

By e-mail to: innovationconsultation@hmtreasury.gov.uk

09 January 2019

Dear HMT,

ELEXON's response to your consultation on encouraging innovation in regulated utilities

We welcome the opportunity to respond to your consultation and hope you find our contribution based on experiences to date informative and useful.

ELEXON is the Code Manager 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, 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 the Contract for Difference (CfD) and Capacity Market (CM). EMR services are provided to the LCCC through a contract and on a non-for-profit basis.

Our response (appended below this cover letter) is based on our experience of supporting innovative companies in the electricity industry, and in managing a contract imposed by licence on many organisations operating in the electricity industry (the 'BSC'). Many aspects of the BSC are based on legislation and regulatory requirements, and it is one of a number of similar Codes in the energy sector. We have previously indicated our views on the fragmented landscape of Code administration in energy adding complexity for innovative companies, and we support the concept of consolidating Code administration in the energy industry.

We have recently implemented our own version of a regulatory sandbox to provide more options for innovators entering the electricity market, in close collaboration with Ofgem, our regulator. The sandbox enables derogations from the normal BSC rules, to enable innovative products and services to be tested prior to being subjected to the full set of Code requirements. Our sandbox is the first of its kind for any of the electricity or gas Codes. We also have a highly regarded market entry service to provide new entrants with the information and support they need to enter into the market and service of Operational Support Management, which aids BSC Parties after market entry. Again this is unique to any of the other electricity and gas Codes in the market.

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

We are very happy to discuss our experience of supporting innovators in the energy industry and would welcome a meeting with you and other interested departments to share ideas, findings and best practices. If you would like to discuss any aspects of our response, please don't hesitate to contact me at Peter.Frampton@elxon.co.uk.

Yours sincerely,

Peter Frampton
Market Architect, Design Authority

ENCOURAGING INNOVATION IN REGULATED UTILITIES: ELEXON'S RESPONSE

Understanding the barriers and opportunities for greater innovation

1. What barriers, if any, are there to the development and implementation of innovative technologies and methods in the utilities sectors?

- 1.1 While I anticipate this consultation will surface a number of barriers, our response will focus on legislation and regulation, as that is what we are most familiar with.
- 1.2 As you have identified, utilities are highly regulated. In the energy industry, there is a hierarchy of regulation starting at European Directives and Regulations, down through domestic legislation, regulations, licences, and finally Codes.
- 1.3 We have frequently found that innovations in the market are hampered at some point in the legislative hierarchy. Recently, Ofgem has introduced a sandbox to address restrictions in the licences ([Innovation Link, regulatory sandbox](#)), and we have introduced our own sandbox to address restrictions in the BSC ([Electricity Market Sandbox](#)). However, the opportunity for our sandbox to relax the BSC rules may be limited by the requirements of European legislation, legislation which may not have been written with the required degree of flexibility to facilitate innovation.
- 1.4 The reason legislation may not facilitate flexibility highlights one of the conundrums of utility policy – finding the balance between standardisation and innovation. One drives efficiency by streamlining interfaces and harmonising approaches, the other by radically changing how something is done or introducing new services not previously considered. The two are often incompatible, or at least very difficult to reconcile.
- 1.5 Additionally, the hierarchy of regulation and the way in which it is implemented has led to a fragmented and hard to navigate landscape for energy market participants. There is therefore an initial barrier of comprehension, which must be overcome to determine where in the energy market an innovation may fit, and which regulations it must be mindful of once operational. We believe that consolidating the Code governance landscape would be beneficial to innovators and that more could be done to provide support to Code Parties, for example expanding the provision of Operational Support Managers beyond the BSC.
- 1.6 As you may be aware, BEIS and Ofgem are now running a [joint review into Energy Codes](#). As noted earlier, we have previously indicated our views on the fragmented landscape of Code administration in the energy market and suggested a few solutions. We are now working closely with the joint BEIS/Ofgem team to develop a practical, implementable solution, in line with our [previous work on Code governance reform](#).

2. What are the best way(s) for utility regulators to further promote innovation in their sectors, while ensuring the interests of consumers (present and future) are protected?

- 2.1 There are a number of steps utility regulators and other sector participants can take to further promote innovation. These include but are not limited to:
 - Providing support services specifically to innovators to ease them into the sector
 - Identifying areas of the sector which are in particular need of, or particularly susceptible to, innovation
 - Identifying non-negotiable areas of regulation, and areas where the rules are more flexible

- Providing resources or mechanisms to change restrictive rules which are outdated, not fit for purpose, or poorly constructed
- Guiding innovators towards projects or organisations currently supporting innovators in the sector
- Identifying current or future change programmes which will create additional opportunities for innovation
- Championing changes to domestic and European legislation which support innovation
- Providing funding options for innovation in price controls.

