



SDC Supplier Obligation Project

Household Energy from 2011

Final Report

*Informing the development of Defra's policy
on the Supplier Obligation – findings of the
Sustainable Development Commission's
stakeholder and public engagement process*

Contacts

For more detail on the content issues and SDC engagement process please contact:

Hazel Dempster, SDC: hazel.dempster@sd-commission.gsi.gov.uk

Sarah Samuel, SDC: sarah.samuel@sd-commission.gsi.gov.uk

For more information on this report please contact:

Helen Fisher, 3KQ: helenf@3kq.co.uk

Lucy Edgar, Opinion Leader: ledgar@opinionleader.co.uk

For detail on the Supplier Obligation and supporting policies contact:

Gavin Purchas, Defra: gavin.purchas@defra.gsi.gov.uk

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Executive summary

Process

Background

“Our homes account for over a quarter of the UK’s carbon emissions. We need to see emissions from households decline significantly by 2020, from 40 million tonnes of carbon today to less than 30 MtC, if this sector is to remain on track towards our long-term objective of a 60% cut in carbon emissions by 2050.”

Defra’s Call for Evidence on the Supplier Obligation

The Supplier Obligation is an innovative policy instrument currently being developed by Defra. It aims to transform the market for the supply of domestic energy, by giving suppliers and consumers a shared incentive to reduce carbon emissions from homes.

The Sustainable Development Commission (SDC) Supplier Obligation project engaged with stakeholders and consumers to discuss innovative approaches to this critical area of energy policy. The SDC was particularly interested in exploring a range of consumer-friendly propositions that could be developed for reducing household emissions. By involving a wide variety of stakeholders in the project (from suppliers to academics, fuel poverty specialists to consumers), the SDC hoped to help open up space for new solutions in this complex policy area as well as reflecting both stakeholder and consumer interests in decision-making.

This report is published by 3KQ and Opinion Leader, who together designed and ran the engagement process with input from the SDC. This will form part of the evidence base that will feed into Defra’s public consultation in August 2008.

Aim and objectives

The overarching **aim** of the SDC project was to inform the development of Defra’s policy on the Supplier Obligation post 2011.

More specific **objectives** were to:

- Develop propositions for reducing household energy emissions;
- Understand how suppliers and other players might work together;
- Explore how consumers respond to propositions;
- Understand the pros and cons of each proposition;
- Gather stakeholder views about the policy implications of the findings.

Engagement process

The SDC project began by bringing together a Core Group of stakeholders in order to develop a range of possible propositions for reducing household emissions from 2011. The propositions were then explored with consumers in 12 discussion groups around the country.

Throughout the project, ideas and findings were explored with a stakeholder E-Group, which acted as a sounding board and provided responses to the unfolding work of the Core Group and the consumer discussion groups.

Following the consumer discussion groups, and input from the E-Group, the Core Group of stakeholders discussed policy implications and agreed on a set of key messages for Defra in a final meeting held in June 2008.

Core findings

Consumer reaction to propositions

The SDC was interested in exploring how consumers might respond to significant changes in the energy market, and to innovative propositions beyond 2011. Seven propositions for reducing household energy use, developed with stakeholders, were put to consumer groups from around the UK in order to better understand the kind of reactions that could be expected from householders. These are outlined below along with an indication of the overall consumer response to each.

A: Two-way energy information

A way of providing personal feedback on household energy use to customers. A 'smart' meter replaces the existing meter which can constantly monitor energy use and costs. Using a wireless touch screen customer display it receives information from the smart meter by radio. Householders can then see information about their energy use both in real time and from the past. Usage can be shown in terms of kilowatts, £s or CO₂ and compared to previous or average consumption to help people monitor how much they spend and how much CO₂ they produce. In addition consumers can benefit from accurate and detailed bills.

This proposition was accompanied by a mocked-up energy bill to show consumers the kind of information they could potentially receive on their bills (see page 20).

Verdict – high appeal

B: Dynamic Demand Management

In exchange for allowing the energy supplier to interrupt the electricity supply to some selected appliances for a short periods on some days, customers receive a discount on their bill.

Verdict – mixed appeal

C: Whole house energy audit at point of sale

When you are moving home, the property you are buying is surveyed for its overall level of energy efficiency – i.e. a 'whole house energy audit' is carried out. This leads to a detailed report with information about what improvements need to be made in order to make the property you are buying more energy efficient, more comfortable and cheaper to run.

Verdict – limited appeal

D: Fixed-price tariff

A tariff whereby consumers pay a fixed amount each month to cover the cost of their energy use and the installation of energy efficiency measures - such as the fitting of low energy bulbs, draught proofing or internal solid wall insulation.

Verdict – low appeal

E: Low carbon micro-generation

Low carbon micro-generation units (such as solar cells/panels) are installed in households so that homes can produce some of their own electricity.

Verdict – high potential

F: Rising block tariff: 'use less, pay less'

A different approach for charging for electricity: at the moment, most electricity tariffs offer one price for the first 100 units of electricity used and then a lower price for any units over that amount. The rising block tariff would flip this around. Householders would be offered a tariff where the cost of the units increases as more is used. Low electricity use would result in lower costs, whereas high electricity use would result in higher costs.

Verdict – mixed appeal

G: Community Energy Generation

An area or group of around 100 properties are encouraged to reduce their energy demands collectively as a community, by introducing household energy efficiency measures and setting up a community renewable energy project.

Verdict – limited appeal

Themes from the consumer research

Several themes were identified from the consumer research, initially by Opinion Leader (who facilitated the consumer groups). Subsequently, the Core Group of stakeholders analysed and added to them. These themes are summarised below along with some related quotes from consumers and stakeholders.

Cost and Value

- **Cost** savings are more of a motivator than environmental benefit and upfront costs are a de-motivator. People don't seem to want to pay extra to be green – free behavioural advice is of interest.

"I like the way that there's stamp duty or council tax. If that takes the brunt of the £200 then that's fair enough and that's the government going: 'Yes, we'll help you out.'"

Male, Owner occupier, Rural

"The real test will be is it financially attractive enough to shift behaviours; is it enough to incentivise using less in the mornings; how wedded are you to one lifestyle?"

Core Group member

Commitment, rewards and motivation

- **Reluctance to be tied in:** people don't like the idea of a long term contract.
- Consumers want **carrots** rather than **sticks**.
- Whilst there are people who will be motivated by environmental benefits, there are also plenty of **other motivators** for those not driven by the environmental aspects (e.g. adhering to social norms).
- In talking about energy saving measures we are **competing** for people's attention as well as time and money.

"It's quite a long time to be tied in with an energy supplier; two years maybe, but five years or ten years, and you don't know even if you're going to stay in a property, I think it's a bit too long."

Female, Renter, Urban

"This has given more proof to evidence about barriers and incentives to renewables and that the Government needs to be much more generous in that respect."

Core Group member

Trust, control and provision of information

- There is a general sense that participants don't want to relinquish **control** but instead want to have a choice over how they control their energy use.
- There is a lot of suspicion about what the **supplier** stands to gain.
- Many feel that the **Government should be paying** for this if it is serious about tackling climate change.
- **Trust** (of suppliers and potentially Government) is a big issue – there is a potential role for third parties and trusted intermediaries.
- There needs to be a **balance of information** given to consumers: layered information systems could be a good way of achieving this.

"If we had been looking at a more trusted intermediary would the results be more positive?"

Core Group member

"If the government's trying to encourage us to save energy why don't they put their bit in because we are the government at the end of day and we are probably paying for everything in some form or another?"

Male, Renter, Urban

“I’m doing as much as I can”

- A lot of people say they are already doing as much as they could either because of financial reasons (they cannot afford to waste energy) or because they have already installed measures in home. But there seems to be a gap between this statement and what people are actually doing.

"You've got to have your heating on and you've got to have your lights on when it's dark, so there's only so much you can do."

Male, Owner occupier, Rural

- People don't like the idea of paying lots upfront but show some **enthusiasm for renewables** in theory (though this should be treated with caution).
- **Consumers as producers:** there seems to be a desire amongst consumers to be self-sufficient.

"I have got no objection to wind turbines, I think they are good."

Male, Owner occupier, Urban

"People have been led to this approach [self sufficiency] and it's the policy drivers that encourages that."

Core Group member

Implications for Supplier Obligation and supporting policies

The Core Group of stakeholders drew out some key messages to go forward to Defra and reached **consensus**¹ on ten main points. The achievement of consensus is significant because of the range of different stakeholders involved in the Core Group. These stakeholders represent organisations with different roles and priorities in the field of energy consumption, including energy suppliers, fuel poverty specialists, suppliers and installers of energy-saving measures, and financial experts, yet they were able to agree on certain key points that Defra should consider.

The numbered bullets show the ten key messages that stakeholders drew out with some explanatory points underneath each where relevant. This is not an exhaustive list and should be taken in the context of the whole body of evidence presented by this report.

10 Key Messages

1. The Supplier Obligation won't work without coherent supporting policies (and regulation).

2. Policy continuity is required.

3. This would work better with cross-departmental embedding.

- It won't work without active support from CLG, BERR HMT and DCSF. Until it is embedded in other departments Defra's job will be made more difficult, though the idea there should be a completely joined up cross-departmental strategy could be an aspiration too far.
- It needs both a regulatory and incentive approach – carrot and stick.

4. It is important that third parties are involved (including community action).

5. Smart meters were integral to the only proposition with high appeal to consumers.

- Across all sectors this was the most popular proposition, despite the range of views about the cost of a smart meter.

6. There needs to be a strategy to develop trust among consumers.

- The consumer research showed that there was a lack of trust from consumers.
- We need to have a strategy specifically focused on building trust.
- There is a need to build customer confidence in the benefits to them – this might be done through third parties, agencies or even suppliers.

7. Clarification is needed as to whether consumers trust central Government.

- In some cases people don't trust the Government, in other cases they do. When local authorities endorse energy efficiency initiatives there is evidence that success rates are higher.

