## **Transposed from Email**

Dear Jeffrey Hardy,

NTBM represent a key area and opportunity for needed innovation in the energy market to address the energy challenge in the UK of providing clean, affordable, reliable energy.

Moixa Energy Holdings is a pioneer of new storage technology, energy services and finance models. We are currently completing a large distributed energy storage pilot of our MASLOW system across 250 homes for DECC under the Energy Storage Demonstrator program, and involved in 4 community energy pilots under the InnovateUK Local Energy Systems initiative.

These projects, have surfaced a number of insights and comments on the current regulatory regime, and issues in enabling large scale distributed systems and energy efficiency to be optimal in the UK system.

Our comments touch on all three of the themes, local services, bundled services and customer participation.

To be able to be able to operate flexibly, to meet customers needs and facilitate a move to a low carbon economy a number of inconsistence should be addressed to create a level playing field and / or adjust incentives across the industry value /cost chain to reward the right behaviours. Some of the areas requiring review include:

- 1. Settlement both under current profiles and in emergent half-hourly or future time of day tariff models. The current system and charges for residential settlement are prohibitive to offer true value for flexibility or reducing peak. E.g. If a solar home uses no energy during the day or say no energy during peak they are typically settled on a profile basis. Settling at residential basis, and the effort/time to create bespoke tariff or profiles prohibits innovation.
- 2. Tariff models and diversity are now discouraged under the RMR and white-label regime appears to discourage alternative presentation of tariffs. Whilst curtailing complexity is a benefit, this puts new technologies needing flexible tariffs at a disadvantage. E.g. To encourage peak shift or use of storage resources. Equally, requirements to offer all customers the same tariff need to be relaxed where tariffs are coupled with specific innovations or technologies installed in households. More Flexibility needs to be allowed to only provide such favourable tariffs when coupled to required technologies.
- 3. Switching effectively takes money out of the system, and reduces the incentive for innovative products for customers that need a longer term agreement e.g. A boiler, storage or other activity that could deliver benefit. This reduces the incentive to deliver NTBM.
- 4. Offering fixed term energy products tends to favour big energy suppliers; chief among the reasons for this are the access to capital required to purchase energy in advance and current switching rules which make it difficult to encourage customers to see through their contracts. Binary rules that protect customers rights to switch overlook the advantages that could be created for customers through more innovative products developed by smaller companies. New regulation should be broadened to centre around what rules and behaviours would permit this type of relationship and a better deal for all customers overall.
- 5. The current list of 45 approved green deal / ECO energy efficiency improvement requires updating and outside of primary legislation. As technologies develop it is natural that this list should change. Furthermore CO2 emission reductions should perhaps be evidenced post implementation of the measures rather than crude allocations / calculations that may or may not prove to be actually delivered. This would allow new markets to be created to support successful outcomes and new innovations. It would also reflect a truer picture of the reduction in carbon emissions meter readings provide an accurate view, particularly when viewed over a population of treated homes. Smart metering will further strengthen the argument for this.

- 6. Eligibility to receive credit under ECO or otherwise should be relaxed both on qualifying households and measures. If new innovative measures are installed that clearly deliver or could be audited to deliver carbon savings, these should be tradable in their own right, and on equal right to other measures, to ensure a level playing field and fairness under both state aid or market competition guidelines. Why would same measures in two neighbouring houses of different eligibility (benefits) that deliver same carbon and energy saving benefit have different incentives. Similarly technologies that clearly are sensible should not be penalised (no ECO credit) over a measure that has ECO if it delivers. Measures should have a fast track opportunity, and this discontinuity should also be addressed into the post ECO regime
- 7. Removal of subsidies from existing technologies such as solar or extension of similar FIT 2.0 benefits to next generation of technologies to support demand reduction and facilitation of renewable generation as a reliable alternative to fossil fuels. In the US SGIP for example more broadly rewards new storage, demand, fuel cell technologies as the price of solar has fallen.
- 8. Communities present challenges where tariff or utility models require collective arrangements to optimise sharing or resources across a community. E.g. Enabling geo-local tariff models linked to post code and linked community resources, or more flexibility in sharing and balancing. The current settlement process does not support this or allow metering at collective level.
- 9. Aggregation and demand control of distributed resources providing ancillary services presents challenges if not metered at a per site or device level when central audit/platform control could suffice for trading. This becomes critical when significant swarms of small scale resource are aggregated e.g. The Internet of Things, which collectively will drive significant peak demand consumption but is also effectively visible by non traditional means (internet IP address/connectivity)

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