Housing Trust has developed a Sustainability Strategy through consultation with staff and a wide range of external stakeholders, including local community organisations and residents. One of the main objectives is “supporting behaviour change and empowering communities.”

Between November 2011 and April 2012, Southway worked with local charity Action for Sustainable Living to pilot an energy efficiency project in Chorlton. The pilot provided bespoke training on how to reduce domestic energy use through simple lifestyle changes and around 30 tenants learnt about the potential for energy saving measures and behaviours. They then volunteered as Tenant Energy Champions (TECs) and went on to deliver their own drop-in sessions and offer advice to their own friends and families.

Further engagement activity is underway through the renamed Southway Energy Team who, with Action for Sustainable Living, will offer a full programme of support across all of Southway Housing’s neighbourhoods during autumn and winter 2012/13.

The programme of community support will consist of drop-in energy surgeries, free home energy audits,

help with switching energy suppliers, the distribution of energy monitors and energy saving light bulbs, installing external clothes drying facilities and the establishment of three demonstration homes to showcase local eco-living.

60 TECs will be recruited, trained and supported to deliver energy saving advice and guidance to 600-1,200 households.

This will run alongside a comprehensive programme of support and training for 185 customer-facing staff which will enable different departments to better deliver elements of the programme themselves in future years.

A range of Southway Energy Team branded marketing materials and training resources will be developed including a residents energy guide based on RELISH ([www.relish.org](http://www.relish.org)) for whom Southway are to become one of the first housing associations to be named as approved adopters.

#### **Outcomes and learning**

The Chorlton pilot engaged with 309 tenants and helped them each save an average of £111 per year off their energy bills – with a projected total of £34,329; 340,000 kWh (units) of energy; and 124 tonnes of CO<sub>2</sub> a year.

#### **Further information:**

Contact Joshua Steiner at Southway Housing Trust ([J.Steiner@southwayhousing.co.uk](mailto:J.Steiner@southwayhousing.co.uk)).

### Warmer Living Project



**Delivered by:** Regenda, Great Places Housing Group and Groundwork Oldham and Rochdale.

**Location:** North-west England.

**Duration:** January - March 2012.

**Status:** Ended.

**Cost:** £48 per tonne of carbon saved. Energy checks cost approximately £75 per visit.



**Above:** Regenda resident (left) with financial inclusion officer and Groundwork volunteer discussing radiator foils and power downs.

[Groundwork Oldham and Rochdale.](#)

Local residents were trained as Community Champions to deliver energy efficiency advice within their neighbourhood. Information and advice was tailored to each household, delivered by the energy champions via door-step visits and home energy checks. In addition households were offered low cost energy measures (such as draught proofing, energy monitors and insulation). To support the advice, a Warmer Living brochure was given to households, providing simple and low cost ideas for reducing energy use. It also included signposting information to wider support services.

The Community Champions received ongoing support and mentoring from Groundwork staff. Technicians who installed energy saving measures on follow-up visits also had formal training in providing energy efficiency advice to ensure additional support was provided to households.

Over 2,000 homes were initially targeted via leafleting. Follow-up visits were also carried out by the Community Champions providing an opportunity to engage households with the programme.

#### Outcomes and learning

In total, 12 residents were trained as Community Champions. 1,200 homes received door-step information, with 580 receiving more detailed advice via in-home energy checks. 234 homes received low cost energy efficiency measures.

It is estimated that the project delivered 672 tonnes of carbon savings per annum (649 tonnes from advice alone).

Working within tight geographic areas created visibility which helped the scheme. Where properties were not as concentrated this visibility never really developed.

Working with housing associations to promote the programme also helped the scheme. The best results were obtained where the programme information was shared in a residents newsletter.

## Section 4



### Warmer Living Project continued

For the most part energy efficiency and carbon savings were not foremost in residents' minds. The Community Champions had to work hard to make the link between energy efficiency and reduced bills; once the link was made householders were interested and did engage.

Follow up visits are crucial to the success of the programme, householders will

not engage without them. Community engagement events were found to be of limited value compared to door to door contact.

The use of Community Champions worked well because they were known as friends and neighbours and trusted by households visited. They were also able to control the conversation and not be drawn into wider housing issues.

#### Further information:

Contact Groundwork Oldham and Rochdale ([www.gwor.org.uk](http://www.gwor.org.uk))

### WDH Climate Change Engagement



#### Delivered by:

Wakefield and District Housing (WDH)

**Location:** West Yorkshire, England

**Duration:** Since 2008

**Status:** Ongoing

In 2008 WDH developed a long term engagement plan aiming to influence the behaviour of its residents by increasing their awareness of climate change and improving the information residents received.

Residents were engaged via workshops at the 2008 Annual Tenants' Conference covering a range of topics including fuel poverty and energy efficiency. And again in 2012 climate change, energy efficiency, sustainability and saving money were the themes of a Tenant Challenge Day.

Since 2008 a series of road shows have been held to provide residents with useful information on how they can be





**Above:** WDH working with the local community.

[Wakefield and District Housing](#)

**Below left:** Demonstrating energy saving devices.

[Wakefield and District Housing](#)

more energy efficient and save money off energy bills. Incentives have been offered to encourage visitors.