¹ Not all Core Group stakeholders were present at the meeting so the consensus was just of those members present. Following the meeting Centrica (who were present at the meeting itself) has provided the following qualification: 'Centrica is fully supportive of the research as a first stage, but felt they couldn't fully endorse the feedback to DEFRA as it was too generic and high level. To maximise the results of this valuable research, Centrica would recommend further detailed discussion around the insights highlighted. Centrica looks forward to participating in these discussions moving forward.'

8. All possible types of fiscal incentives need to be considered (including new incentives, communication of existing incentives and extension of currently successful programmes).

- This research suggests that consumers aren't prepared to invest in measures that don't give an immediate economic return.

9. Some consumers consider themselves to be doing all they can – Defra needs to understand why they think this and then invest in addressing it.

- If that is not actually the case then the way to sell it in would be on a rewards basis rather than penalties basis; then people are more likely to be turned on about energy efficiency.
- This needs to be split into investing in measures and behavioural actions. Understanding this issue is important, as is investing in the means to address it.

10. There needs to be a strong fuel poverty package alongside the Supplier Obligation – this should deal with price, measures, income and advice.

- Government is not funding the eradication of fuel poverty adequately or quickly enough – it needs to be fully funded.

3KQ and Opinion Leader recommendations for ongoing engagement

Continuing engagement with stakeholders and consumers is vital to the development of Defra's thinking on the Supplier Obligation, not least because of the **concerns around trust**. Engaging with a wide range of stakeholders throughout the policy making process has several benefits, which potentially include increased stakeholder buy-in to process and policy, contribution of a wide range of expertise and opinion, development of trust, and ultimately **more effective policies**.

It is important that Defra **builds on the momentum** built by this project by continuing to develop relationships with stakeholders and by engaging in a visible, iterative manner. The integration of this engagement with the policy making process and with other relevant areas of work as soon as possible is crucial to ensuring that the impetus and enthusiasm built up during this project is not lost.

As an initial point for action, **Defra should feed its responses to the findings of this project back to stakeholders**. 3KQ and Opinion Leader have also identified several further recommendations for Defra to consider regarding the ongoing engagement of stakeholders and consumers in the development of the Supplier Obligation and supporting policies (see main report).

1. Introduction

1.1. Project background

A call for evidence from Defra:

'Our vision is to see a transformation of the market for the supply of domestic energy. Suppliers and consumers both need to have a shared incentive to reduce carbon emissions from homes. Creating this will require an innovative policy, which changes the way suppliers view their relationship with their customers. Rather than selling just units of energy, we want to see suppliers' focus shift to the marketing of a broader range of energy-related services. By improving the technical efficiency of building fabric and appliances, and harnessing opportunities to change householders' behaviour, it will be possible to achieve substantial carbon and energy savings whilst maintaining the level of 'energy service' enjoyed by customers.'

(The Household Energy Supplier Obligation from 2011: A Call for Evidence – Defra – June 2007)

Tackling household emissions

Household energy use is a big issue, accounting for over a quarter of the UK's carbon emissions at a time when the rising cost of energy, changes to the climate and related Government objectives all point towards emissions reductions. Research shows that demand side reductions (i.e. energy efficiency measures) are a cost effective area to tackle, so Defra has asked for evidence in developing its policies to transform the market for the supply of domestic energy, to reduce energy use and associated carbon emissions.

A new approach

This transformation will require radical thinking and an innovative approach. The Supplier Obligation sets out to do this by creating a shared incentive for suppliers and customers to reduce domestic emissions, and by transforming the market from the selling of units of energy to the marketing of energy services. This could involve an evolution of the existing measures-based approach, or a shift to an outcome-based approach with set targets for reducing energy consumed or carbon emitted.

This project

Following the publication of Defra's Call for Evidence in June 2007, the SDC identified some key areas of uncertainty related to the Supplier Obligation which could be researched through this project. These included:

- What propositions might be offered to consumers to help reduce household emissions?
- Taking into account the fact that most low cost and social housing measures will have been taken up, what is the range of potential offerings for consumers post 2011?
- Is there need for additional action beyond the scope of suppliers (e.g. by government / business) to make these offerings stick? What might this involve?
- How might consumers respond to significant changes in the energy market?
- How might consumers respond to measures which require high capital investment / alternate financing options?
- What are the implications for the fuel poor of pursuing policies that deliver energy efficiency measures in people's homes?

The *SDC Supplier Obligation Project (Household Energy From 2011)*, commissioned by Defra and managed by the SDC, was designed to explore the key areas of uncertainty outlined above by involving a wide range of stakeholders and consumers.

The SDC's view is that engaging with a broad range of stakeholders can support sustainable decision-making; especially with issues like this where there is still a lot of un-charted territory. Engagement can also enable the sharing of learning and innovative thinking, as well as reflecting both stakeholder and consumer interests in decision-making.

The project was facilitated on behalf of the SDC by independent facilitators from 3KQ (www.3kq.co.uk) and Opinion Leader (www.opinionleader.co.uk).

1.2. Aim and objectives

This project was designed to fulfil several detailed objectives and to produce a number of outputs to feed into Defra's thinking on the Supplier Obligation.

Overarching aim:

- To inform the development of Defra's policy on the Supplier Obligation.

Objectives:

- To develop a number of propositions, with stakeholders, for the delivery to the market of options for reducing carbon emissions associated with domestic energy use (e.g. innovations in technology, business models, partnerships etc);
- To begin to understand how suppliers might collaborate with other players in order to reduce carbon emissions associated with domestic energy use;
- To explore how consumers respond to stakeholder propositions, their perceptions of how the propositions might affect vulnerable groups, and to understand what further information and development is needed;
- To understand the pros and cons of each proposition (environmental/ social/ economic);
- To understand stakeholders' views about the policy implications of the findings.

Outputs:

- 3KQ/Opinion Leader report on findings (this report);
- SDC report on findings (to be published Autumn 2008);
- Several other supporting documents, including reports from each Core Group meeting (*see section 2 of this report for more detail on the Core Group*), detailed versions of several propositions for reducing household emissions, and a fuller report of consumer responses from Opinion Leader.

It was also intended that stakeholders would gain other benefits from being involved in the project; these are outlined below.

The project would provide opportunities for stakeholders to:

- Understand and help to shape the emerging market in reducing carbon emissions associated with domestic energy use;
- Explore innovative ideas with consumers;
- Help to inform Defra's policy-making process;
- Network and build relationships with other stakeholders, including the SDC and Defra.

2. Process

2.1. Roles and responsibilities

Core Group

The Core Group consisted of a small group of invited stakeholders from the following organisations:

| | |
|--|---|
| Association for the Conservation of Energy (ACE) | National Energy Action |
| Centre for Sustainable Energy (CSE) | Renewable Energy Association (REA) |
| Centrica | RWE Npower |
| Defra | Scottish and Southern Energy |
| E.ON | ScottishPower |
| Ecology Building Society | SDC |
| Ecotricity | Tesco |
| EDF Energy | University of Surrey, Centre for Environmental Strategy (CES) |
| Energy Saving Trust (EST) | WWF-UK |
| energywatch | plus an independent energy expert |
| Kirklees Council | |

NB Kirklees Council and the Renewable Energy Association were both represented by the same person, so the total number of Core Group members was 20.

See **Appendix 1** for more detail on how the Core Group was recruited. The focus of the group was to work creatively to devise propositions for reducing household energy emissions, including different finance options, and installed measures and services. The Core Group met three times throughout the process as well as developing work in between through an online wiki² and by email. The Core Group was facilitated by 3KQ.

² "A wiki is a collection of web pages designed to enable anyone who accesses it to contribute or modify content" (definition from Wikipedia).

E-Group

The E-Group consisted of a wider range of stakeholders and interested parties. See **Appendix 1** for more detail on how the E-Group was recruited. They were communicated with via a Yahoo!³ group to respond to specific questions or requests for information during the development of the propositions to be tested on consumers. The responses were collated by the SDC and were fed into the Core Group's discussions and the planning of the consumer discussion groups.

Consumer groups

During May 2008, the propositions developed by the Core Group were shared with consumers in a series of discussion groups. In these groups, independent researchers Opinion Leader explored how consumers responded to the propositions, including their perceptions of how the propositions might affect vulnerable groups. These discussions also provided insights into what further information and development is needed to produce propositions likely to be supported by consumers. See **Appendix 2** for a breakdown of the consumer group composition.

Facilitation

The project was facilitated on behalf of the SDC by independent facilitators from 3KQ and Opinion Leader, who designed and ran the engagement process with input from the SDC. 3KQ was responsible overall project management, facilitation of the Core Group meetings and producing reports from each of these. Opinion Leader was responsible for running the consumer research phase and reporting findings to the Core Group.

SDC

Gavin Purchas and Hazel Dempster led the project on behalf of the SDC. The SDC played a dual role in this project: Gavin Purchas acted as a member of the Core Group to provide content input; Hazel Dempster was present at Core Group meetings as an observer in order to oversee proceedings and ensure a fair process.

Experts

Two sustainable energy experts appointed by the SDC were also present at Core Group meetings as an additional resource. Their contribution primarily took place in between Core Group meetings through the development of the propositions for testing with consumers. This included more detailed research on facts, figures and contextual issues.

