

Smart meter implementation programme: Response to selected questions on rollout strategy

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Overview

The smart meter rollout is an unprecedented opportunity. It will be the first time there is a rollout of an energy technology to every home in the UK since the switch to gas. And with installers needing to enter homes to fit the device, this is a perfect opportunity to engage home-owners with their energy use: what improvements could be made to their property and how they could finance these improvements through the Green Deal. In short, it could be the perfect delivery mechanism for a massive overhaul of every property in the UK, futureproofing them for a low carbon world and helping to drastically reduce every citizen's energy consumption.

However with the current design of the rollout, Green Alliance believes that this ambition is severely limited. There is nothing that will place the smart meter as part of a broader programme coming out of government to improve our housing stock. There is a lack of co-ordination between the design of the smart meter rollout and encouraging take-up of the Green Deal, and vice versa, and little mention of integration with other interventions such as the Renewable Heat Incentive or Feed In Tariffs. It does nothing to spark off a whole-house refurbishment programme and does little to integrate the smart meter delivery with local community energy projects.

The design, as it currently stands, far from spear-heading an energy-use revolution, will purely deliver smart meters.

Question Responses

Question 1: Do you believe that the proposed approach provides the right balance between supplier certainty and flexibility to ensure the successful rollout of smart meters? If not, how should this balance be addressed?

Green Alliance does not think that this question is the right question to ask. The main question that this consultation should seek to address is whether or not the proposed rollout approach will achieve the main benefits of the smart meter rollout, namely to:

1. Reduce the cost of billing and increases its accuracy;
2. Reduce energy use through both consumer behavioural change through greater awareness of energy use and enable the introduction of energy services such as remote energy audits;

3. Provide better data on energy demand and flows to suppliers, network and system operators and third parties to enable more efficient operation of the networks and better demand forecasting; and
4. Introduce price signals through time of use tariffs to shift the time at which electricity is used through both automation and behavioural change.

The current approach appears to be focused on achieving the first benefit, which is only a small part of what smart meters offer. We would argue that without an area-based approach it will be very hard to achieve objectives two to four. A street-by-street approach is essential for end user engagement, interaction with local organisations and ensuring that the rollout is consistent with the requirements of a smart grid.

Integration with community groups and local authorities

An area-based approach would enable local authorities and community groups to play a greater role in the rollout. This is important as a number of studies have shown that consumers are far more likely to trust local authorities and community groups than energy suppliers. It is essential for consumers to have trust in the programme and help avoid some of the consumer backlash seen in other countries. Overcoming this backlash may be extremely difficult and expensive. It is also essential to get much of the behavioural changes needed at the individual and group level, and community groups and local authorities will have an incentive to really focus on this, where energy suppliers do not.

The consultation suggests that ‘there could be merits in adopting a common area-based plan for later stages of the rollout’. However this ignores the reputational damage that could be done in the early stages of the scheme if it fails to be successfully taken up. The success of the overall scheme will be very dependent on the experience of the first adopters and resulting media response. It also ignores the number of houses that could have smart meters installed without appropriate energy efficiency measures alongside (which could be up to around 7 million households in the first two years) if the rollout goes ahead as currently designed and there is little to encourage suppliers to address end user efficiency.

Smart grid

The development of a smart grid is a key government objective of this coalition and needs to be thought through alongside the rollout of smart meters. It is not something that can be put off to the future as some distribution operators are already reporting a high concentration of distributed generation and/or heat pumps on their networks. It is also not something that requires we wait until the economics are right: work done by Imperial College¹ suggests that smart grid technology offers savings at very modest levels of heat pump and electric vehicle penetration.

Smart grids require smart meters in key places in the network. The smart meter rollout should therefore involve discussion with network operators about the type of data and location of smart meters that would be useful for them to optimise their networks. An area-based, more strategic approach would help facilitate this and would give the network operators the information they need to run their networks as efficiently as possible, as soon as possible.

¹ Benefits of Advanced Smart Metering for Demand Response based Control of Distribution Networks, ENA and Imperial College, March 2010.

Network operators may not require data from smart meters in every home and SME. Instead they may only want smart meters at the first point and last point in a low voltage network to enable them to balance each local network. Understanding the network requirements would enable the smart meter rollout to be prioritised so that the networks can cope with take-up of distributed generation, heat pumps and electric vehicles. It will be important to identify households where the installation of a smart meter may be beneficial to occupier but not essential for wider network operation (this will be important given that it will be hard to install meters in some properties due to technical reasons or customer resistance).

In addition the premise that the rollout can be modified in future to support a smart grid seems short-sighted as smart grids will take time to deliver and any decision taken now needs to support their development. Whilst smart grid technology is being trialled under the current distribution price control innovation fund, there is a general level of acceptance that smart grid technology will be required to successfully integrate low carbon technology into the networks and enable the demand side to become more active.

