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By email to: ESOPerformance@ofgem.gov.uk

# Call for Evidence – Review of the arrangements for electricity ancillary services

Dear James,

We welcome the opportunity to respond to your call for evidence regarding the review of the arrangements for electricity ancillary services. This letter should be treated as a consolidated response on behalf of UK Power Networks' three licensed distribution companies: Eastern Power Networks plc, London Power Networks plc, and South Eastern Power Networks plc.

In summary, in an energy system that becomes increasingly decentralised with a rapid increase in locational system needs, we see the DSO being at the heart of facilitating the transition to Net Zero at lowest cost. Through coordination with the ESO and other industry players, it will play a vital role in helping to reduce costs across the energy system, including by optimising the use of flexibility.

Taking into account the three main policy objectives of the energy transition or "trilemma" as it is sometimes referred to, the DSO can improve the security of supply of the whole system whilst facilitating the faster connection of LCTs at lowest cost.

Our view is that licence arrangements should focus on areas where there is either a natural monopoly, or where there is a need to protect customers. We are not convinced that delivering an ancillary service alone sufficiently justifies the need for individual licensing arrangements. Moreover, we question why these assets should receive regulatory funding as this risks creating a distortion with other potential providers who do not have the same access to such funding.

## Whole system solutions

As part of RIIO-2, Ofgem introduced the whole-system licence condition D17/7A in order to incentivise licensees to collaborate effectively and efficiently to deliver best value for consumers. This is considered an enabler of the energy system transition.

UK Power Networks has embedded whole-system thinking in its corporate procedures, and is moving to create a legally separate DSO entity for the start of RIIO-ED2 to further enhance the required trust and transparency in its coordination role as a neutral market facilitator.

Taking these points into account, we believe that whole system solutions should be part of this review, as demonstrated through the below projects:

 Through the Power Potential innovation project, we developed a world-first regional reactive power market that shows how a DSO can facilitate DER to provide reactive power to meet transmission needs. The project demonstrated market access for DER to participate in ancillary service provision to NGESO via UK Power Networks' coordination.

Power Potential is a whole system solution that can provide a more economic and efficient way to access reactive capability via a coordinated procurement and dispatch method between UK Power Networks and NGESO, while respecting constraints in the distribution network.

When deployed as BaU, the Power Potential method is expected to remove barriers to 1.5GW of additional generation in the area by 2050 and deliver savings of more than  $\pm 100$ m<sup>1</sup> for Great Britain's energy consumers by 2050.

Specifically, in the current energy landscape with high and volatile wholesale and balancing costs, efficient operation of the system with improved coordination and collaboration between the ESO and DSOs is critical. These activities can deliver significant benefits to consumers as evidenced by the Carbon Trust and Imperial College<sup>2</sup>.

 Regional Development Programmes (RDPs) are initiatives that look at the complex interactions between distribution and transmission networks in areas with large amounts of transmission constraints and DER, which leads to a capacity shortfall. These programmes are designed to look at the whole electricity system and assess a variety of options to resolve specific network needs. They can be triggered by customer connections or wider changes to the electricity system.

The south-coast RDP between NGESO and UK Power Networks is developing new markets for transmission thermal constraint management services in a similar geographic location to Power Potential. While the RDP's primary focus is on thermal (MW) constraint management, the project is also considering the option to build in voltage management.

When fully deployed, the RDP could save £11m per annum on an ongoing basis reflecting reduced national balancing costs for transmission constraints. In addition, it could enable DER on our network to compete with existing market providers to provide voltage management services to NGESO (a market worth £17m in East and South East of England in 2021).

On this basis, we would welcome Ofgem's explicit consideration of several options that promote transparency and efficiency, in addition to the expressed support to transmission-connected sources and the focus on the ESO pathfinders. This approach would re-iterate the objective of establishing a level playing field and enhanced competition among all available solutions, hence resulting in more efficient outcomes for all consumers.

<sup>&</sup>lt;sup>1</sup> The <u>SDRC 9.5</u> Cost Benefit Analysis report calculated more than £96m of benefits across GB by 2050, and identified several areas of additional benefit.

