

General comments

1. It is welcomed that the consultation discusses both direct and indirect feedback to consumers. While communication through the smart meter itself will be core to the programme and a key goal in the long term, it is important to be realistic about the long journey that consumers will need to go on and not try to make a jump from "zero to hero" too quickly. Consumer interaction with energy starts from a very low base and for many it will be a step by step process to build awareness and understanding to a point where they can interact directly with the smart meter/IHD in the long term.

This is particularly true when considering the desire for long-term and ongoing engagement. Previous trials have shown that encouraging direct engagement early can result in a short term spike in engagement that quickly dissipates as consumers lose interest. On the other hand indirect feedback methods such as Monthly Home Energy Reporting (e.g. OPower) tend to lead to energy savings that increase over time (large-scale trials in the US have shown 2nd year savings that build on the 1st year). Therefore, it is likely that for many consumers concentration on these sorts of indirect methods to begin with will be important to bring them up to a level of awareness and interaction where they are then ready to interact directly with a smart meter on a consistent and ongoing basis. It will be important to always bear in mind that the goal should be the more efficient use of energy by consumers in the long term and not the short term interaction with a smart meter. The smart meter is just a tool and a means to this end.

2. It is encouraging that the consultation is thinking seriously about consumer behaviour and different factors that drive and influence it. It will be important not to fall into the trap that there is an "average" consumer but that every consumer is different with different preferences and ways of responding to stimuli. In thinking about how consumers differ and the different ways to engage them, it may be helpful to think about consumer interaction with energy along two dimensions: consumers' ability to act and their willingness to act.

Consumers' ability to act is defined by the reasons they act the way they do and helps us to understand how to fit in with their underlying propensities. For example, different consumers will:

- have different levels of awareness
- prefer different methods of interaction in terms of what they find useful/easy/intuitive

- be prepared to invest different amounts of time and want different granularity of information/control (control-freaks vs. outsourcers)
- have different trust requirements and need different guarantees/safeguards
- have different physical barriers to what they can achieve (e.g. depending on their type of dwelling etc.)

These tendencies and preferences are not things to try and change or influence. Instead, they are essential for understanding how to interact with different consumers to make it as easy and relevant for them as possible. For example, while it is admirable that the Government has recognised the use of IHDs as a tool for interaction, rolling out the same device to every consumer is unlikely to be the ideal approach. It would be more effective to identify which consumers will respond well to this sort of device versus an alternative. One way to achieve this may be to offer a selection of methods of interaction and allow consumers to self-select.

By understanding consumers' willingness to act, we can then consider the options for influencing their behaviour so that they care and interact more with their energy use. Influencing behaviour can then be achieved through both reflective/rational mechanisms such as offering incentives, as well as affecting consumers' automatic responses through social norms, priming, salience etc.

Whether done centrally or by energy suppliers, we believe that developing an in-depth understanding of different types of consumers, and being able to group them intelligently, will be essential to relevant, effective and efficient engagement.

Specific Responses to Questions

Q1. Are these the right aims and objectives against which to evaluate the Government's consumer engagement strategy for smart metering? Please explain your views.

Q8. What are your views on the proposed objectives for the Central Delivery Body? Are there any additional objectives which should be included?

Overall, we agree with the proposed objectives of the consumer engagement strategy. We also agree with the proposal to establish a Centralised Delivery Body. In our opinion it would be worth strengthening the first objective further to allow the measurement of progress against it. While it is essential to identify what benefits matter enough to customers for them to change their habits, it is of equal importance to identify what barriers prevent them from

doing so. We therefore suggest that one of the objectives should cover the understanding and removal of barriers to realising the potential benefits for customers.

According to our research, the key driver for most customers to consider changing their attitude towards energy consumption is a reduced energy bill. However, the importance of this driver significantly reduces in higher income families and therefore it is important to identify what measures could be implemented to encourage behaviour change for all types of customers and there is no 'one size fits all solution'. One of DNV KEMA's concerns is that the Customer Engagement Strategy seems to look at 'vulnerable customers' and everyone else, whereas the true situation is more diverse.

One of the key barriers preventing a reduction in energy consumption tends to be a lack of or the inaccessibility of consistent information regarding the benefits of energy-saving products and the zero cost or low cost options to make a household more energy efficient. Therefore an objective of the Consumer Engagement Strategy could be to remove such barriers, giving consideration to information dissemination and the setting of 'local benchmarks'. In particular, impact of Green Deal could be considered and included when setting local benchmarks and disseminating energy efficiency programs/results. As we mention above consumer awareness creation is a long journey and needs step by step approach.