As part of WDH's Park Dale development, the UK's largest zero-carbon code 6 housing development, an Eco Learning Centre was built. The centre provides eye catching displays on climate change issues and energy efficiency. As well as being used for tenants to understand how to save money on their energy bills, WDH also plans to open up the facility to the wider community for schools and colleges to use as a learning centre.

General information and advice is also available to tenants via the WDH website, tenant newsletters and an energy hotline.

WDH is an accredited learning centre running many qualifications one of which is the CIH Sustainable Living Award which helps tenants to change behaviour through smarter lifestyle choices, reducing the running costs of their homes and supports sustainable living.

### Outcomes and learning

Over 800 residents were involved in developing the original Resident Involvement Strategy and the incentives and competitions that were created helped to reach these figures.

Climate change and sustainability messages can be complex and people are more interested if they are tailored to issues that affect them directly. Because of this WDH has since tailored its climate change and sustainability messages to link to making tenants' money go further and reducing their energy bills.

The road shows continue to be rolled out at regular intervals with the latest ones happening in the Wakefield district over summer 2012.

### Further information:

Helen Wordsworth at WDH  
([hwordsworth@wdh.co.uk](mailto:hwordsworth@wdh.co.uk))  
[www.wdh.co.uk](http://www.wdh.co.uk)





### WISE (Wherry is Saving Energy)



**Delivered by:**  
Wherry Housing Association.

**Location:** East of England.  
**Status:** Ongoing.

Three staff have been qualified to NCQ level 3 in Energy Efficiency Advice. Households which are considered to be in fuel poverty are offered visits from an energy advisor, who undertakes a detailed energy audit with them which includes demonstrating heating system controls to get the best out of them, provides tailored information and guidance on saving energy and money in their home, checks they are receiving all the correct benefits and help residents understand their energy bills including help switching tariff or provider if applicable.

The energy advisor will also leave every resident with a goodie bag of energy saving devices including things like smart meters, light bulbs and power downs. The organisation also has a network of resident energy champions who have been trained to provide energy advice to residents and community groups.

Information and fun community events have also been held to deliver a low carbon living education programme to larger groups of residents. Every year Wherry holds free resident fun days which consist of information stalls and activities. Wherry always make sure there is an energy saving stall on each fun day which provides a location for residents to hear energy saving advice and get up to date information on tariffs and providers' costs. Wherry will always try and have activity tables for children including learning about saving energy from a child's point of view so they can pass it onto their parents.

In February 2012 Wherry held one of their Working Together Days which had an energy focus. The day involved staff from across the organisation door-knocking residents to provide them with energy advice. Each resident was asked to complete a short questionnaire and received a copy of the Energy Matters guide, a light bulb and smart meter. Each resident was provided with a voucher after they completed the questionnaire to pop along to the nearest Base Camp to collect their free energy saving goods and meet the rest of the WISE team and other partners including Broadland District Council and Age Concern.

To prepare them for the visits to residents all staff had to attend an energy saving workshop held by the in-house Energy Advisor, which provided them with basic knowledge on energy saving techniques.

The Energy Matters is a pictorial easy-to-read guide providing information on energy efficiency, use of heating controls and advice and utility bills. The guide has been distributed to all vulnerable households and the energy advisor leaves one behind after each visit. A micro-website has also been set up to promote energy efficiency.

#### **Outcomes and learning**

15 resident energy champions have been trained so far. To date energy efficiency advice has been given to 135 households by the energy advisor and 17 community energy events have been held.



The results of the working together day were as follows:

- 1,009 properties were visited and 272 questionnaires completed.
- 186 smart meters and light bulbs were given out, and a further 53 are planned to be delivered.
- The 272 audits completed revealed that 67 residents have never switched their energy supplier. Amongst residents there was a wide range in monthly energy costs, between £20pcm to £280pcm.

- 15 detailed energy audits were conducted, with a further 35 requested by residents.

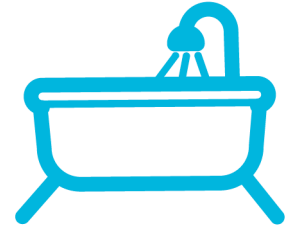
Wherry has recently carried out research in partnership with University of East Anglia. This concluded that the main barriers to effective use of energy systems was an over-reliance on landlords to solve problems, rather than residents taking ownership of systems and consulting the manual or installers themselves.

**Further information:**

[wherryWISE@circle.org.uk](mailto:wherryWISE@circle.org.uk)

[www.circle.org.uk/wherry/resident-info/energy-advice/](http://www.circle.org.uk/wherry/resident-info/energy-advice/)





## Appendix A: Summary of Count Us In Pilots

The following organisations have been selected to run Count Us In pilots:

- Aspire Housing
- Helena Partnerships
- Shepherds Bush Housing Group
- Trafford Housing Trust
- Yorkshire Housing

Each pilot will run for 18 months with the aim of reducing household energy consumption and energy bills by 5 to 10% through changes in their behaviour.

The five pilots will provide valuable learning on how to engage with occupants of a range of housing types in urban,

rural and supported settings. A range of engagement techniques will be trialled including use of smart meters, social media technology, resident-led action, one-on-one training and group sessions.

Each pilot will be monitored by comparing the consumption of households involved against a control group of households who will not receive any engagement activity. Changes in tenant behaviour and knowledge of their energy use will also be measured through a questionnaire.

