



ESO Markets Advisory Council
Pre-Read July 23

Agenda

| Item | Presenter | Meeting Time |
|--|--------------------------------|------------------|
| Chair Intro | | 15 14:00 – 14:15 |
| Response to AM presentation at May meeting (barriers to accessing ESO markets) | Kyle Martin | 45 14:15 – 15:00 |
| Code Governance Reform | Jon Wisdom/Paul Troughton | 45 15:00 – 15:45 |
| Break | | 15:45 – 16:00 |
| ESO/DSO Coordination and Governance | Yujia Du/Sotiris Georgiopoulos | 45 16:00 – 16:45 |
| AOB | | 15 16:45 – 17:00 |

Chair intro

Addressing Barriers to Accessing ESO Markets

Issues we heard from Alastair at the last MAC

Product Development

- Supportive of more input an early stages of service design
- Willing to be flexible on technical requirements if end goal is met
- Able to compromise but must be evidence based

Actively addressing differences in suppliers and aggregators

- Work already being progressed to identify alternative arrangements for payment 'LCM'
- ESO supporting Flex Assure to add weight to the issues experienced in the aggregator community

Opening up markets for other technologies

- Annual change cycle for existing ancillary services allows changes to the terms to enable barriers for other technologies to be removed
- Continuous improvement embedded in terms to enable change to move forwards
- Power Responsive focused on projects to deliver change

Addressing 'tripwires'

- Requirements established in response to legitimate concerns around aspects of consumer/company behaviour
- As more information becomes available, ESO can assess requirements that may be blocking volume

Improved engagement

- Continually looking to improve how we engage with industry
- Work started on overhauling engagement strategy
- Supportive of teach in for ESO teams from aggregators

Immediate Focus



Operational Metering Working Group

Formed the Operational Metering Working Group to remove barrier to entry for domestic flexibility entering the Balancing Mechanism.

Live BM Trial

Aggregated Small Scale Assets entering the BM with relaxed operational metering standards

Measuring Instrument Regulations (MIR) Working Group

Facilitating an industry Working Group in partnership with the Association for Decentralised Energy (ADE) to champion concerns that the Measuring Instrument Regulations present a significant barrier to entry to all flexibility markets.

Demand Flexibility Service 2.0

Supporting the DFS team in engagement around this winter and developing & implementing a solution for moving participant volumes into BAU ancillary services.

Local Constraints Market

Developing a new market to tackle constraints at the B6 boundary and reduce the need for transmission reinforcement. (Available to sub-1MW DSF)

Supporting I&C stakeholders in post TRIAD & MCPD blocked opportunities in DSR

Looking at how we can support on the MCPD blocked volume and post TRIAD opportunities by carrying out a segmentation review of the I&C world to see what ancillary services the volume is currently in, if it is stacked, where it could and should be and what the barriers to entry are for that volume.

Energy Code Reform

Energy Code Reform – MAC

Objectives for the session:

- Provide an overview of Energy Code Reform and ESO perspective
- Gather industry feedback on key examples where reform could help progress net zero
- Gather industry feedback on how we can best engage with industry throughout the reform programme

Questions for the MAC:

- Do the MAC agree with our outline of the current issues with the existing code governance process?
- Doe the MAC agree with our high level thoughts on next steps?

ESO-DSO coordination and governance

Structure of the session

1. ESO-DSO coordination

- Do you agree with the challenges presented?
- What are the areas we should prioritise?

2. Market Facilitator

- How might the Market Facilitator help accelerate progress?
- How should the ESO/FSO approach this potential role?

Current challenges in DSO market participation

| DSO market maturity | DSO-DSO markets standardisation | Clarity and ease in participation | DSO-ESO coordination | DSO-ESO stacking rules |
|---|---|---|--|--|
| <ul style="list-style-type: none"> • Different levels of commitments across DNOs • Lower value vs effort/alternatives • Lack of maturity of distributed flex projects in general | <ul style="list-style-type: none"> • Lack of a common, shared vision for DSO markets • Non-standard product requirements across DNOs • 4 out of 6 DNOs use the same platform | <ul style="list-style-type: none"> • Lack of clarity and certainty on current DSO-ESO stacking* • Fragmented participation process among SO markets | <ul style="list-style-type: none"> • Service parameters sometimes inadvertently block stacking* that should otherwise be enabled • DSO-ESO actions in the same location are not well-coordinated (Primacy, data sharing etc) | <ul style="list-style-type: none"> • ESO has certain exclusivity clauses against service stacking • Providers revenue from ESO can be negatively affected by participating in DSO services (e.g. baselining) |

Relevant Open Networks technical working groups

| | | | | |
|--|--|--|---|--|
| | <ul style="list-style-type: none"> • Procurement Process • Standard Agreements • Flexibility Products • Settlement Processes | <ul style="list-style-type: none"> • Flexibility Products - Stacking table • Procurement Process • Settlement Processes | <ul style="list-style-type: none"> • Procurement Process • Standard Agreements • Flexibility Products • Settlement Processes • Primacy Rules • Ops Data Sharing | |
|--|--|--|---|--|