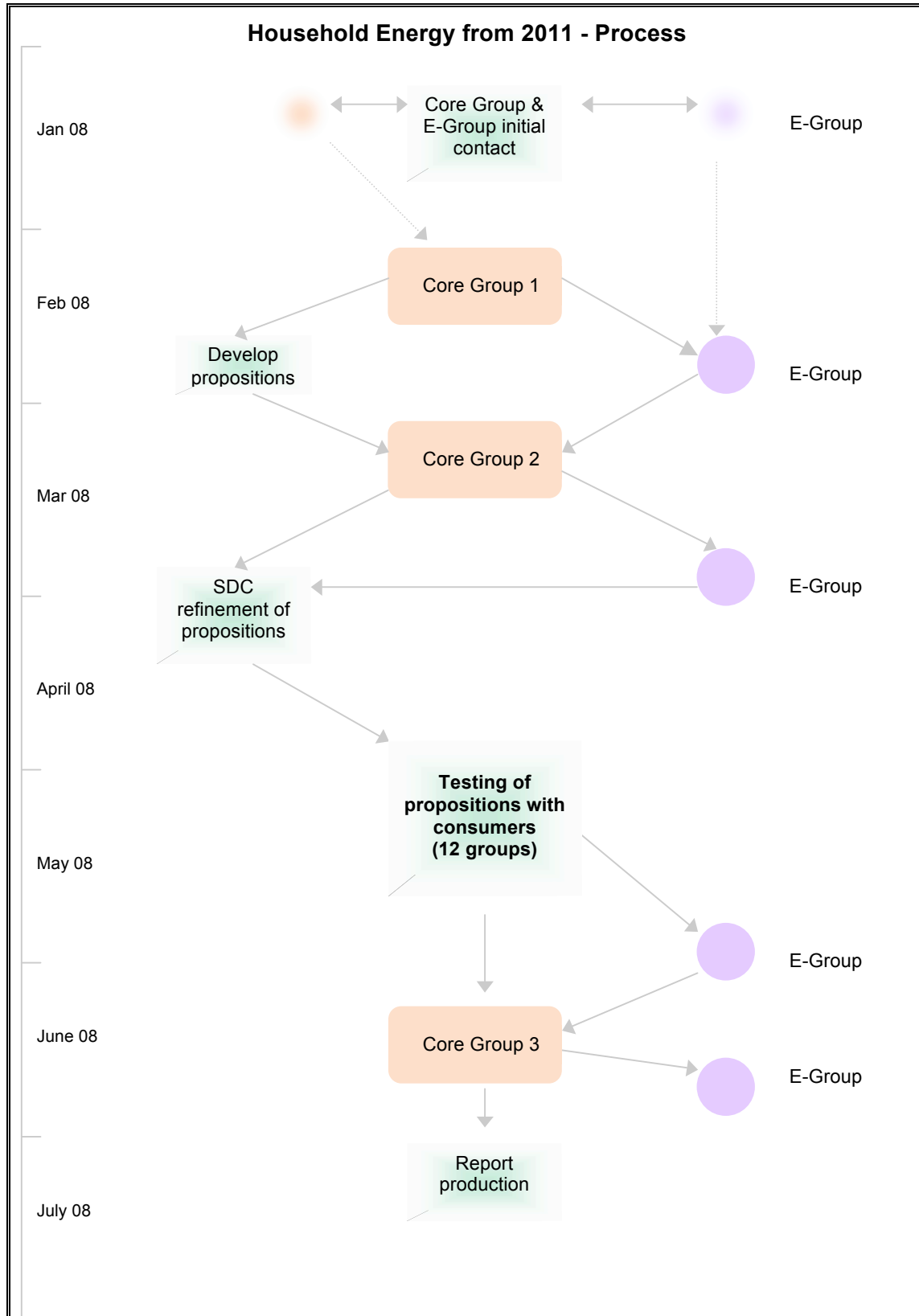
2.2. Evaluation

Feedback forms were filled in by Core Group members at the end of each meeting, as well as a final evaluation form to assess the effectiveness and quality of the overall process. The SDC also plans to undertake an independent evaluation of this process.

³ A group email system run by Yahoo! in which members can read and contribute emails under different headings on an ongoing basis.

2.3. Process structure

The diagram below shows the overall process structure for this project. **Appendix 1** gives some more detail on the engagement process.



3. Propositions and consumer reactions

3.1. Developing the propositions

The development of the propositions to take to consumers had several stages, including initial creative ideas, fleshing out, clarification, reworking and prioritising. This process began at the first Core Group meeting and continued with communications in between meetings, with the input of Core Group and E-Group members.

Given the limited time for each consumer discussion group, not all propositions could go forward to this stage. **Appendix 3** gives a fuller description of the prioritisation process, including an outline of those propositions that were not tested with consumers. **Appendix 4** shows the Core Group input into proposition development, taken from the three Core Group meetings and wiki comments in between meetings. See **Appendix 5** for a fuller outline of the E-Group input into the propositions.

In total, **seven** propositions were taken forward for discussion with consumers.

3.2. Consumer discussion groups

There were 12 discussion groups in all, each involving 10 consumers from specific backgrounds (property size, age, socio-economic and renters vs owner occupiers) and all facilitated by Opinion Leader. See **Appendix 2** for a full breakdown of these groups. This was designed to be a qualitative piece of research exploring what consumers said in response to propositions. It did not produce quantitative results and it did not explore actual behaviour; instead it provided a sense of the kinds of reactions consumers would be likely to have to certain types of proposition and to specific aspects of each proposition.

Each group began with an opening discussion on some of the background issues to the project, including climate change and home energy use. Consumers then spent between 10 and 20 minutes discussing each proposition. There were some common aspects discussed across propositions; these included initial reactions, pros, cons, whether it would make a difference to how consumers used energy in their homes, how it might affect different people, how it could be improved, and pricing aspects (e.g. whether the payoff was enough and how much people would be willing to pay).

3.3. Consumer reactions

The final seven consumer-friendly versions of propositions are shown below, followed by a summary of the consumer feedback on each one in the form of queries and concerns, positives, negatives and overall response.

A: Two-way energy information

What is it?

A way of providing personal feedback on household energy use to customers. A 'smart' meter replaces the existing meter which can constantly monitor energy use and costs. Using a wireless touch screen customer display it receives information from the smart meter by radio. Householders can then see information about their energy use both in real time and from the past. Usage can be shown in terms of kilowatts, £s or CO₂ (carbon dioxide) and compared to previous or average consumption to help people monitor how much they spend and how much CO₂ they produce.

How would it work?

The smart meter provides the energy supplier with direct feedback on your energy use through smart communication channels. This means that meters no longer have to be read manually. It also means that energy suppliers can provide you with detailed, informative and timely bills instead of bill estimates [*see a copy of this bill on page 20*]. But it also means you don't have to wait for the bills – you can get all the information you need on your energy use at any time. For example you can see which appliances use the most energy and how much they cost to run.

Energy suppliers can also inform householders through the meter of different tariffs and payment methods available. It may be that there is one that better reflects your particular pattern of energy usage or lifestyle.

As an alternative, information from the smart meter could be displayed using a special home television channel or on your home PC, accessed through the internet using a customer log-on service.

Costs estimate: smart meter costs could be incorporated into usual bill payments, adding 66p - £1.66 per month. Customers would also have the option of purchasing a more sophisticated type of monitor for different prices (for example, £35, £40, £50). The monitor would need to be paid for upfront.

How would it benefit the customer?

- No longer any need for manual meter readings.
- Cost savings: it is easier to view how much energy is being used in the household and make reductions to help save money. (The average domestic household expenditure in 2006 was around £1000. Smart meters could save an average household about £50 per year on energy if energy usage is reduced by 5%. More could be saved if energy prices rise).
- Environmental savings: information about how energy is used in the household helps customers reduce the amount of CO₂ they produce. (For example, if energy usage is reduced by 20%, that would save 330kg of CO₂).
- Suppliers have direct feedback on energy use which could help them to supply lower tariffs to customers.

A: Two-way energy information: consumer responses

| | |
|---|---|
| Queries/concerns <ul style="list-style-type: none"> • Radio communication between meter and appliances/smart plugs – how reliable is this? Could it be disrupted and affect the accuracy of information? • Less utility for people who believe they are already watchful of what they spend and acutely aware of energy costs, e.g. renters, low income households • Concern that some (particularly elderly) people might be overly cautious in their monitoring and hence their energy use to keep down costs • What if you swap supplier? Do you have to change the type of meter and plugs you have? | |
| Positives <ul style="list-style-type: none"> • Viewed as informative, engaging and an educational tool, e.g. for challenging children about energy waste/costs • Bill presentation and layout well liked across the board • Increased awareness of energy usage likely to lead to behaviour change • An enabling proposition which gives the household a degree of control • Interest in paperless billing amongst younger owners/renters - TV/Internet option • No manual reading of meters (CO₂ savings) | Negatives <ul style="list-style-type: none"> • A minority put off by the technology and view it as complicated and may not be computer literate • Polarised views on paying for extra information– some ask why you should pay, others see £1 as appropriate • VDU ‘gimmicky’ to some and may have initial ‘novelty’ value only • Risk of inertia – that people won’t look at information at all or that novelty will wear off after a few months • A bit ‘Big Brother’ |
| <p style="text-align: center;">Verdict → high appeal</p> <ul style="list-style-type: none"> • What would make this proposition more appealing? <ul style="list-style-type: none"> ○ Do not include timescales for payback periods in energy bills ○ Include more tips and ideas on how to save energy in energy bills ○ Further reassurance about accuracy of information communicated via the smart plugs ○ Incorporate warning alerts or text messages about energy use ○ Supplier to give people 3-5 smart plugs for free with meter | |

"I think it's a good idea.

*It raises
consciousness."*

Male, Renter, Urban
occupier, Rural

*"It's just another way to get the
government sneak into your life that little
bit more as well. They'll see every single
thing that you put on and do. It will be
something like that."*

Male, Owner occupier, Rural

Mrs. Cumber
Bulant Avenue
Withersham St. Arthur
Thithershire
AB12 3CD

Account details

Account number: S1234567890

Tariff: Standard

COST

Your gas and electric bill this month is £54.50

Your total bill for the year is expected to be £500.

Your next bill could be £30

if you implemented the energy saving measures on page 2. This would total £280.57 for the year.

