



Onzo Ltd. response to the OFGEM Consultation on Promoting smarter energy markets:

Reference Number 174/11.

Introduction

Onzo is a leading UK manufacturer and developer of In Home Displays and Energy Analytics. We are members of the ZigBee Alliance, the SSWG and CEDIG, and work closely with meter manufacturers and UK industry groups to help set standards for smart metering. We have currently supplied over 100,000 internet connected displays in the UK market and collected and analysed over one and a half trillion energy readings. These have been used to help educate customers about energy usage and provide the basis for engaging them in continuing improvement in their behaviour over an extended period. It has also enabled us to construct a unique database of appliance use and consumer behaviour, using both our Smart Energy Kits and ZigBee displays.

Based on that experience, which spans both consumer usage and utility insight, Onzo offers the following responses.

Response to Consultation

Q1. Do you agree with the propositions set out in chapter 3?

In general, yes. However, we do not believe that they are necessarily being supported by the current direction of the DECC specifications. To enable retail market development, it is vital that consumers have easy access to their metering data, preferably at a resolution greater than the half-hourly information being accessed by the DCC. Because of the burden of rolling out the smart metering program it seems highly unlikely that innovation in energy services will come from the utility sector; it is more likely to come from independent third party suppliers. Therefore to support any of the propositions within the chapter, it is important to ensure that consumers can access their data and provide it to these companies. This will almost certainly require them to export it via their broadband connection, or through other WAN links which are supplied as part of the service.

Proposition 2 does not make clear the value of demand-side response beyond an academic statement of the issue, which is alluded to in 3.23. Whilst it is likely to become more important as energy use changes, it would be useful to have more supporting evidence and timescales for when problems are anticipated.

Proposition 3 requires a mandate that users can access their data on the HAN. Which then begs the question of whether this is only through a device that they need to

purchase and what the cost of that device will be. As the current proposals stand, this is not a free option, but involves customer expense, which will constrain service development.

Q2. For each proposition, have we identified the elements of current market arrangements that could help or constrain the realisation of benefits for consumers?

No. The biggest constraint is the sheer scale of change to move to smart metering, which is likely to overwhelm the existing industry. Smart metering is not just collecting more data, nor is it an extension of AMI. It is a complete new data paradigm which encompasses a massive increase in data, completely new billing systems and a complex remote device management capability. Our experience is that the industry and incumbent suppliers are only just beginning to appreciate the magnitude of the task they have signed up to. As a result, we believe that OFGEM and DECC must ensure that third parties are able to access data and innovate. Otherwise it is highly unlikely that few, if any of the proposed benefits will be realised during the lifetime of the deployment.

Q3. For each proposition, have we identified the key issues, such as the timescales for any changes to market arrangements?

We think that OFGEM should be more clear about the need for parallel development by new entrants to the business and the role that they have to play in bringing innovation to energy services. Otherwise we are unlikely to see any real benefits beyond more accurate billing.

We would also question what appear to be two underlying assumptions:

- That consumers will continue to switch at the current rate. The recent moves to stop doorstep sales, simplify tariffs and remove web discounts have caused the level of switching to plummet. In 2012 it looks as if it may reduce to single figure percentages. If this happens, utilities will change their business models away from customer acquisition to adding value per customer. As a result switching may become a completely new market, where aggregators offer to manage energy supply, switching customers on a daily basis.
- That wind will become an increasingly important part of the generation mix, leading to a greater need to control and manage demand. Whilst we understand the desire to increase wind generation, the propositions in this document appear to be putting the cart before the horse. If wind needs more demand response, then this should be factored into the economics of wind generation; there should not be an assumption that smart metering clears up the mess afterwards. Equally, it is probably fair to assume that major appliances will become more efficient and autonomously intelligent, helping to mitigate demand. Countering this, new high demand products, like electric vehicles, will become part of the mix. However, this should be tackled at the vehicle and charging design phase. An EV can be viewed just as validly as a storage resource for the grid as a peak drain. We would suggest there should be more emphasis on ensuring that products which come to market help control demand as there is on providing intelligence within the grid to control them.

Care needs to be exercised over the universal ability of meters to switch to prepay mode. Initial deregulation in the UK saw a vast increase in customers being moved to more expensive prepay contracts. It is important that the provision of competent meters does not allow this to creep up, further disadvantaging the fuel-poor.

Q4. Are there additional opportunities for development in retail energy markets that we should include in the scope of our work?

The ability to switch faster and more frequently will allow development of third party aggregators who may offer management of energy as a stand-alone or packaged service.

Access to more granular data also opens up services including heating control, appliance condition monitoring, home energy management and assisted living applications. Again, it is unlikely that innovation in these will come from utilities, so it is important that consumers are able to extract data for third parties

For services requiring knowledge of individual appliance usage, electric power data is typically required at intervals of one second, which is higher than is currently contemplated by the SMETS1 documents. This can be supported by current metering technology, but is unlikely to be implemented unless mandated.

Q5. Do you agree with the propositions set out in chapter 4?

Not entirely. We would question the statement that ToU tariffs will help customers lower their energy costs. Most of the evidence comes from countries where there are substantial peaks. In contrast, the moderately temperate UK climate does not have these extremes, so the opportunity to save is less clear. We do agree that more engagement should lead to more informed choices, but this does not support the statement that ToU will reduce expenditure.

Q6. For each proposition, have we identified the right sources of costs and benefits associated with achieving them?

The cost base for accessing HAN data needs to be thought through. It is not clear that it has. There is also a need to understand whether some of the concepts such as "community buying" are real or just wet dreams. Just because something is possible does not mean it can be done, or is a valid supporting case.

Q7. For each proposition, have we identified the key issues, such as the timescales for any changes to market arrangements?

If data is available from the HAN, then there will be a new market enabled for third party services. These could be as innovative as daily switching, appliance maintenance or even per appliance energy leasing. Their speed of development will depend on how soon a framework can be laid down describing data access. However, parallel technologies are already starting to enable these services. If provision is not made for them in the UK mandates, there is a risk that they will develop in parallel. If this happens, smart meters will be relegated to being merely billing devices, which will undermine the entire ROI for the program.

As stated above, the move to smart metering requires major changes in UK suppliers' IT infrastructure and processes. This is likely to slow down the timescales, as is the introduction of the DCC. These are seismic changes for a very conservative industry and will inevitably take longer than anticipated.

Q8. Are there additional opportunities to reform market processes that we should include in the scope of our work?

It is important to ensure that the existence of smart meters do not segregate the market into direct debit and prepay, which reside on different tariffs. The risk is that the technology will be in place to encourage this.

----- **End of Response** -----

Onzo is happy for these responses to be made public.

If you have any questions, please contact:

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