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Open Letter Consultation on approach to setting the next electricity distribution price control (RIIO-ED2); and

Position paper on Distribution System Operation: our approach and regulatory priorities;

15th October 2019

Dear Akshay and Louise,

Thank you for the opportunity to respond to Ofgem's consultation on the RIIO-ED2 Price Control consultation and the Position Paper on DSO Principles. We have responded to both consultations jointly within this response.

Piclo develops software to make electricity grids smart, flexible and sustainable. Piclo is playing an integral role in supporting electricity networks' to better access and value flexibility resources, integrating low carbon technologies and reducing long-term network infrastructure costs for consumers. Piclo has been deeply involved with the UK energy transition across networks, generation and retail over the past 6 years.

We operate Piclo Flex, a pan-UK flexibility marketplace, developed with funding from BEIS Energy Entrepreneurs Fund and trialled with all 6 GB DNOs during 2018/19. In March 2019, we commercialised the platform and our clients now include UK Power Networks, Scottish and Southern Electricity Networks, Western Power Distribution and SP Energy Networks. We have over 230 registered flexibility providers (including independent aggregators, licensed electricity suppliers, generators, battery operators and I&C customers) who have uploaded over 5GW of distributed flexible assets to the platform.

We are continuing to shape the development of flexibility markets through two further government funded projects. We are a partner in Project LEO, an Industrial Strategy Challenge

Funded PFER project running from April 2019 - March 2022, led by Scottish and Southern Electricity Networks, and joint funded by Project TRANSITION.

In these two innovation projects and through the continued rollout of our commercial platform in the UK and beyond, we will gather many learnings that can feed into the ongoing discussion around both DSO principles and RIIO-2 incentives. We will continue to keep a communication channel open to Ofgem and other industry stakeholders to ensure learnings are shared across as wide an audience as possible.

DSO Principles Position Paper

We welcome a number of the commitments found within the DSO Principles Position Paper, including that:

- Flexibility providers should have improved access to information about network and system needs, which better allows them to offer the right services.
- DNOs must fully support coordinated markets, ensuring conflicts are minimised and synergies are maximised across procurement, including the ESO's balancing and ancillary markets, local energy markets and peer-to-peer markets.
- DNOs should consider flexibility services for all new network and system needs on a business as usual basis.
- Create lower barriers to entry and increased market liquidity with consistent product requirements, contract types, and processes between DNOs and the ESO, alongside clear information about future needs is also important.
- Expect DNOs to deliver more efficient and transparent processes for curtailment at distribution, including coordination and clarity on the interaction between active network management and flexibility markets.

We believe these principles paint a picture of an effective future DSO flexibility marketplace.

Piclo's focus is to see that flexibility options are valued fairly and accurately, that there is transparency over when these more cost effective solutions are being used in place of more expensive infrastructure investments, and that incentives are aligned to encourage greater adoption of low carbon assets onto networks. We therefore welcome commitment in this position paper to use competition to drive cost efficiencies where possible.

However, we do have some concerns that these principles are neither commitments on behalf of Ofgem or requirements placed on the DNOs themselves. Therefore it is vital that this vision is followed up with concrete action to make it into a reality, long before the next RIIO price control period starts in 2023.

RIIO-ED2 consultation

It is essential that the RIIO-ED2 price control incentivise ambitious outcomes that help to deliver a smart, flexible, decarbonised energy system. If the price control does not achieve this, it will be much more difficult for the UK to achieve its carbon targets in a cost-effective manner that benefits consumers.

The RIIO-ED2 consultation has few details on the level of ambition which will be set for distribution networks on flexibility procurement within the price control period. We see this as a shortcoming, as it risks insufficient action on this high priority issue.

We have set out below the key elements which we see as vital to be included within the RIIO-ED2 framework if it is to successfully deliver procurement of flexibility as business as usual. However, we would also welcome progress in delivering any of these outcomes earlier than the start of the RIIO-ED2 period.