Early adopters

We understand that one of the reasons a supplier-led approach is preferred is to ensure that keen customers are able to get a smart meter early on, rather than having to wait until their area was due to be upgraded. However early signs from the Centrica smart meter rollout suggests that suppliers may not adopt this model as it may not be economic for suppliers to react to individual requests (On its website British Gas tells its customers that they will have to wait until they are approached²). For this benefit to be realised we would therefore suggest that Ofgem needs to stipulate that suppliers have to react to customer requests.

In summary, we believe that the benefits associated with an area-based approach could far outweigh any short-term cost savings resulting from greater flexibility for suppliers. It is essential that cost benefits are done on a long-term basis with a mind to where we want to get to (e.g. in light of DECC 2050 work) and that, where possible, things happen in parallel to avoid delays and bottlenecks.

Question 4: What is the best way to promote consumer engagement in smart metering? As part of broader efforts, do you believe that a national awareness campaign should be established for smart metering? If so, what do you believe should be its scope and what would be the best way to deliver it?

The prize on getting consumers to engage with their energy use is one of the prime motivators for the introduction of smart meters. Indeed, as stated in the rollout strategy document, over 40% of the benefits of the scheme are expected to come from consumers changing their energy consumption habits.

This means that encouraging and supporting consumers to reduce their energy use should be at the heart of the design of the rollout strategy.

A centralised awareness campaign is essential at both a national and local level. Without it the government cannot place the rollout of smart meters in a context of a national programme being rolled out to help consumers with their energy use. This could be along the lines of a 'future-

² <http://www.britishgas.co.uk/energy-efficiency/smart-meters/faqs.html>

proofing your home' campaign, which would encompass the smart meter rollout, Green Deal financing, RHI and FIT provision. These initiatives should be presented as part of a whole package.

Green Alliance agrees that the scope of the campaign should be to create a brand and use this brand as widely as possible alongside a social marketing-led consumer engagement process. This should build confidence and understanding, and make available reliable information on the process being undertaken and the actual and possible benefits from smart meters (and the other initiatives). This information should be provided in a format that has been shown to work. Instead of leaflets which may not be read, information should be given through a variety of mediums (using visual and audio as well as written) and based on consumer research.

This overall brand and communications exercise would then make it far easier to integrate the initiatives (we expand on this point in answer to Q5). In addition there should be broader messages on the ways that people can reduce their energy.

The experience in the State of Victoria, Australia, shows how rollout could go badly wrong when there is no overall communications strategy to build confidence and understanding amongst consumers around the introduction of smart metering. This leaves a vacuum into which negative messages can take precedence and are then hard to counter.

Changing consumer behaviour is difficult and requires multiple approaches and innovation. Consumers will need to be taken on a 'journey', and the national awareness campaign should start long before the beginning of the installations. It should then continue throughout the rollout and after it to ensure the benefits of the smart meter are being understood.

It is also important to consider not just what messages are put out there, but who is saying them. The messenger is extremely important in the response to a message. There is evidence to suggest that energy companies are not the best messenger for a smart meter rollout which could save people money on their energy bills. This has been learnt already with CERT where there was mistrust with the idea of an energy company trying to help reduce consumers' energy bills. Therefore it is likely that consumers will not trust the benefits that energy companies might assert under a 'co-ordinated' approach to engagement. It is also unlikely that suppliers would focus to the same degree on the behaviours that can be undertaken alongside smart meters, as they would have little incentive to do so.

Fundamentally, the best messenger will be peers: friends or neighbours that have had a good experience with the smart meter roll-out. If smart meters can start to be seen as 'normal' and 'desirable' that will have a very powerful effect on uptake. For this to happen, the rollout has to be as visible as possible. The brand should be used on all vans, installers' jackets, etc. Consumers should be incentivised to put something outside their home, saying it has been 'future-proofed' or similar if they have had a smart meter and other energy efficiency measures installed.

Therefore a core part of the rollout should be ensuring that customers' experience of the rollout is an extremely positive one - we go more into this in questions 5 and 13.

Question 5: How should a code of practice on providing customer information and support be developed and what mechanisms should be in place for updating it over time?

Information to consumers on energy efficiency as part of the rollout is an absolutely essential part of the engagement process. This should happen throughout the process: before, during and after installation.

The best information is information that is tailored to the house and the users, rather than a generic leaflet which could be irrelevant to a particular circumstance and requires interpretation on the part of the householder. Pointing customers to where they can find more information is not sufficient as it requires additional effort on the consumer side and only a proportion of really interested consumers are likely to explore further.