Key findings will then be shared in a learning guide that will be disseminated to the rest of the Federation membership and beyond.

### Aspire Housing



**Location:** Newcastle-under-Lyme, West-midlands, England.

**Duration:** March 2012 – September 2013.

The pilot will work with elderly and vulnerable residents across three supported housing schemes, including off-gas bungalows.

Following initial visits to each household, occupants will be engaged via a series of information-giving and training events, information leaflets and physical demonstrations providing practical advice on reducing energy use. Due to the varied needs of the customer base, this will be supported through follow up visits by staff who will reinforce key messages.

Households will receive monthly feedback on their energy use and prizes will reward the greatest savers.

The pilot will include the use of heat monitors and smart meters in one of the housing schemes which will also benefit from new air sourced heat pump systems. A second housing scheme will receive comprehensive information and advice. The third scheme will be used as a control group comprising of quarterly meter readings only. The impact of the different approaches will then be compared.

## Helena Partnerships



**Location:**  
St Helens, North-west England.

**Duration:** April 2012 – October 2013.  
**In partnership with:** British Gas.

Tenant energy champions will work alongside housing staff to provide home energy checks to households, reviewing their energy use and identifying practical ways they can reduce energy use. This will be supplemented by group sessions, surgeries and information days as a means of sharing information and good practice. A DVD and information pack will be produced

and provided to further support households.

The pilot will trial the use of smart meters, provided by British Gas.

The pilot will target households across a number of estates, comprising a mixture of houses, bungalow and flats including properties undergoing retrofit works.

## Shepherds Bush Housing Group



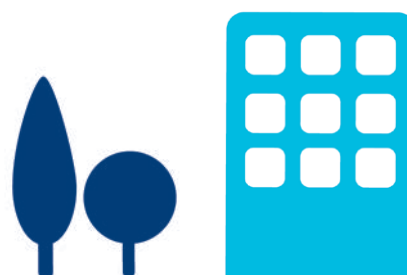
**Location:** London, South-east England.  
**Duration:** April 2012 – October 2013.

**In partnership with:** British Gas.

The pilot will engage households within primarily Victorian street properties by establishing a virtual community through the use of a social networking portal. This will provide advice and information via a mix of video, text and illustrated formats. Households will receive information in small, digestible chunks at regular intervals, organised by rooms of the

house. Households will be asked to post or respond to a post at least once a month to encourage regular interaction with their energy use and other households.

This learning will be supported by the use of smart meters, provided by British Gas. Households will also receive a welcome pack.



**Trafford Housing**



**Location:** Greater Manchester, North-west England.

**Duration:** April 2012 – October 2013.

**In partnership with:** Action for Sustainable Living.

The pilot will target households within three tower blocks on the Old Trafford estate, comprising a mixture of 1 and 2 bedrooms flats.

Trafford Housing Trust will work with local charity Action For Sustainable Living to deliver engagement activity to households. Housing staff and residents will be trained to deliver energy advice and support to residents. This will be supported by a range of other activity including energy clinics, energy socials,

one-on-one support to households, and the creation of an easy-to-read tenant guide based on RELISH communications tools.

The tower blocks have been undergoing retrofit works. Retrofit works on one of the blocks will run in parallel with the engagement activity. One tower block will be used as a control group, receiving retrofit works but no engagement activity. The impact of the different approaches will then be compared.

**Yorkshire Housing**



**Location:** Yorkshire, England.

**Duration:** March 2012 – September 2013.

The pilot will target properties in both urban and rural locations, including off-gas homes and properties built to Code 4, 5 or 6 for Sustainable Homes. One group of properties will comprise housing for the elderly.

Housing staff will be trained by Sustainable Homes to give energy saving advice to residents and prepare an action plan with each household. Each household will be given an electricity monitor and be

shown how to use it. An energy saving tips calendar will also be provided. Engagement will also be provided throughout the pilot through quarterly newsletters with energy saving tips and a DVD.

Staff will work with residents to develop a series of local initiatives tailored to each neighbourhood. This could include recruiting resident energy champions to pass on best practice to their peers, competitions and group activities.



## Appendix B: Index of case studies reviewed

The table below lists the case studies that have fed into this review. Each is categorised according to its location and type of behaviour change interventions used. Links to further information on each case study are provided where available. Further information is also available from the Federation on request.

The case studies represent a snapshot of just some of the important work housing associations and other organisations are delivering to help households save energy use. It is intended to be a living database that will be updated as the Count Us In

project continues. To keep up to date visit the project website:

[www.housing.org.uk/CountUsIn](http://www.housing.org.uk/CountUsIn)

Case studies indicated in bold are profiled in more detail in Section 4. They demonstrate a range of approaches to behaviour change and engagement from organisations of different types, sizes and locations. Whilst only a handful of case studies could be profiled in detail, the Federation would like to thank all the organisations who responded to our request for case study information.