Market-led cost efficiency

Market-led cost efficiency should be designed to deliver flexibility via three market models:

Model 1 - DSO procured flexibility: Where the DSO requires more certainty on delivery and where they need to setup bilateral agreements with flexibility providers. *(This model is the preferred model used by DSOs for accessing flexibility today).* Flex providers may or may not bid into , depending on the rules of the specific procurement process. We do not believe that the RIIO-ED2 price control should specify the frequency for how often auctions should be run, or the flexibility service contract length - as this will evolve according to need. The key is setting a clear incentive structure, rather than being overly prescriptive on how the DSOs are going to procure this flexibility.

Model 2 - DSO facilitated flexibility: Where the DSO is not the counterparty in a transaction, but is essential in the delivery of the service. *(This model does not currently exist in any meaningful way).* Different models could include local capacity trading or flexible connections trading. As a minimum, there should be a clear requirement for DSOs to facilitate this type of trading. Preferably, the DSOs should also be required to provide a clear incentive for participants to be rewarded for efficient outcomes (for example, where Authorised Supply Capacity is efficiently shared between customers, enabling network capacity to be better utilised).

Model 3 - Access to flexibility via an exchange: This form of flexibility market is independent of any DSO, although the DSO can choose to actively participate too - perhaps when they have an unexpected need for flexibility and are unable to source from their existing pool of contracted flex providers. *(This model does not currently exist).* DSOs and the ESO should be required to enable their contract obligations to be traded on secondary exchanges, which can be used by flex providers to improve liquidity.

We would also welcome commitments for DNOs:

- To avoid renewable curtailment to manage network constraints and instead procure flexibility (via model 1 above)
- Move existing Active Network Management contracts to procurement via tradable constraints market, with flexibility providers and renewable generation able to bid in (via model 2 or 3 above)

Valuing flexibility correctly

- All DNOs should follow a common procurement methodology, designed in conjunction with the regulator and industry, which accounts for the risk of reinforcement proving

- unnecessary due to incorrect forecasting of demand growth and per day value to customers of faster connections, allowing faster rollout of low-carbon generation.
- RIIO-ED2 should include an explicit incentive based on utilisation rate of the network
 - DNOs should be required to explicitly justify, using Ofgem-developed cost-benefit analysis, any decision to conduct network reinforcement in preference to procurement of flexibility or smart grid services, and publish this justification
 - RIIO-ED2 should introduce a cost disallowance mechanism that enables Ofgem to disallow spending it is demonstrably inefficient
 - RIIO-ED2 should create an explicit incentive for speed of connection
 - RIIO ED2 should create a financial mechanism should be established so that, if a DNO takes an action that creates a saving for another DNO or the TO, the saving is shared, with the DNO taking the action receiving the majority of the saving.

Responses to specific questions in RIIO-ED2 consultation

We have limited our responses to specific consultation questions to Q9.

Q9. Is there a need to separate out the revenues and outputs for 'traditional' DNO functions from DSO functions? How could this be achieved?

Yes. We welcome Ofgem's approach to DSO functions, and its acknowledgement that many could be undertaken by third parties. It is essential that the price control by 'future proofed' in order to ensure that this option is maintained.

Under RIIO-ED2, DSOs' specific functions should be defined into three categories.

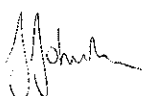
- Off-the-shelf components (more suitable for hardware product purchases)
- Software systems built and delivered to specifications and hosted onsite (more suitable for mission critical software, such control room systems and Distributed Energy Resource Management Systems (DERMS))
- Shared software platforms and services (more suitable for market-layer functions, where the focus is on common processes across all networks)

As shared software platforms are a new approach for DNOs, RIIO-ED2 should specifically reference that shared software platforms should be used where appropriate.

Funding for DSO functions should be conditional upon a DNO winning a competitive tender for the function, which other DNOs and commercial providers can also enter. Funding for outcomes that enable this approach, such as the DNOs adopting an open data approach and ensuring the data released is high-quality, transparent and machine-readable, should be part of the DNOs' core funding.

Thank you for the opportunity to respond.

Yours sincerely,



James Johnston
CEO and Cofounder
Piclo