PRICE

How we worked out your bill

Electricity

Price per kilowatt hour (kWh) = 11p

You have used 250kWh

This has cost $250 \times 11\text{p} = £27.50$

Gas

Price per kilowatt hour = 9p

You have used 300kWh

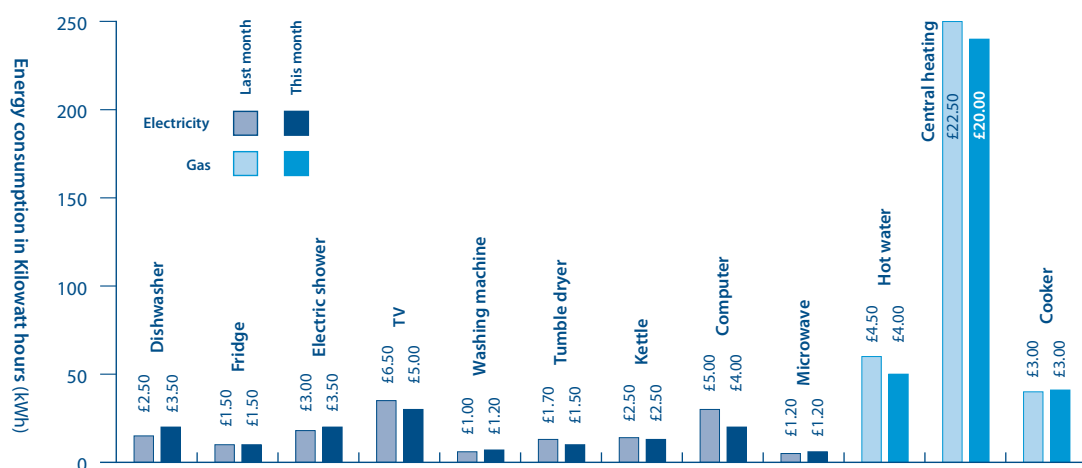
This has cost $300 \times 9\text{p} = £27.00$

CO₂

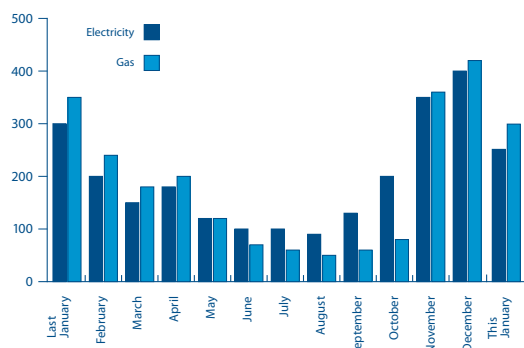
You are emitting 4.26 tonnes of CO₂ a year.

This could be 1.3 tonnes a year if you implemented the energy saving measures on page 2.

YOUR ENERGY USE



Your energy consumption over the last 12 months in kilowatt hours



Your ideal rating is C.
You could be saving
£219.43 per year.



Your current rating is D,
costing you £500
per year.



For more details on how you could improve your energy rating see page 2 of this bill.

YOUR ENERGY SAVINGS

The pictures above and on the next page show a copy of the draft mocked-up energy bill that consumers were given in order to illustrate the kind of information that they could potentially receive.

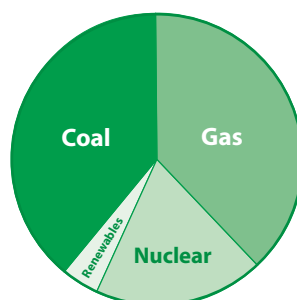
Recommended improvements

These are the top improvements that could help you save on your fuel bills and help decrease your household's impact on the environment. The annual savings shown are for the individual item, the combined savings shows how much you could save by taking all energy saving measures. Improvements with a long 'Payback Period', like double glazing have other benefits as well as reducing your heating bills. These could include improvement in aesthetics and reduction in noise.

| Improvement area | Typical cost | Typical savings per year | CO ₂ saved per year (tonnes) | Payback period |
|--|--------------|--------------------------|---|----------------|
| Fit low energy light bulbs | £55.00 | £20.70 | 0.566 | 3 yrs |
| Install up to 250mm of roof insulation | £274.00 | £11.02 | 0.312 | 20+ yrs |
| Install draught proofing | £104 | £16.30 | 0.07 | 6 yrs |
| Upgrade your boiler to an A/B rated one (exceptional) | £1500 | £43.58 | 0.041 | 35 yrs |
| Turn your thermostat down by 1 degree | Free | £34.62 | 0.06 | 0 yrs |
| Buy an 'A rated' TV | £599 | £5.39 | 0.019 | 50 yrs |
| After shutdown, remove plug from computer and printer. | £35 | £7.86 | 0.88 | 5 yrs |
| Buy an energy saving kettle | £20 | £2.10 | 0.002 | 10 yrs |
| Install cavity wall insulation | £394 | £77.86 | 1.009 | 5 yrs |

You could save approximately £219.43 if you implemented these energy saving measures.

Your energy is currently generated from these sources.



Your energy could be generated 100% from renewable sources.

To change call 0800 123 4567 and ask for details of our Green Tariff.

B: Dynamic Demand Management

What is it?

In exchange for allowing the energy supplier to interrupt the electricity supply to some selected appliances for a short periods on some days, customers receive a discount on their bill.

How would it work?

In return for allowing suppliers to interrupt electricity supply to some agreed appliances – such as freezers, water heaters and fridges for short periods of time, customers would get a discount on their electricity bill. A contract would be agreed between the supplier and the customer specifying which appliances this would apply to.

Using a 'smart' meter and 'smart' plugs, electrical appliances can be switched off remotely by the supplier for a maximum of 30 minutes each day. There is no risk of the appliance staying off from the remote message. This would help companies to 'balance' the electricity system by controlling supply around peak times, such as 5pm, when there is a high demand for electricity - i.e. because many people are returning home from work and many businesses are still active. Customers should not notice that their electricity has been disrupted and the environment would benefit through a CO₂ saving as the evening peak would have been met with less generation.

Costs estimate: smart meter costs could be incorporated into usual bill payments, adding 66p - £1.66 per month. Smart plugs would be supplied for free by the electricity company.

How would it benefit the customer?

- Discount on bill: approximately 10% off. E.g. a monthly bill of around £45 would be reduced to £40.50 and an annual bill of around £540 would be reduced to £496
- CO₂ savings – e.g. by reducing peak time demand, energy companies could manage the supply better and avoid using high CO₂ methods of generating energy if enough people agreed

B: Dynamic Demand Management: consumer responses

| | |
|---|---|
| Queries/concerns <ul style="list-style-type: none"> • Do savings increase as more appliances are interrupted? • Damage to appliances: some people are concerned that electricity interruptions would cause technical problems to their goods (and would contracts include insurance against this?) • Concern over potential for 'black outs' / home safety • What is the scope for choosing the exact time at which appliances are interrupted? • Some people saw this as similar to off-peak energy discounting | |
| Positives <ul style="list-style-type: none"> • Some people were receptive to this idea once they understood the rationale behind it, and some groups were entirely receptive • Minimal effort and good that it is unnoticeable • Uncomplicated and simple • Viable since people work varied hours - felt good for shift workers or people away from home frequently • Potential for people to plan ahead for their electricity use | Negatives <ul style="list-style-type: none"> • Don't trust energy supplier / remote process to turn appliances back on • Not an adequate financial saving to encourage people to take it up – supplier appears to benefit more than customer • Some strong dislike against control - perception that choice is being taken away |
| <p style="text-align: center;">Verdict → mixed appeal</p> <ul style="list-style-type: none"> • What would make this proposition more appealing? <ul style="list-style-type: none"> ○ Substantial assurances– i.e. protection of appliances, on/off signalling, override function and safety (fire risk etc) ○ Some flexibility around choosing times of the interruptions ○ Tailor individually to each customer ○ Greater financial reward on offer ○ More money the more appliances that are interrupted, e.g. different tariffs for 1-3 appliances, 4-6 etc ○ Ensure plugs provided for free and no charge for meter (for some) | |

"I wouldn't mind that, fridges and freezers because they run all the time, if you are at work all the time and your fridge is closed it doesn't make a difference."
Female, Owner occupier, Rural

"Your patterns change, I might be on leave for a week and I may not want my oven or my fridge freezer to go off and my food to start defrosting. I want to be able to control what I switch on and what I switch off. For me that is the thing."
Female, Renter, Urban

C: Whole house energy audit at point of sale

What is it?

When you are moving home, the property you are buying is surveyed for its overall level of energy efficiency – i.e. a 'whole house energy audit' is carried out. This leads to a detailed report with information about what improvements need to be made in order to make the property you are buying more energy efficient, more comfortable and cheaper to run.

How would it work?

As part of the new Home Improvement Packs that sellers must produce when putting their property on the market, houses for sale have an Energy Performance Certificate which gives the house an energy rating from A to G. The whole house Energy Audit would be linked to the EPC but would be a much more detailed report, identifying practical actions that could be taken to improve energy efficiency. Any audit would be carried out by specialised staff working for energy suppliers or third parties and would be promoted through the estate agent dealing with the property.

The idea is that the more detailed audit would give you the costs associated with a range of improvements which would encourage you as a buyer of a property to spend money on making your new home more energy efficient at a time when other changes are being made to the property.

The upfront costs of the audit would be paid for by the buyer of the property (as they would be benefiting from any future improvements), although it should be possible to negotiate a discount off the asking price to reflect the cost of the work that needs to be done. The energy efficiency improvements could be funded either from loans from energy suppliers or through a 'green' mortgage provided by independent providers. The green mortgage could be for the whole of the purchase price of the property or a small add on to cover the cost of the work that needs to be done.

Alternatively you could pay for the work by releasing some of the equity of the property to the installer. In this instance the installer of the energy efficiency measure would be given a stake in your property so that when you came to sell the property on, the installer would receive part of the re-sale value. As such you would have no upfront costs for the installation of the measures.

In the future, it may also be possible to get a reduction in Stamp Duty or council tax rates as a result of making improvements to the home and having a better energy performance certificate (EPC) following on from a whole house audit.

Costs estimate: £200 for the audit, plus improvement costs as required. (The £200 could be refunded if the buyer installs any energy efficiency measures.)

How would it benefit the customer?

