

Innovation and change: making it real

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The UK's energy network is changing rapidly

The UK's energy network is currently undergoing a significant period of change. The government is committed to delivering a smarter, more flexible energy system, by encouraging innovation such as smart and battery technology and reducing costs for consumers. Moreover, with Electric Vehicles (EVs) and renewable energy generation set to become the norm, solutions must be found to adapt the grid for the additional burdens this transition will create.

As the body responsible for administering the BSC - one of the most important industry codes (or rule books) underpinning the electricity wholesale and retail markets - ELEXON is playing a crucial role in addressing the challenges presented by EVs and a more active role for DSOs (Distribution System Operators).

ELEXON is not only eager to support innovation, it is already doing it

From leading on the development of the market-wide Half Hourly Settlement (HHS) and

implementing the Electricity Market Sandbox (which will support new business models and dovetail with Ofgem's own Regulatory Sandbox), to conjuring evolutionary solutions for the energy market, ELEXON is committed to supporting and facilitating the innovation needed to modernise the way consumers interact with the energy market.

Ofgem has tasked ELEXON with leading the design of the market-wide HHS, a crucial project that will enable dynamic Time of Use (ToU) tariffs. As one example, ToU tariffs can help move demand created by EVs away from peak times minimising the strain they place on the electricity network. HHS work is an important enabler for storage, EVs, aggregators, as well as being essential for the realisation of the full benefits of the smart meter roll out.

Similarly, we are supporting the faster switching programme and making use of Electricity Market Sandbox to provide an environment that accelerates the development of new technologies and innovative business models.

ELEXON has been heavily involved in developing settlement requirements for lamppost

charging infrastructure, and has been in close contact with key stakeholders, including manufacturers of charging stations, the Department for Transport (DfT) and the Office for Low Emission Vehicles (OLEV). It is vital to ensure that the needs of the consumer are placed at the heart of the UK's preparations for the transition to EVs and that we seek opportunities to embrace new innovation in the short-term as well as the long-term.

Recognising priorities, outlined in the joint BEIS/Ofgem Smart Systems and Flexibility Plan, ELEXON has recently published innovative proposals that could quickly enable peer to peer trading of energy and other new business models to emerge. Our White Paper, 'Enabling customers to buy power from multiple providers', not only states how consumers would stand to benefit from having multiple suppliers in a future energy system, but proposes how we can derive these benefits within the next few years. For example, we have identified how, with modest changes to ELEXON's systems (which could be implemented much sooner than other proposals which involve dismantling existing market wide principles such as that known



as the "Supplier Hub") consumers will be able to:

- buy their EV power from their EV provider bundled with their vehicle;
- support their local community energy project by purchasing some of the electricity it produces; and
- take the balance of their energy needs from their usual supplier all without changing the infrastructure at their premises.

In a market where flexibility is key to economic whole system balancing, we will need technology platforms that are capable of interacting with smart connected devices and distributed flexibility assets; that are agile and open, to enable innovative and diverse products and services; and that are able to be stood up and torn down quickly as the market evolves. We will also need to break down silos of data to ensure that we have visibility across the whole system. That is why ELEXON has already embarked on a programme to re-architect our central systems to deliver a scalable, flexible and efficient platform to provide settlement and other value-added services to the market, appropriate to the needs of the future.

We believe one of the barriers to open markets is data silos in our sector and the desire for some to monetise the insight that comes from access to that data. At ELEXON, we are going to create a data platform that is open and available to anyone (subject to the appropriate controls around privacy) and we will be collaborating with others to effectively bring about consolidation of market data by integrating to emerging networks and platforms.

We believe there is scope to do even more to support innovation by working together

For a number of years, ELEXON has been advocating the case for greater collaboration in central

market governance arrangements. ELEXON fully supports Ofgem's intention to unlock any barriers that may arise from the supplier licence, fragmentation of central services and codes or prevailing supplier practices to new business models. We strongly believe now is the right time for the industry and ELEXON to take the cross-code working initiatives to the next level by focusing on closer working between code administrators and even consolidation rather than competition and further fragmentation.

This is about putting the industry, and ultimately consumers, first - ensuring that their interactions with code administrators are as simple, streamlined and efficient as possible, and that the complexity of the central market arrangements does not stand in the way of innovation. We believe the introduction by Ofgem of a new Retail Energy Code (REC) with its own code administrator provides the opportunity for industry to start that consolidation.

ELEXON firmly believes that it has much to offer to new and existing market participants through building upon the excellent service we provide. As the leading provider of code services, as confirmed through Ofgem's own cross code survey, we recognise our template for code delivery is one that others seek to adopt. We would like to see a practical mechanism developed that allows ELEXON to build upon its service offerings as well as to make good progress on code reform. We believe we have much to offer in shaping practical solutions to policy objectives and we will continue to champion the involvement of ELEXON and of the BSC Panel of industry experts in the debate.

We also recognise the numerous benefits to industry and consumers presented by emerging local balancing markets, e.g. in the active management of distributed energy sources. We believe that local balancing platforms/local market facilitation through DSO (Distribution System Operator) will

need to include interaction with the central imbalance settlement arrangements defined under the BSC. Therefore, it would be extremely beneficial to all market participants and the end consumers if all DSOs adopted a common DSO model and set of rules for their local balancing platform. We believe ELEXON's experience in designing and operating the meter-to-bank settlement process under the BSC will be relevant to the emerging local balancing markets. As DSO projects develop we would like to open discussions on providing governance and market operation services to regional DSO markets.

ELEXON would welcome the support of PGES and its members, where our visions are aligned, to ensure that the benefits innovation can bring to the UK energy market are realised. I would also be more than happy to meet with anyone who may wish to further discuss any of ELEXON's work and how we might support you.

About ELEXON

ELEXON was created as a not-for-profit organisation to manage the Balancing and Settlement Code (BSC), determining in real-time, the amount of electricity produced and consumed, and managing payments accordingly. Our central position gives us an unprecedented insight into what is happening in the energy market, which we also use to inform and support government policy makers, as well as existing energy companies and new market entrants who benefit from our trusted independent expertise - we have already helped close to 65 new competitors enter the market in 2016/17.