<sup>&</sup>lt;sup>2</sup> Flexibility in Great Britain

# **Regulatory funding**

As a principle we believe that ancillary services should be procured on an open and transparent basis that leads to a level playing field between different forms of flexibility. Following previous learnings, such as the creation of a bespoke Supplementary Balancing Reserve (SBR) service in 2015, it is important that ancillary services are not formed purely for specific technologies, as this risks eroding market confidence. Furthermore, the assets being consulted on do not appear to have the characteristics of a natural monopoly that would justify regulatory funding. In our view, DNOs and other regulated entities (e.g. TOs, NGESO, etc.) receive regulatory funding and operate under a holistic framework that includes licence conditions, incentives, regular reporting and visibility of performance. In this regard, a stripped-down version of the relevant holistic regulatory framework (e.g. reduced licence conditions) could create distortions to the operation of markets and/or unintended consequences.

#### Licensing arrangements

Regarding the licensing arrangements for dedicated ancillary service provision, we would like to point out that creating a set of bespoke/individual licensing arrangements does not seem efficient. This could become even less efficient from an administrative point of view if there are bespoke/individual licensing arrangements for each one of the ancillary services in questions, or the various dedicated ancillary service providers.

However, we do understand the necessity to review the licensing arrangements, which were created for a different energy system. As above, extra caution should be given to creating this new licensing framework, so that this will not lead to competition distortions, or inefficient outcomes from a whole systems perspective.

## Links to the consultation on regulatory treatment of CLASS

As stated in our response to the consultation on regulatory treatment of Customer Load Active System Services (CLASS) as a balancing service in the RIIO-ED2 price control, UK Power Networks acknowledges the potential benefits of CLASS and similar voltage optimisation products as a means for DNOs to manage their networks at the same time as offering wider system services. CLASS has the potential to lower customer bills and deliver whole system savings, which may include environmental benefits through reduced losses. However, any specific decision to invest in CLASS capability must be assessed alongside other options that can deliver the same output, which could involve network-based or market-based flexibility.

We are concerned about the interaction between the roll-out of CLASS and the market for third party balancing services, which includes customer-led demand side response. This market is nascent but has huge growth potential. If CLASS were to impact decisively upon the development of this sector, the cost to consumers, in terms of the reduced availability of "flex" and greater DNO expenditure on reinforcement, could exceed any benefits obtained from CLASS itself.

The key issue lies in the interface between DNO business plans for investment and the totex allowances which fund these on the one hand, and specific incentives to invest in CLASS to meet ESO needs on the other. Under DRS8, DNOs will have a commercial incentive to maximise revenue from CLASS capability. DNO costs relating to CLASS capability, meanwhile, might be largely sunk or covered by totex investments and will be extremely difficult to separate from wider totex investment.

The worst-case result would be distorted investment decisions (acceleration of asset replacement under totex to allow for installation of CLASS capability at customer expense, where not justified by a robust CBA) combined with exploitation of low marginal costs to generate high profits from commercial services to ESO. In this situation third party suppliers of flexibility could lose the opportunity to provide services both to the DNO and the ESO.

In order to avoid this risk, we believe there is merit for customers in capturing all the costs under totex, subject to there being a robust cost benefit analysis in favour of investment. This would need to be independently validated by the DSO where meeting distribution capacity requirements and by the ESO for meeting national balancing requirements. Through this approach the DNO would still be incentivised to rollout CLASS where it is efficient to do so and would be rewarded through the totex sharing factor, with further customer protection afforded through the Return Adjustment Mechanism. Ofgem can also explore how the new DSO Output Delivery Incentive (ODI) being introduced in RIIO-ED2 best captures a licensee's delivery of whole system benefits, such as supporting the ESO to meet its requirements.

We hope that you will find this information helpful. If you have any queries, please do not hesitate to contact us in the first instance.

Yours sincerely,

Sotiris Georgiopoulos

Sotiris Georgiopoulos Head of Smart Grid Development

Copy: Paul Measday, Regulatory Returns & Compliance Manager, UK Power Networks James Hope, Head of Regulation & Regulatory Finance, UK Power Networks