Q2. What are your views on focusing on direct feedback, indirect feedback, advice and guidance and motivational campaigns as behaviour change tools? What other levers for behaviour change should we consider?

Q33. Do you agree that information on current smart and advanced metering would be useful to non-domestic customers in the short term? Is there other information that could usefully be provided at the same time?

We support utilisation of the suggested campaigns, especially those including innovative methods such as social networks and, consideration of web-based energy efficiency games. In the US, for instance, one of the utilities is trialling social game mechanics to facilitate its Peak Time Rebate program. This program invites customers to participate in "Reduce Your Use" events, allowing to earn points, prizes and rewards. We would also suggest that organising community group competitions to meet set targets and then providing public recognition of the successes be included in these motivational campaigns. Encouraging businesses to organise energy awareness days for employees should also be included. Information on water consumption could also be added in the future to keep customers more interested and achieve even more benefits.

The Consumer Engagement Strategy needs to deliver long lasting customer engagement. In one of DNV KEMA's recent projects, which involved surveying 1,500 domestic customers and their perception of smart energy offers in the market, we found out that less than fifth of respondents with smart meters were offered any new services once they were in place. Thus, to avoid this and to allow suppliers to diversify their offerings, the information provided has to go much further than just telling customers how much they consume. There is a strong risk that the IHD will go out of fashion (like most technology does) and therefore a much broader focus must be retained when it comes to the Consumer Engagement Strategy.

We have carried out a number of pieces of research into customer behaviour that show that the way to keep customers interested in the long term is to have measurable goals. For instance, setting a goal to reduce energy consumption to a 'below local/national average' target may be quite compelling. Indeed, competition between neighbours or local communities and recognition of progress made can achieve increased levels of participation and commitment to reduce energy consumption. One of the risks associated with a Central Delivery Body, is that local programmes get neglected and that the 'personal touch' is overlooked.

As a final remark, many of the choices customers make are taken as a result of behavioural cues from the people that they interact with, thus a part of the motivational campaigns could include not only sending the information to customers directly, but rather display energy information in public locations to generate interest.

Q3. What are your views on community outreach as a means of promoting smart meters and energy saving behaviour change?

Q20. What are your views on the need for the Central Delivery Body to establish an outreach programme?

At the moment many customers are still unaware of smart meters, the benefits they bring and of the imminent mass rollout plans. Before smart meters get rolled out on a wider scale, it is essential to get customers warmed up to the idea of having a smart meter installed. This could be done not only by the suppliers, but also by third parties such as community organisations and local authorities.

DNV KEMA is therefore in agreement that community outreach could play a very important role in shaping consumer behaviour. Third parties could ensure that information as mentioned above is distributed and is visible to customers. To raise credibility, it is essential to provide sufficient information to customers prior to, during and post rollout. A Centralised Delivery Body could make sure that a relevant, clear and concise message is delivered to customers, whereas a third party could ensure that the information provided is locally

relevant. Once the mass rollout commences, there is the potential for customers to become concerned if they are not due for a smart meter until closer to 2019. In which case, they cannot receive the benefits early – it is critical that timings are transparent and this is all part of good engagement.

Q4. Have the right evidence requirements been identified for Foundation learning? What other evidence or approaches to research and trialing might we consider?

Q10. Do you have any views on mechanisms for monitoring progress and holding suppliers to account in delivering objectives?

DNV KEMA agrees with the proposed Foundation learning evidence requirements. It is important to capture the different customer demographics; by age, by property type, number of energy end use devices in the house etc. to detect the level of impact the different types of media are having. It is also essential that different types of consumer engagement, such as technologies used, types of bills, type of information sent to customers be described in more detail, for instance, image of the monitors installed in customer premises, what additional information was provided on the bill, how often the information was sent. This will help to ensure that the full understanding is developed on customer attitude towards various strategies used.

Q6 Do you agree that a centralised engagement programme, established by suppliers with appropriate checks and balances, is the most practical solution given other constraints? If not, what other practical alternatives are there?

We agree with this proposal.

Q36. What are your views on whether the Government should, in due course, alter energy efficiency incentives in the light of new opportunities arising from smart metering? How might any such incentives operate?

Through our experience in the US, where there are already 70.4 million smart meters deployed, smart meters allow utilities to offer a dynamic pricing mechanism, which combines the use of time-of-use tariffs and smart appliances, i.e. thermostats. The AMI system also facilitates direct load control programs by providing continuous information on the status and performance of individual switches. According to our US research, market readiness for residential energy management and control devices and related services is generally high. However this might differ in the UK and further research with respect to market readiness for dynamic pricing mechanisms should be carried out.

