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ELEXON's response to BEIS' and Ofgem's Smart Systems and Flexibility Plan - Progress Update

We welcome the opportunity to comment on the consultation on Upgrading our Energy System: Smart Systems and Flexibility Plan - Progress Update.

As you are aware, ELEXON is the Code Manager and Delivery Body for the Balancing and Settlement Code (BSC). We are responsible for managing and delivering the end-to-end services set out in the BSC and accompanying systems that support the BSC. This includes responsibility for the delivery of balancing and imbalance settlement and the provision of assurance services to the BSC Panel and BSC Parties. We manage not just the assessment/analysis, but also the development, implementation and operation of changes to central systems and processes.

In addition, through our subsidiary, EMR Settlements Ltd, we are the Electricity Market Reform (EMR) settlement services provider, acting as settlement agent to the Low Carbon Contracts Company (LCCC), for Contracts for Difference (CfD) and Capacity Market (CM). EMR services are provided to the LCCC through a contract and, like the BSC, on a non-for-profit basis.

For a number of years ELEXON has been fully involved in shaping and delivering a number of Ofgem's Significant Code Review (SCR) programmes and have made the proposed changes to the central market arrangements to facilitate new generating technologies and electricity demand patterns and profiles. We have shared our detailed views and suggestions on the specific policy initiatives and programmes with relevant teams at BEIS, Ofgem, ESO/NG, ENA (Energy Network Association) and a number of DNO (Distribution System Operators). Additionally, through our customer and new market entry support teams, we regularly communicate with existing and new market participants. We base our below observations and suggestions on our direct experience of providing assistance and guidance to the large and small suppliers, generators and new market entrants as well as companies working on developing new business models in energy markets.

ELEXON welcomes the intent of the Smart Systems and Flexibility Plan in setting a clear direction for changes in the energy markets and combining a number of the ongoing actions and initiatives that will pave the way for innovation and new services for consumers. We would like to take an opportunity to share our views on several topics that fall under Question 1 of the consultation:

"Are there actions relating to a smart and flexible energy system that you think we should be prioritising, which are not discussed above (or included in Annex 1)?"

1. Co-ordinating work on the future holistic design of the energy system to support Industrial Strategy and Clean Growth Plan

With the numerous fundamental changes taking place in the GB energy system and a growing need to create a close alignment between electricity and gas, energy and transport, energy and heat markets,

we believe there is a need to provide an overarching, comprehensive view of the future energy system. This will allow the ongoing initiatives to deliver consistent and compatible outcomes.

For example, in case of electricity storage, the variety of storage technologies and proposed uses have put pressure on the central market arrangements (licences and energy codes) to clarify the roles and opportunities for storage. Ofgem and BEIS recognised the need to provide clarity in the Smart Systems and Flexibility Plan in July 2017. They have committed to making changes to the legislative and licensing arrangements to make the role of storage clearer. As part of its Targeted Charging Review, Ofgem has also challenged the industry to resolve concerns it has with how certain network charges may put storage providers at a disadvantage compared to other generators.

ELEXON is actively involved in initiatives seeking to clarify the role of storage:

- Changes to the Generation Licence - we contributed to Ofgem's developing thinking changes to the generation licence to clarify the role of storage¹.
- Calculating FCLs (Final Consumption Levies) – we are working with LCCC to develop a solution that supports the exclusion of certain supplies to storage facilities from the calculation of CM and CFD Charges².
- Residual demand network charges - we are actively contributing to the development of changes to the CUSC³ ⁴ and DCUSA⁵ to resolve concerns raised by Ofgem in its Targeted Charging Review with how certain network charges are levied on storage providers.
- GC0096 'Energy Storage' – we sit on the working group, which seeks to clarify the role of storage in the Grid Code.

Whilst it is positive that there is a variety of initiatives seeking to clarify the role and treatment of storage, we are concerned that there is a risk that these initiatives develop solutions that are inconsistent with each other because they are not being developed in co-ordination with each other. There is a need for a clear overall vision for storage and coordination of its implementation, otherwise there is a risk that the current initiatives are not progressed in a timely manner that they do not align with one another. In light of these concerns, by actively contributing across the initiatives we are doing what we can to ensure they are developed effectively and consistently with each other.

In addition to cross-industry initiatives outlined above, we have also proactively initiated a discussion with the industry (BSC Parties) on 'behind-the-meter' resources.

Traditionally the net effect of different activities at a consumer's premises would be measured by a Settlement meter at the boundary between the consumer's premises and the electricity network. However, there is a growing need to be able to identify, differentiate between and measure different activities at a consumer's premises – i.e. 'behind the meter' activity.

¹ ELEXON, '[ELEXON's response to Ofgem's consultation on the regulatory framework for storage](#)', November 2017

² ELEXON, '[280/11 – Proposed approach to providing metered data for calculation of Final Consumption Levies](#)', July 2018.