The following symbols are used to indicate the different types of techniques used in each case study:

↗ Feedback on consumption

ⓘ Advice and guidance

☺ Motivational campaign

👥 Peer-to-peer working

Project	Organisation	Location	Techniques			Further information
3e-Houses	Various	EU	↗			<a href="http://www.3ehouses.eu/">www.3ehouses.eu/</a>
A Resident's Friend	Catalyst Housing	South-east England		ⓘ		Contact Catalyst Housing.
ACHIEVE	Various	EU		ⓘ	☺	<a href="http://www.achieve-project.eu">www.achieve-project.eu</a>
<b>Better Off Green</b>	<b>Aster</b>	<b>South/south-west England</b>		ⓘ	☺	<b>See case study profile.</b>
Big Carbon Challenge	Oxfordshire Climate Xchange Oxfordshire Rural Communities Council	Oxfordshire		ⓘ	☺	<a href="http://climatex.org/media/attachments/BigCarbonChallenge_REPORT_July2011.pdf">http://climatex.org/media/attachments/BigCarbonChallenge_REPORT_July2011.pdf</a>
Birmingham Energy Savers	Birmingham City Council, Groundwork and Family Housing Association	Birmingham		ⓘ		<a href="http://www.birminghamenergysavers.org.uk">www.birminghamenergysavers.org.uk</a>

Project	Organisation	Location	Techniques				Further information
Carbon, Control and Comfort	University of Greenwich	North Yorkshire/ south-east England	⚡	①			Contact: Justine.Cooper@greenwich.ac.uk or k.g.jones@gre.ac.uk
CHARM	Kingston University and The University of the West of England	Bristol	⚡	①			www.projectcharm.info
Climate Clubs	Institute for Sustainable Futures	Australia	⚡	①	😊	👥	www.climateclubs.org.au
Closing the Loop	Radian	South-east England		①			Contact Radian.
Cool Mass	Massachusetts Climate Action Network	US	⚡	①	😊	👥	http://massclimateaction.net/low-carbon-living/what-is-cool-mass.html
E3SoHo	Various	EU	⚡	①			www.e3soho.eu/
EC-LINK	Various	EU		①			www.ec-linc.info
<b>Eco-Family</b>	<b>Newlon Housing Trust and Global Action Plan</b>	<b>London</b>	⚡	①	😊	👥	<b>See case study profile.</b>
EcoTeams	Global Action Plan	UK	⚡	①	😊	👥	www.globalactionplan.org.uk/ecoteams
Energise London	London Sustainability Exchange	London		①	😊	👥	http://www.lsx.org.uk/whatwedo/behaviourchange_page2575.aspx
Energy Academy	Action for Sustainable Living	North-west England		①	😊	👥	www.afsl.org.uk/energyacademy
<b>Energy Action for Rutland</b>	<b>Change Agents UK</b>	<b>East Midlands</b>		①			<b>See case study profile.</b>
Energy Best Deal	Ofgem and Citizens Advice Bureau	England		①		👥	www.citizensadvice.org.uk/index/partnerships/financialskillsforlife/fsfl_projects/fsfl_projects_energybestdeal.htm
Energy BITS	Various	EU		①	😊	👥	www.energybits.eu
Energy Demand Research Project	Ofgem, EDF, E.ON, Scottish Power, SSE Energy	UK	⚡	①	😊		www.ofgem.gov.uk/sustainability/edrp/Pages/EDRP.aspx
Energy Expert	Climate Energy	UK		①			www.climateenergy.org.uk/renew
Energy Neighbourhoods	Various	EU	⚡	①	😊	👥	www.energyneighbourhoods.eu
eSESH	Various	EU	⚡	①			www.esesh.eu

Project	Organisation	Location	Techniques			Further information
Fit for the Future	St Vincent's Housing Association	North-west England		ⓘ	😊	<a href="http://www.svha.co.uk/about">www.svha.co.uk/about</a>
<b>Fit for the Future</b>	<b>Accord Housing Group</b>	<b>West Midlands</b>		ⓘ		<b>See case study profile.</b>
<b>FutureFit</b>	<b>Affinity Sutton</b>	<b>England</b>		ⓘ		<b>See case study profile.</b>
Green Doctor	Groundwork	UK		ⓘ	😊	<a href="http://www.groundwork.org.uk/what-we-do/major-initiatives/green-doctor.aspx">www.groundwork.org.uk/what-we-do/major-initiatives/green-doctor.aspx</a>
Green House Games	Sustainability Victoria	Australia		ⓘ		<a href="http://www.greenhousegames.vic.gov.au">www.greenhousegames.vic.gov.au</a>
Green Streets	British Gas	UK	⚡	ⓘ	😊	<a href="http://www.greenstreets.co.uk">www.greenstreets.co.uk</a>
Green Ways to Work	Impact Housing Association	Cumbria		ⓘ	😊	<a href="http://www.impacthousing.org.uk/greenways-work-0">www.impacthousing.org.uk/greenways-work-0</a>
Greener Greenwich	L&Q Housing Association	London	⚡	ⓘ	😊	Contact L&Q Housing Association.
Greener Lambeth	L&Q Housing Association	London		ⓘ		Contact L&Q Housing Association.
Greener Newlon	Newlon Housing Trust and Global Action Plan	London		ⓘ	😊	<a href="http://www.newlon.org.uk/residents/anti-fuel-poverty-campaign/greener-newlon/">www.newlon.org.uk/residents/anti-fuel-poverty-campaign/greener-newlon/</a>
Greener Together	Co-operatives UK, Confederation of Co-operative Housing and Plunkett Foundation	UK		ⓘ	😊	<a href="http://www.greenertogether.uk.coop">www.greenertogether.uk.coop</a>
<b>Guinness Partnership</b>	<b>The Guinness Partnership</b>	<b>England</b>		ⓘ		<b>See case study profile.</b>
Home Energy Advice Team	Castle Rock Edinvar Housing Association	Edinburgh	⚡	ⓘ		Contact Castle Rock Edinvar Housing Association.
Home Energy Evaluator Project	Nottingham Community Housing Association	East Midlands		ⓘ		Contact Nottingham Community Housing Association.
Home Energy Reports	Opower	US	⚡	ⓘ		<a href="http://opower.com/what-is-opower/reports/">http://opower.com/what-is-opower/reports/</a>
<b>Homes of Our Times</b>	<b>Metropolitan</b>	<b>England</b>		ⓘ		<b>See case study profile.</b>
ICE-WISH	Various	EU	⚡	ⓘ		<a href="http://www.ice-wish.eu">www.ice-wish.eu</a>
IFORE	Amicus Horizon	Kent	⚡	ⓘ	😊	<a href="http://www.ifore.eu/index.php">www.ifore.eu/index.php</a>