To address this we propose a number of solutions:

1. Each household is automatically entered into a Green Deal process when they get a smart meter installed, unless they opt-out. They should also be provided with information on the cheapest Green Deal providers, whom they could also choose to go with instead at this point. Then whilst the meter is being installed the first part of the energy assessment process takes place - essentially providing the household with an EPC. This would get round the issue of requiring two home-visits to carry out the assessment and meter separately.
2. Prior to the installation the supplier must also contact the customer as to what additional energy efficiency services they could provide at the point of installation. This could cover a variety of easily installable measures from draft-proofing to insulation tape. These could then be installed at the same time as the smart meter being fitted.
3. In an area-based rollout model, a community energy group or local authority could also arrange to visit the householder on or around the time of installation of the meter. They could then engage the householder with advice on their habitual energy use. In a competitive model it is unclear as to why a supplier would want to engage with a community group on this, as it would just add additional costs and hassle, unless they were mandated to engage.

We believe the last of these points will only happen if an area-based approach is taken, as argued in Q1. If this is not the form taken, a key component of the code of practise should be a requirement on suppliers to work with local authorities, regional organisations, and other groups such as schools, primary care trusts and the voluntary and community sector.

Experience under the boiler scrappage scheme suggests that suppliers offered inflated prices, therefore key to the success of the scheme is that suppliers both offer measures at set rates approved by Ofgem and give information on the prices of comparable services and measures.

In summary, the Code of Practise needs to get round the issue that it is fundamentally not in the supplier's interest to provide information and/or encourage habitual behaviour change to reduce energy consumption and this will just cause them extra hassle and cost in the current design.

Question 6: Do you agree with the proposed obligation on suppliers to take all reasonable steps to install smart meters for their customers? How should a completed installation be defined?

An installation should only be defined as 'completed' if it has included personalised information and advice on saving energy in the home, and how the householder could achieve that, both through one-off energy installations, such as insulation, and behavioural measures. It will be vital that they are given advice on how to operate the smart meter and interpret the information given on the visual display unit.

Question 7: Do you think that there is a need for interim targets and, if so, at what frequency should they be set?

The successful rollout of smart meters underpins many other initiatives and any delay could slow down progress in other areas. Enabling the suppliers to leave the majority of installations until the latter half of the rollout period is risky, particularly as most of the early adopters will have already taken up new meters (given that suppliers are required to respond to customer requests) and the remaining customers may be harder to sign up. It is also problematic given the wider network issue discussed above.

We therefore suggest that interim annual targets should be developed to ensure the rollout is on track to meet the 2020/2016 target.

Question 11: Do you agree with our proposed approach to requiring suppliers to report on progress with the smart meter rollout? What information should suppliers be obliged to report and how frequently?

The targets need to reflect both the progress made in terms of number of smart meters installed (either as absolute number or proportion of customers), and also the level of responsiveness to customer requests and network operator needs. Suppliers should not just have to record whether the installation was at customer request but should either have to:

- be mandated to respond to customer request within a certain time period; or,
- as a minimum, report the number of customer requests they were unable to respond to.

Suppliers should also have to report on the level of take-up of energy efficiency measures during the installation of smart meters, the number of energy audits conducted and number of customers signing up to the Green Deal (or if automatic enrolment is initiated, the number of customers opting out of the Green Deal).

Initial results from the Energy Demand Research Project (EDRP) suggest that installation of smart meters and display units alone may not result in long-term energy savings. Without further support to help customers to reduce their energy use, the smart meter programme could result in a net cost to customers with most of the advantages (reduced billing and forecasting costs) going to suppliers.

Suppliers and other third parties should be obliged to use the data provided through smart meters to report on average (temperature adjusted) energy use per customer, whether they can see trends in energy demand reduction and whether they are providing on-going demand-reduction support through the meter. Options might include:

- Provision of easy to understand comparative billing;
- Alerts to high energy use or consumption patterns that reveal wastage;
- Provision of services that analyse energy data to provide tailored advice;
- Customer commitment programmes and financial incentives; and
- Working with and providing support and resources to community groups.

Whilst it may be difficult for suppliers to attribute energy savings solely to the installation of smart metering, it is vital that the data gathered is used to both assess improvements (whether directly related to smart meters or not) and better target future policy and supplier initiatives.

Question 13: Do you agree with our proposal to require suppliers to develop a code of practice around the installation process? Are there any other aspects that should be included in this code of practice?

As the success of the scheme will be very dependent on the experience of early adopters, it will be essential to make the experience as positive as possible. We support much of the code of practise design included by Consumer Focus in their submission, and in particular we think customers should be able to book installation slots (similar to those used by on-line retailers) so that they only have to be at home for a limited period and can choose a convenient time. Customers that are prepared to fit into an optimal time slot could be given some incentive to reduce mileage covered by installers.

Where we disagree is on the 'opting in' to further energy efficiency measures. Behavioural economics shows that if you make a measure 'opt out' you will get far greater uptake; it was for this reason that digitalising of NHS data records for example were opt-out. As argued in Q5 we think installation of a smart meter should mean consumers are automatically entered into a Green Deal process, unless they opt out.

Additionally, more than one certified person may need to visit the house so that one can install the meter whilst the other conducts an energy audit or provides advice to the occupant.

**Green Alliance
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