

By email to energyevidence@Infrastructure-Commission.gsi.gov.uk

National Infrastructure Commission
1 Horse Guards Road
London
SW1A 2HQ

8 January 2016

Dear Sir/Madam

National Infrastructure Commission call for evidence

ELEXON Limited is the administrator for the Balancing and Settlement Code (BSC). We are responsible for managing the electricity balancing and settlement arrangements as set out in the BSC. We are independent of any part of the electricity industry and not for profit. The views expressed in this response are those of ELEXON Limited, and do not seek to represent those of the BSC Panel or Parties to the BSC.

You have asked for evidence on how changes to existing market frameworks, increased interconnection and new technologies in demand-side management (DSM) and energy storage can better balance supply and demand. We believe that to fully deliver the benefits of these new technologies new market arrangements are required.

ELEXON, under the BSC, has been investigating and implementing improvements to the existing settlement arrangements. One aspect has been to consider what changes are needed so as to unlock the benefits of new technology and innovation. For example, with the rollout of smart meters and more granular meter data (half hourly intervals) is available. This can be used to remove the estimates for customers' electricity usage (by settlement profiles) though more accurate metered data, thus improving the accuracy, timeliness of settlements arrangements. This leads to a more efficient and effectiveness market and can also start to realise the benefits of DSM, say through dynamic time-of use tariffs. The most recent work has been undertaken by the Settlement Reform Advisory group reporting to the BSC Panel ([SRAG](#)).

A further area for investigation of this SRAG group was to identify how improvements to the BSC could support innovation and technology change. This was to consider how settlement could develop to support new technology and innovation, including demand side response, local energy schemes, storage and virtual balancing. This work was due to commence shortly, however, in light of Ofgem's Open letter (17 December 2015), we are proposing that this work be included under this Ofgem planned activity. We will be supporting Ofgem in this area.

In the longer term for DSM, we believe the benefits of DSM to 'GB plc.' are very significant (potentially tens of billions), see [ELEXON's response to 'Creating the right environment for demand-side response' consultation, 28 June 2013](#). Therefore, new market arrangements need to be developed in a timely manner with the right settlement processes at the heart of these. We suggest that a work programme is established which develops and implements new DSM trading arrangements (to deliver DSR benefits to customers).

The new market arrangements must recognise the need for coordination between the many different actors (customers, suppliers, aggregators, Distribution Network Operators (DNOs), Transmission System Operators and any new stakeholders). These different actors will have varied and potentially conflicting interests in utilising DSR. Efficient use of DSM should be facilitated by having a single DSM market framework and settlement arrangements where all these interests can be aligned and

supported by an agreed common approach across the country. A centrally co-ordinated approach will be more efficient than, say, a bilateral contracting or Distribution Network area specific (or Transmission System Operator) approach, due to the interactions between parties. It should also incorporate any findings from existing trials or studies.

We have also been in discussion with various parties and providing expertise to Ofgem on their Smarter Markets work areas on areas of settlement reform, demand side flexibility, embedded generation, storage, community energy and next day switching. We understand the need for changes to the market arrangements to help support new technology, such as energy storage.

With regards to storage we believe that consideration should be given to facilitate distribution businesses operating in the balancing market. This would require new arrangements and pricing controls. In our discussions with a number of companies, who are seeking to innovate in this arena, there seems to be benefits in aggregated small scale storage, if these were co-ordinated, as most providers are experiencing difficulties getting to a scale which can be useful to the system. We understand that larger scale transmission or distribution network level storage options are more viable in the short term.

I would be very happy to discuss my comments. Please contact me either by phone on 020 7380 4364 or via email justin.andrews@elexon.co.uk.

Yours sincerely,

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