3. What barriers, if any, are there to innovative sector specific and cross-sector business models?

- 3.1 Activities in the energy sector are licensed on a per-function basis. The licences are relatively restrictive, and have a segregation of duties across the energy market. This could present a barrier to commercialisation of innovative ideas, particularly where they arise within a company not licensed for the activity in question. In the energy sector Ofgem may need to further consider the nature of the licences and the impacts they have on cross-sector models.

Policy and implementation

4. How have utility regulators most successfully encouraged innovation in their sectors?

- 4.1 We are most familiar with Ofgem's Innovation Link and Sandbox, and their Network Innovation Competition and Allowance.
- 4.2 The Innovation Link and Sandbox provide a useful touchpoint for innovators entering the market, and we believe the initiative is valuable and should be expanded to maximise effectiveness through the sector. Such expansion should include via existing strong working relationships with organisations such as ELEXON, and also with organisations responsible for parent legislation including BEIS, Parliament, ENTSO-E and the European Commission (the latter two depending on the nature of the UK's future relationship with the EU).
- 4.3 The Network Innovation Competition and Allowance provide a mechanism for price controlled network operators to obtain funding for innovation, with the benefits shared between shareholders and customers. While some innovation is possible within the terms of a price control, the additional funding mechanisms are clearly essential in particular for large scale, transformative innovations, such as the transition to more active distribution system operators. We believe it is worth considering whether these mechanisms should be made available to the whole energy market (both wholesale and retail innovations) and not just network companies.
- 4.4 We note that retail tariffs have recently become price capped, albeit temporarily, and there is therefore some risk of tightening of funds for innovation in this sector. Additionally, regulatory uncertainty may reduce investment and therefore further impact on funding for innovation in the retail part of the market. The question of how to fund and encourage innovation in this newly price capped sector may need further consideration.
- 4.5 We also note that we are managing and instigating significant levels of proposed changes to the BSC, which could unlock innovation in the market for the benefit of consumers. ELEXON has over time been working to initiate debate and develop initiatives that will facilitate innovation in the electricity market, including developing a [White Paper on Multiple Suppliers](#), to allow customers to have more than one Supplier for their energy needs, and leading the

[market wide Half-Hourly Settlement design work](#), on behalf of Ofgem, to increase the amount of Half-Hourly data available in settlement and improve settlement accuracy. Both pieces of work have focussed on how to use industry systems to help innovators. In addition there is other work, which is driven by regulation, such as [BSC Modification P344 'Project TERRE'](#) which will enable GB based service providers to sell (or buy) balancing energy to (or from) national grids in other participating countries (depending on the UK's future relationship with the EU) but also enable 'Virtual Lead Parties' to aggregate and trade resources, located behind the meters of properties supplied by other companies, for the first time.

- 4.6 It is worth noting that, as a Code Manager, ELEXON are not able to raise Modifications to the BSC ourselves, other than in very limited circumstances. This can lead to a delay in carrying out initiatives to support innovation. For example, while we published the White Paper on Multiple Suppliers in April 2018, a Modification was not raised for progression by a BSC Party until January 2019. The proposals are now being taken forward under BSC [Modification P379](#).
- 4.7 It is also worth highlighting that there is a greater level of support in the electricity sector than the gas sector for new entrants and innovators and that this greater level of support in the electricity sector may contribute towards the greater levels of innovation.

5. What additional tools and expertise, if any, do utility regulators need to respond to technological change and promote innovation in their industries?

- 5.1 In the energy sector, we are aware that Ofgem has been developing additional data and technology expertise. We believe data is key to unlocking the next wave of innovation in the electricity sector. We also welcome the [Energy Data Taskforce](#) run by the Energy Systems Catapult, which should produce further recommendations on the use of data in the sector to support innovation and drive efficiency. We are participating in the Taskforce and will continue to promote the use of data to benefit consumers.

Regulators' statutory duties

6. To what extent would a statutory duty to promote innovation help regulators focus further on encouraging greater development and adoption of innovation in their sectors?

- 6.1 All three regulators identified in the consultation already have statutory duties to further the interests of consumers and promote competition. Supporting innovation in the relevant sector (and between the relevant sectors, given consumers' interests do not follow the boundaries drawn by sectoral regulation) can and should be seen in the context of these existing duties.
- 6.2 We believe that rather than introducing a new statutory duty, HMT and BEIS should be clear that effective fulfilment of the existing statutory duties includes supporting innovation. This avoids needing to introduce a duty couched in terms of other, existing duties (as we believe any duty to support innovation should not extend to supporting innovation which damages the interests of consumers or restricts competition).

7. What other measures might support an innovation duty in helping regulators to focus on encouraging innovation in their sectors?

- 7.1 As above, we believe a clarification of the contribution that supporting innovation can make towards existing statutory duties would prove useful.

- 7.2 Regulators, as with all organisations, must choose how to allocate their resources to best meet their statutory objectives. Any increased focus on supporting innovation as a duty must be accompanied with sufficient resource to exercise the new functions.