Project	Organisation	Location	Techniques			Further information
Kirklees Warm Zone	Kirklees Council, Kirklees Citizens Advice Bureau and The Pensions Service	Kirklees		①	☺	<a href="http://www.kirklees.gov.uk/community/environment/energyconservation/warmzone/warmzonemenu.shtml">www.kirklees.gov.uk/community/environment/energyconservation/warmzone/warmzonemenu.shtml</a>
L&Q EnergySave	L&Q Housing Association	South-east England	⚡	①	☺	<a href="http://www.lqenergysave.org.uk">www.lqenergysave.org.uk</a>
<b>Neighbourhood Energy Challenge</b>	<b>Regenda</b>	<b>North-west England</b>	⚡	①	☺	<b>See case study profile.</b>
New Earswick Good Life Initiative	Stockholm Environment Institute, Joseph Rowntree Foundation and York in Transition	Yorkshire		①	☺	<a href="http://goodlife.org.uk/">http://goodlife.org.uk/</a>
Orbit heat pump user guide	Orbit Heart of England	Midlands		①		Contact Orbit Heart of England.
Our Warm Community	Blooming Green, the Core and Impetus Consulting.	UK		①	☺	<a href="http://www.ourwarmcommunity.com">www.ourwarmcommunity.com</a>
Power Agents	Verbraucher-zentrale Nordrhein-Westfalen	Germany		①	☺	<a href="http://www.energychange.info/deliverables/239-d12-pilot-projects-documentation-of-implementation-experiences-including-stakeholder-feedback">www.energychange.info/deliverables/239-d12-pilot-projects-documentation-of-implementation-experiences-including-stakeholder-feedback</a>
Affordable Warmth pilot project	Radian	South-east England		①		Contact Radian.
RE:CONNECT	Mayor of London and London boroughs of Barking and Dagenham, Haringey, Islington, Lambeth, Lewisham, Merton, Richmond, Southwark, Sutton and Westminster	London	⚡	①		<a href="http://www.london.gov.uk/priorities/environment/climate-change/low-carbon-zones">www.london.gov.uk/priorities/environment/climate-change/low-carbon-zones</a>







Project	Organisation	Location	Techniques				Further information
RE:NEW	Mayor of London, London Councils, London boroughs and Energy Saving Trust	London		ⓘ	😊		<a href="http://www.london.gov.uk/priorities/environment/climate-change/energy-efficiency/homes-energy-efficiency-for-tomorrow">www.london.gov.uk/priorities/environment/climate-change/energy-efficiency/homes-energy-efficiency-for-tomorrow</a>
<b>Relish™</b>	<b>Worthing Homes</b>	<b>West-sussex</b>	⚡	ⓘ	😊	👤	<b>See case study profile.</b>
Retrofit Reality	Gentoo Group Ltd	Sunderland		ⓘ			<a href="http://assets.gentoo.com/assets/Downloads/Retrofit%20Reality%203%20final.pdf">http://assets.gentoo.com/assets/Downloads/Retrofit%20Reality%203%20final.pdf</a>
<b>Save Money Save Energy Roadshows</b>	<b>Hastoe Housing Association</b>	<b>England</b>		ⓘ	😊	👤	<b>See case study profile.</b>
SHIMMER	Energy Saving Trust, Home Zone and London Rebuilding Society	London	⚡	ⓘ	😊		<a href="http://www.energysavingtrust.org.uk/Publications2/Energy-efficiency/SHIMMER-Smart-Homes-Integrating-Meters-Money-Energy-Research">www.energysavingtrust.org.uk/Publications2/Energy-efficiency/SHIMMER-Smart-Homes-Integrating-Meters-Money-Energy-Research</a>
Smart Communities	Kingston University	London	⚡	ⓘ	😊	👤	<a href="http://www.smartcommunities.org.uk">www.smartcommunities.org.uk</a>
Snug as a Bug	Guinness Northern Counties	Lancashire		ⓘ			Contact Guinness Northern Counties.
<b>Southway Energy Team</b>	<b>Southway Housing Trust</b>	<b>Greater Manchester</b>	⚡	ⓘ	😊	👤	<b>See case study profile.</b>
Sustainable Technologies Assessment	Orbit Heart of England	West Midlands	⚡				Contact Orbit Heart of England.
The Big Energy Upgrade	Kirklees Council and partners	Kirklees		ⓘ			<a href="http://www.decc.gov.uk/en/content/cms/news/beu/beu.aspx">www.decc.gov.uk/en/content/cms/news/beu/beu.aspx</a>
The Big Green Scheme	Aster Communities, formerly Sarsen Housing	South-west England	⚡	ⓘ	😊		Contact Aster.
The Greening Campaign	Greening Campaign	UK		ⓘ	😊	👤	<a href="http://www.greening-campaign.co.uk">www.greening-campaign.co.uk</a>
Thornhill energy efficiency project	Radian	South England		ⓘ			Contact Radian.
Wandle Valley Low Carbon Zone	Merton Council, Mayor of London, Groundwork, C Change, Sustainable Merton, Merton Priory Homes	London		ⓘ	😊	👤	<a href="http://www.merton.gov.uk/wvlcz">http://www.merton.gov.uk/wvlcz</a>