- Detailed information and guidance on how to make CO₂ and financial savings to your property
- Homes more comfortable to live in and cheaper to run, and potentially more valuable when re-sold
- There may be scope to negotiate price around the sale of a property based on its energy efficiency
- Lower energy bills if energy efficiency measures are installed

C: Whole house energy audit at point of sale: consumer responses

| | |
|---|--|
| Queries/concerns <ul style="list-style-type: none"> Many feel they would not need this information – they would already know what measures were needed <ul style="list-style-type: none"> And some concern about who would be carrying out audit State of the property market has an impact on the appeal of this concept <ul style="list-style-type: none"> Potential to negotiate over the price of the house is dependent on state of housing market What happens if the property falls through? It is unclear what the added value of this proposition is compared to the survey / EPC – is it just a duplication? Some can't see why this should be linked to property sale – why shouldn't it be available at any time? | |
| Positives <ul style="list-style-type: none"> Logical concept – can see sense behind paying for measures at same time as paying for new home Good for houses that don't have any of these measures installed yet 'Green' mortgage for installing measures appeals to some Some people like the idea of having thoroughly detailed information on energy efficiency and see this as useful Has greater appeal for some if linked to an interest-free loan or rebate on stamp duty | Negatives <ul style="list-style-type: none"> Adds complexity / hassle to moving house (already complex / a hassle) Should not have to pay for audit Cost of measures comes at a time when consumers have no spare money Releasing equity to pay for measures universally disliked – don't want anyone else to have a stake in one's property⁴ Older properties will get poorer ratings Could create problems for sellers of properties |
| <div style="text-align: center; color: #c00000; font-weight: bold; margin-bottom: 10px;"> Verdict → limited appeal </div> <ul style="list-style-type: none"> What would make this proposition more appealing? <ul style="list-style-type: none"> No charge for audit Incorporate it into EPC as standard No interest rate on 'green' mortgage Stamp duty / council tax rebate | |

"If council tax was actually varied depending on how energy efficient your house was – if you make it more energy efficient you pay less council tax – that might be a driver."
Male, Owner occupier, Urban

"All of us here have bought and sold houses, some more than others; and when you decide to go into a house whatever house you buy you tend to improve the property, this is something that you've always done for your own benefit. I don't see that you will need packs to tell us what to do."
Female, Owner occupier, Rural

⁴ There was some discussion in the third Core Group meeting about what equity release meant in this case. It was pointed out that in this particular case consumers took equity release to mean that they could pay for work on the house by releasing equity to the installer, rather than an extension to the mortgage paid back monthly and where equity is not shared with someone else.

D: Fixed-price tariff: consumer responses

What is it?

A tariff whereby consumers pay a fixed amount each month to cover the cost of their energy use and the installation of energy efficiency measures - such as the fitting of low energy bulbs, draught proofing or internal solid wall insulation.

How would it work?

The consumer agrees to pay a fixed amount each month for a period of 2, 5 or 10 years to cover the cost of the energy they use and the installation of energy efficiency measures.

- A consumer opting for a 2 year deal will pay a fixed monthly charge (no higher than they are paying at present) and receive low cost measures such as draft proofing (typical cost £104) and energy saving light bulbs (typical cost £2.50).
- A consumer opting for a 5 year deal will pay a monthly charge and receive medium cost measures such as loft insulation (typical cost £297) and cavity wall insulation (£394).
- A consumer opting for a 10 year deal will pay a monthly charge and receive high cost measures such as a new heating system (£3000) or internal solid wall insulation (typical cost £3,116.35).

For the five and ten year deals, the payments would be index-linked so that monthly payments could increase/decrease in line with energy prices.

By the time the contract ends, householders will have paid for their energy efficiency measures. They are then free to change suppliers if they want to.

Householders may be able to take advantage of reduced council tax rates and a higher energy performance rating on their property once improvements have been made.

Costs estimate: fixed price tariffs depend on the length of the contract and types of measures introduced into the home. There would be no significant change to current bill levels.

How would it benefit the customer?

- A more energy efficient home without significant upfront costs
- Lower energy costs in the long run (e.g. cavity wall insulation could save £90 each year)
- CO₂ savings through energy efficiency

D: Fixed-price tariff: consumer responses

| | |
|--|---|
| Queries/concerns <ul style="list-style-type: none"> Reluctance to engage in longer term contracts and be 'tied in' <ul style="list-style-type: none"> This proposition in particular suffers in a context of rising energy costs Some concern over how tariffs would be calculated – based on previous usage or similar properties? What would specific monthly costs look like? Where is the incentive to reduce energy usage? Little incentive if you are renting the property – some questions over why should you invest in changes on behalf of a landlord? | |
| Positives <ul style="list-style-type: none"> No upfront costs Good if you are unable to finance a new heating system, for example, and a cheaper way to obtain energy efficiency improvements Possibly more suitable for landlords renting a property or families | Negatives <ul style="list-style-type: none"> Not enough of a return for the consumer/too long for return (5 or 10 years) Many feel that a lot of people already have these measures installed in their homes Some people can get these home improvements for free via grants and other schemes, or provided by local councils Not a fixed rate as indexed linked |
| <p style="text-align: center;">Verdict → low appeal</p> <ul style="list-style-type: none"> What would make this proposition more appealing? <ul style="list-style-type: none"> Shorter contract periods Better rate of return in terms of type of improvements on offer Reduced council tax rates/stamp duty more appealing as a multi-win incentive and indicates a more joined up system Clarity / reassurance that index linked would not allow suppliers to overcharge | |

"It's quite a long time to be tied in with an energy supplier; maybe two years maybe, but five years ten years, and you don't know even if you're going to stay in a property I think it's a bit too long."
Female, Renter, Urban

"Well to be honest if someone's saying we want you to stay with us for ten years, they should be offering to do some of these things for free, as an incentive, because none of this is really an incentive..."
Male, Renter, Urban

"But if I knew that I was paying £30 a month I wouldn't care about the environment, so do you get what I mean? So they're not caring about the environment on this one."
Male, Owner occupier, Rural

E: Low carbon micro-generation

What is it?

Low carbon micro-generation units (such as solar cells/panels) are installed in households so that homes can produce some of their own electricity.

How would it work?

[For example in the case of solar electricity.] A survey is carried out to locate the best place on the roof of the property to fit the solar cells/panel, and they are then fitted by an accredited installer at no cost. (The roof will need to be south or south-west facing.)

The consumer agrees to pay back the cost of the solar cells over 5, 10 or 25 years. As soon as the solar cells are installed, the household is able to use the electricity they produce and so reduce the amount of electricity that they need to buy from their energy supplier. (Some electricity will still need to be bought from the energy supplier as the household will use more electricity than the solar cells can produce.)

Any extra electricity that is produced but not used by the household is sold back to the energy supplier. Because the electricity produced is from a renewable source, it will also receive 'green certificates' for all the electricity generated. These have a financial value to energy suppliers and so can be sold.

So, the costs of paying for the cost of solar cells would be partly offset by the value of the electricity sold back to the energy supplier, and the value of the 'green certificates'.

For example, if the consumer were to choose a 25 year deal, the costs and savings would be as follows:

| Costs | Savings |
|---|---|
| Costs for solar cells - £6,337.50 at 6% APR <i>£40 a month</i> | Less electricity imported from the supplier <i>£16 a month</i> |
| Imported energy from supplier <i>£18 a month</i> | Electricity exported to the supplier <i>£5.80 a month</i> |
| | Value of 'green certificates' sold to supplier <i>£8.60 a month</i> |
| Total Costs <i>£58 a month</i> | Total Savings <i>£30.40 a month</i> |

How would it benefit the customer?

- Householders can produce their own renewable energy without the need for a big up front investment or higher energy costs
- Less CO₂ is generated because the household is using more electricity from a renewable source
- The value of the property with solar panels should increase.
- Once the unit is paid for the consumer benefits from all the savings.

E: Low carbon micro-generation: consumer responses

| | |
|--|--|
| Queries/concerns <ul style="list-style-type: none"> • High upfront cost and length of tie-in factor are a concern / offputting • But renewables in general are appealing – particularly amongst younger people • Many think the Government should provide this for free if really serious about reducing carbon emissions • It is felt that this proposition is only applicable for some homes <ul style="list-style-type: none"> ◦ For example, Londoners (as they were more likely to live in flats) are less interested in this idea as it is not relevant to their homes • Do the micro-generation units last the duration of the contract (25 yrs)? • Does the production impact of micro-gen units outweigh their benefits? | |
| Positives <ul style="list-style-type: none"> • Like idea of generating own energy <ul style="list-style-type: none"> ◦ Self sufficiency ◦ Exporting back to the grid • Tangible CO₂ savings • Potential to add value to home • A good idea if incorporating into new builds/housing developments | Negatives <ul style="list-style-type: none"> • Length of tie-in – 25 years too long • May be affected by where you live / geographic influence • Not ideal if you might move • High cost / initial outlay <ul style="list-style-type: none"> ◦ Especially with interest • And cost savings don't seem big enough |
| <p style="text-align: center;">Verdict → high potential</p> <ul style="list-style-type: none"> • What would make this proposition more appealing? <ul style="list-style-type: none"> ◦ Free solar panels ◦ Not paying interest on cost of solar panels ◦ Short / no tie-in ◦ Guaranteed rates of return ◦ More information about their energy efficiency and production | |

"I think the general consensus is that people would like solar panels; it's just that obviously the initial outlay. But with this making it a bit easier I think it would be tempting a lot more people."

Male, Owner occupier, Urban

"These figures. Where do they come from? Who says they're going to produce electricity? How efficient are they? What's it going to cost to install? What damage is it going to do to the house? I'm not interested at all."

Male, Owner occupier, Rural

"If you start putting them in now when people are starting to become energy aware, there will be a positive impact."

Female, Owner occupier, Rural

F: Rising block tariff: ‘use less, pay less’

What is it?

