ENERGY AND CLIMATE CHANGE COMMITTEE: PROGRESS ON THE SMART METER ROLL-OUT

I am grateful to have been invited to give evidence to the Committee’s inquiry, Progress on the Smart Meter Rollout, on 16 December.

I was pleased to be able to outline the progress made since the Committee’s last report. In particular, I’m glad to have been able to share with the Committee my personal commitment to ensuring that consumers benefit from the rollout. Central to that commitment is my firm belief in the importance of the mandate which ensures that suppliers offer all households an in-home display. Whilst the smart metering system contains the necessary functionality for consumers to be able to access energy consumption data via phone and tablet apps, international evidence shows that near real-time energy-use feedback, provided by the in-home display, is crucial for enabling consumers to change their behaviours, reduce energy consumption and save money. Moreover, an engaged consumer who understands their energy use and how much they are spending will be better placed to engage effectively in the retail energy market, helping them to make more informed choices about who supplies their energy and helping to drive effective competition. This engagement is a prerequisite for the introduction of time of use tariffs that will support demand-side response. Smart meters and the in-home display are key tools for increasing consumers understanding of energy pricing. This increased understanding is a vital step towards consumers being able to confidently choose and benefit from time of use.

At the hearing I undertook to provide you with additional information regarding smart appliances and demand-side response in the capacity market.

1. Smart appliances

The Committee asked for more information on developments with regards to smart appliances standardisation.
The Government recognises that the smart appliance market would benefit from the development of common technical standards. Consequently, significant effort is being made, both internationally and within the EU, to develop a common technical open standard for the communications interface between smart appliances. Internationally, this effort is being led by the International Electrotechnical Commission (IEC) Working Group 7 and at the EU level by a joint working group set up under the European Standards Organisation (ESO). My department is working with the British Standards Institute (BSI) and the British Electrical and Allied Manufacturing Association (BEAMA) to understand how UK industry can benefit and a new BSI grouping has been created to look at how to best coordinate input to this standardisation effort.

DECC is also promoting the development of interfaces between smart appliances and the smart meter rollout. Officials are organising a seminar, to take place in March, on this issue and will invite a wide range of UK industry stakeholders to attend this event.

2. Demand-side response

Before turning to the Committee’s question on which technologies play a role in providing short-term back-up generation capacity, let me assure you that the capability to support demand-side response has been designed into the smart metering system. Smart meters are a critical part of the platform for the development of demand-side response measures and smart grids more generally. The minimum specification for the metering equipment includes the required physical functionality, e.g. voltage registers, load control capability and time-of-use tariffs. We are also providing flexible and scalable communications services, through the Data and Communications Company, which enable significant demand-side response capability.

On the Committee’s specific question, the aim of the Capacity Market is to ensure the future security of our electricity supply by ensuring that sufficient reliable capacity is in place to meet demand at the least cost to consumers. The Capacity Market is technology neutral to ensure a diverse mix of resources. All types of capacity are able to participate, except for capacity providers in receipt of support from other policy measures in order to avoid overcompensation and deliver value for money.

Demand-Side Response (DSR) is the active voluntary reduction in the amount of electricity a user is taking from the grid at a given moment in time. This can be achieved through the use of on-site (back-up) generators; shifting a business operation to another time of day; or reducing demand by switching off or turning down electricity use.

Demand-side response is currently part of National Grid’s Balancing Services Short Term Operating Reserve (STOR) and demand reduction is provided by a mixture of DSR aggregators and large demand users. Approximately 1.4GW of DSR participates in STOR and around 90% of this is achieved from embedded generation, of which diesel is the single largest source. When these resources operate, National Grid sees their impact on the transmission system as a reduction in demand. For this reason these providers – whether
generation or load reduction services – can be referred to as "demand side" providers, and can provide a valuable service to National Grid in helping it to balance supply and demand on the electricity system.

Small scale generation such as diesel has a role to play in providing reliable capacity as it can quickly be switched on when needed and as DSR is typically only called upon for short periods, any impact on carbon emissions is likely to be insignificant compared to total generation emissions from peaking plants.

Finally, returning to smart metering, I would like to highlight further evidence of the good progress being made during the Foundation Stage of the smart metering rollout. Since I gave evidence to the Committee we have published updated rollout statistics covering the period to end-September 2014 which show that there are now over one million meters operating under the Programme, allowing households and small businesses to take control of their energy use, and save money and energy.

I remain grateful for your Committee’s continued interest in the Programme and hope that the Committee finds the above information helpful.

Kindest regards

Sandy

BARONESS VERMA