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Ofgem
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Piclo Response to RIIO-2 Draft Determinations - Electricity System Operator

Dear RIIO2 Team,

We welcome the opportunity to respond to Ofgem's consultation on the RIIO-2 Draft Determinations - Electricity System Operator. We have focused our response on five points:

- 1. Third party collaboration**
- 2. Secondary markets**
- 3. DSO-ESO coordination**
- 4. Innovation**
- 5. Renewable curtailment**

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, and operates Piclo Flex, a pan-UK DSO flexibility marketplace, in collaboration with all six distribution network operators.

The development of flexibility markets is critical for net zero. Price controls must set a regulatory framework that ensures 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, that effective coordination across networks, locations and system operators is achieved enabling flexibility market opportunities to develop and grow and that incentives are aligned to encourage greater adoption of low carbon assets onto networks.

1. Third party collaboration

The ESO has a critical role in developing flexibility markets, particularly with the coordination of services and markets across ESO-DSO boundaries. Third parties can provide additional skills, efficiencies and value to system operator roles through their focused expertise and position in the energy sector.

We welcome the recognised importance of third party collaboration within innovation trials, with the proposed requirements for RIIO-2 NIA funding to *'involve partnership with other network companies, third party innovators and/or academics'*.

However, there should be similar explicit reference to the use of third parties for their business as usual activities too, where such third parties can deliver outcomes more efficiently and minimise bills for end consumers. For example, independent marketplaces can bring value to a system operator role through providing a common platform for flexibility services harmonising pre-qualification, matching bids and offers, enabling secondary markets, facilitating dispatch and managing dispute resolution across multiple markets.

This approach would be in line with what has been proposed in RIIO-ED2 Methodology Consultation, which recognises that DSOs must collaborate with third parties where efficient to do so:

- Principle 2.2: "Operate an economic and efficient distribution system"
A5.18 *"The DNOs shall facilitate secondary trading of DSO ancillary services and curtailment obligations (pending the outcome of the Access SCR). In this context, facilitate means provide the relevant operational data, ensure the DNO has processes in place to collect the relevant data about the trade, and make the operational parameters clear (and justified in the context of network reliability and efficiency). Facilitating does not mean communicating bids and offers about these trades to enable commercial agreement, make decisions about matching bids and offers, or dispatching these trades – third parties skilled in this area should be better placed to more efficiently deliver this."*
- Principle 3.2: "Simple, fair and transparent rules and processes for procuring DSO ancillary services"
A5.27 *"Market support services, such as pre-qualification, credit-checking and settlement must enable simple and cost-efficient participation in markets. DNOs should enable, and never prevent, the opportunity for third parties to provide these services where they could do so more efficiently"*

2. Secondary markets

Enabling flex providers to easily and securely transfer their contractual obligations on a temporary or permanent basis is the next step towards a smart, flexible energy system. EBGL Article 34 "Transfer of balancing capacity" also requires that:

- *“Within the geographical area in which the procurement of balancing capacity has taken place, the TSOs shall allow balancing service providers to transfer their obligations to provide balancing capacity”*

Department of Business, Energy & Industrial Strategy (BEIS) FleX Exchange project is trialling the development of a multi-market exchange platform, including DSO bilateral procurement markets alongside TSO secondary markets (focusing on ESO product Short-Term Operating Reserve (STOR) first).

Whilst National Grid ESO allows for flex providers to transfer their STOR contracts, to date few trades have taken place due to the lack of facilities for searching, bidding, contracts or payments. In collaboration with National Grid ESO, Piclo will demonstrate how an independent marketplace can play a crucial role in the development of secondary flexibility markets.

ESO markets are moving towards shorter-term procurement, however, there remains significant challenges to overcome before real-time procurement will be possible. Secondary markets provide an important stepping stone during the transition to liquid, shorter-term trading, particularly for non-dispatch services such as frequency response. Furthermore, competitive secondary markets would open up opportunities for a wider set of flex providers to participate in flexibility markets, improving asset utilisation and securing optimal pricing. By using the learnings from FleX Exchange, Piclo will enable flex providers to have visibility of and be able to participate in primary and secondary flexibility markets, using Piclo Flex as a single interface.