A different approach for charging for electricity: At the moment, most electricity tariffs offer one price for the first 100 units of electricity used and then a lower price for any units over that amount. The rising block tariff would flip this around. Householders would be offered a tariff where the cost of the units increases as more is used. Low electricity use would result in lower costs, whereas high electricity use would result in higher costs.

How would it work?

Ideally this would work alongside a ‘smart’ meter and monitor which would be installed in the home. This would allow electricity suppliers to know how much electricity is being used, and send messages to householders when they are using more than usual and are therefore likely to go over into a higher band. The more electricity a household uses, the higher the unit cost of the extra electricity.

A smart meter and monitor would allow an advance warning to be displayed as soon as the household is approaching the top of its electricity band (and approaching an increase in unit cost price). The supplier could ensure that there were plenty of warning signals on the monitor if electricity use levels were higher than usual.

The average house uses 3,300 unit of electricity a year, a rising block tariff could be structured into four bands, with each additional 1000 units costing more than last (see table below).

| | 0 – 1000 units | 1000-2000 units | 2000–3000 units | 3000-4000 units |
|---------------|----------------|-----------------|-----------------|-----------------|
| Tariff blocks | 6p per unit | 12p unit | 18p per unit | 24p per unit |

Costs estimate: smart meter costs could be incorporated into usual bill payments, adding 66p - £1.66 per month.

How would it benefit the customer?

- Households who reduce their use of electricity by as much as 20%, would save up to 46% on current bills because their overall consumption moved into a lower band. E.g. an average household could save up to £127 per year.
- Reduction in carbon output (e.g. if 20% less electricity was used, this would mean a CO₂ reduction of 345kg a year)

F: Rising block tariff: 'use less, pay less': consumer responses

| | |
|---|---|
| Queries/concerns <ul style="list-style-type: none"> • Timing of contract – at what time of year would cheaper unit costs fall if worked out on an annual basis? This would have a big impact on cost, especially if the lower unit price was applicable in summer months • Not as useful if people are already using little energy and being careful about costs; appeal may depend on how much householders think they can reduce their use • What would the financial implications be if you went all electric instead of gas and electric? Would it work? • Would only influence behaviour if you were at the bottom / top end of a block | |
| Positives <ul style="list-style-type: none"> • Fair concept and logical. For some people, it is seen to parallel water metering or mobile phone contracts as you pay for what you use • Gives a sense of social justice as people are penalised for high usage • Combined with smart metering, would be effective and inform people which appliances to turn off • Electrical costs under personal control • Especially good for smaller households, and those living alone (again, appeal dependent on lifestyle) • Potential to make people more conscious of their usage and responsible | Negatives <ul style="list-style-type: none"> • Others see the situation as unfair: the upper band price is that of average household usage – some people may view this as a way for supply companies to profit at the expense of consumers • Concern that people will not use sufficient heating for fear of moving to higher unit cost band |
| <p style="text-align: center;">Verdict → mixed appeal</p> <ul style="list-style-type: none"> • What would make this proposition more appealing? <ul style="list-style-type: none"> ○ Monthly or quarterly timings for rising unit costs ○ Have the option for 'pay as you go' ○ Strict regulations to ensure this tariff is offered to appropriate households [see negatives above] | |

"It seems fairer in a way, if we are actually not looking at the cost and all that kind of stuff; people who do use less should pay less. It seems fairer isn't it?"

Male, Renter, Urban

"To get into the lowest amount the average household would have to reduce their usage by a third just to get into the lowest band. If the average was 3,300 we are all going to be in that top band to start off with anyway."

Female, Owner occupier, Rural

"So the more you using the more you should pay. If you do go excessive you should pay for it. The only thing I've a question of course is when you say that if you reduce your use of electricity by 20% to 46%, the question comes in exactly how they set the tariffs."

Male, Owner occupier, Urban

G: Community Energy Generation

What is it?

An area or group of around 100 properties is encouraged to reduce its energy demands collectively as a community, by introducing household energy efficiency measures and setting up a community renewable energy project.

How would it work?

Householders in the community would club together to fund a renewable energy project such as a wind turbine as a co-operative e.g. by each investing £1,000. Householders on low incomes could borrow the money from the council interest-free. The electricity produced could be sold to an energy supplier or, if the project was set up where new houses were being built, connected to the households themselves. Because the electricity produced would be from a renewable source, it counts towards a national renewables target and so attracts 'green certificates' which have a financial value to energy suppliers.

In return for their investment, householders would benefit either through annual payouts on their investment, or through reductions in their electricity bills. Depending on who had set up the scheme, householders could also get information on reducing CO₂ emissions.

The project could be set up in a number of ways. An energy supplier could set it up, on its own or working with another organisation. Alternatively organisations could approach energy suppliers directly to ask them to be involved as a partner. The process could take several years to get off the ground due to planning procedures and purchasing land.

Costs estimate: this will vary depending on the type of business plan developed for the community. As a guide, shares would typically start at £1000 each (i.e. for investment in a wind farm)

How would it benefit the customer?

- Cheaper electricity rates
- Annual dividends or reduction in electricity bills in the region of £60-£70 (for someone who had invested £1,000)
- Opportunity to be involved in a long-term community activity and cooperative
- Energy efficiency improvements and behavioural changes will result in less electricity used, greater comfort and lower bills.
- The value of the investment would be added to the value of your house

G: Community Energy Generation: consumer responses

| | |
|---|--|
| Queries/concerns <ul style="list-style-type: none"> • Trust issues around who would be in charge <ul style="list-style-type: none"> ○ X – energy suppliers / neighbours ○ ✓ – green charity / environmental organisation • Is payback worth the investment? – and what happens if you move house? • Some feel that the scheme should run like any other investment i.e. why should it be community based? • Sense that people would consider it if others had – wouldn't necessarily be the first to sign up • Mix of views re: aesthetics etc. of wind turbines | |
| Positives <ul style="list-style-type: none"> • Radical – new and different • Tangible CO₂ savings • Working in a group could help encourage behaviour change – “like Weightwatchers” • Good for new builds | Negatives <ul style="list-style-type: none"> • Lack of ‘community’ • Lack of trust in neighbours (and could potentially cause bad feeling) • Queries around efficiency of wind power • Concerns around implementation and maintenance • Queries around location of wind turbines • Difficulty in obtaining planning permission and slow to start up • Long term rate of return poor • High upfront cost |
| <p style="text-align: center;">Verdict → limited appeal</p> <ul style="list-style-type: none"> • What would make this proposition more appealing? <ul style="list-style-type: none"> ○ Reassurance that it would be run by an independent, trustworthy organisation ○ Critical mass – knowing that enough other people were signing up ○ Guaranteed return on investment ○ Cap usage per household to ensure equitable returns on investment | |

"It always works being in group; it is a bit like if you want to lose weight it has been proved that if you go to a group and do it, you have got far more chance of a success."

Female, Owner occupier, Urban

"I don't think it should go as a community or anything, because it won't work."

Female, Owner occupier, Urban

"If one of my neighbours came knocking on my door asking me to invest £1000 on a wind turbine I would immediately think they were some kind of Dell Boy and they are going to run off with my money."

Female, Owner occupier, Rural

3.4. Themes

Opinion Leader identified several **crosscutting issues** from the consumer feedback. These are shown below under the *consumer perspective* headings, along with some quotes from consumers. In their third and final meeting, the Core Group heard about Opinion Leader's findings from the consumer discussion groups and talked about these main themes, including any **further insights**. A summary of the key points from the Core Group's discussion is also given below under the stakeholder insight headings.

The consumer perspectives and stakeholder insights are grouped under overarching headings, to make them easier to read. There is some overlap between these headings.

Cost and Value

Consumer perspectives: cost

Cost savings were more of a motivator than environmental benefits (with the exception of renewables). People were automatically looking at cost savings – for a proposition to be appealing cost saving had to be substantial, for example 10-20% off an energy bill wasn't generally seen as enough. It was not so much about cost being a motivator, rather, upfront costs were a *de-motivator*. However, people are more interested in reduced council tax or stamp duty rather than energy bills – this links into the idea of the Government being more involved. Equity release was very unpopular, though there was some interest in green mortgages with a minority of people.

"When they do a discount, it's some small discount like 10%, it's not really enough."
Male, Owner occupier, Urban

"I think still the vast percentage of people are more concerned with the cost of energy rather than the impact it's having [on] the environment."
Female, Renter, Urban

Stakeholder analysis: cost and value

- Whilst there are small pockets of green-minded people willing to do things for the sake of the environment, **people don't seem to want to pay extra to be green**.
- It seems important to make things **easier, cheaper and simpler** for customers. It was felt that it was a small minority that would take actions that involved a larger cost in terms of money or effort.
- The **transparency** of where consumers' money was going and how it was invested is seen as important to **encourage investment**; Government investment could also encourage people to invest their own money.
- The **upfront cost reductions seemed to be more appealing to customers** than waiting for a payback.
- There could be a problem with the lack of ability to articulate the financial **value** that, for example, solar panels would add to a house.
- **Behavioural advice** seemed to be of interest to consumers because it was **free**.
- There could be value in appealing to the **combination** of investment, comfort and cost.

"The real test will be is it financially attractive enough to shift behaviours; is it enough to incentivise using less in the mornings; how wedded are you to one lifestyle?"
Core Group member

Commitment, rewards and motivation

Consumer perspectives: reluctance to be tied in

People didn't like the idea of long-term contracts – there were issues with moving house and people wanted to know they could change supplier if they wanted to. Also there was an issue with long-term payback; these kinds of propositions were not as popular as those with immediate payback.

"I don't see why I should have to be with any energy supplier for a fixed period of time, sorry. Because sometimes you change as well because BGF is cheaper or Npower and in fact, if you go on this fixed price tariff, you've liked set an agreement, like a loan with them and you've got to stick with them for that period of time. I know I couldn't see for that for me."
Female, Owner occupier, Urban

"It's making you stay with the same supplier and not being able to change when you need to so that supplier can put up their costs in that time to cover their costs... It limits your freedom."
Female, Owner occupier, Urban

Stakeholder analysis: carrots and sticks

- **Consumers want rewards** rather than to be penalised.
- **Financial incentives** such as a rebate on council tax or stamp duty seemed popular; measures like this would also show the Government was taking climate change seriously. This would not necessarily work for all kinds of tax: it would depend on how the tax revenue was used and the **visibility** of the rebate.
- With **community measures** the barriers to overcome appeared to be linked more to trusting the community that you undertook these measures with than the financial rewards (although both were important).