*Stacking includes jumping between services, splitting volume between services and stacking the same service for the same volume

DSO

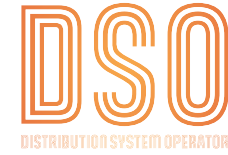
DISTRIBUTION SYSTEM OPERATOR

Sotiris Georgiopoulos

26/07/23

ESO Market Advisory Council

The case for DSO flexibility is clear



Regulatory environment
(RIIO, TOTEX, license
conditions, DSO
incentive)

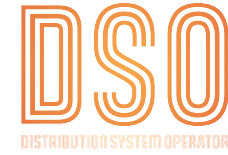
Reduced network costs

Reduced/deferred
infrastructure requirements

Reduced time to connect

Allow customers to connect
ahead of reinforcement

DSO flex ≠ ESO flex



DSO flexibility is...

1. Highly locational

Around 1 in 10 addresses eligible for UKPN's Winter 2022 tender

2. Lots of small requirements

UKPN recently tendered for flexibility at 961 street-level substations

3. Demand-side flexibility = critical

Many constrained zones don't have any significant generation (esp. London)

4. Greenfield

Little in the way of legacy systems mean we can be more flexible than others

5. Part of a bigger puzzle

5-15% of revenue, when ESO and Wholesale revenues considered

The current state of play

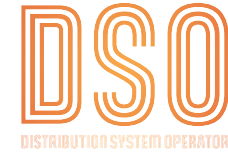


- UK DSOs have matured at different rates – partly based on need
- Participation is growing - DSOs remain focused on making this easier
- As DSOs have sought to innovate, standard products and processes have diverged – creating issues for FSPs
- This has happened despite common systems: 4/6 DSOs use Piclo + 4/6 use Flexible Power
- Open Networks 2023 focus is squarely on DSO standardisation. Ofgem Open Letter highlights impact on DSO incentives.

Recent highlights

- UKPN awarded contracts to >1GW of flexibility in 2023
- DSO flex now being used for Demand Turn Up as well as Turn Down
- Bigger assets starting to participate – eg renewables and batteries
- UKPN and ENW both tendering for more capable market platform

What is Open Networks delivering



| Work Areas | Output | Expected implementation date |
|-----------------------------------|--|------------------------------|
| Primacy Rules | Iteration-2 Primacy Rules, processes and information flows | Oct-23 |
| Dispatch Systems Interoperability | Common dispatch specification | Dec-23 |
| Standard Agreement | Common T&Cs and schedule headings (Ver 3 of Std agreement) | Dec-23 |
| Procurement Processes | Common DPS and PQQ questions across DNOs | Nov-23 |
| Flexibility Products | Common products definitions | Sep 23 |

Ofgem Open Letter directs delivery as per above plan and implementation in DNO/ESO processes by Summer 2024 the latest

Where are current key issues?



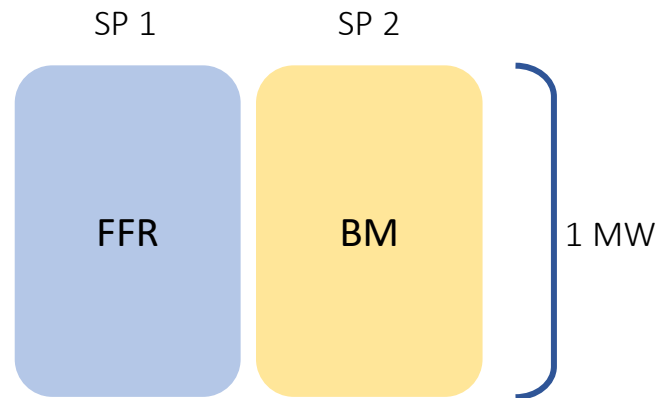
- Cross DNO / ESO standards have been challenging to establish due to different paces and priorities. Open Networks plan and implementation needs to be delivered.
- To date ESO focus has been on getting distributed assets into national/transmission markets (BM Wider Access, RDPs, DFS). Efficiently sharing assets across local and national markets requires data exchange and coordination, this needs to be prioritised by ESO.
- ESO has made significant progress to clarify stacking rules for frequency and BM – but has been silent on DSO-ESO stacking. We need to work together to make sure **FSPs are clear on stacking**.
Being able to stack, split and jump between revenue streams is existential for DSO flexibility.

AOB

Types of stacking

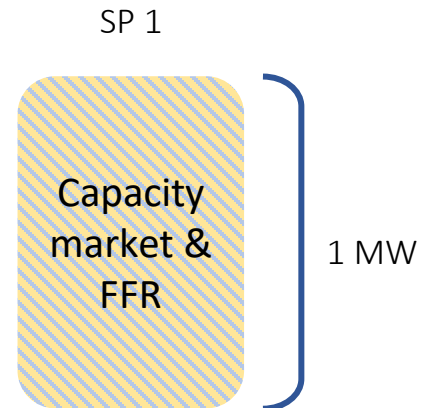
Jumping

Providing services in different (or adjacent) time periods.



Stacking

Using 1 MW to participate in two or more markets within the same time period.



Splitting

Splitting 1MW to participate in two or more markets within the same time period.