Project	Organisation	Location	Techniques			Further information
Warmer Living Project	Regenda, Great Places Housing Group and Groundwork	North-west England	①	☺	###	See case study profile.
WDH Climate Change Engagement	Wakefield and District Housing	West Yorkshire	①			See case study profile.
WISE (Wherry is Saving Energy)	Wherry Housing Association	East England	①		###	See case study profile.
Your Green Place	Great Places Housing Group	North-west England	①	☺		<a href="http://www.greatplaces.org.uk/MyGreatPlace/Helpandadvice/Yourgreenplace/Pages/Yourgreenplace.aspx">www.greatplaces.org.uk/MyGreatPlace/Helpandadvice/Yourgreenplace/Pages/Yourgreenplace.aspx</a>





## Appendix C: Further reading

To keep up to date on the Count Us In project visit our website:  
[www.housing.org.uk/CountUsIn](http://www.housing.org.uk/CountUsIn).

### Background research and statistics

Building Research Establishment (BRE) (2008) *A study of hard to treat homes using the English House Condition Survey*, BRE.

Communities and Local Government (CLG) (February 2012) *English Housing Survey Headline Report 2010-2011*, CLG

Department for Energy and Climate Change (DECC) (September 2012) *Fuel Poverty; changing the framework for measurement*, DECC.

Department for Energy and Climate Change (DECC) (May 2012) *Annual Report on Fuel Poverty Statistics 2012*, DECC. (See also associated statistics reports and data tables: [www.decc.gov.uk/en/content/cms/statistics/fuelpov\\_stats/fuelpov\\_stats.aspx](http://www.decc.gov.uk/en/content/cms/statistics/fuelpov_stats/fuelpov_stats.aspx))

Department for Energy and Climate Change (DECC) (December 2011) *Carbon Plan*, DECC.

Prof Hills, J (March 2012) *Getting the measure of fuel poverty, Final Report of the Fuel Poverty Review*, Centre for Analysis of Social Exclusion.

Fergusson, S (December 2011) *UK Housing Associations and Sustainability*, Energy Conservation and Environmental Sustainability Exchange, International Housing Partnership.

Phillips, R and Rowley, S (2011) *Bringing it home: Using behavioural insights to make green living policy work*, Green Alliance.

TNS (2009) *Public attitudes and behaviours towards the environment – tracker survey*, A research report completed for the Department for Environment, Food and Rural Affairs (DEFRA) by TNS, DEFRA.

### The human element of energy use

Chahd, S (2011) *An analysis of tenant perceptions towards energy efficiency measures, energy use behaviours and potential interventions*, Fusion 21.

Gentoo (2010) *Retrofit Reality: a dissemination report by Gentoo - part 3 of 3*, Gentoo Group Limited.

Gill, Z, Tierney, M, Pegg, I and Allan, N (2010) *Low-energy dwellings: the contribution of behaviours to actual performance*, Building Research and Information, 38(5):491-508.

Janda, K B (2011) *Buildings don't use energy, people do*, Architectural Science Review, 54:15-22

Jenkins, J, Nordhaus, T and Shellenberger, M (2011) *Energy Emergence: Rebound and Backfire As Emergent Phenomena*, Breakthrough Institute.

NHBC Foundation (2012) *Today's attitudes to low and zero carbon homes: Views of occupiers, house builders and housing associations*, NHBC Foundation.



Stevenson, F (2010) *Evaluating housing performance in relation to human behaviour: new challenges*, Building Research and Information, 38(5):437-441.

## What makes people behave the way they do?

Dr Chatterton, T (2011) *An Introduction to Thinking About Energy Behaviour: a multi-modal approach*, A paper for the Department of Energy and Climate Change, DECC.

Consumer Focus (2011) *Informing choices: consumer views of energy bills*, Consumer Focus.

Darnton, A, Verplanken, B, White, P, Whitmarsh, L (2011) *Habits, Routines and Sustainable Lifestyles: A summary report to the Department for Environment, Food and Rural Affairs*, AD Research and Analysis.

Dodd, I (2011) *Improving the efficiency of new low carbon energy systems through addressing user interaction*, Thesis presented in part-fulfilment of the degree of Masters of Science in accordance with the regulations of the University of East Anglia.