"This has given more proof to evidence about barriers and incentives to renewables and that the Government needs to be much more generous in that respect."
Core Group member

Stakeholder analysis: motivation

- Whilst there are people who will be motivated by environmental benefits, there are also plenty of **other motivators** for those not driven by the environmental aspects, for example the potential for people wanting to fit in with the **social norms** (it might eventually be embarrassing if you don't do certain things – e.g. recycling as a current example) or to “get one up” on the energy companies through having increased knowledge.

"Generally we have noticed motivations changing. People will behave in pro-environmental ways for other reasons than concern about climate change, for example, to save themselves money, or 'keep up with the Jones', or to be healthier. The message doesn't have to be about saving the planet as some people will respond better to other incentives to change behaviour." Opinion Leader

Stakeholder analysis: competing interests

- Everyone is very busy and not just worried about the cost of energy but about food and other things. Therefore in talking about energy saving measures we are **competing for people's attention as well as time and money**.

Trust, control and provision of information

Consumer perspectives: desire to keep control

There was a general sense that participants didn't want to relinquish control but instead wanted to have a choice over how they control their energy use. The mocked up bill proved popular with consumers as it provided detailed information in a simple and accessible format. Consumers want convenient ways to cut energy use, but they want control over how they do it.

"I think it [dynamic demand] would be okay if you can say what time of the day you want this to happen and which appliances are going to be monitored; then it will be okay but if you're not in control of when it's going to happen – then I won't agree with it."
Female, Owner occupier, Urban

"It's got a 'Big Brother' feel about it, hasn't it?"
Male, Owner occupier, Urban

Consumer perspectives: what's in it for the supplier?

"The charge of putting it [smart meter] into your house, I think that should be scrapped. They should do that automatically because they're getting the benefits out of you anyway because by using the gas and the electric. They make enough money as it is. Basically you want something back. I think it's a good idea, but I think for that product you shouldn't have to pay for it."

Male, Owner occupier, Rural

There was a lot of suspicion about what the supplier stood to gain. The general suspicion was that they must be trying to get more money out of the consumer somehow, for example paying a pound a month for a smart meter when the supplier would be saving money on not sending people to read meters. A lot of people didn't necessarily take these ideas at face value and didn't trust the supplier. With some propositions, e.g. community energy generation, it appeared that other organisations such as environmental groups might be more trusted.

"I see a problem [with the] the energy and the gas people... I think they like to pass the buck too much on a lot of things. I've had wars with them as well about gas bills and electricity bills and if they get a second party involved, they'll blame them when they put something in and it's not there or it's missing or it's faulty."

Female, Owner occupier, Urban

"I think it [smart meter] will be very beneficial for the energy companies because people will go over and they will get a premium once they do go over."

Male, Renter, Urban

Consumer perspectives: Government role

Many consumers felt strongly that the Government should be paying for the propositions if it was serious about tackling climate change. There was also a suspicion that if consumers were paying they would just be subsidising what the Government was doing anyway. Conversely, the idea of reductions in council tax was popular because it showed that the Government was joined-up in its approach to climate change.

"I think if they want us to save energy to save the world then it should be installed free"

Female, Owner occupier, Urban

"I'm really cynical and I just think like why can't they absorb some of the cost themselves and there's got to be a reason why they're doing this. If it's such a big thing why they can't subsidise everyone?"

Female, Owner occupier, Rural

"If the government's trying to encourage us to save energy why don't they put their bit in because we are the government at the end of day and we are probably paying for everything in some form or another?"

Male, Renter, Urban

Stakeholder analysis: trust

- If a more **trusted intermediary** had been looked at, the results would potentially be more positive, but some propositions could only be provided by suppliers.
- **Trust is a big issue.** There is a need to build on areas where trust is strong and capitalise on them.
- In the eyes of the consumers there seemed to be a **range of trust issues** including competency and financial propriety, as well as a general lack of trust with suppliers, estate agents and government.
- Consumers did not really identify which people they did trust with the possible exception of **environmental groups** and there appeared to be no explicit split in terms of trust of local and national government (although it was pointed out that where local authorities endorse energy efficiency initiatives there is evidence of higher success rates).
- The role of **third parties** will be crucial going forward, including within community based propositions. Trade associations could also play an important role, for example through codes of conduct like the REA code.

"If we had been looking at a more trusted intermediary would the results be more positive?"
Core Group member

Stakeholder analysis: balance of information

- The reaction to the mocked-up energy bill attached to Proposition A had many positive points: the link between energy and CO₂, the energy efficiency rating, the fuel mix information and the simplicity of the colour key.
- Caution was expressed over the **amount of information** that people are given. Some people may prefer a simple message and there could be a danger of customers collapsing under the weight of information.
- Potential solutions for this include the use of **online information** and in particular **layered information**; customers could get very simple information at first then drill down further if they wanted more information.
- Smarter information would help people to see what they are and are not doing, and show them that they could make a **personal difference** to climate change.
- More information would also allow consumers **knowledge** of exactly what the supply companies should be charging them.
- Consumers wanted **simplicity** but they did **not want this to be linked to a loss of control**.
- Consumers didn't generally seem to like the second page of the bill that outlined the **payback periods for specific measures**, as they seemed too long and were **de-motivating**; instead they seemed to respond well to what they could do in their own environment behaviourally.

"People will always say they want more info until they actually get it."
Core Group member

"What about concept of layers of information – you get very simple info at first then if you want to go down further you can get more – it could appeal to different levels of expectation."
Core Group member

“I’m doing as much as I can”

Consumer perspectives: “I’m doing as much as I can”

"I think honestly that these days, it takes so much to live that we're all now more aware of outgoing, whether it be gas, electric, food, fuel, even if you've got a car your road tax, your housing. Everything is so expensive that we're all watching now more than ever."
Male, Renter, Urban

"You've got to have your heating on and you've got to have your lights on when it's dark, so there's only so much you can do."
Male, Owner occupier, Rural

A lot of people said they were already doing as much as they could. This was because of financial reasons (they couldn't afford to waste energy) or because they had already installed measures in home. If people believe they have done as much as they can, telling them that they can and should do more may generate resentment. This is an interesting contrast to the comment in the *cost and value* section above regarding behavioural advice being popular because it is free.

"I don't think it would change [my behaviour] because we're conscious about using electricity anyway I guess so it wouldn't make any difference to me."
Female, Owner occupier, Urban

Stakeholder analysis: “I’m doing as much as I can”

- There seems to be a **gap** between this statement and what people are actually doing.
- Perhaps there is a need for someone to **take consumers by the hand** and lead them through the process (e.g. a Local Authority).
- The **combined proposal** of real time display and a related tariff to go alongside it could be a potentially helpful measure here, as could mixing a council tax rebate with smart meters.
- It could be that people didn't know what to do first or who to trust in order to get advice.

"To what extent do people actually believe what they say in terms of what more they can or can't do? Often when you dig down you find they do know there are other things they could do."
Core Group member

Renewables

Consumer perspectives: enthusiasm for renewables

There was some potential here: people didn't like idea of paying lots upfront but liked the idea of renewables in theory. For example if the Government would provide them for free, consumers would be amenable to the idea of having them on their houses. Some people latched onto propositions that wouldn't affect the way they used energy in the home but would be good for the environment.

"I really do believe that all new houses should be built with solar panels."
Female, Owner occupier, Rural

"Scandinavia's full of solar power and it's cloudier than we are. So it obviously works. Why not just rob their model?"
Male, Owner occupier, Urban

"I have got no objection to wind turbines, I think they are good."
Male, Owner occupier, Urban

"If you start putting them [solar panels] in now when people are starting to become energy aware, there will be a positive impact."
Female, Owner occupier, Rural

Stakeholder analysis: consumers as producers

- There seems to be a desire amongst consumers to be **self-sufficient**; there are two approaches to dealing with this: either try to change that psyche or work with it. Individual home solutions may work better than community solutions because of this attitude, although the individualist outlook may be partly due to existing policy.
- There is uncertainty about the direction of cause and effect, when looking at the link between householders producing their own energy and taking actions to improve **energy efficiency** - i.e. does installing a wind turbine increase awareness and make the consumer more likely to take other actions, or are those who install turbines already aware and already taking other actions?
- **Caution** should be expressed in terms of people's willingness to produce their own energy through domestic micro-generation or community renewables – there was some enthusiasm but it was not overwhelming.

"People have been led to this approach [self sufficiency] and it's the policy drivers that encourage that."
Core Group member

4. Implications for Supplier Obligation and supporting policies

At the final Core Group meeting, stakeholders considered the implications of this work for the Supplier Obligation and supporting policies, and the key points they would like to emphasise to Defra. As well as several points where partial consensus was reached through small group work, there were a number of key points that the whole of the Core Group wished to emphasise to Defra.⁵

The achievement of full or even partial **consensus** is significant because of the range of different stakeholders involved in the Core Group. These stakeholders represent organisations with different roles and priorities in the field of energy consumption, including energy suppliers, fuel poverty specialists, suppliers and installers of energy-saving measures, and financial experts, yet they were able to agree on certain key points that Defra should consider.

The Core Group was asked:

Given the insights identified earlier, the previous work the group has done, and what you've heard about Defra's developing thinking...

What are the implications for the supplier obligation and supporting policies, which the group would like to emphasise to Defra?

You may also like to think about....

- How can we minimise the costs to suppliers (and thus bill payers) of the supplier obligation policy?
- How to tackle high-use consumers?
- What are the implications of moving from low-cost to high cost measures?
- Is there a possible hybrid option, between outcome and measures based policies?