³ [CMP280 'Creation of a New Generator TNUoS Demand Tariff which Removes Liability for TNUoS Demand Residual Charges from Generation and Storage Users'](#) and [CMP281 'Removal of BSUoS Charges From Energy Taken From the National Grid System by Storage Facilities'](#)

⁴ We responded to the CMP280 Workgroup Consultation and proposed an alternative solution that seeks to build on the original proposal by ensuring generators registered by suppliers are also included in any solution. Please note that National Grid has not yet published responses to the consultation. A copy of our response can be provided on [request](#).

⁵ [DCP319 'Removal of residual charging for embedded generators in the CDCM'](#) and [DCP321 'Removal of residual charging for embedded generators in the EDCM'](#)

Effective measurement of 'behind the meter' activity is likely to be necessary to facilitate consumer agreements with multiple suppliers/service providers, to buy 'bundled services', to access energy markets (directly or via an intermediary, such as an aggregator), to enable more targeted and cost reflective smart tariffs and network charges.

This issue has become most prominent in the context of implementing a change to the BSC, Modification P344 'Project TERRE'⁶. That is, P344 will allow consumers and small generators registered with a Supplier to participate, through a Virtual Lead Party, in Project TERRE and the Balancing Mechanism (BM). However to facilitate effective participation we invited BSC Parties to consider the use of secondary metering, rather than conventional boundary metering, which would measure the specific activity of controllable assets providing services into Project TERRE or the BM ('Issue 70'⁷).

Whilst ELEXON's Issue 70 is focused on facilitating P344, the ideas it presents could be used to support the metering and settlement of other initiatives. For example, ELEXON is exploring how secondary metering could be used to support the calculation of FCLs⁸, by differentiating between imports to a consumer's premises that are used for the explicit operation of on-site generation (or storage) and for other final consumption purposes. Similarly, ELEXON recently proposed a change to the CUSC that would exclude specific volumes of electricity used to operate generators registered by Suppliers from the calculation of certain transmission use of system charges⁹.

We believe that the Smart Systems and Flexibility Plan is a very good start in bringing BEIS, Ofgem, and industry onto the same page; however, we also recognise a need for a further work to be done in this area. ELEXON, in its critical, legally-mandated neutral and independent role facilitating energy markets, is eager to assist in shaping the future of the energy market.

2. Cost of energy and affordability

Affordability is a key consideration for the energy policy. The government has placed consumers at the heart of their policy development. Consumer bills contain a mixture of costs, such as pass through costs for the use of system services (e.g. for networks which are subject to Ofgem price control), policy costs (renewables schemes, smart rollout, EMR), costs to serve, wholesale costs and margins. Investment is required to transform the energy market and this is likely to create an increase in energy bills before consumers can reap the benefits. In the immediate future there is likely to be increasing debate on who should bear the costs of energy industry transformation.

We believe there is a need to consider how the fixed costs of existing infrastructure should be paid for in light of greater self-sufficiency by consumers. New regulatory design should seek to avoid further costs from any proliferation of the central services that support the energy market. At present, a number of service providers deliver centralised, but essential services that facilitate the competitive markets. Some of these services are modest but still run for a profit, whereas others are provided on a not for profit basis, for example ELEXON. Government and Ofgem have historically created new central services (e.g. Data Communications Company for the smart meter communications or Low Carbon company for Electricity Market Reform) when it adjusts the energy market design. However, this adds to an already complex market structure and creates additional interfaces for industry participants and complexity for new entrants. As noted above, we believe consideration should be

⁶ For more information on this modification please visit our [website](#).

⁷ For more information on Issue 70, please visit our [website](#).

⁸ ELEXON, '[280/11 – Proposed approach to providing metered data for calculation of Final Consumption Levies](#)', July 2018.

⁹ More details on CMP280 can be found on National Grid's [website](#). However, please note that ELEXON's response to the Workgroup Consultation, including our request for an alternative solution, have not been published yet.

given to a holistic approach on market design, and this work could be the opportunity to ensure there is an end-to-end energy market that is fit for purpose for the new challenges and that is future enabled. We believe a recently launched joint BEIS/Ofgem Energy Codes Review is an ideal opportunity to look at these issues.

3. Greater transparency on the progress and next steps in implementing the Smart Systems and Flexibility Plan

We note that the Smart Systems Forum (SSF) was created to facilitate and discuss the progress on the Smart Systems and Flexibility Plan. The SSF has intended to publish meeting notes; however, we note that only the October 2017 meeting notes have been published to date. We believe it would be of a great benefit to the industry and those involved in driving the changes to have more frequent updates on the progress of the Smart Systems and Flexibility Plan. ELEXON would welcome an opportunity to take part in the SSF.

The views expressed in this response are those of ELEXON Ltd and do not seek to represent those of the BSC Panel or of Parties to the BSC.

If you would like to discuss any areas of our response, please contact Alina Bakhareva, Strategy and Market Advisor on 020 7380 4160, or by email at alina.bakhareva@elexon.co.uk.

Yours sincerely,

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