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Sent via email to: smartermarkets@ofgem.gov.uk

28nd June 2013

Re: Creating the right environment for demand side response

Dear Ben,

PassivSystems welcomes the opportunity to respond to this consultation on creating the right environment for demand side response.

As a home services provider we are keen to see the removal of barriers which are preventing our customers from fully participating in the operation of the energy system. We consider that initiatives such as smart metering are a step in the right direction. However, there is a significant amount of work to be done to allow the full value of demand side response to be captured by the consumer.

PassivSystems appreciates this opportunity to have continuing dialogue with Ofgem.

Yours Sincerely,

Dr. Mike Patterson, R&D Director
Trevor Sweetnam, Techno Economic Analyst

1. Are there any additional key challenges associated with revealing the value of demand-side response across the system? If so, please identify and explain these challenges.

In our opinion Ofgem have summarised the challenges well. It is clear that the current arrangements do not create the best environment for demand response, and it is not certain that the changes currently in process or being proposed will change this situation for the better.

Having said this, Ofgem have identified investor certainty as the number one pre-condition for the success of demand response. We have conducted extensive research on the commercial promise of demand response in the domestic sector. We have found the market to be complex and returns uncertain. Further regulatory change and upheaval is likely to deter investment. Delaying roll-out will not help the demand side to contribute to short term challenges such as the imminent ‘capacity crunch’.

We would be supportive of further work to create a standardised method for base lining, measurement and verification for the use of demand response across all ancillary services.

2. Can current regulatory and commercial arrangements provide the means to secure demand-side response being delivered? If not, what will regulatory and commercial arrangements need to deliver in future?

We consider that the current arrangements and those which are in the process of being adopted (RIIO & the Capacity Market) have the potential to create the environment for demand response if the detail of the implementation is designed correctly. Bearing in mind the impact of regulatory uncertainty, discussed above, it is our opinion that the best approach to enhancing the role of demand response is incrementally to ‘tweak’ existing arrangements to ensure supply and demand side resources can compete in a fair market.

Ofgem should act to protect consumers while allowing the market for demand response aggregators, suppliers and others to develop innovative business models that operate across the non-vertically integrated segments of the electricity supply chain to capture value and maximise returns for their customers, the demand side resources. This approach would not favour the supplier hub or the bilateral contracting approach, thus allowing SO and Supplier Wholesale Actions to act on a level playing field with the more locational based requirements of DNOs.

Clearly suppliers, who own the customer relationship, will be in a strong position in this market. Some consideration of billing arrangements might be warranted, depending on the direction taken by the market.

Exclusivity contracts, such as those issued under STOR, are detrimental to the ability of demand side resources realising their full value, particularly where their actions benefit others in the supply chain, for example peak demand reductions. This is true for community energy companies operating local energy markets, where their local balancing actions benefit the SO and the DNO: however, they are still exposed to the same level of DUoS and TUoS charges.

The issue of cross-party impacts is important if the true value of the demand side is to be rewarded and data has an important role in overcoming this as we discuss below.

Ahead of the smart meter roll-out, Ofgem needs to facilitate entities bringing innovative business models to the market by simplifying and speeding up the process of introducing half hourly settlement for all load profile groups.

3. Is current work on improving clarity around interactions between industry parties sufficient? If not, what further work is need to provide this clarity?

As the volume of demand becoming responsive grows, cross-party impacts will become more significant, particularly where demand is being contracted bilaterally to various parties in the supply chain.

We consider that advanced technology, predictive load forecasting and notification of demand positions in a manner similar to the current operation of the balancing mechanism could afford transparency to all parties, allowing all parties visibility of the potential impacts of other parties' actions on their areas of responsibility.

4. Are there any additional key challenges associated with effectively signalling the value of demand-side response to consumers? If so, please identify and explain these challenges.

Having secured contracts to provide various ancillary services, optimise wholesale costs etc. the chief challenge for customer-facing entities will be to attract consumers to what might be perceived as complex tariffs and service arrangements.

We consider that this is chiefly a problem for industry to solve. We are not confident that full exposure to dynamic tariffs would ever be attractive to consumers and in our opinion there is an important role for automated optimisation of energy consumption, particularly the new, flexible loads that have been identified by Ofgem.

We have carried out considerable technology development in capturing the existing storage capacity of the domestic sector, in particular the areas of flexible heat pump control and the use of battery storage. We are conducting on-going research into the most effective signals and the most compelling consumer propositions to accompany these technology solutions. A fine balance will be required between consumer protection and providing industry with the freedom to innovate.

5. Do you agree that signals to customers need to improve in order for customers to realise the full value of demand-side response? Does improving these signals require incremental adaption of current arrangements, or a new set of arrangements?

The current arrangements provide the demand side with access to revenue in the form of wholesale market price optimisation, grid balancing and demand reduction during triads, although work is required to ensure a level playing field with supply side resources.

RIIO is moving towards providing access to distribution network value and the capacity market will potentially reward the demand side for avoided generation investment costs.

Therefore the demand side has the potential to access all sources of electricity supply chain value and, in our opinion, only incremental tweaks to the current arrangements are required to make it easier for demand side assets to compete effectively in these markets.

We consider that an approach analogous to that set out in figure 3 would be preferable.

6. To what extent can current or new arrangements better accommodate cross-party impacts resulting from the use of demand-side response.

We refer to our comments on question 3. We consider that ELEXON is in a good position to manage the data sharing process we have described.

7. Are there any additional key challenges associated with customer awareness and access to opportunities around demand-side response? If so please identify and explain these challenges.

Ofgem have an important role in protecting consumers in an environment where innovative energy supply arrangements begin to emerge but PassivSystems are keen to stress the need to minimise regulatory constraints and support business innovation in order to maximise consumer engagement and the use of demand side resources.

PassivSystems have demonstrated domestic electricity storage and we consider that this could be an important tool in helping vulnerable consumers, who have little flexibility in the timing of their electricity use, to take advantage of the opportunities presented by the evolving electricity market.

8. Is any additional work needed to explore the role of third parties in helping customers to access and assess demand-side response offerings?

Demand aggregators will continue to be important in activating the demand side and allowing it to contribute meaningfully to the operation of the system.

We consider that aggregators could also play an important role in making consumers aware of the opportunities available for them and presenting innovative energy supply options that allow consumers to make energy savings, while making some or all of their demand available to provide network services.

9. Are there additional preconditions for delivering the right environment for demand side response? If so, please explain what these are and why they are important, as well as attaching priority relative to those challenges we have already identified.

We would again highlight the importance of developing a standardised methodology for base lining, measuring and verifying demand side actions.

10. Do you agree with the priority and timing we have attached to addressing each of the key challenges identified above?

Yes.