Key messages with partial consensus (from smaller group work within the Core Group), full consensus, and some other related comments are outlined below. 3KQ and Opinion Leader have added some commentary at the end of each section to highlight some insights coming out of the related discussions.

⁵ Not all Core Group stakeholders were present at the meeting so the consensus was just of those members present. Following the meeting Centrica (who were present at the meeting itself) has provided the following qualification: 'Centrica is fully supportive of the research as a first stage, but felt they couldn't fully endorse the feedback to DEFRA as it was too generic and high level. To maximise the results of this valuable research, Centrica would recommend further detailed discussion around the insights highlighted. Centrica looks forward to participating in these discussions moving forward.'

4.1. Messages to Defra: partial consensus from small group work

Group 1

- Consider introductory schemes to support mass market change through incentive schemes followed by policy regulation – market creation e.g. condensing boilers.
- Policies need to be coherent over a period of time.
- Need division of market:
 - Social housing (solution = decent homes +);
 - Private housing (solution = regulation linked to licensing. Letting agents and landlords);
 - Owner/occupier (no regulation/enforcement solution yet).
- Need to reach owner occupiers by subsidising until economics are attractive enough or use carrot and sticks.
- Use of council tax rebates.

Group 2

- There should be supporting policies to reduce the search costs [*i.e. the cost of finding interested customers for different propositions*].
- Stability/policy certainty.
- Facilitate the use of third parties.
- Need for comparing energy use e.g. with your neighbour/own use over time.
- Education/advice to children not just adults.
- Emphasis on consumers having control (possibly through e.g. smart meters).
- Incentives will be important – consider a wider range of possible incentives, including tax:
 - E.g. stamp duty for more intrusive measures, council tax for less intrusive;
 - If it has “leverage” e.g. people see the £ incentive, it raises awareness etc;
 - Linking stamp duty rebate to EE rating of the home;
 - Need to investigate impacts (on behaviour, economics) of all these complicated (cross) subsidies.

Group 3

- Suppliers can't do it on their own.
- Look at options for tackling high use consumers.
- Consider European Investment Bank loan for expensive measures? – need to explore.
- Think about how to integrate behavioural measures into Supplier Obligation – have to have incentives.
- Greater use of EPC.
- Rules to improve existing buildings, especially F and G (ratings).

3KQ and Opinion Leader commentary on partial consensus points

There was discussion in the Core Group as a whole after these smaller group discussions. Some members were keen to sign off all of these points as whole-group consensus to go forward to Defra, but others felt that further discussion was needed (which was agreed as the way forward). However, members of the Core Group were keen that these consensus points from the smaller group work did not get lost and that they would be considered as part of the overall feedback to Defra.

4.2. Messages to Defra: full consensus from Core Group

The numbered bullets show the ten key messages, with some explanatory points underneath each where relevant.

10 Key Messages

1. The Supplier Obligation won't work without coherent supporting policies (and regulation).

2. Policy continuity is required.

3. This would work better with cross-departmental embedding.

- It won't work without active support from CLG, BERR HMT and DCSF. Until it is embedded in other departments Defra's job will be made more difficult, though the idea there should be a completely joined up cross-departmental strategy could be an aspiration too far.
- It needs both a regulatory and incentive approach – carrot and stick.

4. It is important that third parties are involved (including community action).

5. Smart meters were integral to the only proposition with high appeal to consumers.

- Across all sectors this was the most popular proposition, despite the range of views about the cost of a smart meter.

6. There needs to be a strategy to develop trust among consumers.

- The consumer research showed that there was a lack of trust from consumers.
- We need to have a strategy specifically focused on building trust.
- There is a need to build customer confidence in the benefits to them – this might be done through third parties, agencies or even suppliers.

7. Clarification is needed as to whether consumers trust central Government.

- In some cases people don't trust the Government, in other cases they do. When local authorities endorse energy efficiency initiatives there is evidence that success rates are higher.

8. All possible types of fiscal incentives need to be considered (including new incentives, communication of existing incentives and extension of currently successful programmes).

- This research suggests that consumers aren't prepared to invest in measures that don't give an immediate economic return.

9. Some consumers consider themselves to be doing all they can – Defra needs to understand why they think this and then invest in addressing it.

- If that is not actually the case then the way to sell it in would be on a rewards basis rather than penalties basis; then people are more likely to be turned on about energy efficiency.
- This needs to be split into investing in measures and behavioural actions. Understanding this issue is important, as is investing in the means to address it.

10. There needs to be a strong fuel poverty package alongside the Supplier Obligation – this should deal with price, measures, income and advice.

- Government is not funding the eradication of fuel poverty adequately or quickly enough – it needs to be fully funded.

3KQ and Opinion Leader commentary on full consensus points

This is not an exhaustive list of points. Several members of the Core Group felt more time would have been useful in order to develop these messages and others more fully. Nevertheless, 3KQ and Opinion Leader conclude that these messages, combined with the analysis of the consumer group responses and the sum of the Core Group and E-Group input, provide a solid body of evidence to present to Defra. This whole body of evidence will need analysing in more detail by Defra in order to draw out other messages and more subtle points to consider in the work on Supplier Obligation. 3KQ and Opinion Leader also believe that this project should be a platform for further analysis and engagement so that these issues can be explored in more depth and detail.

4.3. Other comments to go to Defra: from Core Group

Other comments to go to Defra

- At this time consumers don't appear to trust suppliers to deliver this – we need to consider other agents and strategies to communicate and deliver offerings.
- Customers aren't confident in the benefits to them.
- People don't trust national Government but do like Government endorsement.

3KQ and Opinion Leader commentary on other comments to Defra

These comments were drawn out of the final discussions in the Core Group but were more observations rather than specific advice to Defra. However, they are important contextual issues that will need to be addressed as work on the Supplier Obligation progresses. Lack of trust was one of the strongest messages coming out of this whole project; gaining public trust in any new policy measures taken and in the bodies that deliver these measures will be key to ensuring their success.

5. Next steps

5.1. Final thoughts to Defra: from individual stakeholders

Individual members of the Core Group were asked to identify some final thoughts in order to help Defra clarify its thinking on the way forward. These are outlined below.

Thoughts for Defra

- There is a need for additional supporting policies, pre-emptive regulation and supporting fiscal measures.
- Understand the consumer and help them to do the right thing.
- Address consumer trust and you are half way there.
- Financial incentives are important.
- Defra should explain to other departments how well this kind of policy development (i.e. using stakeholder and consumer engagement) can work.
- Don't form a policy that destroys the value of low cost measures to try and facilitate the high cost measures.
- Carefully consider any distributional impacts and mitigate where necessary.
- Now that Defra has commenced on this engagement process, ask that it is continued and strengthened.
- Look beyond 2020.

5.2. 3KQ and Opinion Leader recommendations for ongoing engagement

Continuing engagement with stakeholders and consumers is vital to the development of Defra's thinking on the Supplier Obligation, not least because of the concerns around trust. Engaging with a wide range of stakeholders throughout the policy making process has several benefits, which potentially include increased stakeholder buy-in to process and policy, contribution of a wide range of expertise and opinion, development of trust, and ultimately more effective policies.

It is important that Defra builds on the momentum built by this project by continuing to develop relationships with stakeholders and by engaging in a visible, iterative manner. The integration of this engagement with the policy making process and with other relevant areas of work as soon as possible is crucial to ensuring that the impetus and enthusiasm built up during this project is not lost.

As an initial point for action, Defra should feed its responses to the findings of this project back to stakeholders. 3KQ and Opinion Leader also have several further recommendations for Defra to consider regarding the ongoing engagement of stakeholders and consumers in the development of the Supplier Obligation and supporting policies. These are outlined below.

Why

- a. Ensure you are clear about why you want to continue to engage with stakeholders and consumers on the Supplier Obligation.
- b. Set clear objectives for outcomes and outputs of any engagement undertaken.

- c. Ensure that those you are engaging with are also clear about these objectives and seek to understand their own motivations for engaging (e.g. suppliers may have different priorities to consumers).
- d. Ensure that engagement around the Supplier Obligation and supporting policies takes account of stakeholder and public engagement or research workstreams around other energy- and carbon-related policy areas, integrating and coordinating with those other workstreams where appropriate.

Who

- a. Identify which groups you want to engage with based on the objectives already identified, and building on the engagement that has already happened around the Supplier Obligation.
- b. Identify any third parties who might need to be involved, for example key players in other Government departments, energy or engagement experts, influential decision makers who may be key to making any future policies work.

What

- a. Provide ongoing feedback to stakeholders which describes where their input has gone and what impact it has had. For example, feedback to stakeholder specific responses to this report and the recommendations within it.
- b. Set boundaries for any engagement, being very clear about what is open to influence and what has already been decided. Stakeholders and/or the public should understand the likely degree of influence which they will have over the Supplier Obligation and supporting policies.
- c. Build on the recommendations from the Core Group to identify specific areas for engagement (e.g. with other Government Departments to build internal capacity, with the public to look at the issue of trust).
- d. Consider integrated processes which enable stakeholders and members of the public (as consumers or as citizens) to talk and listen to each other directly.

When

- a. Build on the momentum which this engagement project has developed, keeping in touch with stakeholders and letting them know Defra's intentions and plans as they become clearer, and informing them about other related engagement workstreams which they may be interested in.
- b. Coincide periods of engagement with times when stakeholder or public input can be of most use or have real impact on the Supplier Obligation and supporting policies.
- c. Match the timing of engagement to the desired objectives and level of influence – for example if you want a high level of influence into early thinking on Supplier Obligation post 2011, engage as early as possible; if you just want to test reactions to more cemented policy ideas, engage later on in the process (NB these are not mutually exclusive – a comprehensive engagement plan is likely to involve both and more).

How

- a. Match the type of engagement to the desired objectives and level of influence. For example, more in-depth deliberative processes may be suitable for early input, more consultative processes may be appropriate for later input into more fully formed policy ideas.