Prof. Jackson, T (2005) *Motivating Sustainable Consumption: a review of evidence on consumer behaviour and behavioural change*, Report to the Sustainable Development Research Network, Center for Environmental Strategy, University of Surrey.

Lyndhurst, B (2007) *Public understanding of sustainable energy consumption in the home*, Final report to the Department for Environment, Food and Rural Affairs, Brook Lyndhurst Ltd.

Martiskainen, M (2007) *Affecting consumer behaviour on energy demand*, Final report to EDF Energy, Sussex Energy Group.

Shove, E (2003) *Comfort, Cleanliness and Convenience: The Social organisation on Normality*, Berg.

Shove, E (2009) *Beyond the ABC: Climate change policy and theories of social change*, Environment and Planning, 42(6):1273-1285.

Simon, S (18 October 2010), *The secret to turning consumers green. It isn't financial incentives. It isn't more information. It's guilt*, Wall Street Journal, online, <http://online.wsj.com/article/SB10001424052748704575304575296243891721972.html>

Steg, L (2008) *Promoting household energy conservation*, Energy Policy, 36:4449-4453.

Stern, P (2000) *Toward a Coherent Theory of Environmentally Significant behaviour*, Journal of Social Issues, 56(3):407-424

Wilson, C and Dowlatabadi, H (2007) *Models of decision making and residential energy use*, Annual Review of Environment and Resources, 32:169-303

## Changing people's behaviour

Abrahamse, W, Steg, L, Vlek, C and Rothengatter, T (2005) *A review of intervention studies aimed at household energy conservation*, Journal of Environmental Psychology, 25:273-291

Barr, S, Gilg, A and Shaw, G (2006) *Promoting Sustainable Lifestyles: a social marketing approach*, University of Exeter.

Cabinet Office Behavioural Insights Team (COBIT) (July 2011) *Behaviour Change and Energy Use*, COBIT.

Cialdini, R (2003) *Crafting normative messages to protect the environment*, Current directions in Psychological Science, 12(4):105-109.

Dr Corner, A (2009) *A practitioner's guide to the psychology of sustainable behaviour*, Climate Outreach and Information Network.

Department for Environmental, Food and Rural Affairs (DEFRA) (2008) *A framework for Pro-environmental behaviours*, DEFRA.

Dietz, T, Gardner, G, Gilligan, J, Stern, P and Vandenberg, M (2009) *Household actions can provide a behavioural wedge to rapidly reduce US carbon emissions*, Proceedings of the national Academy of Sciences, 106(44):18452-18456.

Dolan, P, Hallsworth, M, Halpern, D, King, D and Valev, I (2010) *MINDSPACE: Influencing behaviour through public policy*, Institute for Government.

Laine, L (2010) *Green deal or no deal: Building customer confidence in energy efficiency services*, Consumer Focus.

Raw, G and Ross, D (2011) *Energy Demand Research Project: Final Analysis* (Report to Ofgem), AECOM.

Raw, G and Varnham, J (2010) *Focus on behaviour change: reducing energy demand in homes*, Communities and Local Government.

Thompson, S, Michaelson, J, Abdallah, S, Johnson, V, Morris, D, Riley, K and Simms, A (2011) *Moments of change as opportunities for influencing behaviour: A report to the Department for Environmental, Food and Rural Affairs*, The New Economics Foundation.

Wilson, S and Hawkins, L (2011) *Changing household energy behaviours: key findings from a review of applied research*, CCBRP Working Paper, Scottish Government Built Environment Research.

## Delivering behaviour change programmes

Low Carbon Housing Retrofit Behaviour Change Group (LCHR) (2011) *The Missing Quarter: Integrating behaviour change in low carbon housing retrofit*, LCHR, Greater Manchester.

Low Carbon Housing Retrofit Behaviour Change Group (LCHR) (2012) *Delivering the missing quarter toolkit*, LCHR, Greater Manchester.

Mourik et al (2009) *Deliverable 4: Past 10 years of best and bad practices in demand management: a meta analysis of 27 case studies focusing on conditions explaining success and failure of demand-side management programmes*, Seventh Framework Programme: Changing Behaviour.

Phillips, R and Scott, F (2011) *Neither sermons nor silence: the case for national communications on energy use*, Green Alliance.

Preston, I, White, V, Lloyd-Price, L, Anderson, W (2009) *Best practice review of community action on climate change: Final report*, Centre for Sustainable Energy.





## Smart metering and real-time feedback

Darby, S (2006) *The effectiveness of feedback on energy consumption: a review for Defra of the literature on metering, billing and direct displays*, Environmental Change Institute, University of Oxford.

Darby, S (2010) *Smart metering: what potential for householder engagement*, Building Research and Information, 38(5):442-457.

Department for Energy and Climate Change (DECC) (March 2011) *Impact Assessment: Smart Meter rollout for the domestic sector*, DECC.

Department for Energy and Climate Change (DECC) (April 2012) *Smart Metering Implementation Programme: Consumer engagement strategy*, Consultation document, DECC.

Ehrhardt-Martinez, K, Donnelly, K and Laitner, J (2010) *Advanced Metering Initiatives and Residential Feedback Programmes: A Meta-Review for Household Electricity-Saving Opportunities*, American Council for Energy-Efficient Economy (ACEEE).

Energy Saving Trust (EST) (2001) *SHIMMER: Smart Homes Integrating Meters Money Energy Research*, EST.