Renewable generators could also benefit from the exchange platform through the peer-to-peer trading of curtailment obligations and reallocation of capacity rights. Piclo is trialling curtailment trading as part of Project LEO.

Within RIIO-ED2 Methodology Consultation: Overview, secondary markets were included under proposed DSO principles principles 2.2. and 3.2 as a baseline expectation:

- Principle 2.2 “Operate an economic and efficient distribution system”
A5.18 *“The DNOs shall facilitate secondary trading of DSO ancillary services and curtailment obligations (pending the outcome of the Access SCR)”*
- Principle 3.2 “Simple, fair and transparent rules and processes for procuring DSO ancillary services”
A5.27 *“DNOs should enable secondary trading, for example capacity and other peer-to-peer trading”*

There should be similar explicit requirements to enable ESO secondary markets during RIIO-2, to open up secondary market opportunities fully.

3. ESO-DSO coordination

ESO-DSO coordination is essential to the development of flexibility markets moving forward and will open up new opportunities to flex providers, such as secondary markets. Coordination will also ensure a system operator's procured flexibility or flex provider behaviour does not result in adverse, unintended consequences for other networks or system operators and will enable market synthesis opportunities to be captured, whereby one flexibility action can have a positive impact across several areas of network needs.

We agree there is scope for ESO to go further with ESO-DSO coordination during RIIO-2, with regards to:

- *“Coordinating closely with national operators, to ensure there is seamless integration between ESO and distribution level flexibility markets, as well as a consistent, whole system approach to operations and planning”*
- *“In particular, the ESO could include more specific and measurable deliverables on:...”*
 - *how in practice it will ensure ESO run-markets are fully coordinated with the evolution of any flexibility markets at the distribution level, to ensure efficient, whole system procurement of system services.”*

Over the course of RIIO-2 and the second ESO business plan, it is important that ESO-DSO coordination is prioritised.

4. Innovation

We agree with the proposal that:

- *“all the ESO's NIA funded innovation projects must involve partnership with other network companies, third party innovators and/or academics.”*

However, we believe that limiting innovation project timescales to two years is likely to inhibit rather than encourage the innovation that the sector requires if it is going to decarbonise in a timely manner. A five year window would enable more ambitious projects to be developed and run.

On the other hand, we do agree somewhat with the sentiment that in a fast-changing energy system projects need to be faster, more agile and adaptable. We have witnessed projects (not involving National Grid ESO) where innovation is stifled simply because there is a lack of desire to migrate from the original plan, even if the entire landscape has changed in the meantime.

However, this risk is not an inherent feature of long-term projects (shorter term projects can also experience the same issue) but is dependent on how the projects are set up and governed. We would like further commitment from Ofgem that all projects will operate on an agile and adaptable basis according to the changing energy system landscape.

5. Renewable curtailment

We agree that the volume of renewables constrained should be measured and is an important step for the ESO 2025 ambition of zero carbon operability and the development of flexibility markets.

- *“The key areas we are proposing measures not originally included in the ESO’s Business Plan include evidence on skip rates and the volume of renewables constrained. We believe these are particularly relevant to tracking the ESO’s achievement of its 2025 zero carbon operability ambition. We recognise that the ESO will need to sometimes take higher priced actions and constrain renewables for good reasons, and that this will be strongly influenced by external system conditions. However, we believe that by reporting and explaining the trends in this area over the course of BP1, the ESO will create transparency over the progress and effectiveness of measures delivered towards its 2025 ambitions”*

Minimising renewable constraints through flexibility markets, such as peer-to-peer capacity trading, will be important to the viability of renewable assets and progressing towards net zero. Developing an understanding at a system level of renewable constraints is a step towards unlocking this opportunity.

Piclo is collaborating with Scottish and Southern Electricity Networks, The University of Oxford, Oxford Brooks University, EDF Energy, Nuvve, Oxford City Council, Oxfordshire County Council Origami Energy and The Low Carbon Hub in Project LEO: Local Energy Oxfordshire.

Project LEO is a pilot project that aims to develop integrated smart local energy systems and increase the penetration of renewables on the grid. Through the creation of new local flexibility services such as local capacity trading to avoid renewable curtailment, new investment models for DER that reflect the value of their assets and their flexibility can be realised.

We are more than happy to provide further information on any of the points of this consultation if required.

James Johnston
CEO and Cofounder