National Right to Fuel Campaign (NRFC) (December 2011) *Smart Meters? Will Smart Meters Help the Fuel Poor?* NRFC.

National Audit Office (NAO) (June 2011) *Preparations for the roll-out of smart meters*, The Stationery Office.

Van Dam, S, Bakker C and Van Hal, J (2010) *Home energy monitors: impact over the medium term*, Building Research and Information, 38(5):458-469.

### Web resources:

Energy Saving Trust: provides information and statistics to assist with energy reduction engagement programmes, including the online resource Reducing Emissions from Social Housing): [www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk)

Intelligent Energy Europe: provides an online library of more than 500 projects from across Europe covering a range of themes including energy reduction: <http://ec.europa.eu/energy/intelligent/>

Our Warm Community: provides resource and toolkit for housing associations wishing to deliver behaviour change programmes: [www.ourwarmcommunity.com](http://www.ourwarmcommunity.com)

Powerhouse Europe: provides an online database of case studies and resources from across Europe: [www.powerhouseeurope.eu](http://www.powerhouseeurope.eu)



## End notes

- <sup>1</sup> Communities and Local Government (February 2012).
- <sup>2</sup> Communities and Local Government (February 2012).
- <sup>3</sup> See for example Gill et al (2010) which found that differences in behaviour amongst occupants of similarly designed low-energy dwellings led to variances in energy consumption.
- <sup>4</sup> Department for Energy and Climate Change (December 2011).
- <sup>5</sup> Camco, analysis for National Housing Federation, October 2011.
- <sup>6</sup> Building Research Establishment (2008).
- <sup>7</sup> Table 14, Trends in Fuel Poverty England 2003 to 2010, Department for Energy and Climate Change (May 2012): [www.decc.gov.uk/en/content/cms/statistics/fuelpov\\_stats/fuelpov\\_stats.aspx](http://www.decc.gov.uk/en/content/cms/statistics/fuelpov_stats/fuelpov_stats.aspx)
- <sup>8</sup> Johns Hills (March 2012).
- <sup>9</sup> Department for Energy and Climate Change (September 2012).
- <sup>10</sup> For example Jenkins et al (2011) have found that the rebound effect can represent as much as 10% -30% of the initial savings made.
- <sup>11</sup> [www.decc.gov.uk/en/content/cms/news/pn12\\_042/pn12\\_042.aspx](http://www.decc.gov.uk/en/content/cms/news/pn12_042/pn12_042.aspx)
- <sup>12</sup> Gentoo (2010).
- <sup>13</sup> See for example Ofgem's Energy Demand Research Project and The Energy Saving Trust's SHIMMER project.
- <sup>14</sup> See for example National Right to Fuel Campaign (December 2011) and Which? smart meter campaign: [www.which.co.uk/campaigns/energy-and-environment/smart-meter-campaign](http://www.which.co.uk/campaigns/energy-and-environment/smart-meter-campaign).
- <sup>15</sup> The Federation's response to the recent Government consultation on the smart metering engagement framework is available at: [www.housing.org.uk/publications/find\\_a\\_publication/asset\\_management\\_\\_maintenance/smart\\_meter\\_rollout\\_response.aspx](http://www.housing.org.uk/publications/find_a_publication/asset_management__maintenance/smart_meter_rollout_response.aspx)
- <sup>16</sup> See for example Stevenson (2010), Gentoo (2010) and Gill et al (2010).
- <sup>17</sup> Darnton et al (2011).
- <sup>18</sup> For example see Shove (2003) and Lyndhurst (2007).
- <sup>19</sup> For an overview see, Philips et al (2011).
- <sup>20</sup> See for example Gentoo (2010) and Chahd (2011).
- <sup>21</sup> Consumer Focus (2011).
- <sup>22</sup> See for example Shove (2003).
- <sup>23</sup> Department for Energy and Climate Change (2012)
- <sup>24</sup> See for example the findings of Barr et al (2006).
- <sup>25</sup> See for example Metropolitan's Homes of Our Time case study, research by Greenwich University as part of the Carbon, Control and Comfort project and research by Dodd (2010).
- <sup>26</sup> See for example Corner (2009).
- <sup>27</sup> See for example Cabinet Office behavioural Insights Team (2011), Philips and Rowley (2011) and Simon (2010).
- <sup>28</sup> See also research by NHBC Foundation (2012) and TNS (2009).
- <sup>29</sup> Ross Mitchell (2012) Wandle Valley Low Carbon Zone Final Report, Merton Council.
- <sup>30</sup> See for example learning from the Energy Neighbourhoods project.
- <sup>31</sup> For example see Thompson et al (2011).

**The National Housing Federation is the voice of affordable housing in England. We believe that everyone should have the home they need at a price they can afford. That's why we represent the work of housing associations and campaign for better housing.**

Our members provide two and a half million homes for more than five million people. And each year they invest in a diverse range of neighbourhood projects that help create strong, vibrant communities.

## **National Housing Federation**

Lion Court, 25 Procter Street, London, WC1V 6NY

**tel:** 020 7067 1010 **fax:** 020 7067 1011

**email:** [info@housing.org.uk](mailto:info@housing.org.uk)

**[www.housing.org.uk](http://www.housing.org.uk)**

Find us or  
follow us on:

